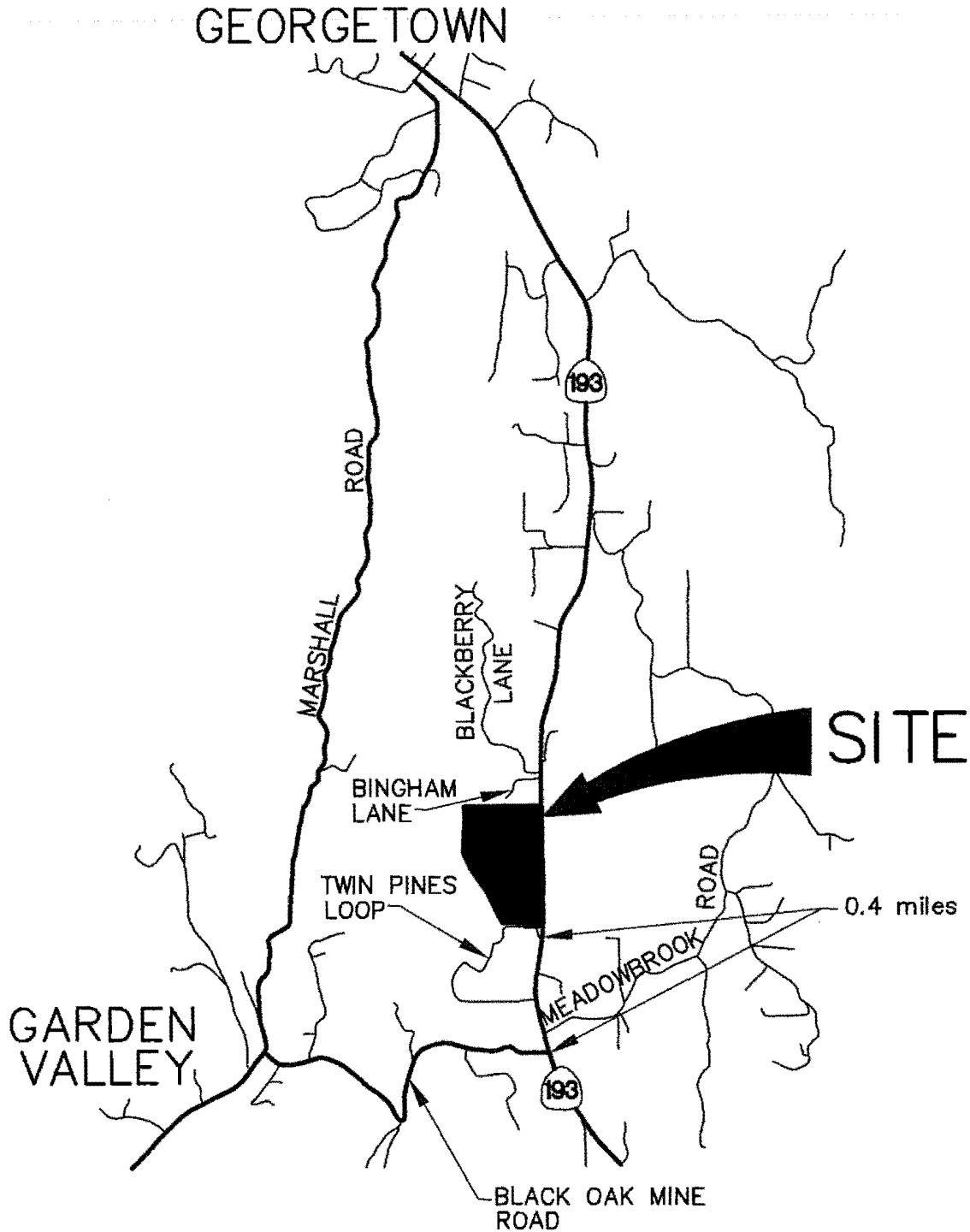


# VICINITY MAP

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PLANNING DEPARTMENT

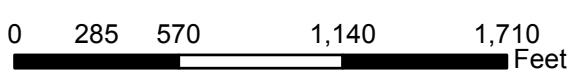


## P 17-0008

# Exhibit B: Project Site



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Scale 1:8,000

Project P17-0008  
Steward Tentative Parcel Map  
APN 060-430-075

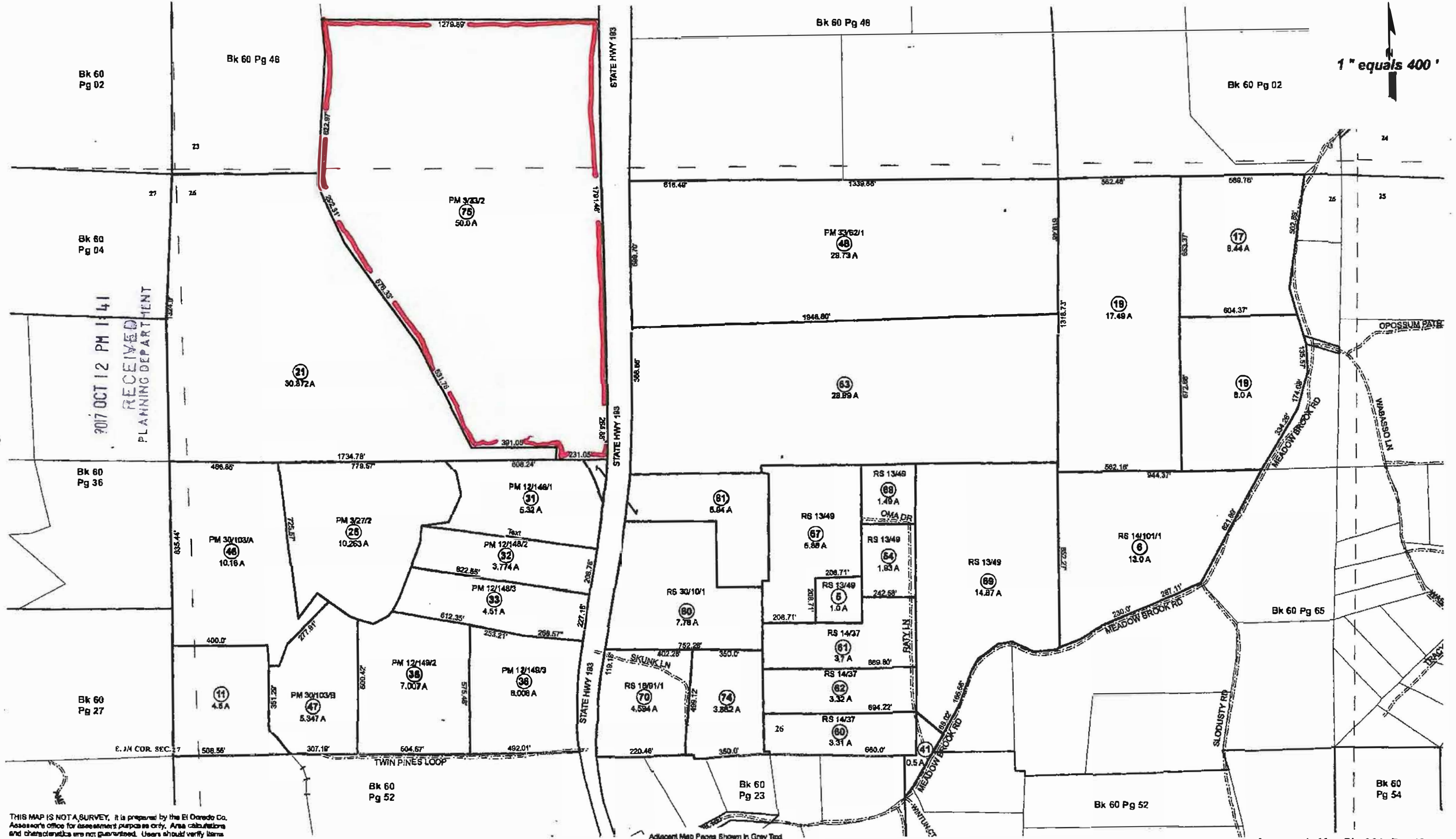
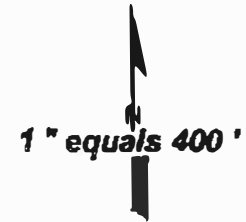
Map prepared on  
November 30, 2020



Exhibit C: Assessor's Parcel Map  
P17-0008 Steward Tentative Parcel Map

POR. N1/2 SEC. 26, T.12N., R.10E., M.D.M.

60:43



2017 OCT 12 PM 11:41  
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PLANNING DEPARTMENT

THIS MAP IS NOT A SURVEY, it is prepared by the El Dorado Co. Assessor's office for assessment purposes only. Area calculations and characteristics are not guaranteed. Users should verify items such as dimensions and acreage.

Acreages Are Estimates

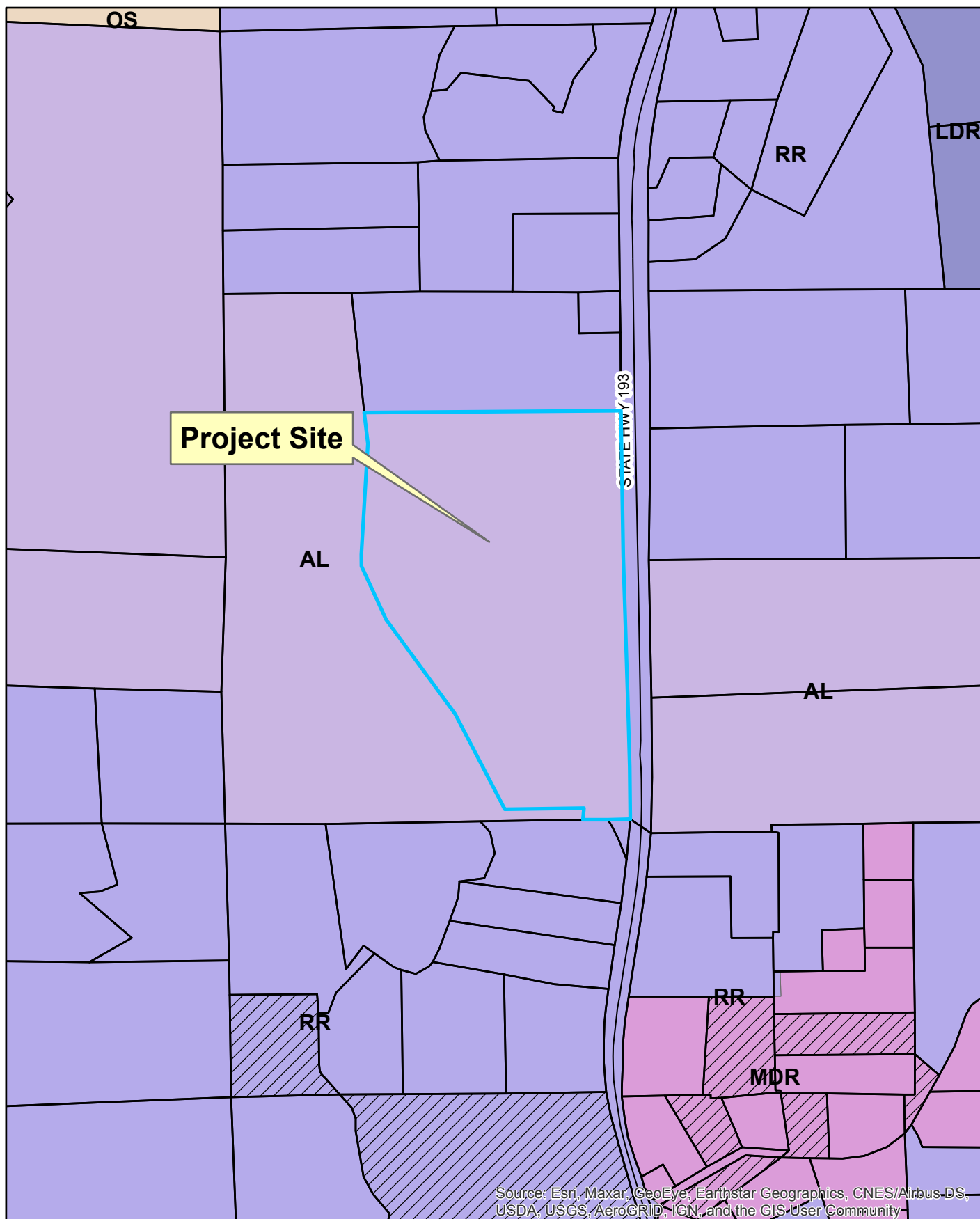
Adjacent Map Pages Shown in Gray Text  
Assessor's Block Numbers Shown in Ellipses  
Assessor's Parcel Numbers Shown in Circles

P 17-0008

Rev. Mar. 23, 2007

Assessor's Map Bk. 060, Pg. 43  
County of El Dorado, CA

# Exhibit D: General Plan Map



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus-DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

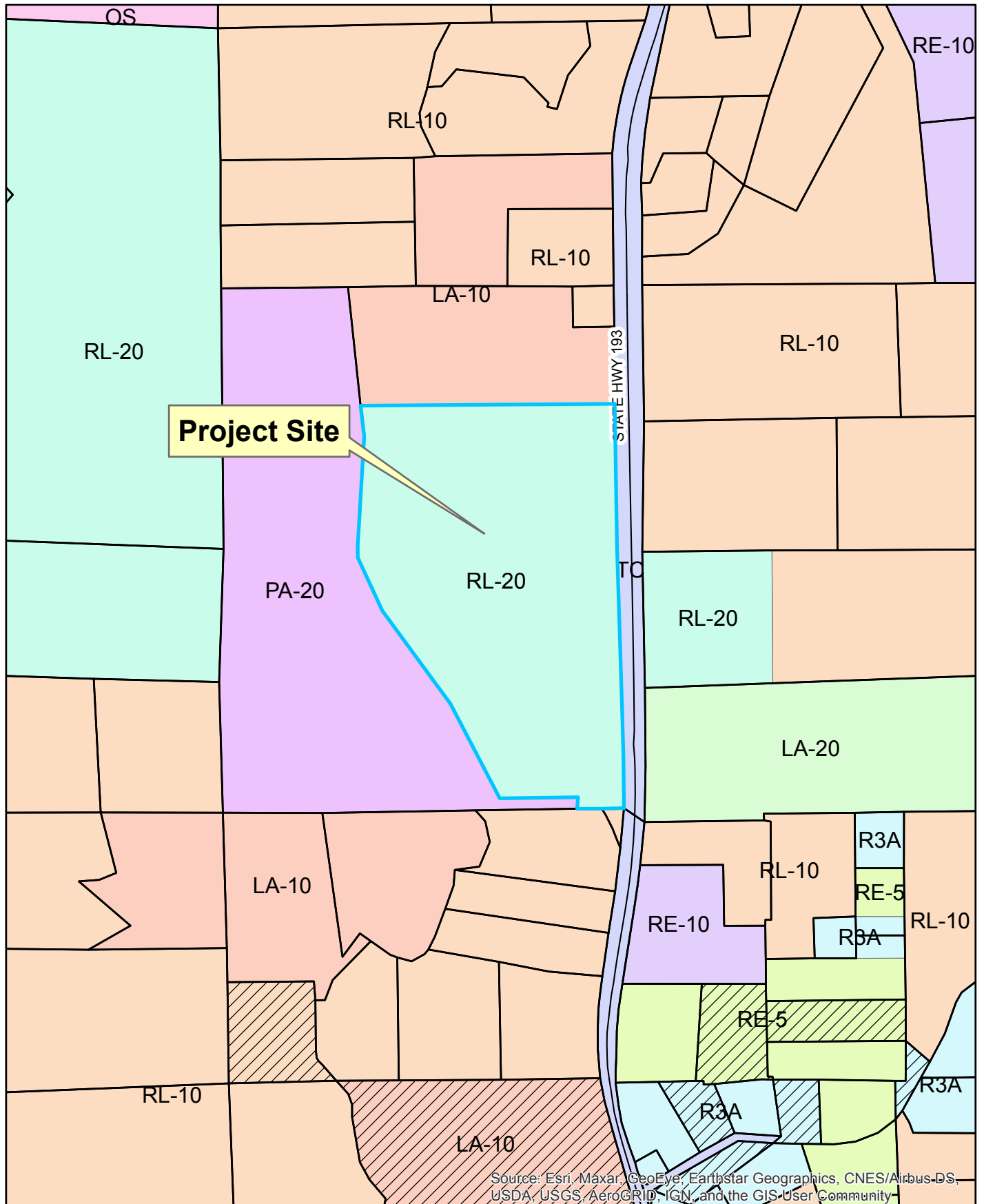
0 285 570 1,140 1,710 Feet

Scale 1:8,000

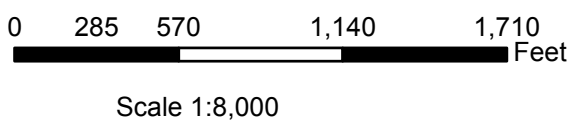
Project P17-0008  
Steward Tentative Parcel Map  
APN 060-430-075

Map prepared on  
November 30, 2020

# Exhibit E: Zoning Map



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus-DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Project P17-0008  
Steward Tentative Parcel Map  
APN 060-430-075

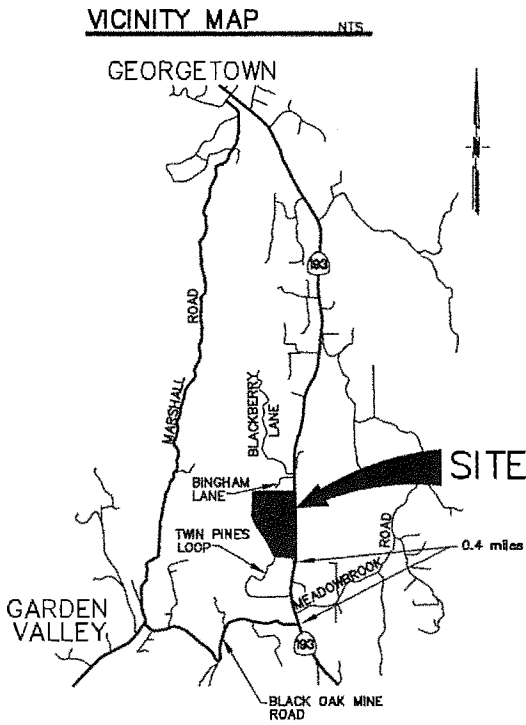
Map prepared on  
November 30, 2020

# Tentative Parcel Map

A PORTION OF THE SW 1/4 OF SECTION 23 AND A  
PORTION OF THE NW 1/4 OF SECTION 26 OF  
T. 12 N., R. 10 E., M.D.M., BEING PARCEL 2 OF P.M. 3/33  
COUNTY OF EL DORADO STATE OF CALIFORNIA  
SEPTEMBER, 2017 1"=100'  
SHEET 1 of 1

2017 OCT 12 PM 1:40

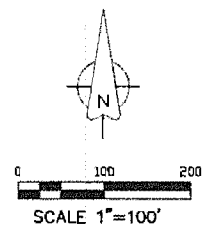
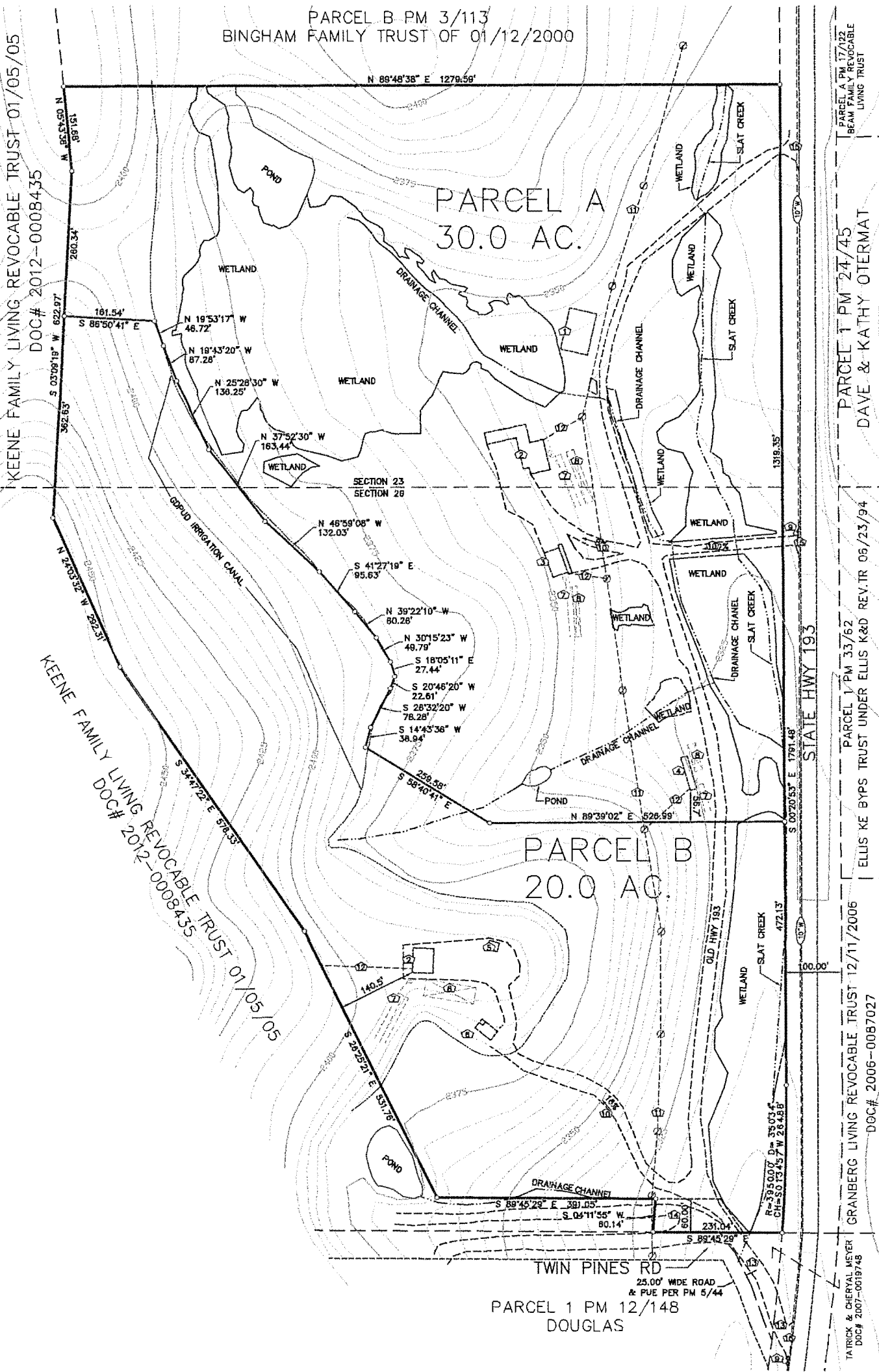
RECEIVED  
PLANNING DEPARTMENT



OWNER / APPLICANT: JAMES & JENNIFER STEWARD  
P. O. BOX 164  
GARDEN VALLEY, CA 95633  
530-906-4327

MAP PREPARED BY: JAMES WILLSON, LS  
SITE CONSULTING INC.  
3460 ANGEL LANE  
PLACERVILLE, CA 95667  
530-822-7014

SCALE: 1"=100'  
CONTOUR INTERVAL: 5'  
SOURCE OF TOPOGRAPHY: INTERMAP MAPPING  
SECTION, TOWNSHIP, RANGE: SECTION 23, & 26, T. 12 N., R. 10 E.  
ASSESSOR'S PARCEL NO.: 060-430-7495  
PRESENT ZONING: RL 20  
TOTAL PARCEL AREA: 50 ACRES  
TOTAL NUMBER OF PARCELS: (2) TWO  
MINIMUM PARCEL AREA: 20 ACRES  
WATER SUPPLY: EXISTING METERS, GEORGETOWN DIVIDE PUBLIC UTILITIES DISTRICT  
SEWAGE DISPOSAL: EXISTING SEPTIC  
STRUCTURAL FIRE PROTECTION: GARDEN VALLEY FPD  
DATE: SEPTEMBER 2017  
CONTOUR INTERVAL: 5'  
SITE ADDRESS: 7461 STATE HWY 193  
GEORGETOWN, CA



### NOTES

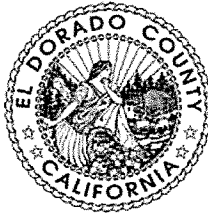
- ⊗ EXISTING BARN
- ⊗ EXISTING HOUSE
- ⊗ EXISTING SHOP WITH GRANNY FLAT
- ⊗ EXISTING MOBILE HOME
- ⊗ EXISTING SHED
- ⊗ EXISTING SHOP
- ⊗ EXISTING LEACH FIELD
- ⊗ LEACH FIELD REPLACEMENT AREA
- ⊗ EXISTING FIRE HYDRANT
- ⊗ EXISTING DRIVEWAY
- ⊗ POWER LINE EASEMENT PER 147 OR 190
- ⊗ JOINT SERVICE LINE
- ⊗ OLD STATE HWY 193 RELINQUISHED TO THE COUNTY
- ⊗ PROPOSED 60' ROAD AND PUE FOR ADJACENT PROPERTY
- ⊗ EXISTING ENCROACHMENTS

### ZONING ADMINISTRATOR

DATE: \_\_\_\_\_ APPROVAL: \_\_\_\_\_  
DATE: \_\_\_\_\_ CONDITIONAL APPROVAL: \_\_\_\_\_  
DATE: \_\_\_\_\_ DISAPPROVAL: \_\_\_\_\_

### BOARD OF SUPERVISORS

DATE: \_\_\_\_\_ APPROVAL: \_\_\_\_\_  
DATE: \_\_\_\_\_ CONDITIONAL APPROVAL: \_\_\_\_\_  
DATE: \_\_\_\_\_ DISAPPROVAL: \_\_\_\_\_



EL DORADO COUNTY DEPARTMENT OF AGRICULTURE  
WEIGHTS AND MEASURES

INTER OFFICE MEMORANDUM

January 19, 2018

**To:** Michael Concepcion

**FROM:** Charlene Carveth, <sup>CC</sup> Agricultural Commissioner/Sealer

**SUBJECT:** P17-0008, Steward Tentative Parcel Map, Assessor's Parcel Number 060-430-75, consisting of 50 acres, located on the west side of Hwy 193 approx. 0.4 mile north of the intersection with Black Oak Mine Rd.

---

Initial Consultation

The parcel is located in the Garden Valley-Georgetown Agricultural District. The parcel has a Land Use Designation of AL with a zoning of RL-20. Adjacent parcels to the west and east also have Land Use Designations of AL. The adjacent parcels to the west are currently in a Williamson Act Contract (Ag Preserve # 195) with a 17.5 acre vineyard, 1 acre of Christmas trees and grazing lands. The County Soils map identifies choice soils of unique and local importance over most of the property.

General Plan policy 2.2.2.2. B., which states, in pertinent part: The minimum residential parcel size for lands containing choice agricultural soils within an Agricultural (A) District shall be twenty (20) acres or the minimum lot size established by the underlying land use designation, whichever is greater.

Based upon the Initial Consultation information sent to the department for a request for a parcel map to create two lots, one 30 acre lot and one 20 acre lot, the proposed parcel map meets the requirements of Policy 2.2.2.2 B.

General Plan policy 8.1.3.1, which states: Agriculturally zoned lands including Williamson Act properties shall be buffered from increases in density on adjacent lands by requiring a minimum of 10 acres for any parcel created adjacent to such lands. Parcels used to buffer agriculturally zoned lands should have a similar width to length ration of other parcels when feasible.

Based upon the Initial Consultation information sent to the department, the two proposed parcels would be greater than 10 acres thereby buffering the Williamson Act properties to the west of the parcel.

## **Biological Resources Report**

for

Assessor' Parcel Number 060-430-75

located at

7461 State Highway 193

Georgetown, El Dorado County, CA

---

Prepared by

***Ruth A. Willson***

**Site Consulting, Inc.**

**Biological Services**

3460 Angel Lane

Placerville, California 95667

(530) 622-7014

Prepared for

***James Steward***

(530) 906-4327

August 2017



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### Appendices

- A. U.S. Fish and Wildlife Service Official Species List
- B. U.S. Fish and Wildlife Service IpaC Trust Resource Report
- C. California Natural Diversity Database Report of Special-Status Species Occurrences within the Georgetown and Surrounding USGS Quads
- D. California Native Plant Society On-line Inventory of Rare and Endangered Plants, Georgetown and Surrounding USGS Quads
- E. Evaluation of Special-Status Species with Known Occurrences in Georgetown and Surrounding USGS Quads
- F. Plant Species Found on the Project Site

## I. Report Summary

### A. Special-Status Species

#### 1. Federal and State-Listed Species

No species listed under either the United States or California Environmental Protection Act were found on the project site. Potential habitat was found for four state- or federal-listed species: California red-legged frog (*Rana draytonii*), tri-colored blackbird (*Agelaius tricolor*), willow flycatcher (*Empidonax traillii*) and Boggs Lake hedge-hyssop (*Gratiola heterosepala*).

#### 2. Species of Concern

Two species of concern were found on the project site: western pond turtle (*Emys marmorata*) and Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*). In addition, potential habitat was found for forty-one species of concern, including three insects: western bumble bee (*Bombus occidentalis*), Cosumnes stripetail stonefly (*Cosumnoperla hypocrena*) and gold rush hanging scorpionfly (*Orobittacus obscurus*); one reptile: coast horned lizard (*Phrynosoma blainvillii*); sixteen birds: Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), long-eared owl (*Asio otus*), oak titmouse (*Baeolophus inornatus*), Vaux's swift (*Chaetura vauxi*), lark sparrow (*Chondestes grammacus*), northern harrier (*Circus cyaneus*), olive-sided flycatcher (*Contopus cooperi*), merlin (*Falco columbarius*), yellow-breasted chat (*Icteria virens*), fox sparrow (*Passerella iliaca*), white-headed woodpecker (*Picoides albolarvatus*), purple martin (*Progne subis*), yellow warbler (*Setophaga petechia*), and calliope hummingbird (*Stellula (Selasphorus) calliope*); five bats: Townsend's big-eared bat (*Corynorhinus townsendii*), silver-haired bat (*Lasionycteris noctivagans*), hoary bat (*Lasiurus cinereus*), fringed myotis (*Myotis thysanodes*) and Yuma myotis (*Myotis yumanensis*); and seventeen plants: True's manzanita (*Arctostaphylos mewukka* ssp. *truei*), big-scale balsamroot (*Balsamorhiza macrolepis*), watershield (*Brasenia schreberi*), Sierra arching sedge (*Carex cyrtostachya*), northern meadow sedge (*Carex praticola*), Oregon fireweed (*Epilobium oreganum*), northern Sierra daisy (*Erigeron petrophilus* var. *sierrensis*), Butte County fritillary (*Fritillaria eastwoodiae*), American manna grass (*Glyceria grandis*), Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*), Santa Lucia dwarf rush (*Juncus luciensis*), dubious pea (*Lathyrus sulphureus* var. *argillaceus*), northern bugleweed (*Lycopus uniflorus*), Sierra sweet bay (*Myrica hartwegii*), narrow-petaled rein orchid (*Piperia leptopetala*), Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*) and oval-leaved viburnum (*Viburnum ellipticum*). See Table 5, pages 21-23, for more details.

#### 3. Mitigation

Normal setbacks from waters and wetlands (100 feet from perennial waters and 50 feet from intermittent or ephemeral waters and wetlands) are sufficient to protect waters, wetlands and potential habitat on the project site for aquatic species.

Pre-construction surveys for nesting birds, including raptors, conducted no more than 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended for most species. If raptor nests are found on or immediately adjacent to the site, however, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

### B. Oak Canopy

The total oak canopy on Parcel A is 0.45 percent, and 8.97 percent on Parcel B. No oaks are proposed for removal; thus, no mitigation is required.

## II. Introduction

### A. Purpose of Report

A biological resources study and on-site surveys were conducted on the Steward property (Figure 1), in order to determine the suitability of its habitat to support state- or federal-listed special-status wildlife and plant species, and species of concern. Existing oak resources were also enumerated. The biological resources report is part of submittal information required by El Dorado County for a two-way subdivision of a 50.0 acre parcel of land.

### B. Project Location and Description

The project encompasses a 50-acre parcel, Assessor's Parcel Number 060-430-75 (Figure 2), located at 7461 State Highway 193, Georgetown, El Dorado County, California (Figure 3). The proposed parcel map would subdivide the property into two parcels, 20 acres and 30 acres in size (Figure 4).

The project site has a General Plan designation of AL within Ag District A, and RE 10 zoning. Surrounding parcels are single-family residential lots varying in size from 5.3 to 30.8 acres.

The parcel has four existing single-family residential structures: two houses near the center of proposed Parcel A, a house near the southwest corner of proposed Parcel B, and an old mobile home.

### C. Property Owners and Project Engineer

#### Property Owners

James and Jennifer Steward  
7461 State Highway 193  
Georgetown, CA 95634  
Phone: 530-906-4327

#### Project Engineer

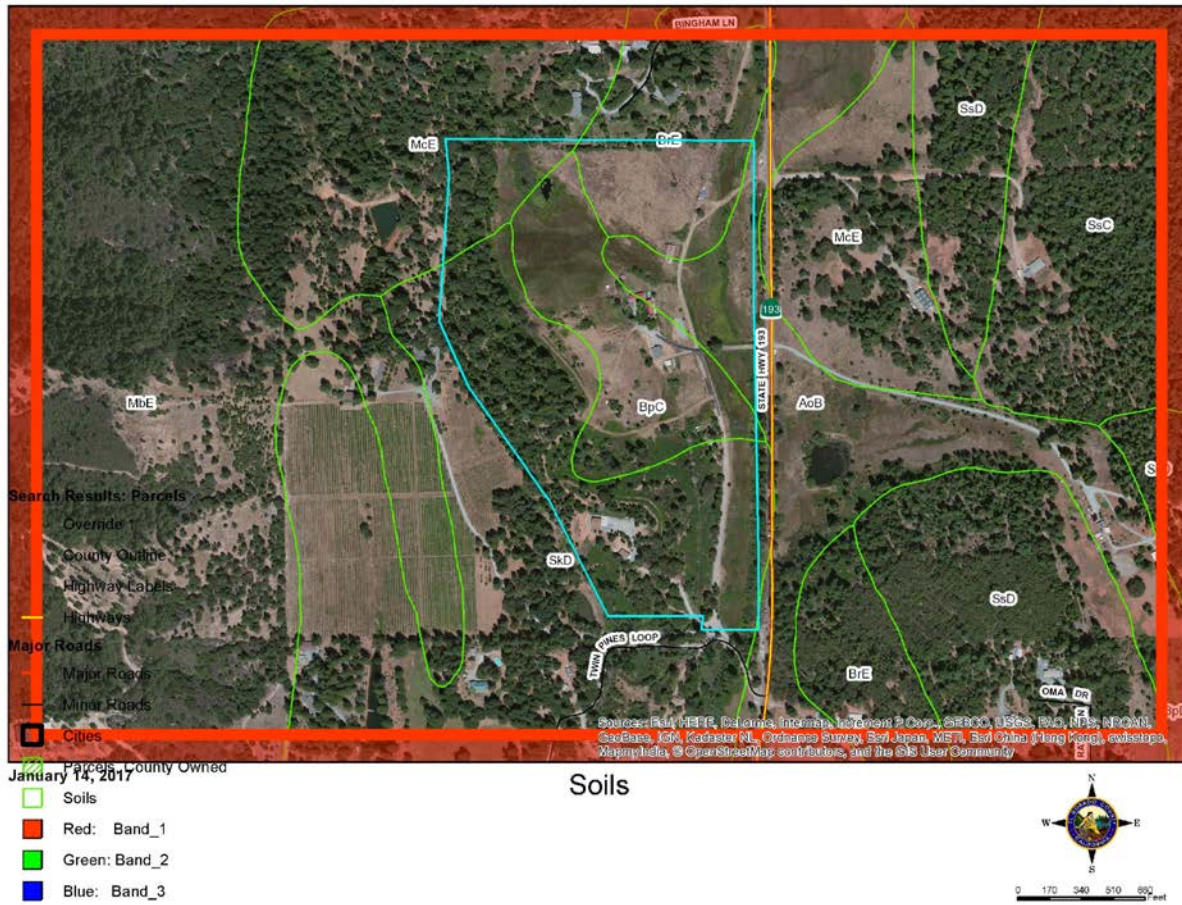
James Willson, LS, RCE, CFedS  
Site Consulting, Inc., Land Surveying Services  
3460 Angel Lane  
Placerville, CA 95667  
Phone: 530-306-4086  
[jwillson@siteconsultinginc.com](mailto:jwillson@siteconsultinginc.com)

### D. Report Preparer

Ruth A. Willson, M.A., Biology, California State University, Fresno, has been preparing biological reports in El Dorado County since 1992. Her educational and experiential background includes proficiency in botany, entomology, ornithology, wildlife biology and ecology. She completed training in wetland delineation with Wetland Training Institute March 31, 2006, and is an ISA Certified Arborist, No. WE-8335A.



Figure 5. Soils map, generated by El Dorado County GotNet.

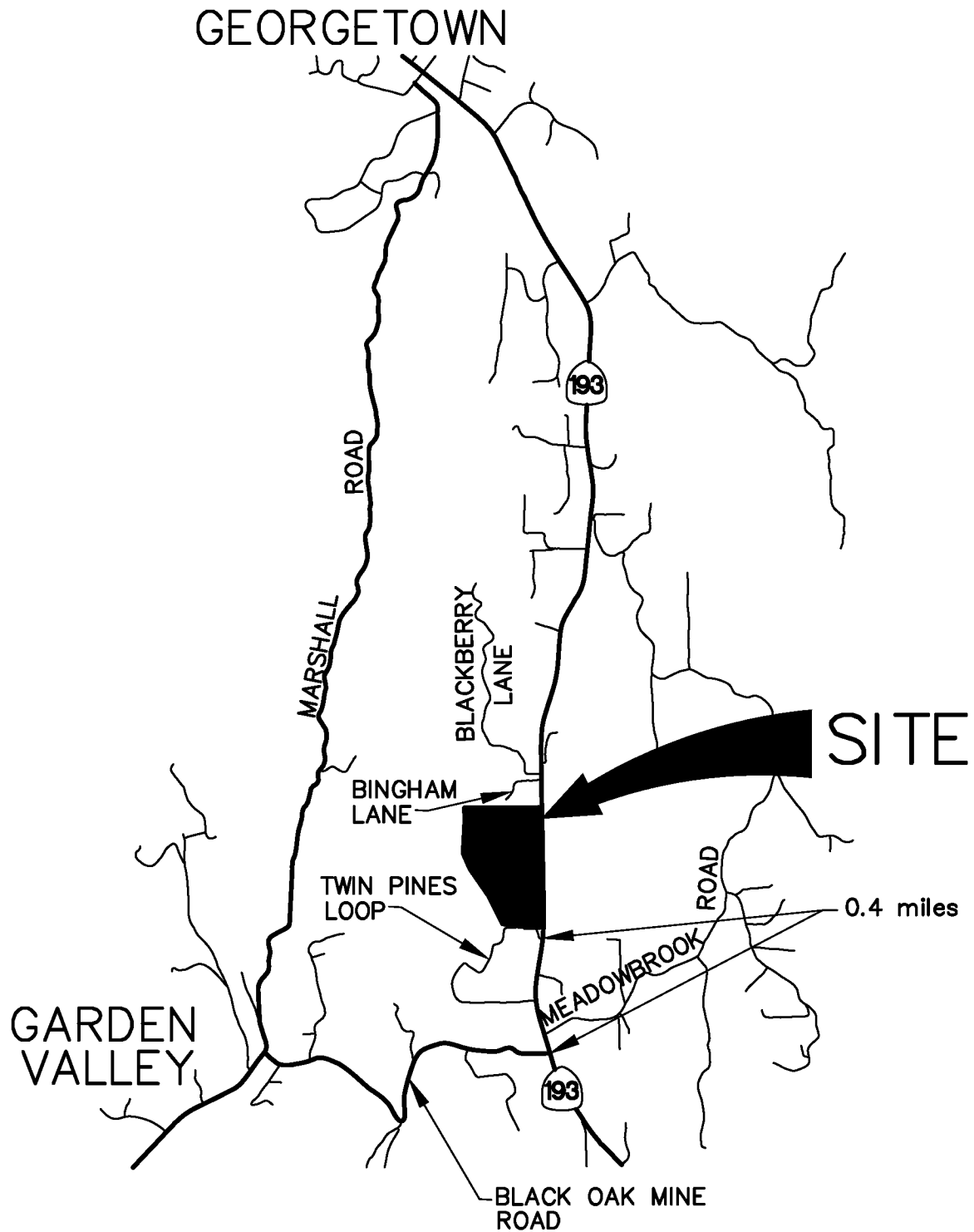


AoB = Argonaut loam, seeped variant  
 BpC = Boomer-Sites loams, 9-15% slopes  
 BrE = Boomer-Sites very rocky loams, 9-50% slopes  
 McE = Mariposa-Josephine very rocky loams, 15-50% slopes  
 SKD = Sites loam, 15-30% slopes



# VICINITY MAP

NOT TO SCALE



**Figure 4.** Tentative Parcel Map.



### **III. Evaluation Methods**

#### **A. Field Surveys**

The project site was searched for special-status species March 15, April 14, May 8, 18 & 25, and June 7 & 26, 2017, by Ruth Willson. Plants, animals and vegetation communities were identified in the field. Unknown plants were identified in the office, utilizing Baldwin, et al. 2012 and Jepson 2017.

#### **B. Literature Search**

An Official Species List for the project site, obtained from the U.S. Fish and Wildlife Service (USFWS) June 14, 2017, served as the main source of data on federal-listed special-status species that could be affected by the project (Appendix A). A USFWS "IPaC Trust Resource Report," generated in February, 2017, contained a list of species of federal concern (Appendix B). A RareFind 5 report of known occurrences of special-status species in the Georgetown and eight surrounding USGS Quads, dated April 30, 2017, was obtained from the California Natural Diversity Database (Appendix C). Other current lists reviewed include the California Department of Fish and Wildlife (CDFW) publications *Endangered, Threatened and Rare Plants of California*; *Special Vascular Plants, Bryophytes and Lichens*; and *Special Animals*, along with the California Native Plant Society (CNPS) list, *Inventory of Rare and Endangered Plants*, v7-17jun 6-3-1 (Appendix D).

#### **C. Vegetation Community Classification**

References on the classification of vegetation include Mayer & Laudenslayer (1988), Munz & Keck (1959) and Sawyer et al. (2009). Vegetation communities are referenced to those listed in the El Dorado County General Plan, adopted July 19, 2004 (El Dorado County, 2006).

#### **D. Oak Canopy Determination**

The oak canopy on the project site was determined by measuring the forest canopy on an aerial photo in a CAD program. The percentage of oaks in the forest canopy was determined by counting all trees within twenty feet of a random line through the forest. The percentage of oaks counted was applied to the total tree canopy to estimate the total oak canopy for each parcel.

### **IV. Regulatory Setting**

#### **A. Federal Regulations**

##### **1. Federal Endangered Species Act (ESA)**

Section 9 of the ESA prohibits "take" of endangered or threatened species; take is defined "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." Section 10 of the ESA allows incidental take for listed species for otherwise lawful projects. Section 10 Permits can be obtained through the United States Fish and Wildlife Service.

##### **2. Migratory Bird Treaty Act**

The federal Migratory Bird Treaty Act (MBTA) prohibits the take, possession, or trade of migratory birds or their parts. The Act specifically protects migratory bird nests from possession, sale, purchase, barter, transport, import and export, and take (16 U.S.C., Sec. 703, Supp. I, 1989). The definition of take is to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect (50 CFR 10.12). Exceptions from the MBTA prohibitions are prescribed by the Secretary of the Interior, and include non-native, invasive species such as European starling, English sparrow, Rock dove, and Eurasian collared dove.

### **3. Raptors**

Raptors and their nests are protected under both federal (MBTA) and state (Fish and Game Code Section 3503.5) regulations. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”

### **4. Wetlands and Waters**

The U.S. Army Corps of Engineers (USACE) has jurisdiction over “Waters of the U.S.” (also called “jurisdictional waters”) under provisions of Section 404 of the Clean Water Act (1972). Such “jurisdictional waters” include waters used, or potentially used, for interstate commerce, interstate waters, lakes, rivers, streams, tributaries of streams, and wetlands adjacent to or tributary to the above. Irrigation and drainage ditches excavated on dry land, artificially-irrigated areas, man-made lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions are usually exempted from USACE jurisdiction (33 CFR, Part 328).

California Department of Fish and Wildlife (CDFW) has jurisdiction over alterations to the beds of rivers, streams, creeks, or lakes. The Fish and Game Code (Section 1602) requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake. Alterations include activities that would: substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

Disturbance of any potential jurisdictional features on this project could require one or more of the following permits:

- A Clean Water Act, Section 404 permit from the U.S. Army Corps of Engineers.
- A Water Quality Certification, Section 401, permit from the Regional Water Quality Control Board.
- A 1601-1603 Streambed Alteration Agreement from the California Department of Fish and Game.

## **B. California Regulations**

### **1. California Environmental Quality Act (CEQA)**

According to Section 21002 of CEQA, “It is the policy of the State that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects. To clarify that statement, CEQA Guidelines, Section 15370, lists five mitigation concepts for listed species.

- a. Avoiding the impact altogether by not taking a certain action.
- b. Minimizing impacts by limiting the degree or magnitude of the action.
- c. Rectifying the impact by repairing, rehabilitating or restoring the impacted area.
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project.
- e. Compensating for the impact by replacing or providing substitute resources or environments.

## **2. California Endangered Species Act (CESA)**

Section 2052 of CESA states, “The Legislature . . . finds and declares that it is the policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat.” Protection for such special-status species is codified in Section 2080 of the Fish and Game Code, which prohibits “take” of any endangered or threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill.”

CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset losses caused by the project, but allows for take incidental to otherwise lawful development projects. . When take of a species cannot be avoided, an Incidental Take Permit, authorized under Title 14, Section 783.2, may be obtained through the CESA Section 2081(b) and (c) incidental take permit process.

## **3. California State Fish and Game Code**

The State Fish and Game Code Section 3503 states, “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Section 3503.5 states, “It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Section 3513 states, “ It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.”

### **C. El Dorado County Regulations**

#### **1. El Dorado County Important Habitat Mitigation Program**

Mitigation guidelines provided by El Dorado County include, but are not limited to, the following:

- a. Avoidance;
- b. Open space/conservation easements;
- c. Redesign;
- d. Clustering;
- e. Vegetated buffers;
- f. Retaining animal dispersal corridors;
- g. Planning construction activity to avoid critical time periods (nesting, breeding) for wildlife species;
- h. Careful siting to place new disturbances at previously disturbed locations;
- i. Restoration or enhancement of woodland habitat;
- j. Best Management Practices for reducing impacts from grading/development in environmentally sensitive areas;
- k. Additional oak tree canopy retention and oak woodland habitat preservation or replacement on-site and/or off-site;
- l. Retaining contiguous stands of oak woodland habitats by retaining corridors between stands.

## 2. El Dorado County Oak Woodland Policy

The El Dorado County Oak Woodland Policy is currently found within *Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A)*, adopted November 9, 2006, Amended October 12, 2007. The Policy sets tree retention standards, depending upon existing canopy cover (Table 1), and applies to parcels over an acre that have at least one percent total canopy cover by oak woodlands, or less than an acre having at least ten percent canopy cover. If the oak canopy removed is within the retention standards set forth in Option A of Policy 7.4.4.4, the applicant may mitigate for the loss by planting on-site the area of oak canopy removed, at a 1:1 canopy surface area ratio, and at a density of 200 saplings per acre. Acorns may be planted instead of saplings, at a ratio of three acorns per sapling.

**Table 1.** Oak canopy retention standards.

Percent Existing Canopy Cover	Percent Canopy Cover to be Retained
80-100	60
60-79	70
40-59	80
20-39	85
10-19	90
1-9 for parcels > 1 acre	90

## V. Topographic Features

### A. Topography

The project study area lies between 2300 and 2450 feet (701 and 747 meters) elevation on an east-facing slope (Figure 4). The average slope gradient is 11 percent.

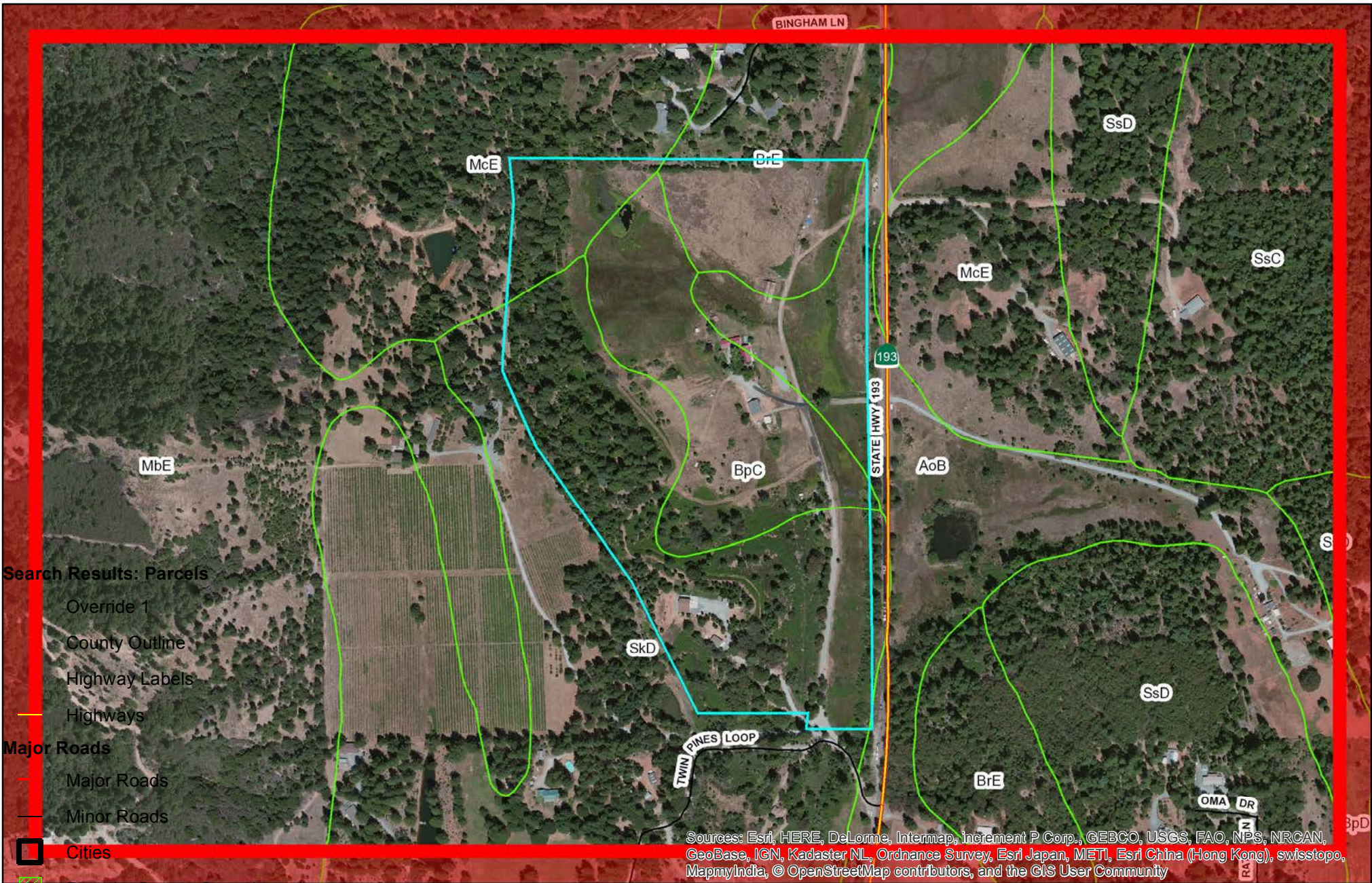
Three unnamed drainages and Slat Creek, an intermittent creek, cross the property; each has wetlands and/or ponds associated with it. In addition, a Georgetown Divide Public Utilities District (GDPUD) canal crosses the property, and its leakage adds water to the ponds and wetlands.

Old Highway 193 passes through the project site, and is utilized as a driveway that enters the property near its southeastern corner and continues northerly through the property. The right-of-way of the currently-used Highway 193 abuts the east property line of the project site.

### B. Soils

The project site has five soil types, each derived from underlying schist or slate rocks (Figure 5). The soils include Argonaut loam, seeped variant (AoB), Boomer-Sites loam (BpC), Boomer-Sites very rocky loam, Mariposa-Josephine very rocky loam (McE) and Sites loam (SkD). The approximate area of each soils type follows: Argonaut loam, six acres; Boomer-Sites loam, thirteen acres; Boomer-Sites very rocky loam, six acres; Mariposa-Josephine very rocky loam, four acres; and Sites loam, twenty-one acres (NRCS 2017).





**Search Results: Parcels**

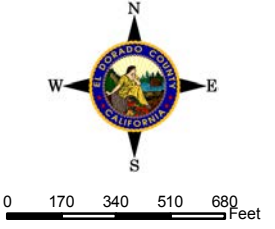
- Override 1
- County Outline
- Highway Labels
- Highways
- Major Roads
- Major Roads
- Minor Roads
- Cities

Parcels, County Owned  
 January 14, 2017

- Soils
- Red: Band\_1
- Green: Band\_2
- Blue: Band\_3

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

**Soils**





## VI. Biological Resources

### A. Vegetation Communities

The vegetation communities on the project site (Figure 6) consist of Sierran Mixed Conifer, Canyon Oak Woodland, California Annual Grassland, Valley-foothill Riparian and Wet Meadow (El Dorado County 2004). Wet meadow vegetation has also been called fresh emergent wetland (Mayer & Laudenslayer 1988). In addition to the above-named vegetation communities, Himalayan blackberries (*Rubus armeniacus*) form impenetrable thickets on portions of the project site.

#### 1. Sierran Mixed Conifer

Sierran mixed conifer vegetation (photo, right) covers about 12.8 acres in the westerly portion of the property, west of the GDPUD canal. The most abundant tree species within the Sierran mixed conifer vegetation is incense cedar (*Calocedrus decurrens*), followed by ponderosa pine (*Pinus ponderosa*). Pacific madrone (*Arbutus menziesii*), Douglas-fir (*Pseudotsuga menziesii*), canyon live oak (*Quercus chrysolepis*), and California black oak (*Quercus kelloggii*), are also found in the tree canopy (Table 2).



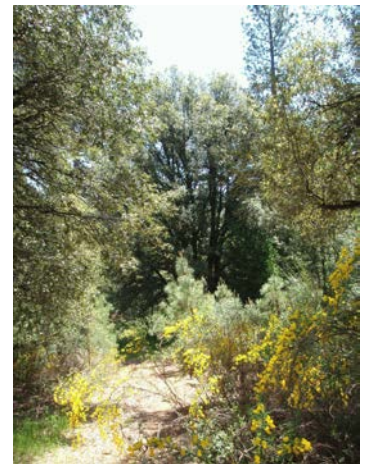
Two invasive shrubs, Scotch broom (*Cytisus scoparius*) and Himalayan blackberry, form dense shrub layers in portions of the Sierran mixed conifer forest. Other shrubs/vines found in the forest include Western poison oak (*Toxicodendron diversilobum*), hairy honeysuckle (*Lonicera hispidula*), deer brush (*Ceanothus integerrimus*), yerba santa (*Eriodictyon californicum*), mountain misery (*Chamaebatia foliolosa*) and hollyleaf redberry (*Rhamnus ilicifolia*). The ground layer is sparse within forested areas on the project site, but includes bracken fern (*Pteridium aquilinum*), yellow star-tulip (*Calochortus monophyllus*), buttercup (*Ranunculus* sp.), blue wildrye (*Elymus glaucus*), goose grass (*Galium aparine*), common soaproot (*Chlorogalum pomeridianum*) and bristly dogtail grass (*Cynosurus echinatus*).

**Table 2.** Trees having 8-inch or greater diameter-at-breast-height (dbh) counted within 20 feet of a random line through the forest.

	Incense Cedar	Ponderosa Pine	Pacific Madrone	Douglas-fir	Canyon Live Oak	California Black Oak	Total
Number of Trees	49	26	13	4	4	2	98
Percent of Total Trees	50	27	13	4	4	2	100

#### 2. Canyon Oak Woodland

Canyon oak woodland (photo, right) covers about 1.8 acres near the house on Parcel B. Canyon live oak is the dominant tree, but the tree canopy includes scattered ponderosa pines. The shrub layer consists of Himalayan blackberry and Scotch broom. The sparse herb layer includes blue wildrye, bristly dogtail grass, and woodland geranium (*Geranium molle*).



### 3. California Annual Grassland



California annual grassland vegetation (photo, left) covers approximately sixteen acres on proposed Parcel A. Drier grasslands, found near the northeast corner of the parcel, contain a mixture of grasses and forbs, including soft chess (*Bromus hordeaceus*), poverty brome (*B. Sterilis*), bristly dogtail grass (*Cynosurus echinatus*), silver hairgrass (*Aira caryophyllea*), filaree (*Erodium* sp.), valley tassels (*Castilleja attenuata*), cat's ear (*Hypochaeris* sp.), rose clover (*Trifolium hirtum*), subterranean clover (*T. subterraneum*) and pale flax (*Linum bienne*). Wetter grasslands are found between the GDPUD Canal and the two houses on Parcel A. The species mixture in the wetter grasslands include sweet vernal grass (*Anthoxanthum odoratum*), orchard grass (*Dactylis glomerata*), ryegrass (*Festuca perennis*), deer grass (*Muhlenbergia rigens*), various bluegrasses (*Poa* sp.), sheep sorrel (*Rumex crispus*), garden burnet (*Poterium sanguisorba*), bull thistle (*Cirsium vulgare*), and Shasta daisy (*Leucanthemum maximum*).

### 4. Wet Meadow

Wet meadow vegetation (photo, right), covering 9.4 acres of the project site, are found between the grasslands on Parcel A, and between Old Highway 193 and its currently-utilized location. Two shrubs are found in the meadows: dog rose (*Rosa canina*) and Himalayan blackberry (*Rubus armeniacus*). Common herbaceous species in the wet meadows include various sedges (*Carex* sp.), tall flatsedge (*Cyperus eragrostis*), Parish's spikerush (*Eleocharis parishii*), paniced bulrush (*Scirpus microcarpus*), reed canary grass (*Phalaris arundinacea*), sweet vernal grass (*Anthoxanthus odoratum*), creeping jenny (*Lysimachia nummularia*) and seep monkeyflower (*Mimulus guttatus*).



### 5. Valley-Foothill Riparian



Valley-foothill riparian vegetation (photo, left), covers approximately 0.8 acres along Slat Creek and in the lower portion of Channel B. The most common trees found in the riparian areas are narrow-leaf willow (*Salix exigua*) and arroyo willow (*S. lasiolepis*); Fremont cottonwood (*Populus fremontii* ssp. *fremontii*) is found near the mobile home. The shrub layer is dominated by Himalayan blackberry, and the herb layer includes various sedges, rushes (*Juncus* sp.), water cress (*Nasturtium officinale*), and cattails (*Typha* sp.).



### 6. Himalayan Blackberry Thickets

Approximately six acres of the property are covered in Himalayan blackberry vines (*Rubus armeniacus*) that form a shrub canopy too dense to penetrate (photo, right). Scattered ponderosa pines and canyon live oaks are found among the vines, but the berry thickets are dense enough to prevent other shrubs or herbs from growing among them.

A complete list of plants found on-site is presented in Appendix F.

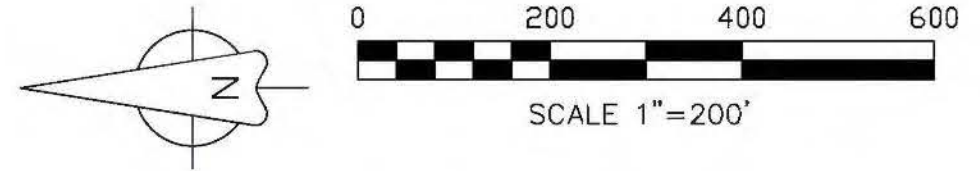







	VEGETATION COMMUNITY	APPROX. AREA
	WET MEADOW	9.44 Ac.
	CANYON OAK WOODLAND	1.76 Ac.
	BLACKBERRY THICKET	5.13 Ac.
	CALIFORNIA ANNUAL GRASSLAND	15.92 Ac.
	SIERRAN MIXED CONIFER	12.78 Ac.
	VALLEY-FOOTHILL RIPARIAN	0.82 Ac.

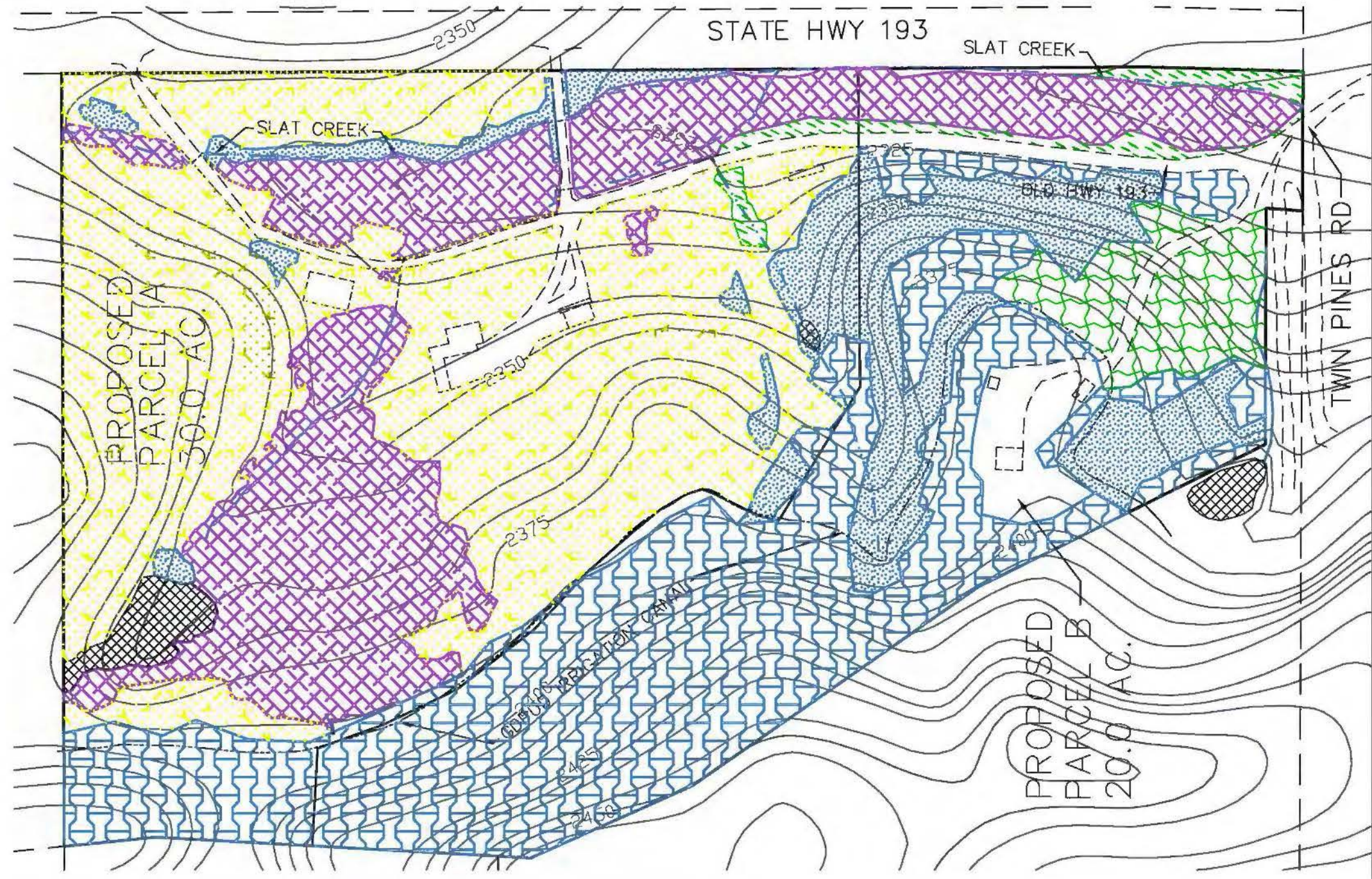
**FIGURE 6  
VEGETATION COMMUNITIES  
MAP**

A PORTION OF SW 1/4 OF SEC. 23 AND A PORTION  
OF THE NW 1/4 SEC. 26, T.12N., R.10E., M.D.M.  
BEING PARCEL 2 OF PM 3/33  
EL DORADO COUNTY STATE OF CALIFORNIA  
AUGUST 2017  
FOR: JAMES STEWARD  
APN: 060-430-75



**LEGEND**

-  CHANNEL
-  POND
-  GDPUD IRRIGATION CANAL





## B. Waters and Wetlands

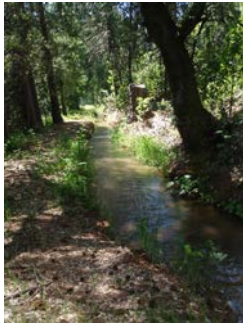
### 1. Waters

The project site has seven waters: Ponds A and B, Channels A, B and C, the GDPUD canal and Slat Creek (Figure 7). Pond A, a perennial impoundment approximately one-half acre in size, is located in the northwestern portion of Parcel A. The pond collects groundwater and leakage from the GDPUD canal, then releases it into Channel A. Channel A, an intermittent stream, carries water about 1216 feet southeasterly through Parcel A to Slat Creek, another intermittent stream.



Pond A

Channel B, an ephemeral stream, collects storm water and leakage from the GDPUD canal and carries it northeasterly through Pond B, a small (1170 ft<sup>2</sup>) ephemeral pond, to Channel A. Channel B is approximately 631 feet long.



The GDPUD canal (photo, left) carries irrigation water toward the community of Kelsey from May to September each year (James Steward, pers. comm.). The canal enters the property along its northerly boundary, approximately 160 feet from its northwest corner. Following a contour, the canal meanders about 2,570 feet through the westerly portion of the project site, before exiting along its western boundary, 220 feet northwest of property's southwest corner. On a neighboring property, the canal feeds water into a pond.

Leakage from the neighboring pond flows easterly through Channel C, an ephemeral roadside ditch, that enters the project site on its south boundary approximately 140 feet east of its southwest corner. Channel C carries water about 194 feet easterly through the site, then exits the property on its south boundary about 290 feet east of its southwest corner. Channel C joins Slat Creek south of the project site.

Slat Creek (photo, right) enters the project site along its north boundary approximately 90 feet west of its northeast corner, and carries water southerly approximately 2,570 feet to the project site's south boundary. The creek leaves the property about 60 feet west of its southeast corner.



### 2. Wetlands

Nine wetlands, varying in size from 2100 ft.<sup>2</sup> (0.05 acre) to 207,430 ft.<sup>2</sup> (4.76 acres) were found on the project site (Figure 7). Wetlands cover a total of 386,225 ft.<sup>2</sup> (10.08 acres) of the project site (Table 3). See Subsection 4, Wet Meadow, on the previous page for a list of the most common plants found in the wetlands.



Photos of wetlands located between Old Highway 193 and its current alignment.



**Table 3. Summary of waters and wetlands.**

<b>Channel ID</b>	<b>Channel Length (ft)</b>	<b>Average Flow-line Width (ft)</b>	<b>Area (ft<sup>2</sup>)</b>	<b>Area (acres)</b>
<b>Waters</b>				
Channel A	1,216	4	4,864	0.11
Channel B	631	4	2,524	0.06
Channel C	194	3	582	0.01
Slat Creek	2,020	4.5	9,090	0.21
Pond A	—	—	21,660	0.50
Pond B	—	—	1,170	0.03
GDPUD Irrigation Canal	2,570	5	12,850	0.29
Total Waters			52,740	1.21
<b>Wetlands</b>				
Wetland 1	—	—	2017,430	4.76
Wetland 2	—	—	7,190	0.16
Wetland 3	—	—	35,640	0.82
Wetland 4	—	—	5,025	0.12
Wetland 5	—	—	2,100	0.05
Wetland 6	—	—	50,010	1.15
Wetland 7	—	—	4,050	0.09
Wetland 8	—	—	71,490	1.64
Wetland 9	—	—	3,290	0.08
Total Wetlands			386,225	8.87

### C. Hydrophytic Vegetation

Hydrophytic vegetation was found in wetlands and the wetter grasslands on the project site. Obligate<sup>1</sup> (OBL) plants include: broad-leaved arrowhead (*Sagittaria latifolia*), water cress (*Nasturtium officinale*), fuzzy sedge (*Carex hirtissima*), panicled bulrush (*Scirpus microcarpus*), streambank bird's-foot trefoil (*Hosackia oblongifolia*), tinker's penny (*Hypericum anagalloides*), hyssop loosestrife (*Lythrum hyssopifolia*), white waterlily (*Nymphaea odorata*), seep monkeyflower (*Minulus guttatus*), and cattail (*Typha* sp.). Facultative wetland<sup>2</sup> (FACW) plants include: smallflowered camas (*Camassia quamash*), bracted popcornflower (*Plagiobothrys bracteatus*), tall flatsedge (*Cyperus eragrostis*), green-sheathed sedge (*Carex feta*), Parish's spikerush (*Eleocharis parishii*), Scouler's St. Johnswort (*Hypericum scouleri*), four rushes (*Juncus bufonius*, *J. balticus*, *J. oxymeris* and *J. patens*), water mint (*Mentha aquatica*), creeping-jenny (*Lysimachia nummularia*), annual hairgrass (*Deschampsia danthonioides*), reed canary grass (*Phalaris arundinacea*), needleleaf navarretia (*Navarretia intertexta*), western buttercup (*Ranunculus occidentalis*), and two willows (*Salix babylonica* and *S. exigua*).



Cattails and white waterlilies at Pond B.

The wetland indicator status rating of all plants found on the project site is shown in red print in Appendix F. Plants without a wetland indicator are upland plants.

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<sup>1</sup> OBL plants almost always occur in wetlands (99% probability).

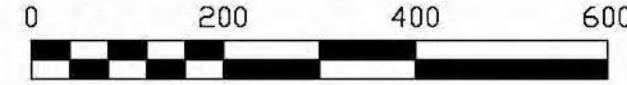
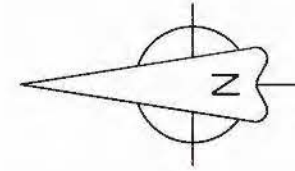
<sup>2</sup> FACW plants usually occur in wetlands but are occasionally found in non-wetlands (67-99% probability).



FEATURE ID	CHANNEL LENGTH (ft)	AVERAGE FLOW-LINE WIDTH (ft)	AREA (sq ft)	AREA (acres)
CHANNEL A	1,216	4	4,864	0.11
CHANNEL B	631	4	2,524	0.06
CHANNEL C	194	3	582	0.01
SLAT CREEK	2,020	4.5	9,090	0.21
POND A	-	-	21,660	0.50
POND B	-	-	1,170	0.03
GDPUD IRRIGATION CANAL	2,570	5	12,850	0.29
<b>TOTAL WATERS:</b>			52,740	1.21
<b>WETLANDS</b>				
WETLAND 1	--	--	207,430	4.76
WETLAND 2	--	--	7,190	0.16
WETLAND 3	--	--	35,640	0.82
WETLAND 4	--	--	5,025	0.12
WETLAND 5	--	--	2,100	0.05
WETLAND 6	--	--	50,010	1.15
WETLAND 7	--	--	4,050	0.09
WETLAND 8	--	--	71,490	1.64
WETLAND 9	--	--	3,290	0.08
<b>TOTAL WETLANDS:</b>			386,225	8.87
<b>POTENTIAL JURISDICTIONAL TOTAL:</b>			438,965	10.08



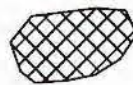

# FIGURE 7 WATERS AND WETLANDS

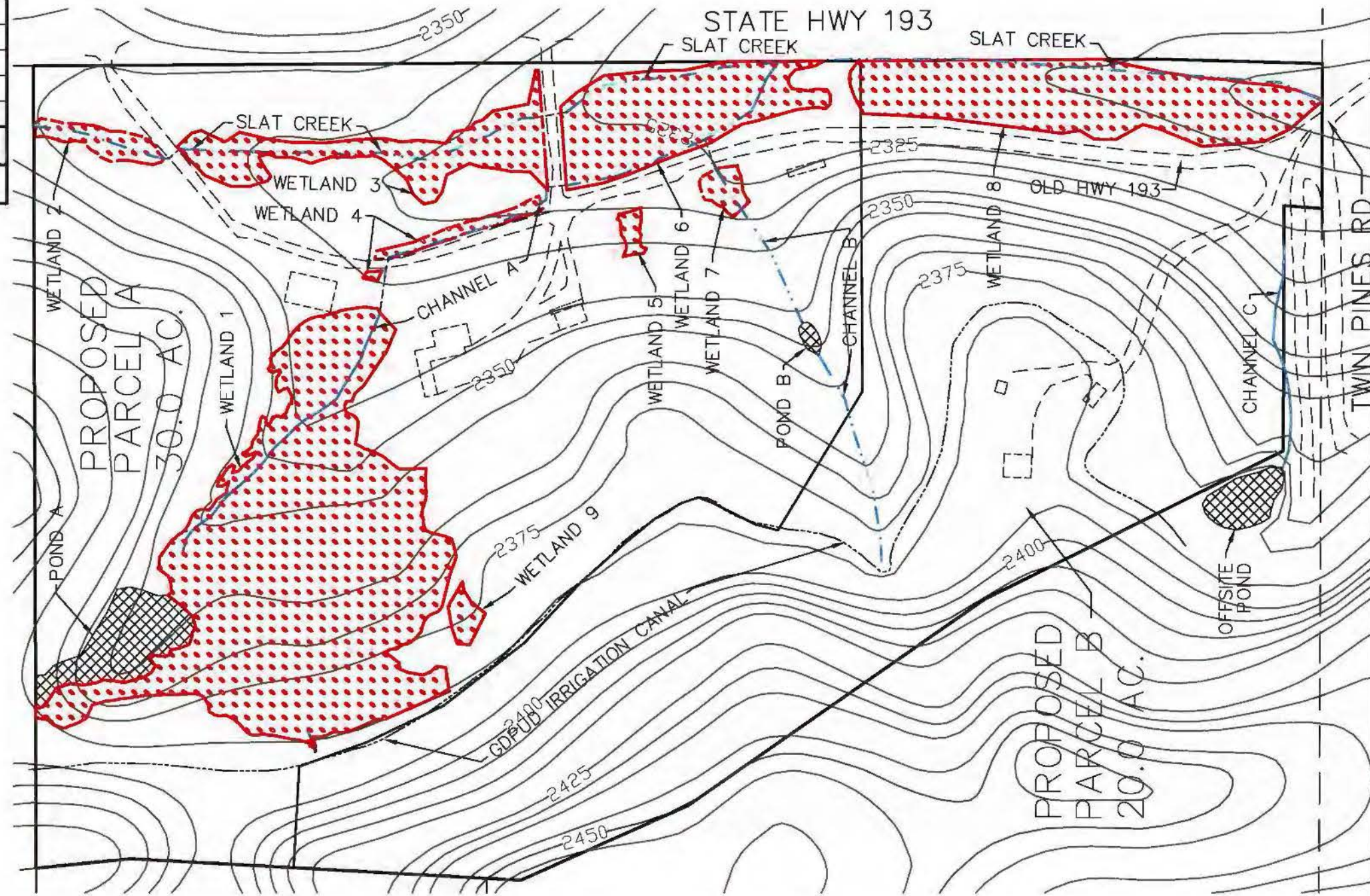
A PORTION OF SW 1/4 OF SEC. 23 AND A PORTION OF THE NW 1/4 SEC. 26, T.12N., R.10E., M.D.M.  
BEING PARCEL 2 OF PM 3/33  
EL DORADO COUNTY STATE OF CALIFORNIA  
AUGUST 2017  
FOR: JAMES STEWARD  
APN: 060-430-75



SCALE 1"=200'

## LEGEND

-  CHANNEL
-  WETLANDS
-  POND
-  GDPUD IRRIGATION CANAL





## D. Wildlife

One fish species was observed in Pond A: Mosquitofish (*Gambusia affinis*); two other fish species have historically inhabited the pond: perch (species unknown) and catfish (species unknown) (James Steward, pers. comm.). The pond has suitable habitat for other warm-water fish, including largemouth bass (*Micropterus salmoides*) and bluegill (*Lepomis macrochirus*).

Three reptiles were observed on the project site: western pond turtle, gophersnake (*Pituophis catenifer*) and western fence lizard (*Sceloporus occidentalis*). The site has suitable habitat for reptiles not observed during field surveys, including, but not limited to: Common Gartersnake (*Thamnophis sirtalis*), western skink (*Plestiodon skiltonianus*), northern alligator lizard (*Elgaria coerulea*), sharp-tail snake (*Contia tenuis*), and western rattlesnake (*Crotalus viridis*).

Two amphibians were observed: Pacific tree frog (*Pseudacris egilla*) and American Bullfrog (*Lithobates catesbeiana*). In addition, the site has suitable habitat for California red-legged frog, western toad (*Anaxyrus boreas*) and ensatina salamander (*Ensatina eschscholtzi*), among other species.

Signs of six mammal species were found at the project site: western gray squirrel (*Sciurus griseus*), black-tailed deer (*Odocoileus hemionus*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), striped Skunk (*Mephitis mephitis*) and Botta's pocket gopher (*Thomomys bottae*). Other species having suitable habitat on the project site include California ground squirrel (*Spermophilus beecheyi*), deer mouse (*Peromyscus* sp.), dusky-footed woodrat (*Neotoma fuscipes*), vagrant shrew (*Sorex vagrans*), and black bear (*Ursus americanus*), among others.

Nineteen bird species were observed during field surveys: American robin (*Turdus migratorius*), Stellar's jay (*Cyanocitta stelleri*), western scrub jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), ash-throated flycatcher (*Myiarchus cinerascens*), California quail (*Callipepla californica*), Bullock's oriole (*Icterus bullockii*), Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), European starling (*Sturnus vulgaris*), turkey vulture (*Cathartes aura*), red-winged blackbird (*Agelaius phoeniceus*), spotted towhee (*Pipilo maculatus*), California towhee (*Melospiza crissalis*), western bluebird (*Sialia mexicana*), yellow-rumped warbler (*Dendroica coronata*), golden-crowned sparrow (*Zonotrichia atricapilla*), white-crowned sparrow (*Zonotrichia leucophrys*), and wrenit (*Chamaea fasciata*). The project site has suitable habitat for other birds species not observed during site visits, including: band-tailed pigeon (*Patagioenas fasciata*), northern flicker (*Colaptes auratus*), pine siskin (*Carduelis pinus*), and white-breasted nuthatch (*Sitta carolinensis*), among others.

## E. Oak Canopy

The Sierran Mixed Conifer forest on the project site contains approximately six percent oak canopy cover (Table 2, page 12). The total area of Sierran mixed conifer vegetation on the project site is about 12.78 acres (Figure 6). Parcel A has 2.26 acres of the mixed conifer forest, based on measurements in a CAD program. Parcel B, therefore, has 10.52 acres of mixed conifer forest (12.78 - 2.26 = 10.52). Parcel A has no oak trees outside of the mixed canopy forest, and 6% of the trees in the forest are oaks; the total oak canopy on Parcel A is 0.1356 acres (2.26 acres X 0.06 = 0.1356 acres oak canopy cover). Since the total area of Parcel A is 30.0 acres, oak canopy cover is 0.45 percent of the parcel (0.1356 acres oak canopy cover ÷ 30 acres = 0.45 percent oak canopy cover).

Parcel B has 1.76 acres of canyon oak woodland (Figure 6) with about 90 percent oak canopy cover, estimated from an aerial photo (Figure 1). Parcel B, therefore, has about 1.58 acres of canyon live oak cover in the oak woodlands (1.76 acres oak woodland x 0.9 = 1.58 acres oak canopy cover). In addition, the parcel has 10.52 acres of Sierran mixed conifer woodland having six percent oak canopy cover; thus, an additional 0.63 acres of oak canopy cover is found within the conifer woodland (10.52 acres x .06 = 0.63 acres oak canopy cover). Total oak canopy cover on Parcel B is, therefore, 2.21 acres (1.58 acres + 0.63 acres = 2.21 acres). Since the total area of Parcel B is 20.0 acres, the percentage of oak canopy cover on Parcel B is 11.05% (2.21 acres oak canopy cover ÷ 20.0 acres = 11.05% oak canopy cover).

**In summary, the percentage of oak canopy on Parcel A is 0.45% and on Parcel B, 11.05 percent.**



## F. Special-Status Species

### 1. Special-Status Species Without Habitat on the Project Site

An evaluation of special-status species which may be found in the Georgetown and surrounding USGS Quads is shown in Appendix E. Species lacking potential habitat on the project site are not discussed further in this report.

### 2. Special-Status Species with Habitat on the Project Site

#### a. Federal- or State-listed Species

**No species listed under the Federal or State Environmental Protection Acts were found on the project site.** Potential habitat was found for four listed species: California red-legged frog (*Rana draytonii*), tri-colored blackbird (*Agelaius tricolor*), willow flycatcher (*Empidonax traillii*) and Boggs Lake hedge-hyssop (*Gratiola heterosepala*) (Table 4).

#### b. Species of Concern

**Two species of concern were found on the project site: western pond turtle (*Emys marmorata*) and Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*).** In addition potential habitat was found for forty-one species of concern, including three insects: western bumble bee (*Bombus occidentalis*), Cosumnes stripetail stonefly (*Cosumnoperla hypocrena*) and gold rush hanging scorpionfly (*Orobittacus obscurus*); one reptile: coast horned lizard (*Phrynosoma blainvillii*); sixteen birds: Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), long-eared owl (*Asio otus*), oak titmouse (*Baeolophus inornatus*), Vaux's swift (*Chaetura vauxi*), lark sparrow (*Chondestes grammacus*), northern harrier (*Circus cyaneus*), olive-sided flycatcher (*Contopus cooperi*), merlin (*Falco columbarius*), yellow-breasted chat (*Icteria virens*), fox sparrow (*Passerella iliaca*), white-headed woodpecker (*Picoides albolarvatus*), purple martin (*Progne subis*), yellow warbler (*Setophaga petechia*), and calliope hummingbird (*Stellula (Selasphorus) calliope*); five bats: Townsend's big-eared bat (*Corynorhinus townsendii*), silver-haired bat (*Lasionycteris noctivagans*), hoary bat (*Lasiurus cinereus*), fringed myotis (*Myotis thysanodes*) and Yuma myotis (*Myotis yumanensis*); and seventeen plants: True's manzanita (*Arctostaphylos mewukka* ssp. *truei*), big-scale balsamroot (*Balsamorhiza macrolepis*), watershield (*Brasenia schreberi*), Sierra arching sedge (*Carex cyrtostachya*), northern meadow sedge (*Carex praticola*), Oregon fireweed (*Epilobium oregonum*), northern Sierra daisy (*Erigeron petrophilus* var. *sierrensis*), Butte County fritillary (*Fritillaria eastwoodiae*), American manna grass (*Glyceria grandis*), Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*), Santa Lucia dwarf rush (*Juncus luciensis*), dubious pea (*Lathyrus sulphureus* var. *argillaceus*), northern bugleweed (*Lycopus uniflorus*), Sierra sweet bay (*Myrica hartwegii*), narrow-petaled rein orchid (*Piperia leptopetala*). Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*) and oval-leaved viburnum (*Viburnum ellipticum*). (Table 5). The suitability of the site to support each species is evaluated in Subsection 3, below.

**Table 4.** State- or federal-listed species with potential habitat on the project site.

Listed Species	Common Name	Listing Status Federal/State	Habitat Quality	Species Found On Project Site?
<i>Rana draytonii</i>	California red-legged frog	T / —	Suitable	No
<i>Agelaius tricolor</i>	Tricolored blackbird	— / CE	Marginal	No
<i>Empidonax traillii</i>	Willow flycatcher	— / E	Marginal	No
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	— / E	Marginal	No

**Table 5.** Species of Concern with potential habitat on the project site.

Species of Concern	Common Name	Global/State Rank (Other Rank)*	Habitat Quality	Species Found On Project Site?
<b><u>Insects</u></b>				
<i>Bombus occidentalis</i>	Western bumble bee	G4? S1S2 (VU)	Suitable	No
<i>Cosumnoperla hypocrena</i>	Cosumnes stripetail stonefly	G2 S2	Suitable	No
<i>Orobittacus obscurus</i>	Gold rush hanging scorpionfly	G1 S1	Suitable	No
<b><u>Reptiles</u></b>				
<i>Emys marmorata</i>	Western pond turtle	G3G4 S3 (SSC)	Suitable	Yes
<i>Phrynosoma blainvillii</i>	Coast horned lizard	G3G4 S3S4 (SSC)	Marginal	No
<b><u>Birds</u></b>				
<i>Accipiter cooperii</i>	Cooper's hawk	G5 S4 (WL)	Suitable	No
<i>Accipiter striatus</i>	Sharp-shinned hawk	G5 S4 (WL)	Marginal	No
<i>Asio otus</i>	Long-eared owl	G5 S3? (SSC)	Suitable	No
<i>Baeolophus inornatus</i>	Oak titmouse	G5 S4 (BCC)	Suitable	No
<i>Chaetura vauxi</i>	Vaux's swift	G5 S2S3 (SSC)	Suitable	No
<i>Chondestes grammacus</i>	Lark sparrow	G5 S4S5 (LC)	Marginal	No
<i>Circus cyaneus</i>	Northern harrier	G5 S3 (SSC)	Suitable	No
<i>Contopus cooperi</i>	Olive-sided flycatcher	G5 S4 (SSC, BCC)	Suitable	No
<i>Falco columbarius</i>	Merlin	G5 S3S4 (WL)	Suitable	No
<i>Icteria virens</i>	Yellow-breasted chat	— / — (SSC)	Suitable	No
<i>Passerella iliaca</i>	Fox sparrow	— / — (LC)	Suitable	No
<i>Picoides albolarvatus</i>	White-headed woodpecker	G4 S4 (BCC)	Suitable	No
<i>Progne subis</i>	Purple martin	G5 S3 (SSC)	Suitable	No
<i>Setophaga petechia</i>	Yellow warbler	G5 S3S4 (SSC)	Suitable	No
<i>Stellula (Selasphorus) calliope</i>	Calliope hummingbird	G5 SNR (LC)	Marginal	No

Species of Concern	Common Name	Global/State Rank (Other Rank)*	Habitat Quality	Species Found On Project Site?
<b><u>Mammals</u></b>				
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	G3G4 S2 (SSC)	Marginal	No
<i>Lasionycteris noctivagans</i>	Silver-haired bat	G5 S3S4 (M)	Suitable	No
<i>Lasiurus cinereus</i>	Hoary bat	G5 S4 (M)	Suitable	No
<i>Myotis thysanodes</i>	Fringed myotis bat	G4 S3 (S, H)	Marginal	No
<i>Myotis yumanensis</i>	Yuma myotis bat	G5 S4 (LM)	Suitable	No
<b><u>Plants</u></b>				
<i>Arctostaphylos mewukka</i> ssp. <i>truei</i>	True's manzanita	G4?T3 S3 (4.2)	Marginal	No
<i>Balsamorhiza macrolepis</i>	Big-scale balsamroot	G2 S2 (1B.2)	Suitable	No
<i>Brasenia schreberi</i>	Watershield	G5 S3 (2B.3)	Suitable	No
<i>Carex cyrtostachya</i>	Sierra arching sedge	G2 S2 (1B.2)	Suitable	No
<i>Carex praticola</i>	Northern meadow sedge	G5 S2 (2B.2)	Suitable	No
<i>Epilobium oreganum</i>	Oregon fireweed	G2 S2 (1B.2)	Suitable	No
<i>Erigeron petrophilus</i> var. <i>sierrensis</i>	Northern Sierra daisy	G4T4 S4 (4.3)	Suitable	No
<i>Fritillaria eastwoodiae</i>	Butte County fritillaria	G3Q S3 (3.2)	Suitable	No
<i>Glyceria grandis</i>	American manna grass	G5 S3 (2B.3)	Suitable	No
<i>Juncus leiospermus</i> var. <i>leiospermus</i>	Red Bluff dwarf rush	G2T2 S2 (1B.1)	Suitable	No
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	G3 S3 (1B.2)	Suitable	No
<i>Lathyrus sulphureus</i> var. <i>argillaceus</i>	Dubius pea	G5T1T2 S1S2 (3)	Suitable	No
<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>	Humboldt lily	G4T3 S3 (4.2)	Suitable	Yes
<i>Lycopus uniflorus</i>	Northern bugleweed	G5 S4 (4.3)	Suitable	No

Species of Concern	Common Name	Global/State Rank (Other Rank)*	Habitat Quality	Species Found On Project Site?
<b>Plants</b> (continued)				
<i>Myrica hartwegii</i>	Sierra sweet bay	G4 S4 (4.3)	Suitable	No
<i>Piperia leptopetala</i>	Narrow-petaled rein orchid	— / — (4.3)	Suitable	No
<i>Potamogeton epihydrus</i>	Nuttall's ribbon-leaved pondweed	G5 S2S3 (2B.2)	Suitable	No
<i>Viburnum ellipticum</i>	Oval-leaved viburnum	G4G5 S3? (2B.3)	Marginal	No

\* Other Rank listing agencies and abbreviations:

BCC = U.S. Fish and Wildlife Service (USFWS) - Birds of Conservation Concern.

H = Western Bat Working Group - High Priority Species; imperiled or at high risk of imperilment

LC = International Union for Conservation of Nature - Species of Least Concern.

LM = Western Bat Working Group - Low/Medium Priority Species

M = Western Bat Working Group - Medium Priority Species

Q = Questionable taxonomy -Taxonomic distinctiveness of this entity at the current level is questionable.

S = US Forest Service - Sensitive Species.

SSC = California Department of Fish & Wildlife - Species of Special Concern.

VU = International Union for Conservation of Nature - Vulnerable Species

WL = CA Dept. Fish & Wildlife (CDFW) - Watch List

? = Inexact or Uncertain—Denotes inexact or uncertain numeric rank.

1B = California Native Plant Society (CNPS) - List of Rare, Threatened or Endangered Plants in California and Elsewhere

2B = CNPS - List of Rare, Threatened or Endangered Plants in California but More Common Elsewhere

3 = CNPS - List of Plants About Which More Information is Needed - A Review List

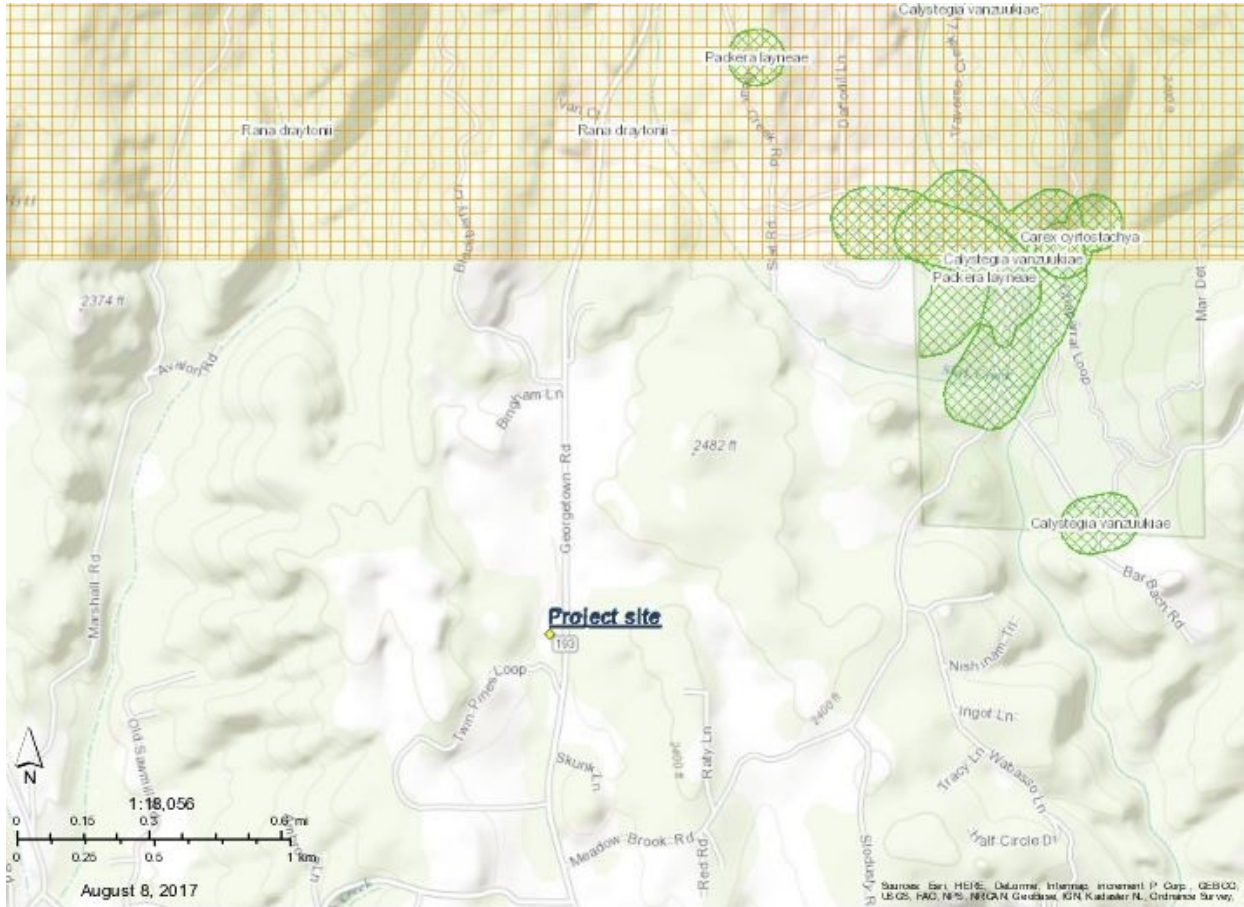
4 = CNPS - List of Plants of Limited Distribution

CNPS Code Extensions: .1 = Seriously threatened in California;

.2 = Moderately threatened in California;

.3 = Not very threatened in California

**Figure 8.** California Natural Diversity Database BIOS map of special-status species near the project study area.



### 3. Evaluation of Potential Habitat for State- or Federal-Listed Species

#### **California red-legged frog (*Rana draytonii*)**

**Range:** Endemic to California and Baja California, Mexico. In California, the frogs are known from Riverside County to Mendocino County along the Coast Range and from Calaveras County to Butte County in the Sierra Nevada. Elevations range from sea level to approximately 5,000 feet (1,500 meters). (USFWS 2017)

**Nearest CNDDDB occurrence:** BIOS map shows potentially occupied area approximately 0.4 miles north of the project site. (BIOS 2017) Actual location of frogs is about 2.8 miles NE of the project site. (Brian Acord, pers. comm. 2017)

**Habitat requirements:** Quiet pools of streams, marshes, occasionally ponds. A highly aquatic species with little movement away from streamside habitats. Intermittent streams must retain surface water in pools year-round for frog survival. (CWHR 2017) Permanent deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development, and access to estivation habitat. (CNDDDB 2017) “In areas where frogs have been found in the vicinity and suitable habitat is present, suitable habitat accessible to frog populations occurring within five miles should be presumed to be occupied by the species.” (USFWS 2017)

**Habitat quality on project site:** Suitable in and near Pond A.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential habitat for the species.

#### **Tricolored blackbird (*Agelaius tricolor*) nesting colony**

**Range:** Resident in the Central Valley and in coastal areas from Sonoma County south. Also found in large valleys elsewhere in the state, including Tule Lake, Honey Lake and the Antelope Valley. (CNDDDB 2017, Nature Serve 2017)

**Nearest CNDDDB occurrence:** About 7 miles SSE of the project site. (BIOS 2017)

**Habitat requirements:** Preferred cover is emergent wetland vegetation. Breeds near fresh water in tall, dense cattails

and tules, or willow, blackberry or other thickets. Feeds in grasslands or croplands, consuming insects, spiders, seeds and grains.

**Habitat quality on project site:** Marginal. Although Pond A would be suitable habitat for the species, the site is out of the usual nesting range of the species. Red-winged blackbirds (*Agelaius phoeniceus*) currently nest at the pond.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential habitat for the species.

#### **Willow flycatcher (*Empidonax traillii*) nesting**

**Range:** Summer resident in wet meadow and montane riparian habitats at 600-2500 m (2000-8000 ft) in the Sierra Nevada and Cascade Range. (CWHR 2017)

**Nearest CNDDDB occurrence:** Pyramid Peak area of El Dorado National Forest. (CNDDDB 2017)

**Habitat requirements:** Dense willow thickets are required for nesting and roosting. Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters.

**Habitat quality on project site:** Marginal. Willow thickets along Channel B and Slat Creek are limited to small areas and cannot be described as “extensive,” which is the preferred habitat for the species.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential habitat for the species.



**Boggs Lake hedge-hyssop (*Gratiola heterosepala*)**

**Range:** Fresno, Lake, Lassen, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, Sonoma, and Tehama counties; also found in Oregon (CNPS 2017)

**Nearest CNDDDB occurrence:** Rocklin, Placer County. (BIOS 2016)

**Habitat requirements:** Marshes and swamps, lake margins, vernal pools on clay soils (CNPS 2017). Elevation range: < 1600 m. (Jepson 2017).

**Habitat quality on project site:** Marginal within wetlands on the project site.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential habitat for the species.

### 3. Evaluation of Potential Habitat for Species of Concern

#### a. Insects

**Western bumble bee (*Bombus occidentalis*)**

**Range:** Historic range (prior to 1998) included northern California, Oregon, Washington, Alaska, Idaho, Montana, western Nebraska, western North Dakota, western South Dakota, Wyoming, Utah, Colorado, northern Arizona, and New Mexico. Recently, the population has undergone marked reductions. (Xerces Society 2017)

**Nearest CNDDDB occurrence:** Approximately nine miles WSW of the project site. (BIOS 2017)

**Habitat requirements:** Bumble bees require flowers on which to forage, nest sites and overwintering sites. Bumble bees forage on a diverse group of plants (eg. *Phacelia*, *Ceanothus*, *Eschscholtzia*, *Lupinus*, *Rosa*, *Asclepias*, *Agastache*, *Monardella*, *Helianthus* and *Solidago* sp.), and need an abundance of flowers to sustain the colony. Nests are often in underground abandoned rodent burrows, or at ground level in grass tufts, in bird nests or cavities in trees, or under rocks. Only mated queens overwinter in self-dug cavities in soft earth; the rest of the colony dies. (Xerces Society 2012)

**Habitat quality on project site:** Suitable foraging habitat occurs throughout the project site; suitable nesting habitat is found in dry uplands within the northerly and westerly portions of the project site.

**Potential impacts:** Construction of roads or structures would eliminate areas of potential habitat for the species.

**Cosumnes stripetail stonefly (*Cosumnoperla hypocrena*)**

**Range:** Known only from the Cosumnes River and American River drainages in El Dorado County. (CNDDDB 2017)

**Nearest CNDDDB occurrence:** Approximately nine miles SW of the project site. (BIOS 2017)

**Habitat requirements:** Intermittent streams on western slope of foothills in American and Cosumnes River basins. (CNDDDB 2017)

**Habitat on project site:** Suitable in Slat Creek.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential habitat for the species.

**Gold rush hanging scorpionfly (*Orobittacus obscurus*)**

**Range:** Species has been reported only from the American River 11 miles west of Kyburz and Shirrtail Creek near Foresthill. (BIOS 2017)

**Nearest CNDDDB occurrence:** Approximately 14.5 miles NNE of the project site. (BIOS 2017)

**Habitat requirements:** Darkly shaded crannies with high humidity, i.e. under tree roots, in overhanging banks, below rock outcrops, along streams (CNDDDB 2017)

**Habitat quality on project site:** Suitable in Slat Creek.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential habitat for the species.

## b. Reptiles

### **Western pond turtle (*Emys marmorata*)**

**Range:** Found in permanent or nearly permanent aquatic habitats throughout California, west of the Sierra-Cascade crest, between sea level and 6000 feet elevation. (CWHR 2017, CNDDDB 2017)

**Nearest CNDDDB occurrence:** Approximately five miles WNW of the project site. (BIOS 2017)

**Habitat requirements:** Found in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft. elevation. Require basking sites such as partially submerged logs, rocks, floating vegetation, sandy banks, grassy open fields or open mud banks. Eggs are laid in nests in slow-moving water or in nests dug in high-humidity areas up to 0.5 km from water. (CNDDDB 2017)

**Habitat quality on project site:** Suitable in and around Pond A. Western pond turtles were found in the pond (Figure 9).

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect occupied habitat for the species.

### **Coast horned lizard (*Phrynosoma blainvillii*)**

**Range:** Found in Sierra Nevada foothills from Butte Co. to Kern Co. up to 1200 m elevation, throughout the central and southern California coast, and in the mountains of southern California, up to 1800 m elevation. Found chiefly below 600 m (2000 ft) in the north. (CWHR 2017)

**Nearest CNDDDB occurrence:** Shingle Springs. (CNDDDB 2017)

**Habitat requirements:** Found in open country with sandy areas such as flood plains, washes, flood plains and wind-blown deposits, in habitats including valley foothill hardwood, conifer, riparian, pine-cypress, juniper and annual grassland. Feeds in open areas between shrubs, often near ant nests; consumes insects, especially ants. (CWHR 2017)

**Habitat quality on project site:** Marginal. The project site is above the most common range of the species.

**Potential impacts:** Areas of marginal potential habitat would be lost due to construction of roads or buildings.

## c. Birds

### i. Species Evaluations

#### **Cooper's hawk (*Accipiter cooperi*) nesting**

**Range:** Breeding resident in most wooded portions of California between sea level and 2700 m elevation. (CWHR 2017)

**Nearest CNDDDB occurrence:** Approximately 25 miles SW of the project site. (BIOS 2017)

**Habitat requirements:** Dense live oak, riparian deciduous or patchy woodland habitats near water. Feeds on small birds, mammals, reptiles and amphibians. Nests in deciduous trees or conifers, usually near streams. (CWHR 2017)

**Habitat quality on project site:** Suitable nesting habitat is located in forested areas of the project site.

**Potential impacts:** Construction activities in forested areas during the nesting season may disrupt nesting birds.

#### **Sharp-shinned hawk (*Accipiter striatus*) nesting**

**Range:** Fairly common migrant and winter resident throughout California, except in areas with deep snow. Breeding distribution poorly documented. Very few breeding records for Cascades/Sierra Nevada. Probably breeds south in Coast Ranges to about 35° lat., and at scattered locations in the Transverse and Peninsular Ranges. (CWHR 2017)

**Nearest CNDDDB occurrence:** Between Union Valley and Ice House reservoirs. (BIOS 2017)

**Habitat requirements:** Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes with plucking perches are critical requirements. (CWHR 2017)

**Habitat on project site:** Marginal. Project study area lacks north-facing slopes required by the species.

**Potential impacts:** Construction activities in forested areas during the nesting season may disrupt nesting birds.

# FIGURE 9 SPECIAL-STATUS SPECIES AND SENSITIVE HABITATS

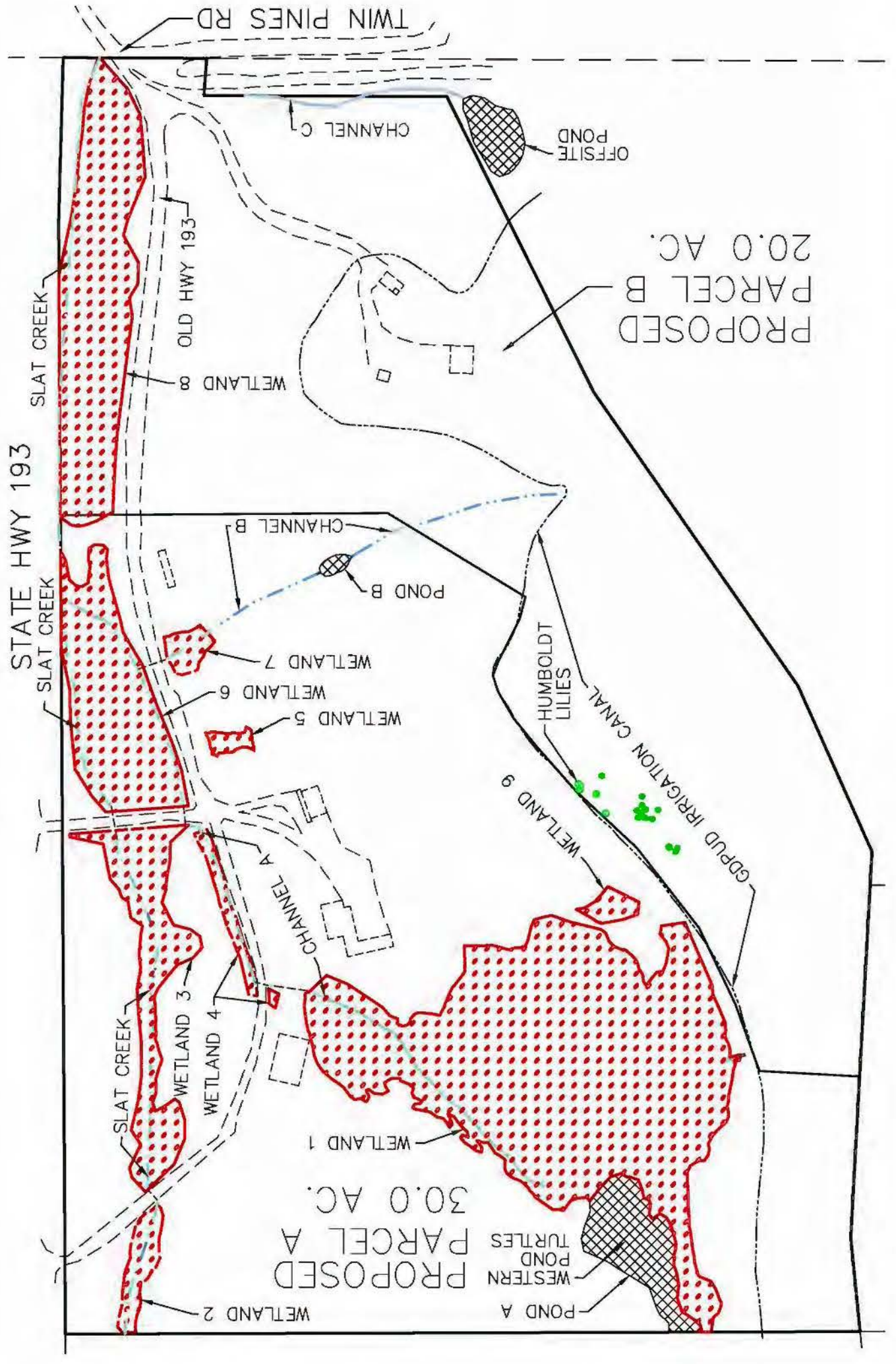
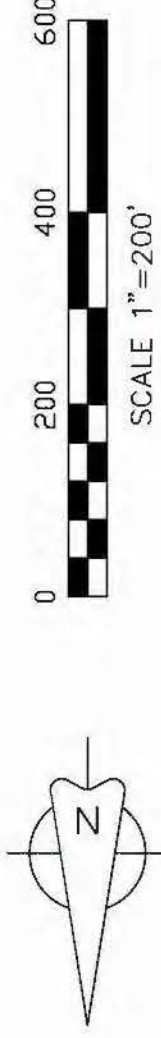
A PORTION OF SW 1/4 OF SEC. 23 AND A PORTION  
OF THE NW 1/4 SEC. 26, T.12N., R.10E., M.D.M.  
BEING PARCEL 2 OF PM 3/33

EL DORADO COUNTY STATE OF CALIFORNIA

AUGUST 2017

FOR: JAMES STEWARD

APN: 060-430-75



## LEGEND

- HUMBOLDT LILIES
- CHANNEL
- WETLANDS
- POND
- GDPUD IRRIGATION CANAL

**Long-eared owl (*Asio otus*) nesting**

**Range:** Yearlong resident throughout the state except the Central Valley and Southern California deserts. (CWHR 2017)

**Nearest CNDDDB occurrence:** Emerald Bay, Lake Tahoe. (CNDDDB 2017)

**Habitat requirements:** Riparian bottomlands with tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Requires adjacent open land, productive of mice, and the presence of old nests of crows, hawks, or magpies for breeding. (CNDDDB 2017). Frequents dense, riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats (CWHR 2017).

**Habitat quality on project site:** Suitable in willow thickets along Channel B and Slat Creek.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential nesting habitat for the species.

**Oak titmouse (*Baeolophus inornatus*) nesting**

**Range:** Found in suitable habitat, mostly encircling the San Joaquin Valley and on the west slope of the Sierra Nevada north to Shasta County. (CWHR 2017)

**Nearest CNDDDB occurrence:** Tuolumne County. (BIOS 2017)

**Habitat requirements:** Associated with oaks in valley foothill and montane hardwood, valley foothill hardwood-conifer, and riparian habitats. Eats insects, spiders, berries, acorns, seeds. Nests in holes, cavities or nest box. Ventures into residential areas. (CWHR 2017)

**Habitat quality on project site:** Suitable in canyon oak woodland on Parcel B.

**Potential impacts:** Construction activities in forested areas during the nesting season may disrupt nesting birds.

**Vaux's swift (*Chaetura vauxi*) nesting**

**Range:** Breeds fairly commonly in the Coast Ranges from Sonoma Co. north, and very locally south to Santa Cruz Co.; in the Sierra Nevada; and possibly in the Cascade Range. (CWHR 2017)

**Nearest CNDDDB occurrence:** None.

**Habitat requirements:** Redwood, Douglas-fir and occasionally other coniferous forest habitats. Nests in large hollow trees and snags, especially burned-out stubs. Forages for flying insects over most terrains and habitats, especially over rivers and lakes. Most important habitat requirement appears to be an appropriate nest-site. (CWHR 2017)

**Habitat quality on project site:** Suitable nest sites in forested areas in the western portion of the project site. Suitable foraging habitat throughout the site.

**Potential impacts:** Construction activities in forested areas during the nesting season may disrupt nesting birds.

**Lark sparrow (*Chondestes grammacus*) nesting**

**Range:** Resident in lowlands and foothills throughout much of California. (CWHR 2017)

**Nearest CNDDDB occurrence:** (BIOS 2016)

**Habitat requirements:** Frequents sparse valley foothill hardwood, valley foothill hardwood-conifer, open mixed chaparral and similar brushy habitats, and grasslands with scattered trees or shrubs. In woodlands, prefers younger stages and hardwoods (mostly oaks) rather than conifers. (CWHR 2017)

**Habitat quality on project site:** Marginal. The project site is at or beyond the upper range of the species.

**Potential impacts:** Construction activities during the nesting season may disrupt nesting birds.

**Northern harrier (*Circus cyaneus*) nesting**

**Range:** Occurs from annual grassland up to lodgepole pine and alpine meadow habitats, as high as 3000 m (10,000 ft). Breeds from sea level to 1700 m (0-5700 ft) in the Central Valley and Sierra Nevada, and up to 800 m (3600 ft) in northeastern California. (CWHR 2017)

**Nearest CNDDDB occurrence:** Wheatland, Yolo County. (CNDDDB 2017)

**Habitat requirements:** Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. (CWHR 2017)

**Habitat quality on project site:** Suitable in and near marshy areas on the project site.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential nesting habitat for the species.



**Olive-sided flycatcher (*Contopus cooperi*) nesting**

**Range:** Found in forest and woodland habitats below 2800 m (9000 ft.), except deserts, the Central Valley and other lowland valleys and basins (CWHR 2017).

**Nearest CNDDDB occurrence:** None. (CNDDDB 2017)

**Habitat requirements:** Preferred nesting habitats include mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir and lodgepole pine. Most common in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain. Extent and density of forest habitat is less important than the amount of air space that can be scanned from its highest perches. (CWHR 2017)

**Habitat quality on project site:** Suitable. Project site has tall trees overlooking grasslands and wetlands.

**Potential impacts:** Construction activities in forested areas during the nesting season may disrupt nesting birds.

**Merlin (*Falco columbarius*) wintering**

**Range:** Ranges from annual grasslands to ponderosa pine and montane hardwood-conifer habitats. Occurs in most of the western half of the state below 1500 m (3900 ft).. (CWHR 2017)

**Nearest CNDDDB occurrence:** Lake Natoma, Sacramento County. (BIOS 2017)

**Habitat requirements:** Winter migrant that utilizes coastlines, open grasslands, open woodlands, lakes, wetlands, edges and early successional stages. Frequents open habitats at low elevations near water and tree stands, especially near coastlines, lakeshores and wetlands. Does not nest in California. Feeds on small birds and mammals, and insects. (CWHR 2017)

**Habitat quality on project site:** Suitable in grasslands and wetlands on the project site.

**Potential impacts:** None expected.

**Yellow-breasted chat (*Icteria virens*) nesting**

**Range:** Summer resident and migrant up to about 1450 m (4800 ft) in valley foothill riparian, and up to 2050m (6500 ft) east of the Sierra Nevada in desert riparian habitats. (CWHR 2017)

**Nearest CNDDDB occurrence:** Near Oakdale, Stanislaus County. (CNDDDB 2017)

**Habitat requirements:** Requires riparian thickets of willow and other brushy tangles near watercourses for cover (CWHR 2017). Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft. of ground (CNDDDB 2017).

**Habitat quality on project site:** Suitable in blackberry and willow thickets along Channel B Slat Creek.

**Potential impacts:** None expected. Normal setbacks from wetlands and waters would protect potential nesting habitat for the species.

**Fox sparrow (*Passerella iliaca*)**

**Range:** Summer range is in the mountains of California; winters in brushy habitats in foothills and lowlands (CWHR 2017).

**Nearest CNDDDB occurrence:** None. (CNDDDB 2017)

**Habitat requirements:** Breeds in dense montane chaparral and brushy understory of other wooded, montane habitats. (CWHR 2017)

**Habitat quality on project site:** Suitable in blackberry thickets on the project site.

**Potential impacts:** Construction activities during the nesting season may disrupt nesting birds.

**White-headed woodpecker (*Picoides albolarvatus*) nesting**

**Range:** Occurs in Sierra Nevada, Cascade, Klamath, Transverse, and Peninsular Ranges, and Warner Mountains in montane coniferous forests up to lodgepole pine and red fir habitats (CWHR 2017).

**Nearest CNDDDB occurrence:** None. (CNDDDB 2017)

**Habitat requirements:** Prefers semi-open areas with large, mature trees, providing 40-70% canopy. Nests in open conifer habitats, often near edges of roads, natural openings, or on edges of small clearings. Excavates cavity in large snag or stump at least 61 cm (2 ft) in diameter (at nest height); trunk with hard shell and soft interior preferred. (CWHR 2017)

**Habitat quality on project site:** Suitable in forested areas on the project site.

**Potential impacts:** Construction activities in forested areas during the nesting season may disrupt nesting birds.

**Purple martin (*Progne subis*) nesting**

**Range:** Found throughout the state except higher desert areas and the higher slopes of the Sierra Nevada. (CWHR 2017)

**Nearest CNDDDB occurrence:** Placer County between Rocklin and Roseville. (CNDDDB 2017)

**Habitat requirements:** Inhabits open forests, woodlands and riparian areas in breeding season, and a variety of open habitats during migration, including grassland, wet meadow and fresh emergent wetland, usually near water. Feeds on insects captured in flight; occasionally forages on the ground. Nests in old woodpecker cavity; occasionally in man-made nesting box, under bridge or in culvert. (CWHR 2017)

**Habitat quality on project site:** Suitable forage areas in on-site wetlands and grasslands, and suitable nesting habitat in forested and riparian areas.

**Potential impacts:** Construction activities in forested and areas during the nesting season may disrupt nesting birds.

**Yellow warbler (*Setophaga petechia*) nesting**

**Range:** Coast Ranges from Del Norte County to Ventura County, northern Cascade mountains east to Modoc County, and along the western slope of the Sierra Nevada south to Kern County. Also breeds along the eastern Sierra from Lake Tahoe to Inyo County, and in southern California mountains. (CWHR 2017)

**Nearest CNDDDB occurrence:** Norden area of Placer County (CNDDDB 2017).

**Habitat requirements:** Breeds in riparian woodlands from coastal and desert lowlands up to 2500 m in Sierra Nevada. Also breeds in montane chaparral, and in open ponderosa pine and mixed conifer habitats with substantial amounts of brush. Frequents open to medium-density woodlands and forests with a heavy brush understory in breeding season. In migration, found in a variety of sparse to dense woodland and forest habitats. (CWHR 2017).

**Habitat quality on project site:** Suitable in woodlands on the project site.

**Potential impacts:** Construction activities in forested areas during the nesting season may disrupt nesting birds.

**Calliope hummingbird (*Stellula (Selasphorus) calliope*) nesting**

**Range:** Fairly common to common summer resident of California, breeding in mountain ranges throughout the state. (CWHR 2017)

**Nearest CNDDDB occurrence:** None. (CNDDDB 2017)

**Habitat requirements:** Breeds in wooded habitats from ponderosa pine and montane hardwood-conifer up through lodgepole pine, favoring montane riparian, aspen, and other open forests near streams. Commonly feeds in montane chaparral and wet meadow habitats. (CWHR 2016)

**Habitat quality on project site:** Marginal in riparian, wetland and woodland habitats on the project site.

**Potential impacts:** Construction activities in forested areas during the nesting season may disrupt nesting birds.

**ii. Suggested Mitigation**

Pre-construction surveys for nesting birds, including raptors, conducted no more than 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended for most species. If raptor nests are found on or immediately adjacent to the site, however, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.



### c. Mammals

#### **Townsend's big-eared bat (*Corynorhinus townsendii*)**

**Range:** Found throughout California except subalpine and alpine habitats. Most abundant in mesic habitats. (CWHR 2017)

**Nearest CNDDDB occurrence:** Approximately 6 miles NE of the project site. (BIOS 2017)

**Habitat requirements:** Requires caves, mines, tunnels, buildings, or other human-made structures for roosting. Hibernation sites are cold, but not below freezing. Maternity roosts are in relatively warm caves, tunnels, mines, and buildings. Small moths are the principal food of this species; captures prey in flight, or gleans from trees or brush. Also feeds along habitat edges. Prefers mesic sites. Extremely sensitive to disturbance of roosting sites; may abandon a site following one disturbance. (CWHR 2017)

**Habitat quality on project site:** Marginal in an old barn on the parcel. The barn may be too cold in the winter, or may have too much human disturbance.

**Potential impacts:** None expected.

#### **Silver-haired bat (*Lasionycteris noctivagans*)**

**Range:** Coastal and montane forests from the Oregon border south along the coast to San Francisco Bay, and along the Sierra Nevada and Great Basin region to Inyo County. Also known in Sacramento, Stanislaus, Monterey and Yolo counties. Known as a migrant throughout California. The species likely winters in Mexico. (CWHR 2017)

**Nearest CNDDDB occurrence:** Approximately 14 miles SE of the project site. (CNDDDB 2017)

**Habitat requirements:** Lower montane coniferous forest, old-growth, and riparian forest. Primarily a coastal and montane forest dweller feeding over streams, ponds and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes and rarely under rocks. Needs drinking water. (CNDDDB 2017)

**Habitat quality on project site:** Suitable within forested and riparian areas on the project site.

**Potential impacts:** None expected.

#### **Hoary bat (*Lasiurus cinereus*)**

**Range:** Found throughout California at elevations between sea level and 4125 m (13,200 ft), but distribution is patchy in southeastern deserts. (CWHR 2016)

**Nearest CNDDDB occurrence:** Grizzly Flats. (CNDDDB 2016)

**Habitat requirements:** Preferred habitats are open or mosaic sites with access to trees for cover and open areas or habitat edges for feeding. Young are raised at roosts within woodlands and forests with medium to large-size trees and dense foliage. Preferred roosts are trees with sites hidden from above but with few branches below, and having ground cover with low reflectivity. Feeds mostly on moths and requires drinking water. (CNDDDB 2016)

**Habitat quality on project site:** Suitable throughout the project site.

**Potential impacts:** None expected.

#### **Fringed myotis bat (*Myotis thysanodes*)**

**Range:** Widespread in California, occurring in all but the Central Valley and the Colorado and Mojave deserts. (CWHR 2017)

**Nearest CNDDDB occurrence:** Near Fleming Meadow south of Jenkinson Reservoir. (CNDDDB 2017)

**Habitat requirements:** Utilizes a wide variety of habitats, but optimal habitats include pinyon-juniper, valley foothill hardwood and hardwood-conifer, generally between 1300-2200 m (4000-7000 ft.) elevation. Uses caves, mines, buildings or crevices for maternity colonies and roosts. Feeds on beetles, moths, arachnids and orthopterans captured over water, in open habitats and by gleaning from foliage. Requires drinking water. Nurseries are located in caves, mines, buildings or crevices. (CWHR 2017)

**Habitat quality on project site:** Marginal. The project site is lower in elevation than the preferred range of the species.

**Potential impacts:** None expected.

**Yuma myotis bat (*Myotis yumanensis*)**

**Range:** Widespread in California from sea level to 11,000 feet elevation. Uncommon in desert regions, except the mountain ranges bordering the Colorado River Valley. (CWHR 2017)

**Nearest CNDDDB occurrence:** Approximately 10 miles SE of the project site. (BIOS 2017)

**Habitat requirements:** Open forests and woodlands with bodies of water. Feeds on insects taken over ponds, streams and stock tanks. Requires drinking water. Roosts in buildings, mines, caves, crevices, abandoned swallow nests and under bridges. Maternity colonies of several thousand females and young are found in warm, dark buildings, caves, mines and under bridges. (CWHR 2017)

**Habitat quality on project site:** Suitable foraging and roosting habitat throughout the project site; potential maternity colony habitat in an old barn on Proposed Parcel A.

**Potential impacts:** None expected.

**d. Plants**

**i. CNPS List 1B Plants<sup>3</sup>**

**Big-scale balsamroot (*Balsamorhiza macrolepis*)**

**Range:** Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama and Tuolumne counties. (CNPS 2017)

**Nearest CNDDDB occurrence:** Pilot Hill. (CNDDDB 2017)

**Habitat requirements:** Found in chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils, between 90 and 1555 meters elevation. (CNPS 2016)

**Habitat quality on project site:** Suitable within grassland along the northerly border of the project site.

**Potential impacts:** Big-scale balsamroot was not found on the project site, so there would be no direct impact to the species. Construction activities in grasslands would eliminate areas of potential habitat for the species.

**Sierra arching sedge (*Carex cyrtostachya*)**

**Range:** Butte, El Dorado and Yuba counties. (CNPS 2017)

**Nearest CNDDDB occurrence:** Approximately 1 mile NE of the project site. (BIOS 2017)

**Habitat requirements:** Marshes and swamps, meadows and seeps within lower montane coniferous forest and riparian forest (CNDDDB 2017). Elevation generally <= 1400 m (Jepson 2017).

**Habitat quality on project site:** Suitable around the pond near the northerly property boundary and within wetlands on the project site.

**Potential impacts:** Sierra arching sedge was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

**Oregon fireweed (*Epilobium oregonum*)**

**Range:** Del Norte, El Dorado, Glenn, Humboldt, Mendocino, Nevada, Placer, Shasta, Siskiyou, Tehama, and Trinity counties; also, found in Oregon. (CNPS 2017)

**Nearest CNDDDB occurrence:** Glenn county. (CNDDDB 2017)

**Habitat requirements:** Bogs and fens, meadows and seeps within lower and upper montane coniferous forest (CNPS 2017). 600-1350m. elevation (Jepson 2017)

**Habitat quality on project site:** Suitable within wetlands on the project site.

**Potential impacts:** Oregon fireweed was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

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<sup>3</sup>CNPS List 1B= California Native Plant Society list of Rare, Threatened or Endangered Plants in California and Elsewhere

**Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*)**

**Range:** Butte, Placer, Shasta and Tehama counties. (CNPS 2017)

**Nearest CNDDDB occurrence:** Roseville, Placer county. (CNDDDB 2017)

**Habitat requirements:** Meadows and seeps, vernal pools and vernal mesic habitats within chaparral, cismontane woodland, and valley and foothill grassland, 35-1250 meters elevation. (CNPS 2017)

**Habitat quality on project site:** Suitable within wetlands on the project site.

**Potential impacts:** Red Bluff dwarf rush was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

**Santa Lucia dwarf rush (*Juncus luciensis*)**

**Range:** Lassen, Monterey, Modoc, Napa, Nevada, Placer, Plumas, Riverside, Santa Barbara, San Benito, San Diego, Shasta, and San Luis Obispo counties. (CNPS 2017)

**Nearest CNDDDB occurrence:** Norden, Placer county. (CNPS 2017)

**Habitat requirements:** Meadows and seeps, vernal pools and wetlands within chaparral, Great Basin scrub and lower montane coniferous forest (CNDDDB 2017). Elevation: 300--1900 m (Jepson 2017).

**Habitat quality on project site:** Suitable within wetlands on the project site.

**Potential impacts:** Santa Lucia dwarf rush was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

**ii. CNPS List 2B Plants<sup>4</sup>**

**Watershield (*Brasenia schreberi*)**

**Range:** Butte, El Dorado, Fresno, Kern, Lake, Lassen, Mendocino, Nevada, Plumas, Sacramento, Shasta, Siskiyou, San Joaquin, Sutter, Tehama, Tulare, and Tuolumne counties (CNPS 2017); distribution outside California: to Alaska, Montana; eastern North America, Central America, South America, Africa, eastern Asia, eastern Australia (Jepson 2017).

**Nearest CNDDDB occurrence:** Lake Audrian, near Echo Summit. (CNDDDB 2017)

**Habitat requirements:** Freshwater marshes and swamps, 30-2200 meters elevation. (CNPS 2017)

**Habitat quality on project site:** Suitable within ponds on the project site.

**Potential impacts:** Watershield was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

**Northern meadow sedge (*Carex praticola*)**

**Range:** Del Norte, Humboldt, Lake, Madera, Mono, Marin, Placer, Siskiyou, Tehama, Trinity and Tuolumne counties (CNPS 2017); distribution outside California: Rocky Mountains, northern North America (Jepson 2017).

**Nearest CNDDDB occurrence:** Yosemite National Park. (CNDDDB 2017)

**Habitat requirements:** Meadows and seeps; elevation range: 0-3200 meters. (CNPS 2017)

**Habitat quality on project site:** Suitable within wetlands on the project site.

**Potential impacts:** Northern meadow sedge was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

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<sup>4</sup>California Native Plant Society list of rare, threatened or endangered plants in California, but more common elsewhere.

**American manna grass (*Glyceria grandis*)**

**Range:** El Dorado, Fresno, Humboldt, Mendocino, Mono, Placer and Tulare counties (CNPS 2017); distribution outside California: Alaska, eastern United States (Jepson 2017).

**Nearest CNDDDB occurrence:** Emerald Bay, Lake Tahoe. (CNDDDB 2017)

**Habitat requirements:** Bogs and fens, meadows and seeps, marshes and swamps, streambanks and lake margins; 15-1980 meters elevation. (CNPS 2017)

**Habitat quality on project site:** Suitable on pond margins and within wetlands on the project site.

**Potential impacts:** American manna grass was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

**Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*)**

**Range:** El Dorado, Madera, Mendocino, Modoc, Mariposa, Placer, Plumas, Shasta and Tuolumne counties (CNPS 2017). Distribution Outside California: to Alaska, eastern North America, Colorado (Jepson 2017).

**Nearest CNDDDB occurrence:** Pyramid Peak, El Dorado County. (CNDDDB 2017)

**Habitat requirements:** Shallow water, ponds, lakes and streams; elevation: 400--1900 m. (Jepson 2017)

**Habitat quality on project site:** Suitable within on-site ponds and Slat Creek.

**Potential impacts:** Nuttall's ribbon-leaved pondweed was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

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

**Range:** Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, and Tehama counties; also Oregon and Washington states. (CNPS 2017)

**Nearest CNDDDB occurrence:** Placerville, collected in 1901; more recent occurrences at Lake Clementine, Placer County. (CNDDDB 2017)

**Habitat requirements:** Found in chaparral, cismontane woodland or lower montane coniferous forest between 215 and 1400 m elevation (CNPS 2017). Generally found on north-facing slopes (Jepson 2017).

**Habitat quality on project site:** Marginal within woodlands on the project site. The shrub layer in on-site woodlands are dominated by Scotch broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus armeniacus*) which tend to crowd out other species.

**Potential impacts:** Oval-leaved viburnum was not found on the project site, so there would be no direct impact to it. Construction activities in woodlands would eliminate areas of marginal potential habitat for the species.

**iii. CNPS List 3 Plants<sup>5</sup>**

**Butte County fritillary (*Fritillaria eastwoodiae*)**

**Range:** Butte, El Dorado, Nevada, Placer, Shasta, Tehama and Yuba counties; also found in Oregon. (CNPS 2017)

**Nearest CNDDDB occurrence:** Approximately 6 miles NW of the project site. (BIOS 2017)

**Habitat requirements:** Found in openings in chaparral, cismontane woodland and lower montane coniferous forest, 50-1500 meters elevation (CNPS 2017); usually on dry slopes but also in wet places, on serpentine, red clay and sandy loam soils. (CNDDDB 2017)

**Habitat quality on project site:** Suitable within forested areas on the project site.

**Potential impacts:** Butte County fritillary was not found on the project site, so there would be no direct impact to it. Construction activities in woodlands would eliminate areas of potential habitat for the species.

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<sup>5</sup>California Native Plant Society list of plants about which more information is needed; a review list.

**Dubious pea (*Lathyrus sulphureus* var. *argillaceus*)**

**Range:** Calaveras, El Dorado, Nevada, Placer, Shasta and Tehama counties. (CNPS 2017)

**Nearest CNDDDB occurrence:** Approximately six miles NW of the project site. (BIOS 2017)

**Habitat requirements:** Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, between 150 and 930 meters elevation. (CNDDDB 2017)

**Habitat quality on project site:** Suitable within forested areas of the project site.

**Potential impacts:** Dubious pea was not found on the project site, so there would be no direct impact to it. Construction activities in woodlands would eliminate areas of potential habitat for the species.

**iv. CNPS List 4 Plants<sup>6</sup>**

**True's manzanita (*Arctostaphylos mewukka* ssp. *truei*)**

**Range:** Butte, El Dorado, Nevada, Placer, Plumas and Yuba counties (CNPS 2017).

**Nearest CNDDDB occurrence of record:** None (CNDDDB 2017); one collection in 2005 c. 3 air mi NNW of Placerville, South Fork of American River on the west side of Calif. Highway 193.<sup>7</sup>

**Habitat requirements:** Chaparral, lower montane coniferous forest; 425-1390 m. elevation (CNDDDB 2017).

**Habitat quality on project site:** Marginal within forested areas on the project site. The shrub layer within on-site woodlands are dominated by Scotch broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus armeniacus*) which tend to crowd out other species.

**Potential impacts:** True's manzanita was not found on the project site, so there would be no direct impact to it. Construction activities in woodlands would eliminate areas of marginal potential habitat for the species.

**Northern Sierra daisy (*Erigeron petrophilus* var. *sierrensis*)**

**Range:** Butte, El Dorado, Nevada, Plumas, Sierra and Yuba counties. (CNPS 2017)

**Nearest CNDDDB occurrence:** None. (BIOS 2017)

**Habitat requirements:** Rocky foothills to montane forest, sometimes on serpentine; 300–1900 meters elevation (Jepson 2016). Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest; sometimes on serpentine soils; 300-2073 meters elevation (CNPS 2017).

**Habitat quality on project site:** Suitable within woodlands on the project site.

**Potential impacts:** Northern Sierra daisy was not found on the project site, so there would be no direct impact to it. Construction activities in woodlands would eliminate areas of potential habitat for the species.

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<sup>6</sup>California Native Plant Society list of plants of limited distribution.

<sup>7</sup>Data provided by the participants of the Consortium of California Herbaria ([ucjeps.berkeley.edu/consortium/](http://ucjeps.berkeley.edu/consortium/)); Jun 14, 2017.

**Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*)**

**Range:** Amador, Butte, Calaveras, El Dorado, Fresno, Mariposa, Nevada, Placer, Tehama, Tuolumne and Yuba counties. (CNPS 2017)

**Nearest CNDDDB occurrence:** None. (BIOS 2017)

**Habitat requirements:** Openings in chaparral, cismontane woodland or lower coniferous forest, between 90 and 1280 meters elevation (CNPS 2017).

**Habitat quality on project site:** Suitable within forested areas of the project site. *Lilium humboldtii* ssp. *humboldtii* was found on-site (Figure 9 & photo, right).

**Potential impacts:** Construction activities where the plants are growing could eliminate the species, along with areas of potential habitat for it.

**Suggested mitigation:** Temporary fencing placed 25-feet from existing plants should be required if construction activities are planned near the plants.



**Northern bugleweed (*Lycopus uniflorus*)**

**Range:** Del Norte, Humboldt, Lassen, Nevada, Placer, Plumas, Shasta, Siskiyou, and Tuolumne counties (CNPS 2017); distribution outside California: to British Columbia, eastern United States (Jepson 2017).

**Nearest CNDDDB occurrence:** None. (CNDDDB 2017)

**Habitat requirements:** Bogs, fens, marshes, swamps and wet places, 5-2000 m. elevation (CNDDDB 2017).

**Habitat quality on project site:** Suitable within wetlands and along Slat Creek.

**Potential impacts:** Northern bugleweed was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

**Sierra sweet bay (*Myrica hartwegii*)**

**Range:** El Dorado, Madera, Mariposa Nevada, Tuolumne and Yuba counties (CNPS 2016); also found in Oregon (Jepson 2017).

**Nearest CNDDDB occurrence:** None. (CNDDDB 2017)

**Habitat requirements:** Streambanks, moist places in foothills or lower montane yellow-pine forest; 300–1800 m. elevation (Jepson 2017). Cismontane woodland, lower montane coniferous forest, riparian forest, 150-1750 m. elevation (CNPS 2017).

**Habitat quality on project site:** Suitable within wetlands and along Slat Creek.

**Potential impacts:** Sierra sweet bay was not found on the project site, so there would be no direct impact to it. Normal set-backs from wetlands would protect potential habitat for the species.

**Narrow-petaled rein orchid (*Piperia leptopetala*)**

**Range:** El Dorado, Fresno, Lake, Los Angeles, Monterey, Mariposa, Nevada, Orange, Plumas, Riverside, San Bernardino, San Benito, Santa Clara, San Diego, Shasta, Siskiyou, San Luis Obispo, Sonoma, and Tulare counties (CNPS 2017); distribution outside California: to Oregon (Jepson 2017).

**Nearest CNDDDB occurrence:** None. (CNDDDB 2017)

**Habitat requirements:** Generally dry sites in cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, 380-2225 meters elevation. (Jepson 2017, CNPS 2017)

**Habitat quality on project site:** Suitable within forested areas of the project site.

**Potential impacts:** Narrow-petaled rein orchid was not found on the project site, so there would be no direct impact to it. Construction activities in woodlands would eliminate areas of marginal potential habitat for the species.

## VII. References

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Baad, M.F. and G.D. Hanna. 1987. Pine Hill Ecological Reserve operations and maintenance schedule. Unpublished report prepared for the California Department of Fish and Game. *In: United States Fish and Wildlife Service. 2002. Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills.* Portland, Oregon, Page II-21.

California Department of Fish & Wildlife, Biogeographic Data Branch. 2017. California Natural Diversity Database *within* Biogeographic Information and Observation System (BIOS). <http://www.dfg.ca.gov/biogeodata/bios/>

California Department of Fish & Wildlife. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. [http://www.dfg.ca.gov/wildlife/nongame/survey\\_monitor.html](http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html).

California Department of Fish and Wildlife (CDFW). 1999. California rare and endangered invertebrates and crustaceans. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=84011>. Accessed November 17, 2016.

California Department of Fish and Wildlife, California Wildlife Habitat Relations (CWHR). 2005. Sierran Mixed Conifer. <https://nrm.dfg.ca.gov/FileHndler.ashx?DocumentID=67311>

California Department of Fish and Wildlife, California Wildlife Habitat Relations (CWHR). 2005. Fresh Emergent Wetland Vegetation. <file:///C:/Users/Ruth%20Willson/Downloads/FEW.pdf>

California Department of Fish and Wildlife, California Wildlife Habitat Relations (CWHR). 2017. CWHR Life History Accounts and Range Maps. <https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range>

California Native Plant Society (CNPS). 2017. Inventory of Rare and Endangered Plants (online v7-17jun 6-3-17). <http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi>

California Natural Diversity Data Base, Department of Fish and Wildlife. 2017. *Rarefind 5*, Commercial edition. <https://nrm.dfg.ca.gov/cnddb>

California Natural Diversity Database, Department of Fish and Wildlife. 2017. *Endangered, Threatened and Rare Plants List* . <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline>

California Natural Diversity Database, Department of Fish and Wildlife. 2017. *Special vascular plants, bryophytes and lichens*. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>

California Natural Diversity Database, Department of Fish and Wildlife. 2017. *Special animals*. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>

El Dorado County. 2004. El Dorado County General Plan. Placerville, California: El Dorado County Planning Department.

El Dorado County. 2016. Gotnet. <http://gem.edcgov.us/ugotnet/>



Elias, Thomas S. 1987. *Conservation and Management of Rare and Endangered Plants*. Sacramento: California Native Plant Society.

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, second edition*. Berkeley: University of California Press.

Hunter, J.C. and J.E. Horenstein. 1991. "The Vegetation of the Pine Hill area (California) and its relation to substratum." Pages 197-206 in: *The vegetation of ultramafic (serpentine) soils*. Proceedings of the First International Conference on Serpentine Soils.

Jepson Flora Project (eds.) 2017. Jepson eFlora, <http://ucjeps.berkeley.edu/IJM.html>

Klein, A., J. Crawford, J. Evens, T. Keeler-Wolf, and D. Hickson. 2007. Classification of the vegetation alliances and associations of the northern Sierra Nevada Foothills, California. Report prepared for California Department of Fish and Game. California Native Plant Society, Sacramento, CA.

Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2016. The National Wetland Plant List: 2016 Update of Wetland Ratings. *Phytoneuron* 2014-41: 1-42. Accessed from: [http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/news/FS\\_NWP\\_PlantList\\_Apr2016\\_v2.pdf](http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/news/FS_NWP_PlantList_Apr2016_v2.pdf)

Mayer, K.E. and W.F. Laudenslayer, Jr. 1988. *A guide to wildlife habitats of California*. Sacramento: California Dept. of Fish and Game.

NatureServe. 2017. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <http://explorer.natureserve.org>

Sawyer, J.O., T. Keeler-Wolf and J.M. Evans. 2009. *A manual of California vegetation, 2<sup>nd</sup> ed.* Sacramento: California Native Plant Society.

Shuford, W. D., and Gardali, T., editors. 2008. *California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California*. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

Thorpe. R.W., D.S. Horning, Jr., and L.L. Dunning. 1983. Bumble bees and cuckoo bumble bees of California (Hymenoptera: Apidae). *Bull. Calif. Insect Survey*, Vol. 23. [essig.berkeley.edu/documents/cis/cis23.pdf](http://essig.berkeley.edu/documents/cis/cis23.pdf).

United States Fish and Wildlife Service. 2002. *Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills*. Portland, Oregon.

United States Department of Agriculture, Soil Conservation Service (USDA). 1974. *Soil Survey of El Dorado Area, California*. Washington, D.C.: U.S. Government Printing Office.

United States Fish and Wildlife Service (USFWS). 2017. California red-legged frog fact sheet. [www.fws.gov/sacramento/es\\_species/Accounts/Amphibians-Reptiles/Documents/California-red\\_legged\\_frog-Fact\\_Sheet-FINAL.pdf](http://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/Documents/California-red_legged_frog-Fact_Sheet-FINAL.pdf). Accessed June 12, 2017.

United States Fish and Wildlife Service. 2017. *IpaC Trust Resource Report*. Generated February 16, 2017.

United States Forest Service, Bureau of Land Management (USFS, BLM). 2010. Western Bumblebee Species Fact Sheet. <http://studylib.net/doc/6881924/species-fact-sheet---usda-forest-service>

Williams, P. H., R. W. Thorp, L. L. Richardson, and S. Colla. 2014. Guide to the Bumble Bees of North America. Princeton University Press.

Wilson, J.L. 1986. *A Study of Plant Species Diversity and Vegetation Associated with the Pine Hill Gabbro Formation and Adjacent Substrata, El Dorado County, California*. California State University, Sacramento: unpublished M.A. thesis.

Xerces Society for Invertebrate Conservation. 2017. Bumble bees: western bumble bee (*Bombus occidentalis*). <http://www.xerces.org/western-bumble-bee/> Accessed June 12, 2017.

Xerces Society for Invertebrate Conservation. 2012. Conserving Bumble Bees. [http://www.xerces.org/wp-content/uploads/2012/06/conserving\\_bb.pdf](http://www.xerces.org/wp-content/uploads/2012/06/conserving_bb.pdf). Accessed June 12, 2017.

APPENDIX A

United States Fish and Wildlife Service  
*Official Species List*  
Generated June 14, 2017



# United States Department of the Interior



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

In Reply Refer To:

June 14, 2017

Consultation Code: 08ESMF00-2017-SLI-1188

Event Code: 08ESMF00-2017-E-06350

Project Name: Steward Tentative Parcel Map

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

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

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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

Attachment(s):

- Official Species List
-



## Official Species List

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

This species list is provided by:

### **Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

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## Project Summary

Consultation Code: 08ESMF00-2017-SLI-1188

Event Code: 08ESMF00-2017-E-06350

Project Name: Steward Tentative Parcel Map

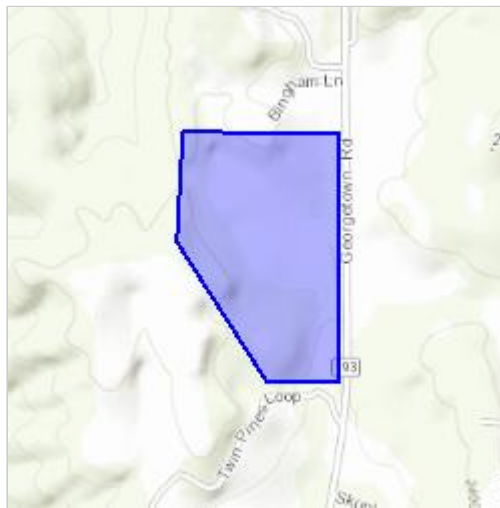
Project Type: DEVELOPMENT

Project Description: Two-way subdivision of a 50.0-acre parcel located at 7461 State Highway 193, Georgetown, California

Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/38.86747990074855N120.83557180283509W>



Counties: El Dorado, CA

## Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

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## Amphibians

NAME	STATUS
California Red-legged Frog ( <i>Rana draytonii</i> ) There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt ( <i>Hypomesus transpacificus</i> ) There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened
Steelhead ( <i>Oncorhynchus (=Salmo) mykiss</i> ) Population: Northern California DPS There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1007">https://ecos.fws.gov/ecp/species/1007</a>	Threatened

## Flowering Plants

NAME	STATUS
Layne's Butterweed ( <i>Senecio layneae</i> ) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4062">https://ecos.fws.gov/ecp/species/4062</a>	Threatened

## Critical habitats

There are no critical habitats within your project area.

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## APPENDIX B

**United States Fish and Wildlife Service**  
***IpaC Trust Resource Report***  
**Generated February 16, 2017**



# IPaC resource list

## Project information

### NAME

Steward Tentative Parcel Map

### LOCATION

El Dorado County, California



### DESCRIPTION

Two-way subdivision of a 50.0-acre parcel located at 7461 State Highway 193, Georgetown, 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 should not be used for planning or analyzing project level impacts.**

**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 either from the Regulatory Review section in IPaC 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 creating a project and making a request from the Regulatory Review section.

Listed species<sup>1</sup> are managed by the [Endangered Species Program](#) of the U.S. Fish and Wildlife Service.

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.

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

## Amphibians

NAME

STATUS

NAME	STATUS
<b>California Red-legged Frog</b> <i>Rana draytonii</i> There is a final <b>critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/2891">http://ecos.fws.gov/ecp/species/2891</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt</b> <i>Hypomesus transpacificus</i> There is a final <b>critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/321">http://ecos.fws.gov/ecp/species/321</a>	Threatened
<b>Steelhead</b> <i>Oncorhynchus (=Salmo) mykiss</i> There is a final <b>critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/1007">http://ecos.fws.gov/ecp/species/1007</a>	Threatened

## Flowering Plants

NAME	STATUS
<b>Layne's Butterweed</b> <i>Senecio layneae</i> No <b>critical habitat</b> has been designated for this species. <a href="http://ecos.fws.gov/ecp/species/4062">http://ecos.fws.gov/ecp/species/4062</a>	Threatened

## 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

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

Any activity that results in the **take** (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service<sup>3</sup>. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location, not a list of every bird species you may find in this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#).

NAME	SEASON(S)
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<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i> <a href="http://ecos.fws.gov/ecp/species/1626">http://ecos.fws.gov/ecp/species/1626</a>	Year-round
<b>Black-chinned Sparrow</b> <i>Spizella atrogularis</i> <a href="http://ecos.fws.gov/ecp/species/9447">http://ecos.fws.gov/ecp/species/9447</a>	Breeding
<b>California Spotted Owl</b> <i>Strix occidentalis occidentalis</i> <a href="http://ecos.fws.gov/ecp/species/7266">http://ecos.fws.gov/ecp/species/7266</a>	Year-round
<b>Calliope Hummingbird</b> <i>Stellula calliope</i> <a href="http://ecos.fws.gov/ecp/species/9526">http://ecos.fws.gov/ecp/species/9526</a>	Breeding
<b>Costa's Hummingbird</b> <i>Calypte costae</i> <a href="http://ecos.fws.gov/ecp/species/9470">http://ecos.fws.gov/ecp/species/9470</a>	Breeding
<b>Flammulated Owl</b> <i>Otus flammeolus</i> <a href="http://ecos.fws.gov/ecp/species/7728">http://ecos.fws.gov/ecp/species/7728</a>	Breeding
<b>Fox Sparrow</b> <i>Passerella iliaca</i>	Year-round
<b>Green-tailed Towhee</b> <i>Pipilo chlorurus</i> <a href="http://ecos.fws.gov/ecp/species/9444">http://ecos.fws.gov/ecp/species/9444</a>	Breeding
<b>Lewis's Woodpecker</b> <i>Melanerpes lewis</i> <a href="http://ecos.fws.gov/ecp/species/9408">http://ecos.fws.gov/ecp/species/9408</a>	Wintering
<b>Loggerhead Shrike</b> <i>Lanius ludovicianus</i> <a href="http://ecos.fws.gov/ecp/species/8833">http://ecos.fws.gov/ecp/species/8833</a>	Year-round
<b>Nuttall's Woodpecker</b> <i>Picoides nuttallii</i> <a href="http://ecos.fws.gov/ecp/species/9410">http://ecos.fws.gov/ecp/species/9410</a>	Year-round
<b>Oak Titmouse</b> <i>Baeolophus inornatus</i> <a href="http://ecos.fws.gov/ecp/species/9656">http://ecos.fws.gov/ecp/species/9656</a>	Year-round
<b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i> <a href="http://ecos.fws.gov/ecp/species/3914">http://ecos.fws.gov/ecp/species/3914</a>	Breeding
<b>Peregrine Falcon</b> <i>Falco peregrinus</i> <a href="http://ecos.fws.gov/ecp/species/8831">http://ecos.fws.gov/ecp/species/8831</a>	Wintering
<b>Rufous-crowned Sparrow</b> <i>Aimophila ruficeps</i> <a href="http://ecos.fws.gov/ecp/species/9718">http://ecos.fws.gov/ecp/species/9718</a>	Year-round
<b>Short-eared Owl</b> <i>Asio flammeus</i> <a href="http://ecos.fws.gov/ecp/species/9295">http://ecos.fws.gov/ecp/species/9295</a>	Wintering
<b>Snowy Plover</b> <i>Charadrius alexandrinus</i>	Breeding
<b>Swainson's Hawk</b> <i>Buteo swainsoni</i> <a href="http://ecos.fws.gov/ecp/species/1098">http://ecos.fws.gov/ecp/species/1098</a>	Breeding
<b>Western Grebe</b> <i>Aechmophorus occidentalis</i> <a href="http://ecos.fws.gov/ecp/species/6743">http://ecos.fws.gov/ecp/species/6743</a>	Wintering
<b>Williamson's Sapsucker</b> <i>Sphyrapicus thyroideus</i> <a href="http://ecos.fws.gov/ecp/species/8832">http://ecos.fws.gov/ecp/species/8832</a>	Year-round
<b>Willow Flycatcher</b> <i>Empidonax traillii</i> <a href="http://ecos.fws.gov/ecp/species/3482">http://ecos.fws.gov/ecp/species/3482</a>	Breeding



**What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?**

**Landbirds:**

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

**Atlantic Seabirds:**

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOANCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOANCCOS models: the models were developed as part of the NOANCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

**Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?**

**Landbirds:**

The [Avian Knowledge Network \(AKN\)](#) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the [Migratory Bird Programs AKN Histogram Tools](#) webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

**Atlantic Seabirds:**

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 NOANCCOS [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project](#) webpage.

## Facilities

## Wildlife refuges

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



THERE ARE NO REFUGES 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](#).

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEMB](#)

FRESHWATER POND

[PUBFh](#)

A full description for each wetland code can be found at the National Wetlands Inventory website:

<https://ecos.fws.gov/ipac/wetlands/decoder>

**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.

## **APPENDIX C**

**California Department of Fish and Game  
Natural Diversity Database RareFind 5 Report  
Georgetown and Surrounding USGS Quads  
updated April 30, 2017**



# Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Colfax (3912018) OR Coloma (3812078) OR Foresthill (3912017) OR Garden Valley (3812077) OR Georgetown (3812087) OR Greenwood (3812088) OR Michigan Bluff (3912016) OR Slate Mtn. (3812076) OR Tunnel Hill (3812086))

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	Candidate Endangered	G2G3	S1S2	SSC
<i>Arctostaphylos nissenana</i> Nissenan manzanita	PDERI040V0	None	None	G1	S1	1B.2
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	None	G2G3	S1	
<i>Calystegia stebbinsii</i> Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
<i>Calystegia vanzuukiae</i> Van Zuuk'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>Chlorogalum grandiflorum</i> Red Hills soaproot	PMLIL0G020	None	None	G2	S2	1B.2
<i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Cosumnoperla hypocrena</i> Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
<i>Cypseloides niger</i> black swift	ABNUA01010	None	None	G4	S2	SSC
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Fritillaria eastwoodiae</i> Butte County fritillary	PMLIL0V060	None	None	G3Q	S3	3.2
<i>Horkelia parryi</i> Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
<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
<b><i>Lewisia serrata</i></b> saw-toothed lewisia	PDPOR040E0	None	None	G2	S2	1B.1
<b><i>Margaritifera falcata</i></b> western pearlshell	IMBIV27020	None	None	G4G5	S1S2	
<b><i>Megaleuctra sierra</i></b> Shirttail Creek stonefly	IIPLE0G040	None	None	G2Q	S1?	
<b><i>Myotis yumanensis</i></b> Yuma myotis	AMACC01020	None	None	G5	S4	
<b><i>Orobittacus obscurus</i></b> gold rush hanging scorpionfly	IIMEC07010	None	None	G1	S1	
<b><i>Packera layneae</i></b> Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
<b><i>Pekania pennanti</i></b> fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	G5T2T3Q	S2S3	SSC
<b><i>Phacelia stebbinsii</i></b> Stebbins' phacelia	PDHYD0C4D0	None	None	G3	S3	1B.2
<b><i>Phrynosoma blainvillii</i></b> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<b><i>Poa sierrae</i></b> Sierra blue grass	PMPOA4Z310	None	None	G3	S3	1B.3
<b><i>Rana boylei</i></b> foothill yellow-legged frog	AAABH01050	None	None	G3	S3	SSC
<b><i>Rana draytonii</i></b> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<b><i>Rhyacophila spinata</i></b> spiny rhyacophilan caddisfly	IITRI19080	None	None	G1G2	S1S2	
<b><i>Riparia riparia</i></b> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<b><i>Viburnum ellipticum</i></b> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
<b><i>Vulpes vulpes necator</i></b> Sierra Nevada red fox	AMAJA03012	Candidate	Threatened	G5T1T2	S1	
<b><i>Wyethia reticulata</i></b> El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 35

## **APPENDIX D**

**California Native Plant Society**  
***On-line Inventory of Rare and Endangered Plants***  
**Georgetown and Surrounding USGS Quads**  
**online v7-17jun 6-3-1**



## Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



**Query Criteria:** Quad<span style='color: Red'> IS </span>(Colfax (3912018)<span style='color: Red'> OR </span>Coloma (3812078)<span style='color: Red'> OR </span>Foresthill (3912017)<span style='color: Red'> OR </span>Garden Valley (3812077)<span style='color: Red'> OR </span>Georgetown (3812087)<span style='color: Red'> OR </span>Greenwood (3812088)<span style='color: Red'> OR </span>Michigan Bluff (3912016)<span style='color: Red'> OR </span>Slate Mtn. (3812076)<span style='color: Red'> OR </span>Tunnel Hill (3812086))

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	Candidate Endangered	G2G3	S1S2	SSC
<i>Arctostaphylos nissenana</i> Nissenan manzanita	PDERI040V0	None	None	G1	S1	1B.2
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	None	G2G3	S1	
<i>Calystegia stebbinsii</i> Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
<i>Calystegia vanzuukiae</i> Van Zuuk'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>Chlorogalum grandiflorum</i> Red Hills soaproot	PMLIL0G020	None	None	G2	S2	1B.2
<i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Cosumnoperla hypocrena</i> Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
<i>Cypseloides niger</i> black swift	ABNUA01010	None	None	G4	S2	SSC
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Fritillaria eastwoodiae</i> Butte County fritillary	PMLIL0V060	None	None	G3Q	S3	3.2
<i>Horkelia parryi</i> Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
<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**



<b>Species</b>	<b>Element Code</b>	<b>Federal Status</b>	<b>State Status</b>	<b>Global Rank</b>	<b>State Rank</b>	<b>Rare Plant Rank/CDFW SSC or FP</b>
<b><i>Lewisia serrata</i></b> saw-toothed lewisia	PDPOR040E0	None	None	G2	S2	1B.1
<b><i>Margaritifera falcata</i></b> western pearlshell	IMBIV27020	None	None	G4G5	S1S2	
<b><i>Megaleuctra sierra</i></b> Shirttail Creek stonefly	IIPLE0G040	None	None	G2Q	S1?	
<b><i>Myotis yumanensis</i></b> Yuma myotis	AMACC01020	None	None	G5	S4	
<b><i>Orobittacus obscurus</i></b> gold rush hanging scorpionfly	IIMEC07010	None	None	G1	S1	
<b><i>Packera layneae</i></b> Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
<b><i>Pekania pennanti</i></b> fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	G5T2T3Q	S2S3	SSC
<b><i>Phacelia stebbinsii</i></b> Stebbins' phacelia	PDHYD0C4D0	None	None	G3	S3	1B.2
<b><i>Phrynosoma blainvillii</i></b> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<b><i>Poa sierrae</i></b> Sierra blue grass	PMPOA4Z310	None	None	G3	S3	1B.3
<b><i>Rana boylei</i></b> foothill yellow-legged frog	AAABH01050	None	None	G3	S3	SSC
<b><i>Rana draytonii</i></b> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<b><i>Rhyacophila spinata</i></b> spiny rhyacophilan caddisfly	IITRI19080	None	None	G1G2	S1S2	
<b><i>Riparia riparia</i></b> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<b><i>Viburnum ellipticum</i></b> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
<b><i>Vulpes vulpes necator</i></b> Sierra Nevada red fox	AMAJA03012	Candidate	Threatened	G5T1T2	S1	
<b><i>Wyethia reticulata</i></b> El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

**Record Count: 35**



## **APPENDIX E**

### **Evaluation of Special-Status Species with Known Occurrences in Georgetown and Surrounding USGS Quads**

#### **Notations and Symbols**

**Species printed in bold** are listed under Federal and/or California Endangered Species Acts.

**Listing Status** = Federal and California Endangered Species Acts listing status:

E = Endangered                      R = Rare                      T = Threatened  
D = De-listed                      C = Candidate for listing

**CNDDDB Ranks** are shorthand formulas compiled by the California Natural Diversity Database that provide information on the rarity of species in their global range (G1 to G5) and within the state (S1toS5). Status of subspecies is also ranked (T1 to T5).

G1 or S1 or T1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 or S2 or T2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 or S3 or T3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4 or S4 or T4 = Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 or S5 or T5 = Common; widespread and abundant.

GNR = Unranked—Global rank not yet assessed.

### Other Notations

G1G3 = proper rank is most likely within this range of ranks

G2? = proper rank is probably G2

Q = there is some taxonomic question about the species

### Abbreviations

**BCC** = Birds of Conservation Concern designated by U.S. Fish and Wildlife Service

**CDF** = California Department of Forestry

S= Sensitive species needing protection during timber operations.

**CDFW** = California Department of Fish and Wildlife

FP = Fully protected species

**SSC** = CDFW Species of Special Concern

**CNDDDB** = California Natural Diversity Database

**CNPS** = California Native Plant Society

**1B** = CNPS list of rare, threatened or endangered plants in California and elsewhere

**2** = CNPS list of rare, threatened or endangered plants in California, but more common elsewhere

**3** = CNPS review list of plants with limited distribution information or problematic taxonomy

**4** = Plants of Limited Distribution; a watch list

**.1** = Seriously endangered in California (over 80% of occurrences threatened/ high degree of immediate threat)

**.2** = Fairly endangered in California (20-80% of occurrences threatened)

**.3** = Not very endangered in California (<20% of occurrences threatened or no threats known)

**CWHR** = California Department of Fish and Wildlife's California Wildlife Habitat Relations

**ICUN** = World Conservation Union

**VU** = World Conservation Union list of vulnerable species

**LC** = World Conservation Union list of species of least concern

**USBC** = United States Bird Conservancy

**WL** = Watch list = USBC list of threatened and declining species

**USFWS** = United States Fish and Wildlife Service

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Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<b><u>Invertebrates:</u></b> Insects				
<i>Bombus caliginosus</i> Obscure bumble bee	— / — (IUCN:VU)	G4 S1S2	Coastal areas from Santa Barbara north to Washington. Feeds on <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> & <i>Phacelia</i> plant genera. One specimen collected near Colfax in 1949. (CNDDDB 2017)	No. Project site is outside of the currently recognized range of the species.
<i>Bombus occidentalis</i> Western bumble bee	— / — (USFS:S)	G2G3 S1	Open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. (CNDDDB 2016) Nests in abandoned rodent burrows; overwinters in holes in the ground dug by gravid queens. Generalist forager. (USFS, BLM 2010)	Yes. See text for further discussion.
<i>Cosumnoperla hypocrena</i> Cosumnes stripetail stonefly	— / —	G2 S2	Found in intermittent streams on western slope of central Sierra Nevada foothills in American and Cosumnes River basins. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	T / —	G3T2 S2	Occurs only in the Central Valley of California in association with blue elderberry <i>Sambucus mexicana</i> . (CNDDDB 2017)	No. The host plant was not found on the project site.
<i>Megaleuctra sierra</i> Shirttail Creek stonefly	— / —	G2? S2?	Stenothermic species found in spring-like areas. Holotype was found in a steep-sided, heavily wooded canyon in the upper zone of the yellow pine forest, northeast of Foresthill. (CNDDDB 2017)	No. Project site has no spring-like areas in steep-sided canyons.
<i>Orobittacus obscurus</i> Gold Rush hanging scorpionfly	— / —	G1 S1	Riparian forest, specifically in dark, shaded nooks with high humidity, such as beneath tree roots, overhanging banks and rock outcrops, and along streams. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Rhyacophila spinata</i> Spiny rhyacophilian caddisfly	— / —	G1G2 S1S2	Rhyacophilids generally prefer cool, running water. Aquatic larvae are predaceous. Known from the Kyburz, Downieville, Foresthill and Tobin areas. (CNDDDB 2017)	No. Running water habitats on the project site are too warm for the species.
<b><u>Invertebrates:</u></b> Mollusks				
<i>Margaritifera falcata</i> Western pearlshell	— / —	G4G5 S1S2	Aquatic species that prefers lower-velocity rivers. In El Dorado and Placer Counties, known from Silver Fork American River, Truckee River near Silver Creek Campground and Shirttail Creek at the confluence with North Fork American River. (CNDDDB 2017)	No. Streams on the project site are intermittent, drying part of the year. Species requires perennial waters.

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Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<b><u>Fish</u></b>				
<i>Hypomesus transpacificus</i> Delta smelt	T / E	G1 S1	Sacramento-San Joaquin river delta including side channels and sloughs. (MCGinnis 1984)	No. Project site has no perennial streams.
<i>Oncorhynchus mykiss irideus</i> Steelhead	T / —	G5T2Q S1S2	Sacramento and San Joaquin Rivers and their tributaries that have direct access to the ocean (ie. no dams) (MCGinnis 1984)	No. Project site has no perennial streams.
<b><u>Amphibians</u></b>				
<i>Rana boylei</i> Foothill yellow-legged frog	— / — (SSC)	G3 S3	Found in or near perennial, rocky streams in a variety of habitats from sea level to 1940 m (6370 ft) elevation. (CWHR 2017) Partly-shaded, shallow streams & riffles with a rocky substrate. (CNDDDB 2017)	No. Project site has no perennial streams.
<i>Rana draytonii</i> California red-legged frog	T / — (SSC)	G2G3 S2S3	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. (CNDDDB 2017)	Yes. See text for further discussion
<b><u>Reptiles</u></b>				
<i>Emys marmorata</i> Western pond turtle	— / — (SSC)	G3G4 S3	Aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and sandy banks or grassy open-field habitat up to 0.5 km from water for egg-laying. (CNDDDB 2017)	Yes. Species was found in the pond near the northwesterly corner of the project site. See text for further discussion.
<i>Phrynosoma blainvillii</i> Coast horned lizard	— / — (SSC)	G3G4 S34	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Needs open areas for sunning and abundant ants and other insects. (CNDDDB 2017)	Yes. See text for further discussion.
<b><u>Birds</u></b>				
<i>Accipiter cooperii</i> (nesting) Cooper's hawk	— / — (IUCN:LC)	G5 S4	Nests in deciduous trees in riparian areas, second-growth conifers and live oaks near streams. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Accipiter gentilis</i> (nesting) Northern goshawk	— / — (SSC)	G5 S3	Nests in mature, dense conifer forest. (CWHR 2017) Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees. (CNDDDB 2017)	No. Project site lacks suitable dense forest habitat.

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Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Accipiter striatus</i> (nesting) Sharp-shinned hawk	— / — (CDFW:WL)	G5 S4	Ponderosa pine, black oak, riparian deciduous, mixed conifer & Jeffrey pine habitats. Prefers riparian areas. Nests usually within 275 ft of water. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Aechmophorus occidentalis</i> (wintering) Western grebe	— / —	G5 SNR	Marine subtidal and estuarine waters; also found on large lakes near coast and inland. (CWHR 2017)	No. Project site has no suitable aquatic habitats.
<i>Agelaius tricolor</i> (nesting colony) Tricolored blackbird	— / CE (SSC)	G2G3 S1S2	Dense thickets of cattail, tule, willow, blackberry, wild rose or tall herbs near or emergent from water (CWHR 2017) Requires open water, protected nesting substrate with foraging area within a few km of nesting colony. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Aimophila ruficeps</i> Rufous-crowned sparrow	— / —	G5 SNR	Mixed chaparral and coastal scrub habitats, often on relatively steep, rocky hillsides with grass and forb patches; also grassy slopes without shrubs, if rock outcrops are present. (CWHR 2017)	No. Project site has neither mixed chaparral habitat nor rock outcrops on grassy slopes.
<i>Ammodramus savannarum</i> (nesting) Grasshopper sparrow	— / — (SSC)	G5 S2	Summer resident and breeder in dry, dense grasslands with scattered shrubs in foothills and lowlands west of Sierra-Cascade ranges. Uses shrubs for singing perches. (CWHR 2017)	No. The project site is higher in elevation than the usual nesting range of the species.
<i>Aquila chrysaetos</i> (nesting and wintering) Golden eagle	— / — (IUCN:LC)	G5 S3	Nests on cliffs and in large trees in large open areas in rolling foothills, mountains, sage-juniper flats and deserts. Home range in Northern California averages 124 km <sup>2</sup> (48 mi <sup>2</sup> ). (CWHR 2017, CNDDDB 2017)	No. Project site has no large open areas suitable for the species.
<i>Ardea alba</i> (rookery) Great egret	— / — (CDF:S)	G5 S4	Nests in large trees near marshes, tide-flats, irrigated pastures, margins of lakes and rivers. (CWHR 2017)	No. Project site lacks wetlands and waters large enough to support a rookery.
<i>Ardea herodias</i> (rookery) Great blue heron	— / — (CDF:S)	G5 S4	Forages in marshes, lakes margins, tide-flats, rivers, streams, wet meadows. Nests in colonies in tall trees, cliffsides, and marshes near forage sites. Sensitive to human disturbance near nests. (CWHR 2017)	No. Project site lacks wetlands and waters large enough to support a rookery.
<i>Asio flammeus</i> (nesting) Short-eared owl	— / — (SSC)	G5 S3	Freshwater and saltwater wetlands, lowland meadows and irrigated alfalfa fields with dense tules or tall grass for nesting and daytime roosts. Breeding range includes coastal areas in Del Norte and Humboldt counties, the San Francisco Bay Delta, northeastern Modoc plateau, the east side of the Sierra from Lake Tahoe south to Inyo county, and the San Joaquin valley (CWHR 2017)	No. Project site is not within the range of the species.



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Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Asio otus</i> (nesting) Long-eared owl	— / — (SSC)	G5 S3?	Riparian habitat required; also uses live oak thickets and other dense stands of trees paralleling stream courses having adjacent open lands for foraging. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Athene cunicularia</i> (burrow sites) Western burrowing owl	— / — (SSC)	G4 S3	Open, dry grassland and desert habitats; in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Nest sites dependent upon burrowing animals, especially the California ground squirrel (CWHR 2017, CNDDDB 2017)	No. Project site has relatively little grassland and too much wetland for the species.
<i>Baeolophus inornatus</i> (nesting) Oak titmouse	— / — (BCC)	G4 S4	Primarily associated with oaks; prefers open woodlands of oak, pine and oak, juniper and pinyon. Ventures into residential areas. (CWHR 2017)	Yes. See text for further discussion.
<i>Botaurus lentiginosus</i> American bittern	— / — (IUCN:LC)	G4 S4	Fresh or saline emergent wetlands, adjacent shallow water of lakes, backwaters of rivers or estuaries. Nests within emergent aquatic vegetation.(CWHR 2017)	No. Project site is not within the known range of the species.
<i>Buteo lagopus</i> (wintering) Rough-legged hawk	— / — (IUCN:LC )	G5 SNRN	Migrant and winter resident in California lowlands. Hunts in wet meadows, marshes, swamps, riparian edges. (CWHR 2017)	No. Project site is not within the known range of the species.
<i>Buteo regalis</i> (wintering) Ferruginous hawk	— / — (SSC)	G4 S3S4	Requires large, open tracts of grasslands, sparse shrub, or desert habitats with elevated structures for nesting. (CWHR 2017)	No. Project site does has few open grassland habitat.
<b><i>Buteo swainsoni</i> (nesting) Swainson's hawk</b>	— / <b>T</b> (SSC)	G5 S23	Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields or pastures. (CWHR 2017)	No. Project site is not within the range of the species.
<i>Calypte costae</i> (nesting) Costa's hummingbird	— / — (IUCN:LC )	G5 S4	Desert riparian, desert and arid scrub foothill habitats. (CNDDDB 2017)	No. Project site is not within the range of the species.
<i>Chaetura vauxi</i> (nesting) Vaux's swift	— / — (SSC)	G5 S3	Redwood and Douglas-fir habitats with nest sites in hollow trees and snags. Forages over most terrains and habitats, but prefers rivers and lakes. (CWHR 2017)	Yes. See text for further discussion.
<i>Charadrius alexandrinus</i> (nesting) Snowy plover	<b>T</b> / — (BCC)	G3S3 S2	Sandy beaches, salt pond levees & shores of large alkali lakes. (CNDDDB 2017)	No. Project site has no sandy beaches, salt ponds or alkali lakes required by the species.

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Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Charadrius montanus</i> (wintering) Mountain plover	— / — (SSC)	G2 S2?	Winters in open plains or rolling hills with short grasses or very sparse vegetation in plowed fields and sandy deserts. Tolerates up to 70% short vegetative cover. (CWHR 2017) Prefers grazed areas and areas with burrowing rodents. (CNDDDB 2017)	No. Project site has no short-grass habitat.
<i>Chondestes grammacus</i> (nesting) Lark sparrow	— / — (IUCN:LC)	G5 S4S5	Resident in lowlands and foothills throughout much of California. Frequents sparse valley foothill hardwood, valley foothill hardwood-conifer, open mixed chaparral and similar brushy habitats, and grasslands with scattered trees or shrubs. (CWHR 2017)	Yes. See text for further discussion.
<i>Circus cyaneus</i> (nesting) Northern harrier	— / — (SSC)	G5 S3	Frequents meadows, grasslands, open rangelands, desert sinks, wetlands; seldom found in wooded areas. Nests on ground in shrubby vegetation, usually at edge of marsh or along rivers or lakes, up to 1700 m in the Sierra Nevada. (CWHR 2017)	Yes. See text for further discussion.
<i>Cinclus mexicanus</i> American dipper	— / — (IUCN-LC)	G5 S?	Confined to clear, fast-flowing streams and rivers with rocky shores and bottoms in the mountains. (CWHR 2017)	No. stream on-site is slow-moving and marshy, unlike habitat required by the species.
<b><i>Coccyzus americanus</i> (nesting)</b> <b>Western yellow-billed cuckoo</b>	<b>T / E</b>	G5T3Q S1	Inhabits extensive deciduous riparian thickets with willows and dense, low-level foliage, in the flood-bottoms of larger river systems. (CWHR 2017, CNDDDB 2017)	No. Project site is not within the known range of the species.
<i>Contopus cooperi</i> (nesting) Olive-sided flycatcher	— / — (SSC)	G4 S4	Conifer or mixed hardwood/conifer forests (montane hardwood-conifer). Requires high perches with expansive views (across canyons, meadows, lakes) for singing and hunting. (CWHR 2017)	Yes. See text for further discussion.
<i>Cypseloides niger</i> (nesting) Black swift	— / — (SSC)	G4 S2	Steep, rocky, often moist locations on cliff either on sea or behind or adjacent to a waterfall in a deep canyon. (CWHR 2017)	No. Project site has neither cliffs nor waterfalls required by the species.
<i>Elanus leucurus</i> (=Elanus caeruleus) White-tailed kite (=Black-shouldered kite) (nesting)	— / — (CDFW: FP) (IUCN: LC)	G5 S3S4	Resident in coastal and valley lowlands; rarely found away from agricultural areas. Nests near top of dense stand of oaks or other trees (CWHR 2017)	No. Project site is not within the known range of the species.

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Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Empidonax traillii brewsteri</i> (nesting) Little willow flycatcher	— / E	G5T3T4 S1S2	Wet meadows and montane riparian vegetation, 600-2500 m (2000 to 8000 ft) elevation. Dense willow thickets are required for nesting and roosting. (CWHR 2017)	Yes. See text for further discussion.
<i>Falco columbarius</i> (wintering) Merlin	— / — (IUCN: LC)	G5 S4	Winter migrant utilizing habitats from grassland to Ponderosa pine and montane hardwood-conifer below 1500 m. Roosts in dense tree stands near water. (CWHR 201)	Yes. See text for further discussion.
<i>Falco mexicanus</i> (nesting) Prairie falcon	— / — (IUCN: LC)	G5 S4	Inhabits dry, open terrain in hills, valleys or plains. Nests on ledge of cliff overlooking open area. (CWHR 2017)	No. Project site has no cliffs required for nesting by the species.
<i>Falco peregrinus anatum</i> (nesting) American peregrine falcon	<b>D</b> / <b>D</b> (IUCN: LC)	G4T3 S3S4	Requires protected cliffs and ledges for cover. Breeds near water on high cliffs, banks, dunes, mounds; occasionally in tree or snag cavities or old nests of other raptors. (CWHR 2017)	No. Project site has no cliffs required for nesting by the species.
<i>Haliaeetus leucocephalus</i> (nesting, wintering) Bald eagle	<b>D</b> / <b>E</b>	G5 S2	Large bodies of water or free-flowing rivers with abundant fish, and adjacent snags or other perches. Usually nests in ponderosa pin or other open-branchwork tree. (CWHR 2017)	No. Project site has no large water bodies required by the species.
<i>Icteria virens</i> (nesting) Yellow-breasted chat	— / — (SSC)	G5 S3	Nests in dense riparian habitats dominated by willows, blackberry vines and grapevines. (CWHR 2017, CNDDDB 2017)	Yes. See text for further discussion.
<i>Lanius ludovicianus</i> (nesting) Loggerhead shrike	— / — (SSC)	G4 S4	Found in lowlands and foothills of California, within open habitats in valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, desert riparian and Joshua tree habitats. Nests in densely-foliated shrub or tree (CWHR 2017)	No. Project site is not within the known range of the species.
<i>Laterallus jamaicensis coturniculus</i> California black rail	— / <b>T</b>	G3G4T1 S1	Freshwater marshes, wet meadows, shallow margins of saltwater marshes around larger bays. Requires non-fluctuating water depths of about one inch; dense vegetation for nesting. (CWHR 2017)	No. Project site is not within the known range of the species.
<i>Melanerpes lewis</i> (nesting) Lewis's woodpecker	— / — (IUCN: LC)	G4 S4	Open oak savannah, broken deciduous and coniferous habitats. Nests in Coast Ranges, Modoc Plateau and eastern slope of Sierra Nevada. (CWHR 2017)	No. Project site is outside of the known nesting range of the species.

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<i>Melospiza melodia</i> (Modesto population) Modesto song sparrow	— / — (SSC)	G5 S3?	Freshwater wetlands, early succession riparian thickets and valley oak riparian groves below 200 ft. (61 m.) elevation. (Shuford & Gardali 2008)	No. Project site is outside of the elevation range of the species.
<i>Numenius americanus</i> (nesting) Long-billed curlew	— / — (BCC)	G5 S2	Forages in grasslands and wet meadows, usually adjacent to lakes, marshes, or estuaries. Breeds on grazed, mixed-grass and short grass prairies in Siskiyou, Modoc, and Lassen counties. (CWHR 2017)	No. Project site is outside of the nesting range of the species.
<i>Otus flammeolus</i> (nesting) Flammulated owl	— / — (BCC)	G4 S2S3	Pine forests, especially between 1830-3048 m (6000-10,000 ft) elevation. Favors small openings and edges with snags. (CWHR 2017)	No. Project site is too low in elevation for nesting by the species.
<i>Pandion haliaetus</i> (nesting) Osprey	— / — (CDF :S) (CDFW: WL) (IUCN: LC)	G5 S4	Associated strictly with large, fish-bearing waters, primarily in Ponderosa pine and higher-elevation conifer habitats. Preys mostly on fish; also takes a few mammals, birds, reptiles, amphibians, and invertebrates. (CWHR, 2017)	No. Project site has no large waters suitable for the species.
<i>Passerella iliaca</i> Fox sparrow	— / — (IUCN: LC)	G5 S5	Breeds commonly in mountains of California, in dense montane chaparral and brushy understory of other wooded, montane habitats. Winters in dense brush habitats throughout foothills and lowlands, except in southern deserts. (CWHR 2017)	Yes. See text for further discussion.
<i>Phalacrocorax auritus</i> (nesting colony) Double-crested cormorant	— / — (CDFW: WL) (IUCN: LC)	G5 S4	Resident along the entire coast of California and on inland lakes, in fresh, salt and estuarine waters. Feeds mainly on fish; also on crustaceans and amphibians. Requires undisturbed nest-sites beside water, on islands or lake margins inland. Nests in colonies of a few to hundreds of pairs, or even thousands. (CWHR 2017)	No. Project site is not within the known range of the species.
<i>Pica nuttallii</i> (nesting and communal roosts) Yellow-billed magpie	— / — (BCC)	G3G4 S3S4	Resident of the Central Valley, and coastal mountain ranges south from San Francisco Bay to Santa Barbara Co. Inhabits valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, orchard, vineyard, cropland, pasture, and urban habitats. (CWHR 2017)	No. Project site is not within the known range of the species.

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Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Picoides albolarvatus</i> (nesting) White-headed woodpecker	— / — (BCC)	G4 S4	Montane pine and fir forests with large trees, snags and tree/shrub or tree/herbaceous ecotones. Excavates cavity in large snag or stump at least 61 cm (2 ft) in diameter (at nest height); trunk with hard shell and soft interior preferred. (CWHR 2017)	Yes. See text for further discussion.
<i>Picoides nuttallii</i> (nesting) Nuttall's woodpecker	— / — (BCC)	G4G5 S4S5	Permanent resident of low-elevation riparian deciduous and oak habitats. Frequents a mix of deciduous riparian and adjacent oak habitats. Requires snags and dead limbs for nest excavation. (CWHR 2017)	No. Project site is higher in elevation than the range of the species.
<i>Pipilio chlorurus</i> Green-tailed towhee	— / — (IUCN:LC)	G5 SNRB	Montane chaparral, sagebrush, low sagebrush, and bitterbrush habitats. Where such habitats form understory, sparse coniferous forests also are occupied. (CWHR 2017)	No. Project site has no chaparral habitat.
<i>Plegadis chihi</i> (rookeries) White-faced ibis	— / — (SSC)	G5 S3S4	Fresh emergent wetlands, shallow lakes, irrigated pastures or cropland. Nests amid tall marsh plants in extensive marshes. Rarely nests in scattered CA locations: Salton Sea, Buena Vista Lagoon, Klamath Basin, Central Valley. (CWHR 2017)	No. Project site is not within the known range of the species.
<i>Progne subis</i> (nesting) Purple martin	— / — (SSC)	G5 S3	Uses valley foothill, montane hardwood, montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats. Inhabits open forests, woodlands, and riparian areas in breeding season. Nests in tree cavities. (CWHR 2017)	Yes. See text for further discussion.
<b><i>Riparia riparia</i></b> (nesting) <b>Bank swallow</b>	— / T	G5 S2	Open riparian areas, brushland, grassland and cropland. Nests in vertical banks and cliffs with fine-textured soils near water. (CWHR 2017)	No. Project site has no vertical banks or cliffs required by the species.
<i>Setophaga petechia</i> (nesting) Yellow warbler	— / — (SSC)	G5 S4	Nests in riparian habitats dominated by willows, cottonwoods, sycamores or alders, or in mature chaparral. Also breeds in open ponderosa pine and mixed conifer habitats with substantial amounts of brush, up to 2500 m (8000 ft) in Sierra Nevada. (CWHR 2017)	Yes. See text for further discussion.
<i>Sphyrapicus ruber</i> (nesting) Red-breasted sapsucker	— / — (BCC)	G5 S4	Riparian areas in deciduous and coniferous forest habitats, especially near aspens, open meadows, clearings, lakes. Breeds from 1200-2500 m (4000-8000 ft) elevation in the Sierras. (CWHR 2017)	No. Project site is lower in elevation than the known nesting range of the species.



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<i>Sphyrapicus thyroideus</i> Williamson's sapsucker	— / — (ICUN:LC)	G5TU S?	Conifer forests, 1700-2900m elevation. Prefers to nest in lodgepole pine, but also red fir, Jeffrey pine and eastside pine habitats. Winter range includes ponderosa pine habitat. (CWHR 2017)	No. Project site is lower in elevation than the known nesting range of the species.
<i>Spinus lawrencei</i> (nesting) Lawrence's goldfinch	— / — (BCC)	G3G4 S3	Breeds in open oak or other arid woodland near water. Prefers to nest in an oak, but also uses chaparral. (CWHR 2017)	No. Project site is higher in elevation than the range of the species.
<i>Spizella atrogularis</i> Black-chinned sparrow	— / — (ICUN:LC)	G5 S3	Summer resident inhabiting tall, dense chaparral on dry, often south-facing slopes, also sagebrush and montane chaparral. Associated with chamise, ceanothus, manzanita and sagebrush habitats.	No. Project site has no chaparral habitat.
<i>Spizella breweri</i> Brewer's sparrow	— / — (ICUN:LC)	G5 S4	Breeding habitat is associated with sagebrush-dominated landscapes; winters in sagebrush shrublands and desert dominated by saltbrush vegetation and creosote. (CWHR 2017)	No. Project site is not within the known range of the species.
<i>Stellula calliope</i> (nesting) Calliope hummingbird	— / — (ICUN:LC)	G5 S?	Summer resident of California, breeding in mountain ranges throughout the state; absent in winter. Breeds in wooded habitats from ponderosa pine and montane hardwood-conifer up through lodgepole pine, favoring montane riparian, aspen, and other open forests near streams. (CWHR 2017)	Yes. See text for further discussion.
<i>Strix occidentalis occidentalis</i> California spotted owl	— / — (SSC)	G3T3 S3	In northern California, found in dense, old-growth mixed conifer habitats (canopy closure >40%) in narrow, steep-sided canyons with north-facing slopes, within 300 meters of water (CWHR 2017)	No. Project site has no narrow, steep-sided canyons with north-facing slopes.
<b><u>Mammals</u></b>				
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	— / — (SSC)	G3G4 S2	Found throughout California in a wide variety of habitats, except subalpine and alpine habitats. Most common in mesic sites. Extremely sensitive to human disturbance. (CNDDB 2017) Requires caves, mines, tunnels, buildings, or other human-made structures for roosting. (CWHR 2017)	Yes. See text for further discussion.

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<i>Lasiorycteris noctivagans</i> Silver-haired bat	— / — ( IUCN: LC)	G5 S3S4	Primarily found in coastal and montane forests, but also valley foothill woodlands and riparian areas. Feeds over ponds, streams and open brushy areas. Roosts in hollow trees, beneath loose bark, in abandoned woodpecker holes; rarely under rocks. Requires drinking water. (CWHR 2017)	Yes. See text for further discussion.
<i>Lasiurus cinereus</i> Hoary bat	— / — ( IUCN: LC)	G5 S4	Found in broadleaf upland forest, cismontane woodland, lower montane coniferous forest and north coast coniferous forest. Prefers open habitats or habitat mosaics with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Requires water. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Myotis thysanodes</i> Fringed myotis bat	— / — ( IUCN: LC)	G4 S3	Occurs in a wide variety of habitats, except Central Valley and Colorado and Mojave deserts. Optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer, generally at 1300-2200 m (4000-7000 ft). Roosts in caves, mines, buildings, and crevices. (CWHR 2017)	Yes. See text for further discussion.
<i>Myotis volans</i> Long-legged myotis bat	— / — ( IUCN: LC)	G5 S3	Upper montane coniferous forest. Most common in woodland & forest habitats above 4000 ft. Often roost in trees during day, caves and mines at night; nurseries usually under bark or in hollow trees, but occasionally in crevices or buildings. Feeds over water and open habitats. (CNDDDB 2017)	No. Project site is lower in elevation that the range of the species.
<i>Myotis yumanensis</i> Yuma myotis	— / — ( IUCN: LC)	G5 S4	Many habitats from sea level to 2400 m. in Sierras, roosting in caves, mines, buildings, bridges, crevices. Forages for insects over water bodies. (CWHR 2017)	Yes. See text for further discussion.
<i>Pekania pennanti</i> Fisher–West Coast DPS (Distinct Population Segment)	CT / CT (SSC)	G5T2T3Q S2S3	Suitable habitat is large areas of mature, dense coniferous forest stands or deciduous-riparian habitats with ≥50% canopy closure. Feeds on lagomorphs, rodents, shrews, birds, burit and carrion (CWHR 2017). Needs large areas of mature, dense forest. (CNDDDB 2017)	No. Project site has limited areas of coniferous forest, and lacks riparian habitat with 50% or more canopy closure.

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<i>Vulpes vulpes necator</i> Sierra Nevada red fox	C / T	G5T1T2 S1	Prefers forests interspersed with meadows or alpine fell-fields. Use dense vegetation & rocky areas for cover & den sites. Most sightings in Sierra Nevada are above 2200 m (7000 ft). (CWHR 2017) As of 2013, only 2 populations of Sierra Nevada red fox were known to exist: near Lassen Peak & near Sonora Pass. (CNDDDB 2017)	No. Project site is lower in elevation than the range of the species.
<b>Plants</b>				
<i>Allium jepsonii</i> Jepson's onion	— / — (1B.2)	G2 S2	In Sierra foothills, found on serpentine soils within chaparral, cismontane woodland and lower montane coniferous forest, 355-1130 m elevation. (CNDDDB 2017)	No. Project site has no serpentine soils.
<i>Allium sanbornii</i> var. <i>congdonii</i> Congondon's onion	— / — (4.3)	G3T3 S3	Chaparral or cismontane woodland on serpentine or volcanic soils, 300-990 m. elevation. (CNPS 2017)	No. Project site has neither serpentine nor volcanic-derived soils.
<i>Allium sanbornii</i> var. <i>sanbornii</i> Sanborn's onion	— / — (4.3)	G3T4? S4?	Chaparral, cismontane woodland or lower montane coniferous forest, usually on gravelly serpentine soils, 260-1510 m. elevation. (CNPS 2017)	No. Project site has no serpentine soils.
<i>Arctostaphylos mewukka</i> ssp. <i>truei</i> True's manzanita	— / — (4.2)	G4?T3 S3 — / — (4.3)	Chaparral or lower montane coniferous forest, 425-1390 m. elevation. (CNPS 2017)	Yes. See text for further discussion.
<i>Arctostaphylos nissenana</i> Nissenan manzanita	— / — (1B.2)	G1 S1	Open rocky ridges in chaparral or closed-cone coniferous forest, usually on metamorphic soils, between 465-1610 m elevation. (CNDDDB 2017)	No. Project site has neither rocky ridge nor closed-cone coniferous forest habitat.
<i>Astragalus pauperculus</i> Depauperate milk-vetch	— / — (4.3)	G4 S4	Wet sites in chaparral, cismontane woodland, and valley and foothill grassland on volcanic clay soils, 60-1215 m. elevation. (CNPS 2017, Jepson 2017)	No. Project site has no volcanic soils.
<i>Balsamorhiza macrolepis</i> Big-scale balsamroot	— / — (1B.2)	G2 S2	Chaparral, cismontane woodland and valley and foothill grassland, sometimes on serpentine soils, 35-1465 m elevation. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Brasenia schreberi</i> Watershield	— / — (2B.3)	G5 S3	Freshwater marshes, swamps, ponds and slow streams, 30-2200 m elevation. (CNPS 2017, Jepson 2017)	Yes. See text for further discussion.

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<i>Calochortus clavatus</i> var. <i>avius</i> Pleasant Valley mariposa-lily	— / — (1B.2)	G4T2 S2	Lower montane coniferous forest on Josephine silt loam or volcanically-derived soil; often in rocky areas. 300-1710 m. elevation. (CNDDDB 2017)	No. Project site has neither Josephine nor volcanically-derived soils.
<i>Calystegia stebbinsii</i> Stebbin's morning-glory	<b>E</b> / <b>E</b> (1B.1)	G1 S1	Open areas in chaparral or cismontane woodland on gabbro or serpentine soils, 300-725 m elevation. (CNDDDB 2017)	No. Project site has neither gabbro nor serpentine soils.
<i>Calystegia vanzuukiae</i> Van Zuuk's morning-glory	— / — (1B.3)	G2Q S2	Chaparral or cismontane woodland on gabbro or serpentine soils, 500-1180 m elevation. (CNDDDB 2017)	No. Project site has neither gabbro nor serpentine soils.
<i>Carex cyrtostachya</i> Sierra arching sedge	— / — (1B.2)	G2 S2	Wet meadows, seeps, marshes and swamps in lower montane coniferous forest and riparian forests, 605-1390 m elevation. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Carex praticola</i> Northern meadow sedge	— / — (2B.2)	G5 S2	Meadows and seeps, riparian edges 0-3200 m elevation. (CNPS 2017, Jepson 2017)	Yes. See text for further discussion.
<i>Carex xerophila</i> Chaparral sedge	— / — (1B.2)	G2 S2	Chaparral, cismontane woodland and lower montane coniferous forest on serpentine or gabbro soils, 275-770 m elevation. (CNDDDB 2017) Dry gabbro or serpentine soils in open forest, scrub, thicket edges, chaparral, often with MacNab cypress ( <i>Hesperocyparis macnabiana</i> ). (Jepson 2017)	No. Project site has neither gabbro nor serpentine soils.
<i>Ceanothus fresnensis</i> Fresno ceanothus	— / — (4.3)	G4 S4	Openings in cismontane woodland, and in lower coniferous forest, 900 - 2103 meters elevation. (CNPS 2017)	No. Project site is lower in elevation than the range of the species.
<i>Ceanothus roderickii</i> Pine Hill ceanothus	<b>R</b> / <b>E</b> (1B.1)	G1 S1	Chaparral or cismontane woodland on serpentine or gabbro soils, 260-630 m elevation. (CNDDDB 2017)	No. Project site has neither gabbro nor serpentine soils.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	— / — (1B.2)	G2 S32	Cismontane woodland, chaparral and lower montane coniferous forest, frequently on serpentine or gabbro soils, but also on non-ultramafic substrates; often on "historically disturbed" sites. 245-1240 m. (CNDDDB 2017)	No. Project site has neither gabbro nor serpentine soils, and lacks cismontane woodland vegetation. CNDDDB occurrences on metamorphic soils are on dry, rocky outcrops, which are not found on the project site.
<i>Clarkia biloba</i> ssp. <i>brandegeae</i> Brandegee's clarkia	— / — (4.2)	G4G5T4 S4	Often on roadcuts or canyon slopes within chaparral, cismontane woodland or lower montane coniferous forest, 75-915 m elevation. (CNPS 2017)	No. Project site lacks sloping habitats suitable for the species.
<i>Clarkia virgata</i> Sierra clarkia	— / — (4.3)	G3 S3	Cismontane woodland, lower montane coniferous forest, 400-1615 m elevation (CNPS 2017). Lower margin of montane forest and adjacent oak-grey pine woodland (CNDDDB 2017).	No. Project site is well-above the oak-grey pine interface with lower montane coniferous forest.

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<i>Claytonia parviflora</i> ssp. <i>grandiflora</i> Streambank spring beauty	— / — (4.2)	G5T3 S3	Cismontane woodland on rocky soils, 250-1200 m elevation. (CNPS 2017) Generally restricted to scree slopes, rock ledges and decomposing granite outcrops, including roadcuts (NatureServe 2017) Vernal moist, often disturbed sites. (Jepson 2017)	No. Project site has no rocky soils or ledges, scree-slopes, or decomposing granite habitat.
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	— / — (3.2)	G2Q S2	Openings in chaparral on serpentine, gabbro or Ione soils, 45-840 m elevation. (CNDDDB 2017)	No. Project site has neither gabbro nor serpentine soils.
<i>Epilobium oreganum</i> Oregon fireweed	— / — (1B.2)	G2 S2	Bogs, fens, meadows, seeps in lower and upper montane coniferous forest, 500-2240 m elevation. (CNPS 2017)	Yes. See text for further discussion.
<i>Erigeron petrophilus</i> var. <i>sierrensis</i> Northern Sierra daisy	— / — (4.3)	G4T4 S4	Cismontane woodland, lower and upper montane coniferous fores, sometimes on serpentine soils, 300-2073 m elevation. (CNPS 2017)	Yes. See text for further discussion.
<i>Eriogonum tripodum</i> Tripod buckwheat	— / — (4.2)	G4 S4	Chaparral and cismontane woodland, often on serpentine soils, 200-1600 m elevation. (CNPS 2017)	No. Project site has no chaparral or cismontane woodland vegetation.
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	<b>E / R</b> (1B.2)	G1 S1	Chaparral or cismontane woodland on rocky gabbro or serpentine soils, 425-760 m elevation. (CNPS 2017)	No. Project site has neither gabbro nor serpentine soils.
<i>Fritillaria agrestis</i> Stinkbells	— / — (4.2)	G3 S3	Chaparral, cismontane woodland, pinyon/juniper woodland, and valley and foothill grasslands, often on vertical clay, sometimes on serpentine soils, 10-1555 m elevation. (CNPS 2017, Jepson 2017)	No. Project site lacks both suitable vegetation communities and suitable soils.
<i>Fritillaria eastwoodiae</i> Butte County fritillary	— / — (3.2)	G3 S3	Chaparral, cismontane woodland or lower montane coniferous forest, usually on dry slopes but sometime in wet places; serpentine, red clay or sandy soils (CNDDDB 2017). 50-1500 m elevation (CNPS 2017)	Yes. See text for further discussion.
<i>Githopsis pulchella</i> ssp. <i>serpentinicola</i> Serpentine bluecup	— / — (4.3)	G4T3 S3	Cismontane woodland on serpentine or Ione soils, 320-610 m elevation. (CNPS 2017)	No. Project site has neither Ione nor serpentine soils.
<i>Glyceria grandis</i> American manna grass	— / — (2B.3)	G5 S3	Wet meadows, ditches, streams, and ponds in valleys and lower elevations in the mountains. 60-2045 m. elevation (CNDDDB 2017)	Yes. See text for further discussion.
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	— / E (1B.2)	G2 S2	Clay soils; usually in vernal pools, sometimes on lake margins. 10-2375 m. elevation. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Horkelia parryi</i> Parry's horkelia	— / — (1B.2)	G2 S2	Openings in chaparral and cismontane woodland, on Ione or limestone soils, between 85-1115 m. elevation. (CNDDDB 2017)	No. Project site lacks suitable soils for the species.



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<i>Juncus leiospermus</i> var. <i>leiospermus</i> Red Bluff dwarf rush	— / — (1B.1)	G2T2 S2	Vernally mesic sites in chaparral, valley and foothill grassland, cismontane woodland; vernal pools, meadows and seeps, 30-1025 m elevation. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Juncus luciensis</i> Santa Lucia dwarf rush	— / — (1B.2)	G3 S3	Vernal pools, ephemeral drainages, wet meadow habitats and streams, roadsides. 300-2040 m. elevation. (CNDDDB 2017, Jepson 2017)	Yes. See text for further discussion.
<i>Juncus leiospermus</i> var. <i>argillaceus</i> Dubious pea	— / — (3)	G5T1T2 S1S2	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, 150-930 m elevation. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Lathyrus sulphureus</i> var. <i>argillaceus</i> Dubious pea	— / — (CNPS: 4.3)	G5T1T2 S1S2	Cismontane woodland, lower and upper coniferous forest, 150-305 meters elevation. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Legenere limosa</i> Legenere	— / — (1B.1)	G2 S2	Beds of vernal pools, 1-880 m elevation. (CNDDDB 2017)	No. Project site has no vernal pool habitat.
<i>Lewisia serrata</i> Saw-toothed lewisia	— / — (1B.1)	G2 S2	Shaded, north-facing, moss-covered, metamorphic rock cliffs in broadleaf upland forest, lower montane coniferous forest, or riparian forest. 900-1435 m. (CNDDDB 2017)	No. Project site has no suitable cliff habitat, and is lower in elevation than the range of the species.
<i>Lilium humboldtii</i> ssp. <i>humboldtii</i> Humboldt lily	— / — (4.2)	G4T3 S3	Openings in Chaparral, cismontane woodland and lower montane coniferous forest, 90-1280 m elevation. (CNPS 2017)	Yes. See text for further discussion.
<i>Lycopus uniflorus</i> Northern bugleweed	— / — (4.3)	G5 S4	Bogs, fens, marshes and swamps, 5-2000 m elevation. (CNPS 2017)	Yes. See text for further discussion.
<i>Microseris sylvatica</i> Sylvan microseris	— / — (4.2)	G4 S4	Serpentine soils in chaparral, cismontane woodland, Great Basin scrub, pinyon/juniper woodland and valley/foothill grasslands, 45-1500 m elevation. (CNPS 2017)	No. Project site has no serpentine soils.
<i>Monardella candicans</i> Sierra monardella	— / — (4.3)	G4 S4	Sandy or gravelly soils within chaparral, cismontane woodland, lower montane coniferous forest, 150-800 m elevation. (CNPS 2017)	No. Project site has no gravelly or sandy soils.
<i>Myrica hartwegii</i> Sierra sweet bay	— / — (4.3)	G4T3 S4	Cismontane woodland, lower montane coniferous forest and riparian forest, 150-1750 m elevation. (CNPS 2017) Streambanks, moist places in foothills or low montane yellow-pine forest. (Jepson 2017)	Yes. See text for further discussion.
<i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i> Adobe navarretia	— / — (4.2)	G4T3 S3	Vernal pools within valley/foothill grassland, sometimes on clay or serpentine soils, 100-1000 m elevation. (CNPS 2017)	No. Project site has no vernal pools.

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<i>Navarretia prolifera</i> ssp. <i>lutea</i> Yellow bur navarretia	— / — (4.3)	G4T3 S3	Chaparral or cismontane woodland, 853-1402 m elevation. (CNPS 2017) Dry, rocky flats near drainage channels. (Jepson 2017)	No. Project site is lower in elevation than the range of the species.
<i>Packera layneae</i> Layne's ragwort	<b>T / R</b> (1B.2)	G2 S2	Serpentine or gabbro soils within chaparral or cismontane woodland, 200-1085 m elevation. (CNDDDB 2017)	No. Project site has neither serpentine nor gabbro soils.
<i>Phacelia stebbinsii</i> Stebbin's phacelia	— / — (1B.2)	G3 S3	Lower montane coniferous forest, cismontane woodland, meadows and seeps; among rocks and rubble on metamorphic rock benches. 610-2010 m. (CNDDDB 2017)	No. Project site has no metamorphic rock benches.
<i>Piperia leptopetala</i> Narrow-petaled rein orchid	— / — (4.3)	G4 S4	Generally dry sites in cismontane woodland, lower and upper montane coniferous forest, 380-2225 m elevation. (Jepson 2017, CNPS 2017)	Yes. See text for further discussion.
<i>Poa sierrae</i> Sierra bluegrass	— / — (1B.3)	G3 S3	Shady, moist, rocky slopes in lower montane coniferous forest; often in canyons. 365-1500 m. (CNDDDB 2017)	No. Project site has no shady, rocky slopes.
<i>Potamogeton epiphydrus</i> Nuttall's ribbon-leaved pondweed	— / — (2B.2)	G5 S2S3	Shallow water marshes, swamps, ponds, lakes, streams, irrigation ditches. 295-2640 m. (CNDDDB 2017)	Yes. See text for further discussion.
<i>Viburnum ellipticum</i> Oval-leaved viburnum	— / — (2B.3)	G4G5 S3?	Chaparral, cismontane woodland, lower montane coniferous forest, 215-1400 m elevation. (CNDDDB 2017) Generally on north-facing slopes. (Jepson 2017)	Yes. See text for further discussion.
<i>Wyethia reticulata</i> El Dorado County mule-ears	— / — (1B.2)	G2 S2	Stony red clay and gabbroic soils in chaparral, cismontane woodland or lower montane coniferous forest; often in openings in gabbro chaparral. 185-630 m. elevation. (CNDDDB 2017)	No. Project site lacks suitable soils for the species.

## **APPENDIX F**

**Plant Species Found  
on the  
Project Site  
March 15, April 14, May 8, 18 & 25, and June 7 & 26, 2017**

**Plant Species Found on the Project Site**  
**March 15, April 14, May 8, 18 & 25, and June 7 & 2017**  
**Wetland indicator status<sup>8</sup> shown in red. Plants with no indicator are upland plants.**

**Agavaceae**

*Camassia quamash* (Pursh) Greene ssp. *breviflora*  
Gould, **Smallflowered camas FACW**  
*Chlorogalum pomeridianum* (DC.) Kunth var. *minus*  
Hoover, **Common soaproot**

**Alismataceae**

*Sagittaria latifolia* Willd., **Broad-leaved Arrowhead**  
**OBL**

**Anacardiaceae**

*Toxicodendron diversilobum* (Torr. & A. Gray) Greene,  
**Western poison oak**

**Apiaceae**

*Daucus carota* L., **Queen Anne's lace**  
*Scandix pecten-veneris* L., **Venus' needle**

**Asteraceae**

*Agoseris heterophylla* (Nutt.) Greene var.  
*heterophylla*, **Annual mountain dandelion**  
*Artemisia douglasiana* Besser, **Mugwort**  
*Baccharis pilularis* ssp. *consanguinea* (DC.) C.B. Wolf,  
**Coyote brush**  
*Carduus pycnocephalus* L. subsp. *pycnocephalus*,  
**Italian plumeless thistle**  
*Centaurea solstitialis* L., **Yellow star-thistle**  
*Cirsium vulgare* (Savi) Ten., **Bull thistle FACU**  
*Erigeron canadensis* L., **Horseweed**  
*Eriophyllum lanatum* (Pursh) J. Forbes, **Woolly**  
**sunflower**  
*Gnaphalium palustre* Nutt., **Western marsh cudweed**  
**FAC**  
*Grindelia hirsutula* Hook. & Arn., **Gum plant**  
*Hypochaeris* sp., **Cat's ear**  
*Lactuca serriola* L., **Prickly lettuce FACU**  
*Lasthenia californica* Lindl. subsp. *californica*,  
**California goldfields**  
*Leontodon saxatilis* Lam. **Hawkbit**  
*Leucanthemum maximum* (Ramond) DC. **Shasta daisy**  
*Logfia gallica* (L.) Coss. & Germ., **Daggerleaf**  
**cottonrose**  
*Madia exigua* (Sm.) A. Gray, **Small tarweed**  
*Matricaria chamomilla* L., **German chamomile**  
*Matricaria discoidea* DC., **Pineapple weed FACU**  
*Pseudognaphalium* sp., **Cud weed**  
*Senecio vulgaris* L., **Common groundsel**  
*Silybum marianum* (L.) Gaertn., **Milk thistle**  
*Sonchus asper* (L.) Hill ssp. *asper*, **Prickly sow thistle**  
**FACU**  
*Wyethia angustifolia* (DC.) Nutt., **Narrow leaf mule-**  
**ears**

**Brassicaceae**

*Brassica nigra* (L.) W. D. J. Koch, **Black mustard**  
*Capsella bursa-pastoris* (L.) Medik., **Shepherd's purse**  
*Lepidium campestre* (L.) W.T. Aiton, **Field Pepperweed**  
*Nasturtium officinale* W.T. Aiton, **Water cress OBL**

**Boraginaceae**

*Eriodictyon californicum* (Hook. & Arn.) Torr.,  
**California Yerba Santa**  
*Myosotis discolor* Pers., **Changing forget-me-not**  
**FACU**  
*Plagiobothrys bracteatus* (Howell) I.M. Johnst.,  
**Bracted popcornflower FACW**

**Caprifoliaceae**

*Lonicera hispidula* (Lindl.) Torr. & A. Gray, **Hairy**  
**honeysuckle**

**Caryophyllaceae**

*Cerastium glomeratum* Thuill., **Sticky mouse-ear**  
**chickweed FACU**

**Convolvulaceae**

*Convolvulus arvensis* L., **Field bindweed**

**Cupressaceae**

*Calocedrus decurrens* (Torr.) Forin, **Incense-cedar**

**Cyperaceae**

*Carex feta* L.H. Bailey, **Green-sheathed sedge FACW**  
*Carex hirtissima* W. Boott, **Fuzzy sedge OBL**  
*Carex tumulicola* Mack., **Foothill sedge FACU**  
*Cyperus eragrostis* Lam., **Tall flatsedge FACW**  
*Eleocharis parishii* Britton, **Parish's spikerush FACW**  
*Scirpus microcarpus* J. Presl & C. Presl, **Panicled**  
**bulrush OBL**

**Dennstaedtiaceae**

*Pteridium aquilinum* (L.) Kunth var. *pubescens*, **Bracken**  
**fern FAC**

**Ericaceae**

*Arbutus menziesii* Pursh., **Pacific madrone**  
*Arctostaphylos viscida* Parry subsp. *viscida*, **Whiteleaf**  
**manzanita**

**Equisetaceae**

*Equisetum arvense* L., **Common horsetail**

**Euphorbiaceae**

*Euphorbia spathulata* Lam., **Warty spurge FACU**

<sup>8</sup> Obligate (OBL) plants almost always occur in wetlands (99% probability); facultative wetland (FACW) plants usually occur in wetlands(67-99% probability) but occasionally are found in non-wetlands; facultative (FAC) plants are equally likely to occur in wetlands or non-wetlands (34-66% probability); facultative upland (FACU) usually occur in non-wetlands (1-33% Probability) but are occasionally found in wetlands.

### Fabaceae

*Acmispon americanus* (Nutt.) Rydb. var. *americanus*  
*Acmispon brachycarpus* (Benth.) D.D. Sokoloff, **Hill lotus**

*Cytisus scoparius* (L.) Link, **Scotch broom**  
*Hosackia oblongifolia* Benth. var. *oblongifolia*,

**Streambank Bird's-foot Trefoil OBL**

*Lathyrus latifolius* L., **Perennial sweetpea**  
*Medicago polymorpha* L., **Bur-clover FACU**  
*Trifolium dubium* Sibth., **Little hop clover FACU**  
*Trifolium hirtum* All., **Rose clover**  
*Trifolium pratense* L., **Red clover FACU**  
*Trifolium subterraneum* L., **Subterranean clover**  
*Vicia* sp., **Vetch**

### Fagaceae

*Quercus chrysolepis* Liebm., **Canyon live oak**  
*Quercus kelloggii* Newb., **Blackoak**  
*Quercus wislizeni* A.DC., **Interior live oak**

### Geraniaceae

*Erodium* sp. **Filaree**  
*Geranium carolinianum* L.  
*Geranium dissectum* L., **Cutleaf geranium**  
*Geranium molle* L., **Woodland geranium**

### Hypericaceae

*Hypericum anagalloides* Cham. & Schltl., **Tinker's penny OBL**  
*Hypericum perforatum* L. ssp. *perforatum*  
**klamathweed FACU**  
*Hypericum scouleri* Hook., **Scouler's St. Johnswort FACW**

### Iridaceae

*Sisyrinchium bellum* S. Watson, **Western blue-eyed-grass FACW**

### Juncaceae

*Juncus balticus* Willd., ssp. *ater* (Rydb.) Shogerup,  
**Baltic rush FACW**  
*Juncus bufonius* L. var. *bufonius*, **Toad rush FACW**  
*Juncus oxymeris* Engelm, **Pointed rush FACW**  
*Juncus patens* E. Mey., **Spreading rush FACW**  
*Juncus tenuis* Willd., **Slender rush FAC**  
*Luzula comosa* E. Mey. var. *comosa*, **Hairy woodrush FAC**

### Lamiaceae

*Lamium amplexicaule* L., **Henbit**  
*Marrubium vulgare* L., **Horehound FACU**  
*Mentha aquatica* L., **Water mint FACW**

### Lauraceae

*Umbellularia californica* (Hook. & Arn.) Nutt.,  
**California bay**

### Liliaceae

*Calochortus monophyllus* (Lindl.) Lem., **Yellow star-tulip**  
*Calochortus venustus* Benth., **Butterfly mariposa lily**  
*Lilium humboldtii* Duch. ssp. *humboldtii*, **Humboldt lily**

### Linaceae

*Linum bienne* Mill., **Pale flax**

### Lythraceae

*Lythrum hyssopifolia* L., **Hyssop loosestrife OBL**

### Malvaceae

*Malva parviflora* L., **Cheeseweed**

### Montiaceae

*Claytonia perfoliata* Willd., ssp. *perfoliata*, **Miner's lettuce FACU**

### Myrsinaceae

*Lysimachia arvensis* (L.) U. Manns & Anderb.,  
**Pimpernel FAC**  
*Lysimachia nummularia* L., **Creeping-Jenny FACW**

### Nymphaeaceae

*Nymphaea odorata* Aiton, **White waterlily OBL**

### Orobanchaceae

*Castilleja applegatei* ssp. *pinetorum* (Fernald) T.I. Chuang & Heckard, **Wavyleaf Paintbrush**  
*Castilleja attenuata* (A. Gray) T.I. Chuang & Heckard,  
**Valley tassels**  
*Triphysaria pusilla* (Benth.) T.I. Chuang & Heckard,  
**Dwarf owl's clover**

### Phrymaceae

*Mimulus guttatus* DC., **Seep monkeyflower OBL**

### Pinaceae

*Pinus ponderosa* Douglas ex Lawson & C. Lawson,  
**Ponderosa pine FACU**  
*Pseudotsuga menziesii* (Mirb.) Franco var. *menziesii*  
**Douglas-fir**

### Plantaginaceae

*Plantago erecta* E. Morris, **Foothill plantain**  
*Plantago lanceolata* L., **English plantain FACU**  
*Veronica anagallis-aquatica* L., **Water speedwell OBL**  
*Veronica arvensis* L., **Common speedwell FACU**

### Poaceae

*Aegilops triuncialis* L., **Barbed goat grass**  
*Aira caryophylla* L., **Silver hair grass FACU**  
*Alopecurus aequalis* Sobol. var. *aequalis*, **Short-awn foxtail OBL**  
*Anthoxanthum odoratum* L., **Sweet vernal grass FACU**  
*Arrhenatherum elatius* (L.) J. Presl & C. Presl, **Tall oatgrass**  
*Avena* sp., **Wild oats**  
*Briza minor* L., **Annual quaking grass FAC**  
*Bromus hordeaceus* L., **Soft chess FACU**  
*Bromus racemosus* L., **Smooth brome**  
*Bromus sterilis* L., **Poverty brome**  
*Cynodon dactylon* (L.) Pers., **Bermuda grass FACU**  
*Cynosurus echinatus* L., **Bristly dogtail grass**  
*Dactylis glomerata* L., **Orchard grass FACU**  
*Deschampsia danthonioides* (Trin.) Munro, **Annual hair grass FACW**  
*Elymus caput-medusae* L., **Medusa-head**  
*Elymus glaucus* Buckley, **Blue wild-rye FACU**  
*Festuca arundinacea* Schreb., **Tall fescue**  
*Festuca bromoides* L., **Brome fescue**  
*Festuca californica* Vasey, **California fescue FACU**  
*Festuca microstachys* Nutt., **Few-flowered Fescue**  
*Festuca myuros* L., **Rattail sixweeks grass**

**Poaceae (continued)**

*Festuca occidentalis* Hook., **Western fescue**  
*Festuca perennis* (L.) Columbus & J.P. Sm., **Rye grass**  
**FAC**  
*Holcus lanatus* L., **Common velvet grass** **FAC**  
*Muhlenbergia mexicana* (.) Trin., **Mexican muhly** **FAC**  
*Muhlenbergia rigens* (Benth.) Hitchc., **Deer grass**  
*Phalaris aquatica* L., **Harding grass** **FACU**  
*Phalaris arundinacea* L., **Reed canary grass** **FACU**  
*Phalaris minor* Retz., **Little-seeded canary grass**  
*Poa annua* L., **Annual blue grass** **FAC**  
*Poa pratensis* L. ssp. *pratensis*, **Kentucky blue grass**  
**FAC**  
*Poa trivialis* L., **Rough blue grass** **FAC**  
*Scribneria bolanderi* (Thurb.) Hack., **Scribner grass**  
*Sorghum halepense* (L.) Pers., **Johnson grass** **FACU**  
*Trisetum canescens* Buckley, **Tall false oat**

**Polemoniaceae**

*Navarretia intertexta* (Benth.) Hook., **Needleleaf**  
**Navarretia** **FACW**

**Polygonaceae**

*Polygonum aviculare* ssp. *depressum* **Common**  
**knotweed** **FAC**  
*Rumex acetosella* L., **Sheep sorrel** **FACU**  
*Rumex crispus* L., **Curly dock** **FAC**

**Ranunculaceae**

*Ranunculus canus* Benth., **Buttercup** **FAC**  
*Ranunculus occidentalis* Nutt. var. *occidentalis*,  
**Buttercup** **FACW**

**Rhamnaceae**

*Ceanothus integerrimus* Hook. & Arn., **Deer brush**  
*Ceanothus tomentosus* Parry, **Woolly-leaf Ceanothus**  
*Frangula californica* (Eschsch.) A. Gray, ssp. *tomentella*  
**California coffeeberry**  
*Rhamnus ilicifolia* Kellogg, **Hollyleaf redberry**

**Rosaceae**

*Chamaebatia foliolosa* Benth., **Mountain misery**  
*Drymocallis glandulosa* (Lindl.) Rydb. var. *glandulosa*  
**Sticky Cinquefoil**  
*Poterium sanguisorba* L., **Garden burnet**  
*Rosa canina* L., **Dog rose**  
*Rubus armeniacus* Focke, **Himalayan blackberry** **FAC**  
*Rubus laciniatus* Willd., **Cut-leaf blackberry** **FACU**  
*Rubus ursinus* Cham. & Schldtl., **California blackberry**  
**FACU**

**Rubiaceae**

*Galium aparine* L., **Goose grass** **FACU**  
*Galium murale* (L.) All., **Tiny bedstraw**  
*Sherardia arvensis* L., **Field madder**

**Salicaceae**

*Populus alba* L., **White poplar**  
*Populus fremontii* S. Watson subsp. *fremontii*, **Fremont**  
**Cottonwood**  
*Salix babylonica* L., **Weeping willow** **FACW**  
*Salix exigua* Nutt., **Narrow-leaf willow** **FACW**  
*Salix lasiolepis* Benth., **Arroyo willow** **FACW**

**Scrophulariaceae**

*Verbascum thapsus* L., **Woolly mullein**

**Themidaceae**

*Dichelostemma multiflorum* (Benth.) A. Heller, **Wild**  
**hyacinth**  
*Triteleia hyacinthina* (Lindl.) Greene, **White brodiaea**  
**FAC**

**Typhaceae**

*Typha* sp. **Cattail** **OBL**

**Viscaceae**

*Phoradendron leucarpum* ssp. *tomentosum*  
(DC.) J.R. Abbot & R.L. Thomps., **Mistletoe**



Exhibit I: Biological Resources Update Information  
P17-0008 Steward Tentative Parcel Map

**Table 4.** State- or federal-listed species with potential habitat on the project site.

Listed Species	Common Name	Listing Status Federal/State	Habitat Quality	Species Found On Project Site?
<i>Rana draytonii</i>	California red-legged frog	T / —	Suitable	No
<i>Agelaius tricolor</i>	Tricolored blackbird	— / T	Marginal	No
<i>Empidonax traillii</i>	Willow flycatcher	— / E	Marginal	No
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	— / E	Marginal	No
<i>Bombus occidentalis</i>	Western bumble bee	— / E	Suitable	No

**Table 5.** Species of Concern with potential habitat on the project site.

Species of Concern	Common Name	Global/State Rank (Other Rank)*	Habitat Quality	Species Found On Project Site?
<b><u>Insects</u></b>				
<i>Cosumnoperla hypocrena</i>	Cosumnes stripetail stonefly	G2 S2	Suitable	No
<i>Orobittacus obscurus</i>	Gold rush hanging scorpionfly	G1 S1	Suitable	No
<b><u>Reptiles</u></b>				
<i>Emys marmorata</i>	Western pond turtle	G3G4 S3 (SSC)	Suitable	Yes
<i>Phrynosoma blainvillii</i>	Coast homed lizard	G3G4 S3S4 (SSC)	Marginal	No
<b><u>Birds</u></b>				
<i>Accipiter cooperii</i>	Cooper's hawk	G5 S4 (WL)	Suitable	No
<i>Accipiter striatus</i>	Sharp-shinned hawk	G5 S4 (WL)	Marginal	No
<i>Asio otus</i>	Long-eared owl	G5 S3? (SSC)	Suitable	No
<i>Baeolophus inornatus</i>	Oak titmouse	G5 S4 (BCC)	Suitable	No
<i>Chaetura vauxi</i>	Vaux's swift	G5 S2S3 (SSC)	Suitable	No
<i>Chondestes grammacus</i>	Lark sparrow	G5 S4S5 (LC)	Marginal	No
<i>Circus hudsonius</i>	Northern harrier	G5 S3 (SSC)	Suitable	No
<i>Contopus cooperi</i>	Olive-sided flycatcher	G4 S4 (SSC, BCC)	Suitable	No
<i>Falco columbarius</i>	Merlin	G5 S3S4 (WL)	Suitable	No

Species of Concern	Common Name	Global/State Rank (Other Rank)*	Habitat Quality	Species Found On Project Site?
<b><u>Birds (continued)</u></b>				
<i>Icteria virens</i>	Yellow-breasted chat	G5 S3 (SSC)	Suitable	No
<i>Passerella iliaca</i>	Fox sparrow	— / — (LC)	Suitable	No
<i>Picoides albolarvatus</i>	White-headed woodpecker	G4 S4 (BCC)	Suitable	No
<i>Progne subis</i>	Purple martin	G5 S3 (SSC)	Suitable	No
<i>Setophaga petechia</i>	Yellow warbler	G5 S3S4 (SSC)	Suitable	No
<i>Stellula (Selasphorus) calliope</i>	Calliope hummingbird	G5 SNR (LC)	Marginal	No
<b><u>Mammals</u></b>				
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	G3G4 S2 (SSC)	Marginal	No
<i>Lasionycteris noctivagans</i>	Silver-haired bat	G5 S3S4 (M)	Suitable	No
<i>Lasiurus cinereus</i>	Hoary bat	G5 S4 (M)	Suitable	No
<i>Myotis thysanodes</i>	Fringed myotis bat	G4 S3 (S, H)	Marginal	No
<i>Myotis yumanensis</i>	Yuma myotis bat	G5 S4 (LM)	Suitable	No
<b><u>Plants</u></b>				
<i>Arctostaphylos mewukka</i> ssp. <i>truei</i>	True's manzanita	G4?T3 S3 (4.2)	Marginal	No
<i>Balsamorhiza macrolepis</i>	Big-scale balsamroot	G2 S2 (1B.2)	Suitable	No
<i>Brasenia schreberi</i>	Watershield	G5 S3 (2B.3)	Suitable	No
<i>Carex cyrtostachya</i>	Sierra arching sedge	G2 S2 (1B.2)	Suitable	No
<i>Carex praticola</i>	Northern meadow sedge	G5 S2 (2B.2)	Suitable	No
<i>Epilobium oreganum</i>	Oregon fireweed	G2 S2 (1B.2)	Suitable	No
<i>Erigeron petrophilus</i> var. <i>sierrensis</i>	Northern Sierra daisy	G4T4 S4 (4.3)	Suitable	No
<i>Fritillaria eastwoodiae</i>	Butte County fritillary	G3Q S3 (3.2)	Suitable	No
<i>Glyceria grandis</i>	American manna grass	G5 S3 (2B.3)	Suitable	No

Species of Concern	Common Name	Global/State Rank (Other Rank)*	Habitat Quality	Species Found On Project Site?
<b>Plants</b> (continued)				
<i>Juncus leiospermus</i> var. <i>leiospermus</i>	Red Bluff dwarf rush	G2T2 S2 (1B.1)	Suitable	No
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	G3 S3 (1B.2)	Suitable	No
<i>Lathyrus sulphureus</i> var. <i>argillaceus</i>	Dubius pea	G5T1T2 S1S2 (3)	Suitable	No
<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>	Humboldt lily	G4T3 S3 (4.2)	Suitable	Yes
<i>Lycopus uniflorus</i>	Northern bugleweed	G5 S4 (4.3)	Suitable	No
<i>Myrica hartwegii</i>	Sierra sweet bay	G4 S4 (4.3)	Suitable	No
<i>Piperia leptopetala</i>	Narrow-petaled rein orchid	G4 S4 (4.3)	Suitable	No
<i>Potamogeton epihydrus</i>	Nuttall's ribbon-leaved pondweed	G5 S2S3 (2B.2)	Suitable	No
<i>Viburnum ellipticum</i>	Oval-leaved viburnum	G4G5 S3? (2B.3)	Marginal	No

\* Other Rank listing agencies and abbreviations:

BCC = U.S. Fish and Wildlife Service (USFWS) - Birds of Conservation Concern.

H = Western Bat Working Group - High Priority Species; imperiled or at high risk of imperilment

LC = International Union for Conservation of Nature - Species of Least Concern.

LM = Western Bat Working Group - Low/Medium Priority Species

M = Western Bat Working Group - Medium Priority Species

Q = Questionable taxonomy -Taxonomic distinctiveness of this entity at the current level is questionable.

S = US Forest Service - Sensitive Species.

SSC = California Department of Fish & Wildlife - Species of Special Concern.

VU = International Union for Conservation of Nature - Vulnerable Species

WL = CA Dept. Fish & Wildlife (CDFW) - Watch List

? = Inexact or Uncertain—Denotes inexact or uncertain numeric rank.

1B = California Native Plant Society (CNPS) - List of Rare, Threatened or Endangered Plants in California and Elsewhere

2B = CNPS - List of Rare, Threatened or Endangered Plants in California but More Common Elsewhere

3 = CNPS - List of Plants About Which More Information is Needed - A Review List

4 = CNPS - List of Plants of Limited Distribution

CNPS Code Extensions: .1 = Seriously threatened in California;

.2 = Moderately threatened in California;

.3 = Not very threatened in California



Gina Hamilton &lt;gina.hamilton@edcgov.us&gt;

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**RE: Bio Report for Steward Parcel Map**

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**ruthwillson@comcast.net** <ruthwillson@comcast.net>  
To: Gina Hamilton <gina.hamilton@edcgov.us>

Fri, Sep 4, 2020 at 3:46 PM

Hi Gina,

Attached you will find updates for the species listed in Tables 4 and 5 of the Steward Bio report, filed in 2017. The only changes are: Tricolored blackbird is state-listed as threatened, rather than being a candidate for listing as endangered; Western bumble bee is now a candidate for listing as endangered by the state, so has been moved from Table 4 to Table 5. Other changes to Table 5 are: Northern harrier's scientific name has been changed from *Circus cyaneus* to *Circus hudsonius*; Olive-sided flycatcher's global rank has been changed from G5 to G4; Yellow-breasted chat's global and state listings are G5 and S4; and Narrow-petaled rein orchid's global and state listings are G4 and S4 (the latter two species' global and state listings were inadvertently left out of the original report).

Please contact me again if I may be of further assistance.

Ruth Willson  
Biologist

Office: (530) 622-7014  
Fax: (530) 903-5343  
email: [ruthwillson@comcast.net](mailto:ruthwillson@comcast.net)  
[siteconsultinginc.com](http://siteconsultinginc.com)

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-----Original Message-----

From: Gina Hamilton <[gina.hamilton@edcgov.us](mailto:gina.hamilton@edcgov.us)>  
Sent: Friday, September 4, 2020 2:47 PM  
To: [ruthwillson@comcast.net](mailto:ruthwillson@comcast.net)  
Subject: Out of Office RE: Bio Report for Steward Parcel Map

I will be away from my desk the afternoon of Friday, September 4th and Monday, September 7th (Labor Day), and returning on Tuesday, September 8th.

I will get back to you soon.

Kind regards,

Gina Hamilton

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\*Gina Hamilton\*  
Senior Planner

\*County of El Dorado\*  
Planning and Building Department  
2850 Fairlane Court, Bldg C

11/30/2020

Edcgov.us Mail - RE: Bio Report for Steward Parcel Map

Placerville, CA 95667  
Main Line (530) 621-5355  
Direct Line (530) 621-5980  
Fax (530) 642-0508  
[gina.hamilton@edcgov.us](mailto:gina.hamilton@edcgov.us)

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**2020 species' status update.pdf**  
80K



Gina Hamilton &lt;gina.hamilton@edcgov.us&gt;

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## Follow up re: Steward Parcel Map

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ruthwillson@comcast.net &lt;ruthwillson@comcast.net&gt;

Fri, Nov 6, 2020 at 3:27 PM

To: Gina Hamilton &lt;gina.hamilton@edcgov.us&gt;

Cc: Jennifer Steward &lt;jennifer@unitstudies.com&gt;

Hi Gina,

The changes outlined in the updated information for the Steward Tentative Parcel Map that I emailed to you September 4, 2020, do not alter any conclusions in my August 2017 Bio report. The mitigation measures listed in the report are sufficient to protect the listed and special-status species identified in both the report and the update.

Please contact me if you have other questions.

Ruth Willson

Biologist

Office: (530) 622-7014

Fax: (530) 903-5343

email: [ruthwillson@comcast.net](mailto:ruthwillson@comcast.net)

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