

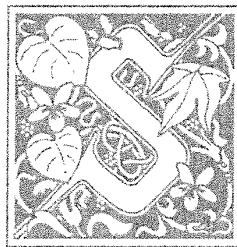
2020 DEC 14 PM 3:00

---

Botanical Survey Report  
for  
Bean Barn 3 Project  
El Dorado County, CA

---

RECEIVED  
PLANNING DEPARTMENT



**FILE COPY**

Prepared by:

*Sycamore Environmental Consultants, Inc.*

6355 Riverside Blvd., Suite C  
Sacramento, CA 95831-1143

Phone: 916/ 427-0703

Contact: R. John Little, Ph.D.

Prepared for:

*Ms. Angela Copeland*

PO Box 632

Diamond Springs, CA 95619

Phone: 530/ 919-1069

18 August 2020

---

Botanical Survey Report  
for  
Bean Barn 3 Project  
El Dorado County, CA

---

Table of Contents

**SUMMARY OF FINDINGS AND CONCLUSIONS..... 1**

**I. INTRODUCTION ..... 1**

A. Purpose of Report..... 1

B. Project Location ..... 1

C. Project Applicant..... 1

D. Project Engineer ..... 1

E. Project Description..... 1

**II. STUDY METHODS ..... 5**

A. Studies Conducted..... 5

B. Literature and Database Review..... 5

C. Field Survey Methods ..... 6

    1. Survey Dates and Personnel ..... 6

    2. Weather Conditions ..... 6

    3. Botanical Survey..... 6

D. Mapping ..... 6

E. Problems Encountered and Limitations That May Influence Results ..... 6

F. The Existing Level of Disturbance..... 8

**III. BIOLOGICAL RESOURCES IN STUDY AREA..... 9**

A. Wetlands and Waters of the U.S. .... 9

B. Determination of Special-Status Species and Communities in the Study Area ..... 9

C. Evaluation of Special-Status Plants..... 10

**IV. LITERATURE CITED ..... 14**

**V. PREPARERS ..... 15**

Figures

Figure 1. Project Location Map..... 2

Figure 2. Aerial Photo ..... 3

Figure 3. Soils Map ..... 4

Figure 4. Botanical Resources Map ..... 7

Tables

Table 1. USGS Quads Evaluated for the Bean Barn 3 Project..... 5

Table 2. Special-status Plant Species ..... 9

Appendices

Appendix A. Database Queries (USFWS; CNDDDB; CNPS)

Appendix B. Plant Species Observed

Appendix C. Photographs

## **SUMMARY OF FINDINGS AND CONCLUSIONS**

---

The 0.61-acre, Bean Barn 3 Project occurs in Cameron Park, El Dorado County, CA, at the SE corner of Cameron Park Drive and Mira Loma Drive. The Project engineer provided the study area boundary. This area was used as the Biological Study Area (BSA).

The BSA occurs in El Dorado County Rare Plant Mitigation Area 1, which includes areas of gabbro soils that may support Pine Hill plants. Protocol botanical surveys were conducted 20 July 2020. No special-status plant species were found in the BSA during the survey.

No sensitive biological communities occur in the BSA. Four oak trees occur in the BSA. The Applicant has stated that the Project will not result in oak tree removal. Sixty-five species were identified in the BSA; 22 (34%) native and 43 (66%) nonnative.

### **I. INTRODUCTION**

---

#### **A. Purpose of Report**

This Botanical Survey Report responds to the Applicant's request to conduct a botanical survey of the Project site. This report does not analyze impacts or propose mitigation measures.

#### **B. Project Location**

The 0.61-acre BSA is located in unincorporated El Dorado County on the Shingle Springs USGS topographic quad. Figure 1 is a Project Location Map based on the USGS quad (T10N, R9E, Section 33). Figure 2 is an aerial photograph of the BSA and the surrounding area, with nearby roads labeled. The Project is assessor's parcel number (APN) 083-132-001. The BSA is in the Upper Cosumnes River Watershed (Hydrologic Unit Code 18040013. Its centroid is 38° 41' 4.55" north, 120° 59' 7.11" west (1983 NAD, UTM Zone 10 North). The BSA occurs on gabbro soils of the Rescue soils series (RfC). Figure 3 shows the BSA location on a soils map.

#### **C. Project Applicant**

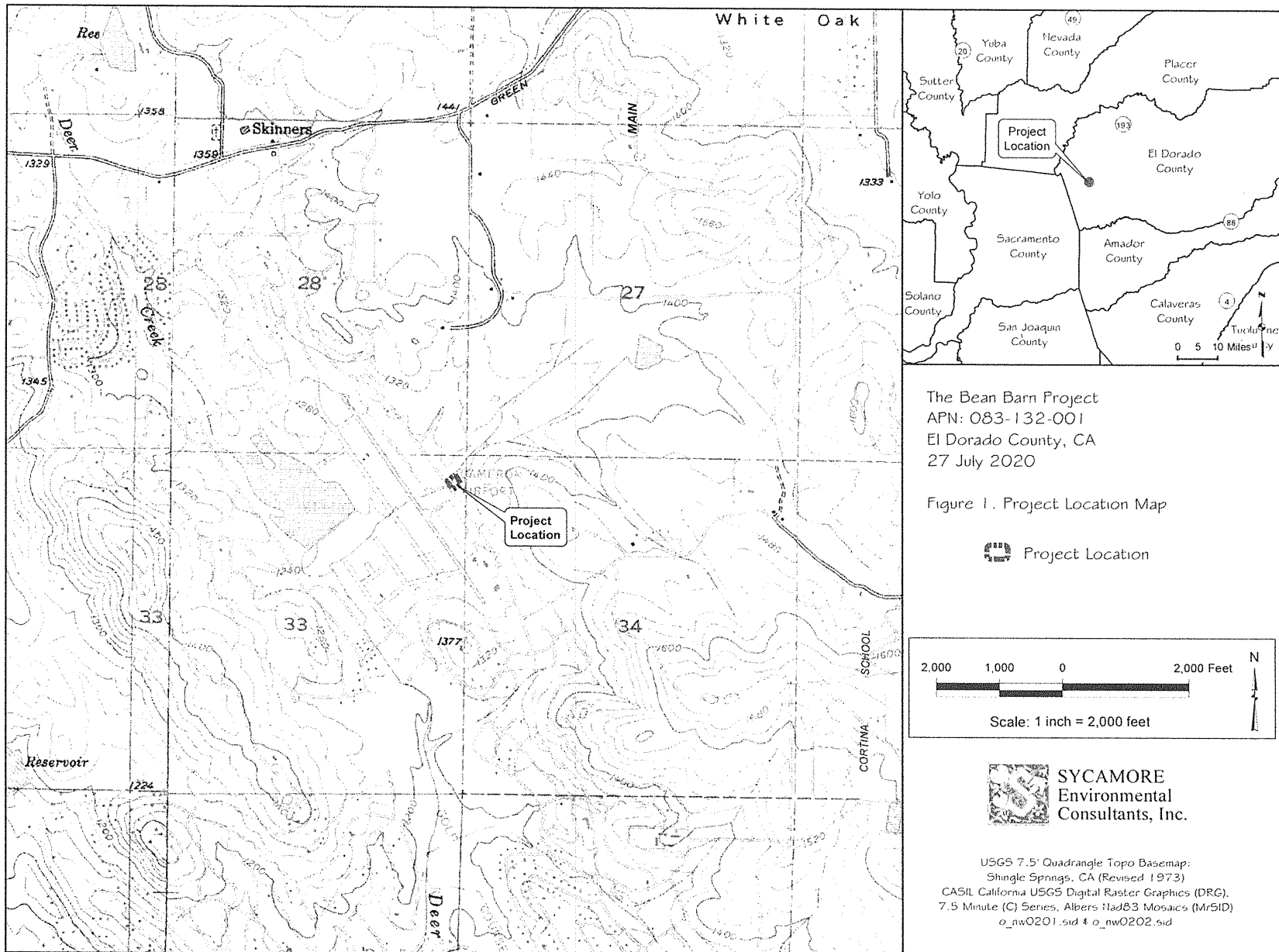
Ms. Angela Copeland  
PO Box 632  
Diamond Springs, CA 95619  
Phone: 530-919-1069

#### **D. Project Engineer**

Lebeck Engineering, Inc.  
3430 Robin Lane, Bldg. # 2  
Cameron Park, CA 95682  
Office: (530) 677-4080

#### **E. Project Description**

The Applicant intends to create a drive-through coffee shop.



20068BeanBarn3\_Fig1 LocationMap.mxd



The Bean Barn Project  
 APN: 083-132-001  
 El Dorado County, CA  
 27 July 2020



Botanical Study Area (BSA)



**SYCAMORE**  
 Environmental  
 Consultants, Inc.



Aerial Photograph: 7 November 2019  
 WVO2 Vivid Maxar Imagery  
 ESRI ArcGIS Basemap Layer

Figure 2. Aerial Photograph



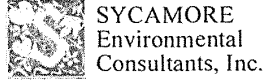
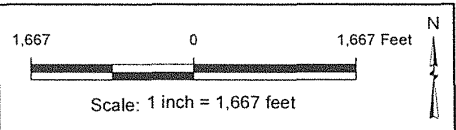
The Bean Barn Project  
 APN: 083-132-001  
 El Dorado County, CA  
 27 July 2020

Figure 3. Soils Map

-  Botanical Study Area (BSA)
-  Soil Boundary

Soil Mapping Unit

Symbol	Name
RIC	Rescue very stony sandy loam, 3 to 15 percent slopes



Soil Survey Geographic (SSURGO) database for  
 El Dorado Area, California, USDA, NRCS  
 URL: <http://SoilDataMart.nrcs.usda.gov/>

Aerial Photograph: 7 November 2019  
 WVO2 Vivid Maxar Imagery  
 ESRI ArcGIS Basemap Layer



## II. STUDY METHODS

---

### A. Studies Conducted

An evaluation of biological resources was conducted to determine whether any special-status plant or wildlife species, their habitat, or sensitive habitats occur in the BSA. Data on known special-status species and habitats in the area were obtained from state and federal agencies. A field survey was conducted to determine the habitats present. The field survey and a review of the biology of evaluated species and habitats were used to determine special-status species and sensitive habitats that could occur in the BSA.

Special-status species evaluated in this Report are species listed (or candidate or proposed) under the federal or state endangered species acts, under the California Native Plant Protection Act, as a California species of special concern or fully protected by CDFW, or that are California Rare Plant Rank (CRPR) 1 or 2 (CNPS 2020). This is consistent with special-status species definitions in the El Dorado County General Plan EIR (2004b). Bisbee Peak rush-rose, although a California Rare Plant Rank 3 plant, is included because it is regulated by El Dorado County ordinance (Chapter 17.71).

Special-status natural communities include waters, wetlands, riparian communities, any natural community ranked S1, S2, or S3 by CDFW (2019a), and any community identified as sensitive in the El Dorado County General Plan (2018).

### B. Literature and Database Review

Sycamore Environmental obtained an online list from USFWS that identifies federal-listed species and sensitive habitats that could potentially occur in or be affected by a project in the BSA. The California Natural Diversity Database (CNDDDB) and the CNPS Inventory were queried for the Shingle Springs quad and eight surrounding USGS quads to determine known records of special-status species that occur in the vicinity of the BSA. The results of these three database queries are in Appendix A. Table 1 lists the nine USGS quads evaluated.

Table 1. USGS Quads Evaluated for the Bean Barn 3 Project.

Pilot Hill	Coloma	Garden Valley
Clarksville	<b>Shingle Springs</b>	Placerville
Folsom SE	Latrobe	Fiddletown

Standard references used for the biology and taxonomy of plants included Baldwin et al., eds. (2012). On-line references included CNPS (2020); CalPhotos (2020); Consortium of California Herbaria (CCH 2020); Jepson eFlora (2020); and Flora of North America (FNA 1993+). References pertaining to natural communities included CDFW (2019b).

Two special-status species lists produced by CDFW were also reviewed: 1) Special Vascular Plants, Bryophytes, and Lichens List (CDFW, January 2020a); and 2) State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW, January 2020b).

## C. Field Survey Methods

### 1. Survey Dates and Personnel

R. John Little, Ph.D., Botanist/Biologist, conducted a botanical survey of the BSA on 20 July 2020. Photographs are in Appendix C.

### 2. Weather Conditions

Historic average precipitation for the nearby Placerville gauge from 1 October through 30 June is 38.13 inches (CDEC 2020). From 1 October 2019 through 30 June 2020 the Placerville gauge reported 24.95 inches of precipitation. Precipitation preceding the survey was 65% of normal at the nearby Placerville Gauge for the period of 1 October 2020 to 30 June 2020. The BSA had below normal hydrologic conditions prior to the survey.

### 3. Botanical Survey

The botanical survey followed survey guidelines of USFWS (2000), CDFW (2018), and CNPS (2001). Except for chaparral sedge (*Carex xerophila*) and Red Hills soaproot (*Chlorogalum grandiflorum*), the 2020 survey was conducted during the published blooming period of special-status species with potential to occur in the BSA. Due to its growth habit, chaparral sedge is easily identified without flowers. No *Chlorogalum* species occur in the BSA. The published blooming times of all other species evaluated state that blooming occurs through July or August. Many annual herbaceous plants and grasses in the BSA were dried out, but were able to be identified based on morphological characters.

The botanical survey was floristic, meaning that every plant taxon found was identified to the taxonomic level necessary to determine rarity and listing status. Plant species observed were either identified on-site or collected and identified later with a microscope and dichotomous keys in Baldwin et al. (2012) and/or Jepson eFlora (2020). Approximately 5 person-hours were spent in the field during the 20 July 2020 survey of the 0.61-acre BSA. An additional 2 hours were spent keying plants collected on-site. A list of vascular plants observed is in Appendix B. Scientific nomenclature follows Baldwin et al. (2012) or Jepson eFlora (2020).

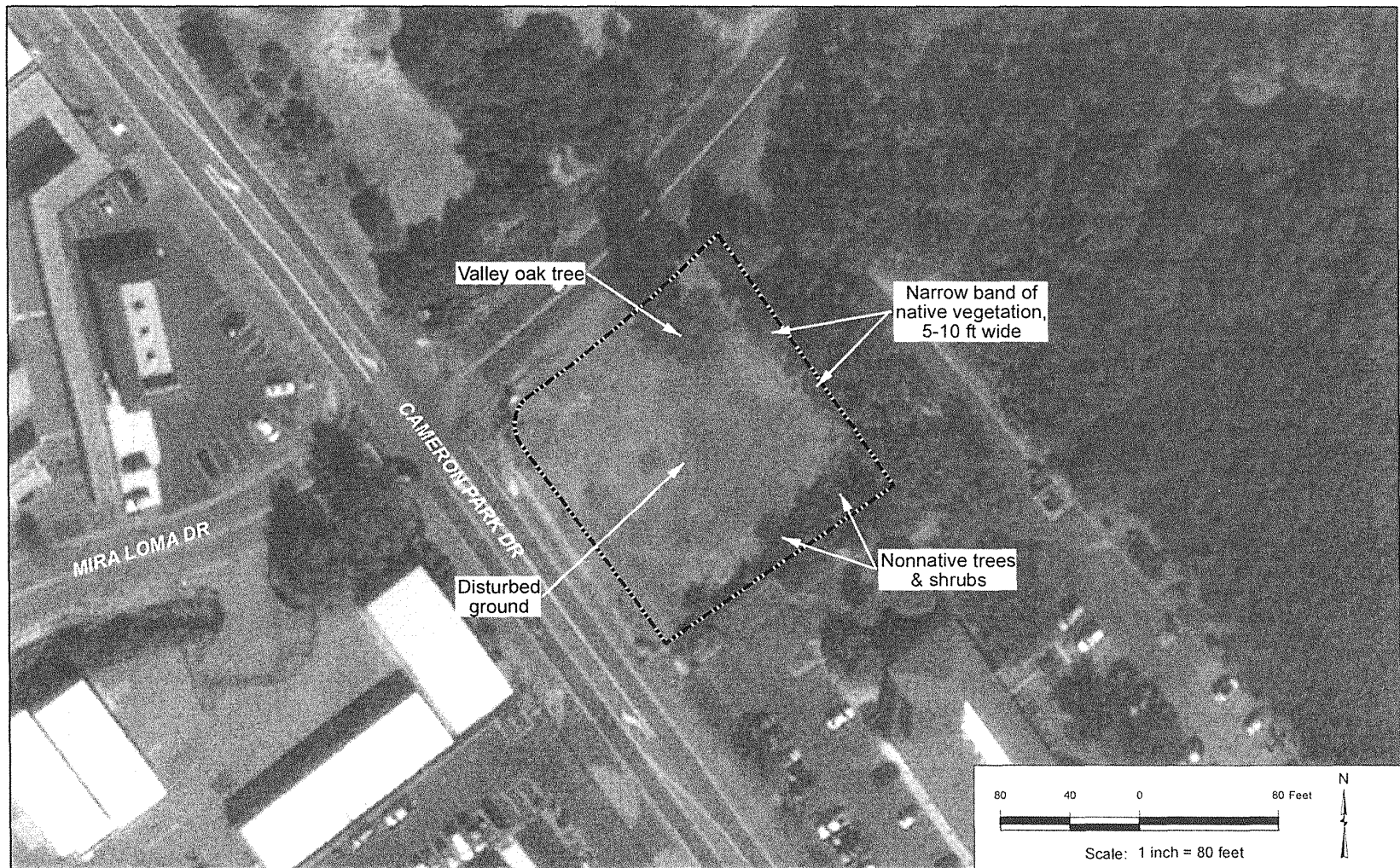
## D. Mapping

A Trimble Nomad 5, handheld GPS unit coupled to a sub-meter accurate R-1 receiver was used to identify project boundaries. A digital topographic survey of the legal parcel boundary was provided by the Project engineer. GPS data were exported to ArcMap and aligned with the BSA boundary based on common control points taken on existing infrastructure in the engineer's digital topographic survey data. The aerial photograph used as the base for Figure 4 was also aligned based on GPS control points collected in the field. Biological community boundaries were identified based on field notes and aerial photographs. The aerial photo for Figure 4, dated 7 November 2019, WV02 Vivid Maxar Imagery, was downloaded from ESRI ArcGIS World Imagery Basemap layer service.


## E. Problems Encountered and Limitations That May Influence Results

No problems were encountered that would influence the results.





The Bean Barn Project  
 APN: 083-132-001  
 El Dorado County, CA  
 29 July 2020

 Botanical Study Area (0.61 ac)

 **SYCAMORE**  
 Environmental  
 Consultants, Inc.

Aerial Photograph: 7 November 2019  
 WVO2 Vivid Maxar Imagery  
 ESRI ArcGIS Basemap Layer

Figure 4.  
 Botanical Resources Map

20068BeanBarn3\_Fig4BotresMap.mxd

## **F. The Existing Level of Disturbance**

Based on Google historical photos, the site has been leveled at least since 2002 (18 years ago). Client's realtor reported the site was leveled at least 30 years ago (pers. comm. A. Copeland). A narrow band of vegetation 5-10 ft wide along the eastern property boundary is all that remains of native vegetation previously on-site, except for a 30 inch dbh Valley oak near the northern border of the BSA, south of Mira Loma Drive. The eastern property boundary is on average over 10 ft higher than the center of the BSA. The adjacent property south of the BSA is also over 10 ft higher than the center of the BSA. These elevation differences are due to the parcel being leveled. To help support the higher ground south of the BSA and to keep it from slumping into the BSA, the western half of the southern BSA boundary is shored up with a block retaining wall and the northern half with a wood retaining wall. Most of the BSA is periodically disced to remove weeds.

### III. BIOLOGICAL RESOURCES IN STUDY AREA

#### A. Wetlands and Waters of the U.S.

No potential wetlands or waters of the U.S. were observed in the BSA.

#### B. Determination of Special-Status Species and Communities in the Study Area

Special-status species for which suitable habitat is present in the BSA are listed in Table 2. The BSA is not in the El Dorado County Important Biological Corridor (IBC) or Ecological Preserve overlays (El Dorado County 2004a). The BSA is not in the USFWS recommended preserve area for the gabbro soil (Pine Hill) plants (USFWS August 2002). There are no special-status natural communities in the BSA.

Table 2. Special-status Plant Species with Potential Habitat in the BSA

Special-Status Species	Common Name	Federal Status <sup>a</sup>	State Status <sup>a</sup>	Source <sup>b</sup>	Habitat Present?/ Species Observed?
<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	Big-scale balsamroot	--	--/ 1B.3	2	Yes/ No
<i>Calystegia stebbinsii</i>	Stebbins' morning-glory	E	E/ 1B.1	1, 2	Yes/ No
<i>Calystegia vanzuukiae</i>	Van Zuur's morning-glory	--	--/ 1B.3	2	Yes/ No
<i>Carex xerophila</i>	Chaparral sedge	--	--/ 1B.2	2	Yes/ No
<i>Ceanothus roderickii</i>	Pine Hill ceanothus	E	R/ 1B.1	1, 2	Yes/ No
<i>Chlorogalum grandiflorum</i>	Red Hills soaproot	--	--/ 1B.2	2	Yes/ No
<i>Crocianthemum suffrutescens</i>	Bisbee Peak rush-rose	--	--/ 3.2	2	Yes/ No
<i>Fremontodendron decumbens</i>	Pine Hill flannelbush	E	R/ 1B.2	1, 2	Yes/ No
<i>Galium californicum</i> ssp. <i>sierrae</i>	El Dorado bedstraw	E	R/ 1B.2	1, 2	Yes/ No
<i>Packera layneae</i>	Layne's butterweed	T	R/ 1B.2	1, 2	Yes/ No
<i>Viburnum ellipticum</i>	Oval-leaved viburnum	--	--/ 2B.3	2	Yes/ No
<i>Wyethia reticulata</i>	El Dorado County mule ears	--	--/ 1B.2	2	Yes/ No

<sup>a</sup> **Status:** E = Endangered; T = Threatened; P = Proposed; C = Candidate; R = California Rare; \* = Possibly extinct; SSC = CDFW Species of Special Concern; FP = CDFW Fully Protected; Prot = CDFW Protected; CH = Critical habitat designated.

**CNPS Rare Plant Rank:** 1A = Presumed Extinct in CA; 1B = Rare or Endangered (R/E) in CA and elsewhere; 2 = R/E in CA and more common elsewhere; 3 = Need more information; 4 = Plants of limited distribution; 0.1 = Seriously endangered in CA; 0.2 = Fairly endangered in CA; 0.3 = Not very endangered in CA.

<sup>b</sup> **Source:** 1 = USFWS letter; 2 = CNDDDB

### C. Evaluation of Special-Status Plants

The BSA is in El Dorado County Rare Plant Mitigation Area 1. Mitigation Areas 0 and 1 include areas of gabbro soils that may support Pine Hill plants. The eight Pine Hill plants are Stebbins' morning-glory, Pine Hill ceanothus, Red Hills soaproot, Pine Hill flannelbush, El Dorado bedstraw, Bisbee Peak rush-rose, Layne's butterweed, and El Dorado County mule ears. None of these species were found in the BSA.

#### **Big-scale balsamroot (*Balsamorhiza macrolepis*; syn. *Balsamorhiza m. var. macrolepis*)**

**HABITAT AND BIOLOGY:** A perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils, from 295 to 5,100 feet. Blooms March through June (CNPS 2020); March through July (Jepson eFlora 2020).

**RANGE:** This species is endemic to California. Known from Alameda, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, and Tuolumne counties (CNPS 2020).

**KNOWN RECORDS:** There is one CNDDDB record for big-scale balsamroot in the nine-quad area surrounding the BSA. The closest (Occurrence #14), is about 10.4 miles NW of the BSA on the Pilot quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for big-scale balsamroot.

**DISCUSSION:** Big-scale balsamroot was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

#### **Stebbins' morning-glory (*Calystegia stebbinsii*)**

**HABITAT AND BIOLOGY:** A perennial rhizomatous herb found in serpentine or gabbroic soils in chaparral openings and cismontane woodland from 600 to 2,400 feet elevation. Blooms April through July (CNPS 2020; Jepson eFlora 2020).

**RANGE:** This species is endemic to CA. Known from El Dorado and Nevada counties (CNPS 2020).

**KNOWN RECORDS:** There are 8 CNDDDB records for Stebbins' morning-glory in the nine-quad area surrounding the BSA. The closest (Occurrence #6), is about 0.4 mile SE of the BSA.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for Stebbins' morning-glory.

**DISCUSSION:** Stebbins' morning-glory was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

#### **Van Zuur's morning-glory (*Calystegia vanzuukiae*)**

**HABITAT AND BIOLOGY:** A perennial rhizomatous herb found in serpentine or gabbroic soils in chaparral and cismontane woodland from 1,640 to 3,870 feet elevation. This species is probably a stabilized hybrid between *C. stebbinsii* and *C. occidentalis* ssp. *occidentalis* (CNPS 2020). Blooms May through August (CNPS 2020).

**RANGE:** This species is endemic to CA. Known only from El Dorado and Placer counties (CNPS 2020).

**KNOWN RECORDS:** There is one CNDDDB record of Van Zuur's morning-glory in the nine-quad area surrounding the BSA. The closest (Occurrence #1), is about 15.7 miles NE of the BSA on the Garden Valley quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for Van Zuur's morning-glory. The known range of Van Zuur's morning-glory does not extend into Cameron Park.

**DISCUSSION:** Van Zuur's morning-glory was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

**Chaparral sedge (*Carex xerophila*)**

**HABITAT AND BIOLOGY:** Chaparral sedge is a perennial, cespitose herb found on serpentine and gabbro soils in chaparral, cismontane woodland, and lower montane coniferous forest. Occurs in uplands in full sun to partial shade, in open forest or chaparral from 1,475 to 2,525 feet (Zika et al. 2014; CNPS 2020). Blooms March through June (CNPS 2020; Jepson eFlora 2020).

**RANGE:** This species is endemic to CA. Known from Butte, El Dorado, Nevada, and Yuba counties (CNPS 2020).

**KNOWN RECORDS:** There are seven CNDDDB records of chaparral sedge in the nine-quad area surrounding the BSA. The closest (Occurrence #3), is about 0.8 mile NE of the BSA on the Shingle Springs quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for chaparral sedge.

**DISCUSSION:** Chaparral sedge was not found during the July 2020 botanical survey. Although the published blooming date for this species is March-June, this species is a perennial plant and would have been detected during the survey based on persistent, distinctive foliage.

**Pine Hill ceanothus (*Ceanothus roderickii*)**

**HABITAT AND BIOLOGY:** A low-growing, perennial, evergreen shrub found in serpentine or gabbroic soils in chaparral and cismontane woodland from 800 to 3,600 feet. Blooms April through June (CNPS 2020); March through June (Jepson eFlora 2020). Pine Hill ceanothus is an evergreen shrub that is evident and identifiable year-round.

**RANGE:** This species is endemic to CA. Known only from El Dorado County (CNPS 2020).

**KNOWN RECORDS:** There are nine CNDDDB records for Pine Hill ceanothus in the nine-quad area surrounding the BSA. The closest (Occurrence #1), is about 0.1 mile SE of the BSA on the Shingle Springs quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for Pine Hill ceanothus.

**DISCUSSION:** Pine Hill ceanothus was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

**Red Hills soaproot (*Chlorogalum grandiflorum*)**

**HABITAT AND BIOLOGY:** A perennial bulbiferous herb found in serpentine, gabbroic, and other soils in chaparral, cismontane woodland, and lower montane coniferous forest from 800 to 4,100 feet. Blooms May through June (CNPS 2020; Jepson eFlora 2020).

**RANGE:** This species is endemic to CA. Known from Amador, Butte, Calaveras, El Dorado, Placer, and Tuolumne counties (CNPS 2020).

**KNOWN RECORDS:** There are 14 CNDDDB records for Red Hills soaproot in the nine-quad area surrounding the BSA. The closest (Occurrence #33), is about 0.2 mile SE of the BSA on the Shingle Springs quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for Red Hills soaproot.

**DISCUSSION:** Red Hills soaproot was not found during the July 2020 botanical survey. Although the published blooming date for this species is May-June, this species is a perennial plant that would have been detected during the survey based on persistent, distinctive inflorescences.

**Bisbee Peak rush-rose (*Crocanthemum suffrutescens*)**

**HABITAT AND BIOLOGY:** An evergreen shrub found in chaparral from 250 to 2,200 feet. Often found on gabbroic or lone soils; often in burned or disturbed areas in chaparral. Blooms April through August (CNPS 2020); April through June (Jepson eFlora 2020).

**RANGE:** This species is endemic to CA. Known from Amador, Calaveras, and El Dorado counties (CNPS 2020).

**KNOWN RECORDS:** There are 16 CNDDDB records for Bisbee Peak rush-rose in the nine-quad area surrounding the BSA. The closest (Occurrence #22), is about 0.1 mile east of the BSA.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for Bisbee Peak rush-rose.

**DISCUSSION:** Bisbee Peak rush-rose was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

**Pine Hill flannelbush (*Fremontodendron decumbens*)**

**HABITAT AND BIOLOGY:** An evergreen shrub found in rocky areas of serpentine or gabbroic soils in chaparral and cismontane woodland from 1,400 to 2,500 feet. Blooms April through July (CNPS 2020; Jepson eFlora 2020). Pine Hill flannelbush is a perennial evergreen shrub that is evident and identifiable year-round.

**RANGE:** This species is endemic to CA. Known from El Dorado, Nevada, and Yuba counties (CNPS 2020).

**KNOWN RECORDS:** There are seven CNDDDB records for Pine Hill flannelbush in the nine-quad area surrounding the BSA. The closest (Occurrence #12), is about 1.7 miles north of the BSA on the Shingle Spring quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for Pine Hill flannelbush.

**DISCUSSION:** Pine Hill flannelbush was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

**El Dorado bedstraw (*Galium californicum* ssp. *sierrae*)**

**HABITAT AND BIOLOGY:** A low-growing, perennial herb found in gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 300 to 1,900 feet elevation. Blooms May through June (CNPS 2020); March through July (Jepson eFlora 2020). El Dorado bedstraw is more likely to be found under oak trees and in oak leaf litter, particularly of black oak (BLM 2010).

**RANGE:** This species is endemic to CA. Known only from El Dorado County (CNPS 2020).

**KNOWN RECORDS:** There are 17 CNDDDB records for El Dorado bedstraw in the nine-quad area surrounding the BSA. The closest (Occurrence #8), is about 0.8 mile east of the BSA on the Shingle Springs quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for El Dorado bedstraw.

**DISCUSSION:** El Dorado bedstraw was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

**Layne's Butterweed (*Packera layneae*; syn. *Senecio layneae*)**

**HABITAT AND BIOLOGY:** A perennial herb found in rocky areas with serpentine or gabbroic soils in chaparral and cismontane woodland from 650 to 3,560 feet elevation. Blooms April through August (CNPS 2020); April through June (Jepson eFlora 2020).

**RANGE:** This species is endemic to CA. Known from El Dorado, Placer, Tuolumne, and Yuba counties (CNPS 2020).

**KNOWN RECORDS:** There are 36 CNDDDB records for Layne's butterweed in the nine-quad area surrounding the BSA. The closest (Occurrence #2), is 0.04 mile NW of the BSA on the Shingle Springs quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for Layne's butterweed.

**DISCUSSION:** Layne's butterweed was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

**Oval-leaved viburnum (*Viburnum ellipticum*)**

**HABITAT AND BIOLOGY:** Oval-leaved viburnum is a deciduous shrub found in chaparral, cismontane woodland, and lower montane coniferous forest from 705 to 4,590 feet. It is generally found on north-facing slopes (Baldwin et al. 2012). Blooms May through June (CNPS 2020); June through August (Jepson eFlora 2020).

**RANGE:** Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, and Tehama counties (CNPS 2020). Also occurs in Oregon and Washington.

**KNOWN RECORDS:** There is one CNDDDB record for oval-leaved viburnum in the nine-quad area surrounding the BSA. The closest (Occurrence #5), is based on two collections, one in 1900 and the other in 1901. This locations is about 9.6 miles NE of the BSA on the Placerville quad. This is the only CNDDDB record for oval-leaved viburnum in El Dorado County.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for oval-leaved viburnum.

**DISCUSSION:** Oval-leaved viburnum was not found during the July 2020 botanical survey conducted during the evident and identifiable period.

**El Dorado County mule ears (*Wyethia reticulata*)**

**HABITAT AND BIOLOGY:** A perennial rhizomatous herb found in clay or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 600 to 2,060 feet. Blooms April through August (CNPS 2020); May through August (Jepson eFlora 2020).

**RANGE:** This species is endemic to CA. Known from El Dorado and Yuba counties (CNPS 2020).

**KNOWN RECORDS:** There are 25 CNDDDB records for El Dorado County mule ears in the nine-quad area surrounding the BSA. The closest (Occurrence #1) from 2016, is about 0.14 mile SE of the BSA on the Shingle Springs quad.

**HABITAT PRESENT IN THE BSA:** The BSA provides habitat for El Dorado County mule ears.

**DISCUSSION:** El Dorado County mule ears was not found during the July 2020 botanical survey conducted during the evident and identifiable period.



#### IV. LITERATURE CITED

---

- Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, eds. 2012. The Jepson manual: Vascular plants of California, 2nd Ed. University of California Press, Berkeley, CA.
- Bureau of Land Management (BLM). 30 April 2010. Pine Hill Preserve 2010 rare plant surveys final report. Prepared for the U.S. Fish and Wildlife Service by Graciela Hinshaw, Preserve Manager.
- California Data Exchange Center (CDEC). 2020. Real-Time and historic average precipitation data from the Placerville Gauge (PCV). California Department of Water Resources, Sacramento, CA. [http://cdec.water.ca.gov/cgi-progs/staMeta?station\\_id=PCV](http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=PCV) [accessed July 2020].
- California Department of Fish and Wildlife (CDFW). 20 March 2018 (2018). Protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities. California Natural Resources Agency; CA Department of Fish and Wildlife.
- California Department of Fish and Wildlife (CDFW). August 2019a. Natural Diversity Database. Special Animals List. Periodic publication, Sacramento, CA.
- California Department of Fish and Wildlife (CDFW). 2019b (November 8, 2019). California Natural Community List. Natural Heritage Division, CNDDDB, Sacramento, CA. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>
- California Department of Fish and Wildlife (CDFW). January 2020a. Special vascular plants, bryophytes, and lichens list. Habitat Conservation Division, CNDDDB, Sacramento, CA. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>
- California Department of Fish and Wildlife (CDFW). January 2020b. State and Federally Listed Endangered, Threatened, and Rare Plants of California. Biogeographic Data Branch, CNDDDB, Sacramento, CA.
- California Native Plant Society (CNPS). 2001. CNPS Botanical Survey Guidelines. Dec. 9, 1983; Revised June 2, 2001. <https://www.cnps.org/plant-science/field-protocols-guidelines>
- California Invasive Plant Council (Cal-IPC). 2020. Invasive plant inventory. California Invasive Plant Council, Berkeley, CA. [www.cal-ipc.org](http://www.cal-ipc.org) [accessed July 2020].
- California Native Plant Society (CNPS). 2020. Rare Plant Program. Inventory of rare and endangered plants (online edition, v8-03 0.39). California Native Plant Society, Sacramento, CA. <http://www.rareplants.cnps.org> [accessed July 2020].
- CalPhotos. 2020. Plant images: <http://calphotos.berkeley.edu/flora/> [accessed July 2020].
- Consortium of California Herbaria (CCH). 2020. Data provided by the Consortium of California Herbaria. <https://ucjeps.berkeley.edu/consortium/> [accessed July 2020].
- El Dorado County. Adopted 19 July 2004 (2004a). El Dorado County general plan, a plan for managed growth and open roads; a plan for quality neighborhoods and traffic relief. El Dorado County Planning Department, Placerville, CA.
- El Dorado County. January 2004, Certified 19 July 2004 (2004b). El Dorado County general plan, final environmental impact report (EIR). Resolution No. 234-2004, State Clearinghouse No. 2001082030. Prepared by EDAW.
- El Dorado County. 2018. Adopted 19 July 2004; Amended 25 September 2018. El Dorado County General Plan, a plan for managed growth and open roads; a plan for quality neighborhoods and traffic relief. El Dorado County Planning Department, Placerville, CA.
- Flora of North America Editorial Committee, eds. (FNA). 1993+. Flora of North America North of Mexico. 30 vols. New York and Oxford. <http://floranorthamerica.org/>
- Jepson eFlora 2020. Online version of Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, eds. 2012. The Jepson manual: Vascular plants of California, 2nd ed. University of California Press, Berkeley, CA. <http://ucjeps.berkeley.edu/eflora/>. Accessed July 2020.
- U.S. Fish and Wildlife Service (USFWS). 2000. Guidelines for conducting and reporting botanical inventories for federally listed, proposed and candidate plants. Sacramento Fish & Wildlife Office, Sacramento, CA.
- U.S. Fish and Wildlife Service (USFWS). 30 August 2002. Recovery plan for gabbro soil plants of the Central Sierra Nevada Foothills. Portland, OR.

Zika, P. F., L. P. Janeway, and B. L. Wilson. 2014. *Carex xerophila* (Cyperaceae), a new sedge from the chaparral of Northern California. *Madroño* 61:3(299-307).

## V. PREPARERS

---

**R. John Little, Ph.D.** Botany, Claremont Graduate School, Claremont, CA. Over 30 years' experience managing and conducting environmental projects involving impact assessment and preparation of numerous NEPA/CEQA compliance documents, Biological Assessments, and Caltrans Natural Environmental Studies. Experience includes conducting special-status plant and wildlife species surveys, jurisdictional wetland delineations, general biological surveys, permitting and biological report preparation. Dr. Little is a trained wetland delineator and an ESA certified Senior Ecologist. He holds a California Department of Fish and Wildlife Rare, Threatened and Endangered Plant Voucher Collecting Permit (2081(a)-16-021-V), and is an authorized individual on the CDFW Scientific Collecting Permit (SC-7617).

Responsibilities: Botanical survey, plant identification, report preparation.

**Aramis Respall, GIS Analyst/ CAD Operator.** Over 20 years' experience in drafting and spatial analysis using AutoCAD map and ArcGIS for public and private projects. He prepares figures for biological and permitting documents such as project location maps, aerial photograph exhibits, biological resource maps, CNDDB proximity maps, wetlands/waters delineation maps, impact analysis maps, tree location maps and other supporting graphics. Mr. Respall provides geospatial analysis and support for projects involving geodesy, hydrology, watershed studies, project impact analysis, CNDDB species, and critical habitat and mitigation information. Primary experience evolved from conventional surveying and civil engineering practices to advanced GPS and GIS based technology.

Responsibilities: Figure preparation and spatial analysis.

## **APPENDIX A.**

Database Queries (USFWS; CNDDDB; CNPS)

---

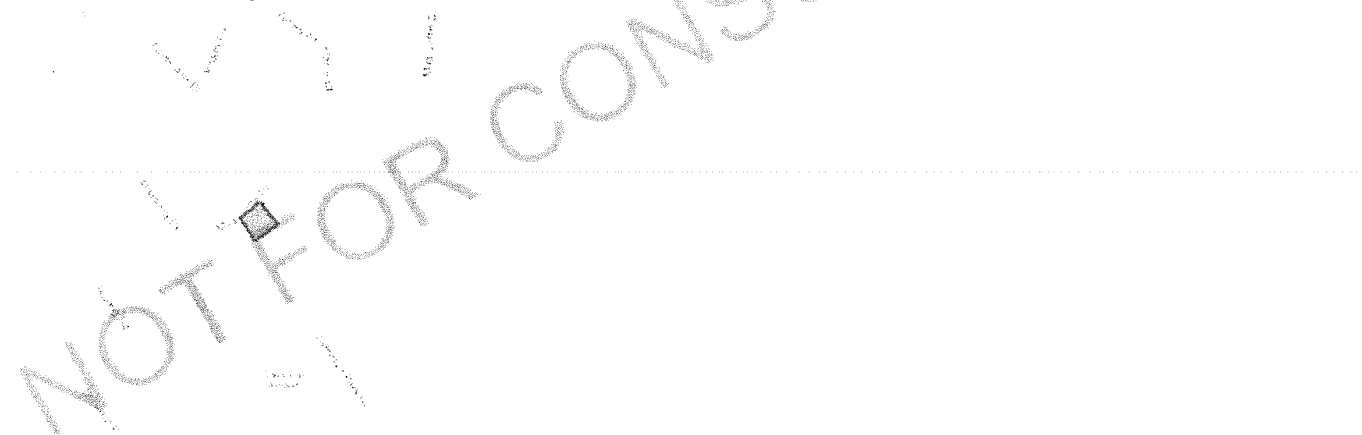
# IPaC resource list

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

El Dorado County, California



## Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846

## 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 species<sup>1</sup> 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 Fisheries<sup>2</sup>).

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.
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:

### Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

## Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/321>

## Flowering Plants

NAME

STATUS

El Dorado Bedstraw *Galium californicum* ssp. *sierrae*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5209>

Layne's Butterweed *Senecio layneae*

Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4062>

Pine Hill Ceanothus *Ceanothus roderickii*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3293>

Pine Hill Flannelbush *Fremontodendron californicum* ssp. *decumbens*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4818>

Stebbins' Morning-glory *Calystegia stebbinsii*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3991>

## 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.

# Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE.



"BREEDS ELSEWHERE" INDICATES  
THAT THE BIRD DOES NOT LIKELY  
BREED IN YOUR PROJECT AREA.)

**Bald Eagle** *Haliaeetus leucocephalus*

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/1626>

Breeds Jan 1 to Aug 31

**California Thrasher** *Toxostoma redivivum*

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

Breeds Jan 1 to Jul 31

**Golden Eagle** *Aquila chrysaetos*

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>

Breeds Jan 1 to Aug 31

**Lawrence's Goldfinch** *Carduelis lawrencei*

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

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

**Lewis's Woodpecker** *Melanerpes lewis*

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

<https://ecos.fws.gov/ecp/species/9408>

Breeds Apr 20 to Sep 30

**Nuttall's Woodpecker** *Picoides nuttallii*

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>

Breeds Apr 1 to Jul 20

**Oak Titmouse** *Baeolophus inornatus*

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

<https://ecos.fws.gov/ecp/species/9656>

Breeds Mar 15 to Jul 15

**Rufous Hummingbird** *selasphorus rufus*

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

<https://ecos.fws.gov/ecp/species/8002>

Breeds elsewhere

**Song Sparrow** *Melospiza melodia*

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

Breeds Feb 20 to Sep 5

**Spotted Towhee** *Pipilo maculatus clementae*

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/4243>

Breeds Apr 15 to Jul 20

**Wrentit** *Chamaea fasciata*

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

Breeds Mar 15 to Aug 10

**Yellow-billed Magpie** *Pica nuttalli*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  
<https://ecos.fws.gov/ecp/species/9726>

Breeds Apr 1 to Jul 31

## 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 and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (0)

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.

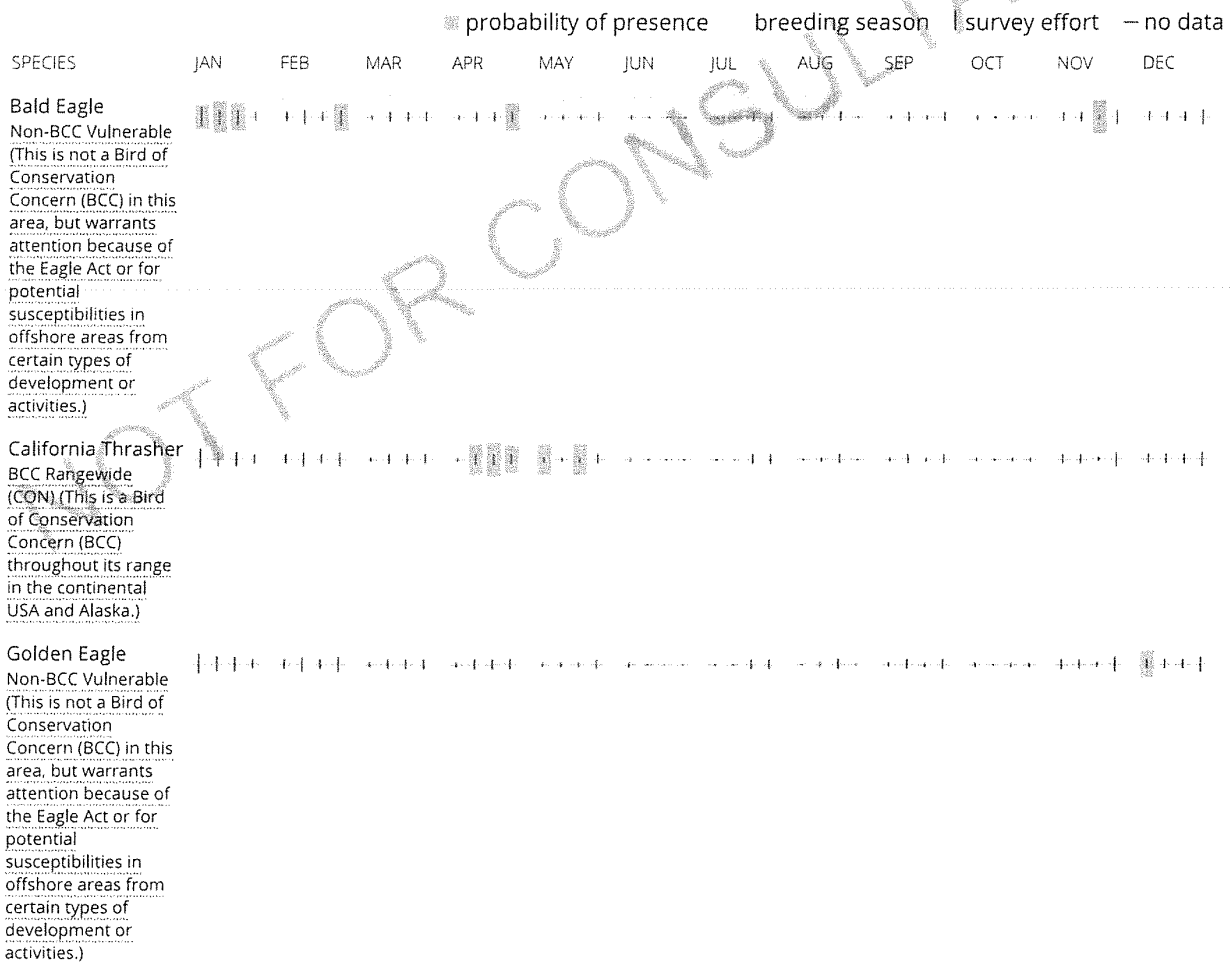
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

**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.



Lawrence's Goldfinch  
 BCC Rangewide  
 (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Lewis's Woodpecker  
 BCC Rangewide  
 (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

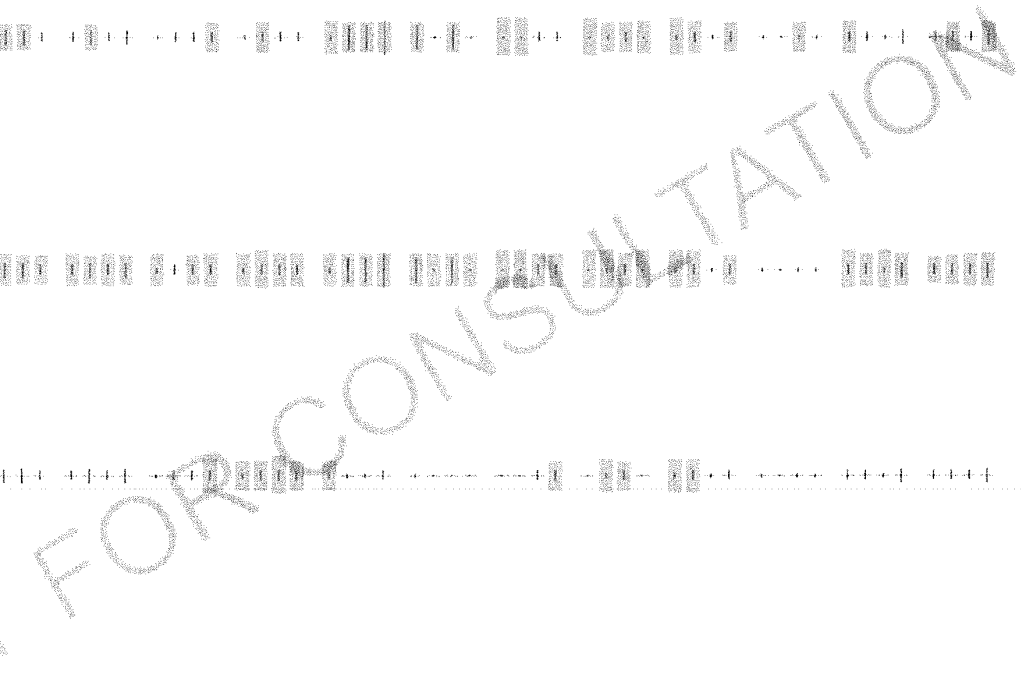
Nuttall's Woodpecker  
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

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

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

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

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



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



Yellow-billed  
Magpie  
BCC Rangelwide  
(CON) (This is a Bird  
of Conservation  
Concern (BCC)  
throughout its range  
in the continental  
USA and Alaska.)



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](#) and/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 migratory birds potentially occurring 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 [AKN Phenology 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, migrating or present year-round in my project 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 refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). 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

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](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

#### 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.

NOT FOR CONSULTATION



Selected Elements by Scientific Name  
 California Department of Fish and Wildlife  
 California Natural Diversity Database



Query Criteria: Quad<span style='color:Red'> IS </span>(Pilot Hill (3812171)<span style='color:Red'> OR </span>Coloma (3812078)<span style='color:Red'> OR </span>Garden Valley (3812077)<span style='color:Red'> OR </span>Clarksville (3812161)<span style='color:Red'> OR </span>Shingle Springs (3812068)<span style='color:Red'> OR </span>Placerville (3812067)<span style='color:Red'> OR </span>Folsom SE (3812151)<span style='color:Red'> OR </span>Latrobe (3812058)<span style='color:Red'> OR </span>Fiddletown (3812057))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter gentilis</i> northern goshawk	ABNKC12060	None	None	G5	S3	SSC
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Allium jepsonii</i> Jepson's onion	PMLIL022V0	None	None	G2	S2	1B.2
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Arctostaphylos nissenana</i> Nissenan manzanita	PDERI040V0	None	None	G1	S1	1B.2
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atractelmis wawona</i> Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Banksula californica</i> Alabaster Cave harvestman	ILARA14020	None	None	GH	SH	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	



Selected Elements by Scientific Name  
 California Department of Fish and Wildlife  
 California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Calystegia stebbinsii</i> Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
<i>Calystegia vanzuukiae</i> Van Zuur's morning-glory	PDCON040Q0	None	None	G2Q	S2	1B.3
<i>Carex cyrtostachya</i> Sierra arching sedge	PMCYP03M00	None	None	G2	S2	1B.2
<i>Carex xerophila</i> chaparral sedge	PMCYP03M60	None	None	G2	S2	1B.2
<i>Ceanothus roderickii</i> Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
<i>Central Valley Drainage Hardhead/Squawfish Stream</i> Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
<i>Clarkia biloba ssp. brandegeeeae</i> Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
<i>Cosumnoperla hypocreana</i> Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
<i>Crocathemum suffrutescens</i> Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	PDAP10Z0P0	None	None	G2	S2	1B.2
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
<i>Galium californicum ssp. sierrae</i> El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<i>Horkelia parryi</i> Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G5	S3S4	



Selected Elements by Scientific Name  
 California Department of Fish and Wildlife  
 California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<i>Packera layneae</i> Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
<i>Pekania pennanti</i> fisher - West Coast DPS	AMAJF01021	None	Threatened	G5T2T3Q	S2S3	SSC
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondii</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Viburnum ellipticum</i> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
<i>Wyethia reticulata</i> El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 53

\*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

## Plant List

30 matches found. [Click on scientific name for details](#)

### Search Criteria

Found in Quads 3812171, 3812078, 3812077, 3812161, 3812068, 3812067, 3812151 3812058 and 3812057;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<a href="#">Allium jepsonii</a>	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2	S2	G2
<a href="#">Allium sanbornii var. congdonii</a>	Congdon's onion	Alliaceae	perennial bulbiferous herb	Apr-Jul	4.3	S3	G4T3
<a href="#">Allium sanbornii var. sanbornii</a>	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	4.2	S3S4	G4T3T4
<a href="#">Arctostaphylos mewukka ssp. truei</a>	True's manzanita	Ericaceae	perennial evergreen shrub	Feb-Jul	4.2	S3	G4?T3
<a href="#">Arctostaphylos nissenana</a>	Nissenan manzanita	Ericaceae	perennial evergreen shrub	Feb-Mar(Jun)	1B.2	S1	G1
<a href="#">Balsamorhiza macrolepis</a>	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
<a href="#">Calandrinia breweri</a>	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	4.2	S4	G4
<a href="#">Calystegia stebbinsii</a>	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	1B.1	S1	G1
<a href="#">Calystegia vanzuukiae</a>	Van Zuurk's morning-glory	Convolvulaceae	perennial rhizomatous herb	May-Aug	1B.3	S2	G2Q
<a href="#">Carex cyrtostachya</a>	Sierra arching sedge	Cyperaceae	perennial herb	May-Aug	1B.2	S2	G2
<a href="#">Carex xerophila</a>	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	1B.2	S2	G2
<a href="#">Ceanothus fresnensis</a>	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	May-Jul	4.3	S4	G4
<a href="#">Ceanothus roderickii</a>	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	1B.1	S1	G1
<a href="#">Chlorogalum grandiflorum</a>	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	1B.2	S3	G3
<a href="#">Clarkia biloba ssp. brandegeae</a>	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	4.2	S4	G4G5T4
	streambank spring	Montiaceae	annual herb	Feb-May	4.2	S3	G5T3

<a href="#">Claytonia parviflora ssp. grandiflora</a>	beauty							
<a href="#">Crocanthemum suffrutescens</a>	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	3.2	S2?	G2?Q	
<a href="#">Delphinium hansenii ssp. ewanianum</a>	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	4.2	S3	G4T3	
<a href="#">Erigeron miser</a>	starved daisy	Asteraceae	perennial herb	Jun-Oct	1B.3	S3?	G3?	
<a href="#">Eriophyllum jepsonii</a>	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	4.3	S3	G3	
<a href="#">Eryngium pinnatisectum</a>	Tuolumne button-celery	Apiaceae	annual / perennial herb	May-Aug	1B.2	S2	G2	
<a href="#">Fremontodendron decumbens</a>	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	1B.2	S1	G1	
<a href="#">Galium californicum ssp. sierrae</a>	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	1B.2	S1	G5T1	
<a href="#">Horkelia parryi</a>	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	1B.2	S2	G2	
<a href="#">Lilium humboldtii ssp. humboldtii</a>	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	4.2	S3	G4T3	
<a href="#">Packera layneae</a>	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2	
<a href="#">Sagittaria sanfordii</a>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3	
<a href="#">Trichostema rubisepalum</a>	Hernandez bluecurls	Lamiaceae	annual herb	Jun-Aug	4.3	S4	G4	
<a href="#">Viburnum ellipticum</a>	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5	
<a href="#">Wyethia reticulata</a>	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2	

### Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 27 July 2020].

#### Search the Inventory

[Simple Search](#)  
[Advanced Search](#)  
[Glossary](#)

#### Information

[About the Inventory](#)  
[About the Rare Plant Program](#)  
[CNPS Home Page](#)  
[About CNPS](#)  
[Join CNPS](#)

#### Contributors

[The Calflora Database](#)  
[The California Lichen Society](#)  
[California Natural Diversity Database](#)  
[The Jepson Flora Project](#)  
[The Consortium of California Herbaria](#)  
[CalPhotos](#)

#### Questions and Comments

[rareplants@cnps.org](mailto:rareplants@cnps.org)

## APPENDIX B

Plant and Wildlife Species Observed  
 Bean Barn 3  
 20 July 2020

Plant Species Observed.

Family	Scientific Name	Common Name	N/I <sup>1</sup>	In Bloom?	Cal-IPC <sup>2</sup>
<b>EUDICOTS</b>					
<b>Anacardiaceae</b>	<i>Schinus molle</i>	Pepper tree	I	No	Limited
	<i>Toxicodendron diversilobum</i>	Western poison oak	N	No	
<b>Apiaceae</b>	<i>Daucus carota</i>	Carrot, Queen Anne's lace	I	Yes	
	<i>Torilis arvensis</i>	Tall sock-destroyer	I	No	Moderate
<b>Asteraceae</b>	<i>Artemisia douglasiana</i>	Mugwort	N	No	
	<i>Baccharis pilularis</i>	Coyote brush	N	No	
	<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	I	No	Moderate
	<i>Centaurea solstitialis</i>	Yellow star-thistle	I	Yes	High
	<i>Chondrilla juncea</i>	Skeleton weed	I	Yes	Moderate
	<i>Eriophyllum lanatum</i>	Common woolly sunflower	N	No	
	<i>Holocarpha virgata</i> ssp. <i>virgata</i>	Tarweed	N	Yes	
	<i>Hypochaeris radicata</i>	Rough cat's-ear	I	No	Moderate
	<i>Lactuca serriola</i>	Prickly lettuce	I	No	
	<i>Logfia gallica</i> (Syn. <i>Filago gallica</i> )	Daggerleaf cottonrose	I	No	
	<i>Madia elegans</i>	Common madia	N	Yes	
	<i>Silybum marianum</i>	Milk thistle	I	No	
	<i>Sonchus asper</i> ssp. <i>asper</i>	Prickly sow thistle	I	No	
	<i>Tragopogon</i> sp.	Goat's beard, Salsify	I	Yes	
<b>Boraginaceae</b>	<i>Eriodictyon californicum</i>	California yerba santa	N	No	
<b>Brassicaceae</b>	<i>Hirschfeldia incana</i>	Summer mustard	I	Yes	Moderate
<b>Convolvulaceae</b>	<i>Convolvulus arvensis</i>	Bindweed	I	Yes	
<b>Ericaceae</b>	<i>Arctostaphylos viscida</i> ssp. <i>viscida</i>	Manzanita	N	No	
<b>Euphorbiaceae</b>	<i>Croton setigerus</i>	Turkey-mullein	N	Yes	
<b>Fabaceae</b>	<i>Acmispon americanus</i> var. <i>americanus</i> (Syn. <i>Lotus purshianus</i> )	Deervetch	N	Yes	
	<i>Trifolium hirtum</i>	Rose clover	I	No	Limited
	<i>Vicia</i> sp.	Vetch	I	No	
<b>Fagaceae</b>	<i>Quercus douglasii</i>	Blue oak	N	No	
	<i>Quercus lobata</i>	Valley oak	N	No	
	<i>Quercus wislizeni</i> var. <i>wislizeni</i>	Interior live oak	N	No	
<b>Geraniaceae</b>	<i>Erodium</i> sp. 1	Storksbill, filaree	I	No	
	<i>Erodium</i> sp. 2	Storksbill, filaree	I	No	
<b>Lamiaceae</b>	<i>Salvia rosmarinus</i>	Rosemary	I	No	
<b>Linaceae</b>	<i>Linum bienne</i>	Flax	I	No	
<b>Onagraceae</b>	<i>Epilobium brachycarpum</i>	Willowherb	N	No	
<b>Plantaginaceae</b>	<i>Kickxia spuria</i>	Kickxia	I	No	
	<i>Plantago lanceolata</i>	English plantain	I	No	Limited
<b>Polygonaceae</b>	<i>Rumex crispus</i>	Curly dock	I	No	Limited
<b>Rhamnaceae</b>	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	Buckbrush	N	No	
	<i>Ceanothus lemmonii</i>	California-lilac	N	No	
	<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	N	No	
<b>Rosaceae</b>	<i>Heteromeles arbutifolia</i>	Toyon	N	No	
	<i>Pyrus calleryana</i>	Bradford plum	I	No	
<b>Rubiaceae</b>	<i>Galium parisiense</i>	Wall bedstraw	I	No	



MONOCOTS					
<b>Cyperaceae</b>	<i>Cyperus</i> sp.	Nutsedge	--	No	
<b>Iridaceae</b>	<i>Sisyrinchium bellum</i>	Western blue-eyed-grass	N	No	
<b>Poaceae</b>	<i>Aegilops triuncialis</i>	Barbed goat grass	I	No	High
	<i>Avena</i> sp.	Wild oat	I	No	Moderate
	<i>Brachypodium distachyon</i>	False brome	I	No	Moderate
	<i>Briza minor</i>	Small quaking grass	I	No	
	<i>Bromus diandrus</i>	Ripgut grass	I	No	Moderate
	<i>Bromus hordeaceus</i>	Soft chess	I	No	Limited
	<i>Bromus madritensis</i>	Foxtail chess	I	No	
	<i>Cynodon dactylon</i>	Bermuda grass	I	No	Moderate
	<i>Cynosurus echinatus</i>	Bristly dogtail grass	I	No	Moderate
	<i>Dactylis glomerata</i>	Orchard grass	I	No	Limited
	<i>Elymus caput-medusae</i> (Syn. <i>Taeniatherum caput-medusae</i> )	Medusa head	I	No	High
	<i>Elymus glaucus</i>	Blue or western wild-rye	N	No	
	<i>Festuca perennis</i> (Syn. <i>Lolium perenne</i> )	Rye grass	I	No	Moderate
	<i>Gastridium phleoides</i>	Nit grass	I	No	
	<i>Panicum capillare</i>	Witch grass	N	No	
	<i>Paspalum dilatatum</i>	Dallis grass	I	No	
	<i>Phalaris</i> sp.	Canary grass	I	No	
	<i>Stipa</i> sp.	Needle grass	N	No	
<b>Themidaceae</b>	<i>Brodiaea</i> sp.	Brodiaea	N	No	
<b>Typhaceae</b>	<i>Typha</i> sp.	Cattail	N	No	

<sup>1</sup> N = Native to CA; I = Introduced.

<sup>2</sup> Degree of negative ecological impact (Cal-IPC 2020).

## **APPENDIX C.**

### Photographs

---



Photo 1. View north, east of Cameron Park Dr., from SW property corner. Mira Loma Drive in background (below trees). Mostly weedy species in this photo. 20 July 2020

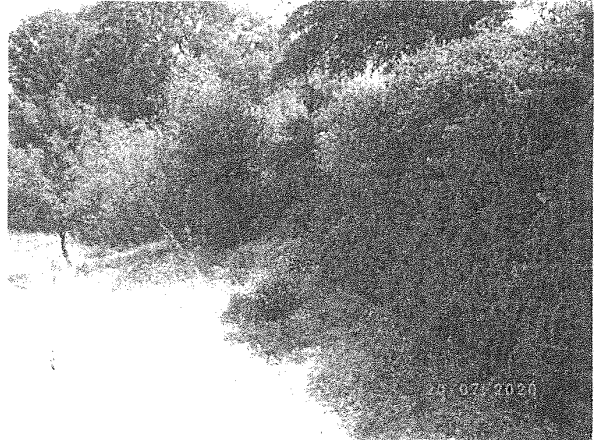


Photo 2. View east from near SW corner along southern property boundary; nonnative Rosemary plants on right side of photo growing in gaps in the block wall. 20 July 2020



Photo 3. Detail of block wall shown in Photo 2. Rosemary plants cascading down face of wall. 20 July 2020



Photo 4. View west from near SE property corner. 20 July 2020

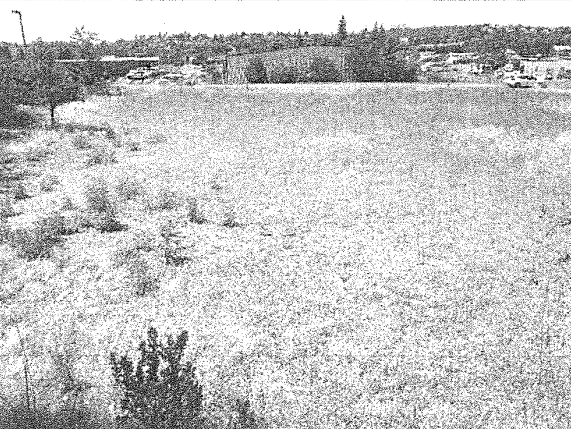


Photo 5. View west from east property boundary; Cameron Park Airport in background. Mostly nonnative herbaceous annual grasses and forbs in the BSA. 20 July 2020



Photo 6. View SE toward native vegetation on east boundary. Nonnative yellow star-thistle in foreground. 20 July 2020