

**BIOLOGICAL RESOURCE ASSESSMENT  
FOR THE**

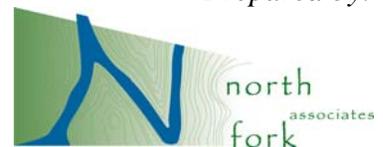
**±76-ACRE AMAZING FACTS STUDY AREA**

**PLACER COUNTY, CALIFORNIA**



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# BIOLOGICAL RESOURCE ASSESSMENT FOR THE ±76-ACRE AMAZING FACTS STUDY AREA

## INTRODUCTION

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### Project Location

North Fork Associates conducted a biological resource assessment for an approximately 76-acre project site in Placer County, California. The Study Area is located along Sierra College Boulevard just south of Rocklin Road. The location corresponds to Section 28 of Township 11 North and Range 7 East on the 7.5 minute Rocklin, United States Geological Survey quadrangle (Figure 1). The latitude and longitude of the approximate center of the site are 121° 12' 25.94" West and 38° 46' 13.42" North. The Assessor's Parcel Numbers (APN) are 046-050-006 and 046-050-008.

### Setting

The Study Area is located at an elevation between approximately 300 and 520 feet. The Study Area is bounded by Sierra College Boulevard to the north and adjacent land uses include residential developments to the north and rural residential to the west, east and south (Figure 2).

### Proposed Project Description

The proposed project includes the construction of a church and a parking lot in the northwest corner of the Study Area. Road access is proposed off of Sierra College Boulevard.

### Objectives of Biological Resource Assessment

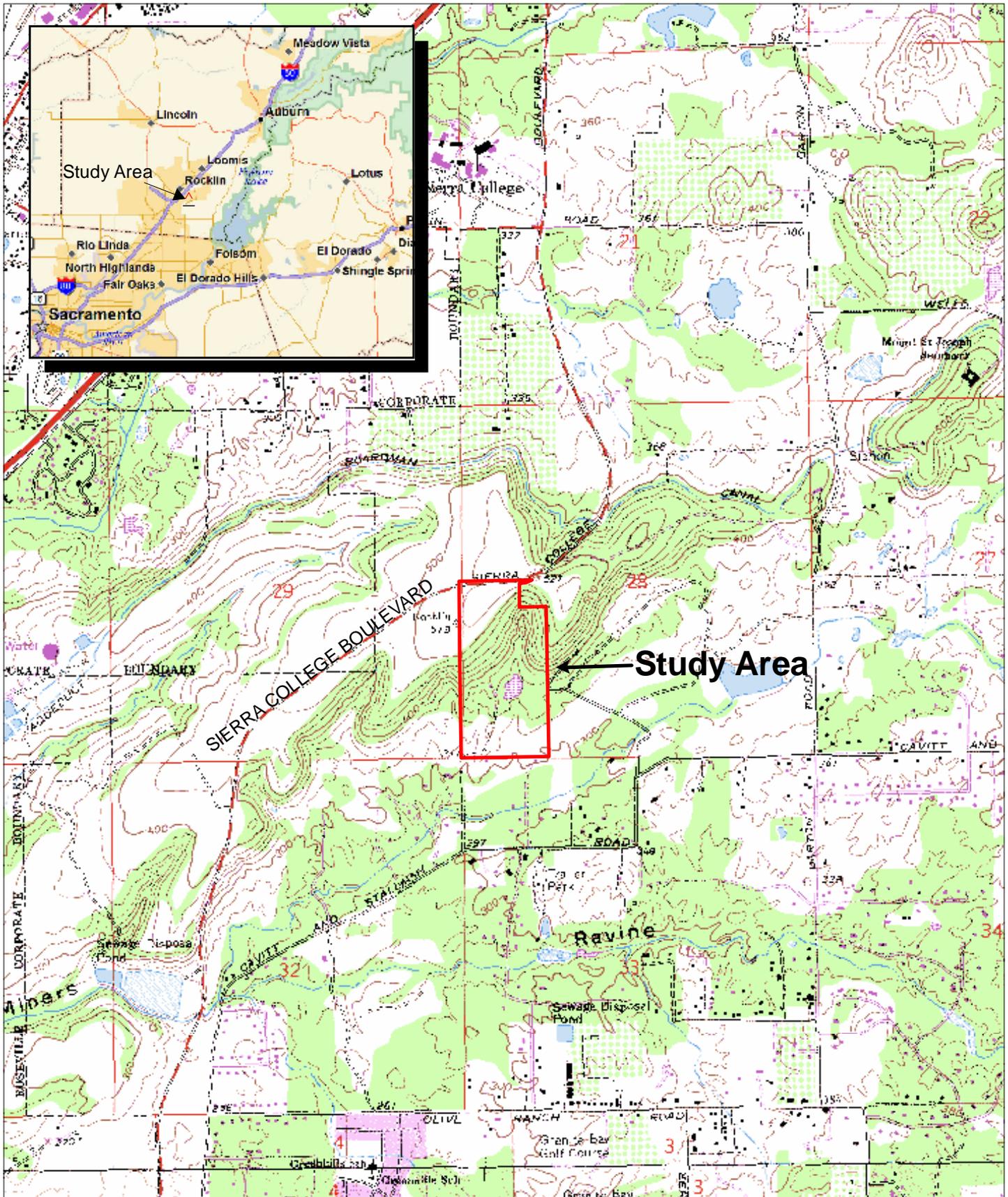
- Identify and describe the biological communities present on the Study Area.
- Record plant and animal species observed on the Study Area.
- Evaluate and identify sensitive resources and special-status plant and animal species that could be affected by project activities.
- Provide conclusions and recommendations.

## METHODS

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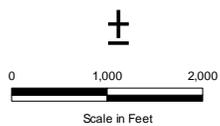
### Literature Review

A variety of resources were used in this assessment. An aerial photo was obtained from California Spatial Information Library in August 2005. Geological information was taken from the Geologic Map of California, Sacramento Sheet (California Department of Conservation). Soil information was obtained from the *Placer County, Soil Survey* (USDA, NRCS 1980).



**Figure 1**

**SITE & VICINITY MAP**  
*Amazing Facts*  
 Placer County, California



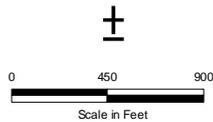
NOTES:  
 Base map: Rocklin, CA, USGS  
 7.5 minute topographic quadrangle  
 Section: 28  
 Township: 11N  
 Range: 07E



Study Area

SIERRA COLLEGE BOULEVARD

OAK HILL LANE



NOTES:  
Aerial photo date: August 2005

**Figure 2**  
**AERIAL PHOTO MAP**  
*Amazing Facts*  
Placer County, California

Standard publications were reviewed to provide information on life history, habitat requirements, distribution, and conservation status of regionally occurring animal species. They include published books, peer-reviewed articles, field guides, and the California Wildlife Habitats Relationships Program.

### **Special Status Species Reports**

North Fork Associates queried the California Natural Diversity Data Base (CNDDDB) for location records for special status species known to occur in the region surrounding the Study Area. Quadrangles included in the query were Rocklin, Roseville, Pilot Hill, Lincoln, Gold Hill, Auburn, Citrus Heights, Folsom, and Clarksville. North Fork Associates biologists also reviewed the special status species lists for the Rocklin USGS quadrangle and Placer County created by the U.S. Fish and Wildlife Service (USFWS). The California Native Plant Society (CNPS) Inventory was checked for special status plants occurring in the area.

For the purposes of this report, special status species are those that fall into one or more of the following categories, including those:

- listed as endangered or threatened under the federal Endangered Species Act (including candidates and species proposed for listing),
- listed as endangered or threatened under the California Endangered Species Act (including candidates and species proposed for listing),
- designated as rare, protected, or fully protected pursuant to California Fish and Game Code,
- designated a Species of Concern by the California Department of Fish and Game (CDFG),
- defined as rare or endangered under Section 15380 of the California Environmental Quality Act (CEQA), or
- occurring on List 1, 2, 3 or 4 maintained by the California Native Plant Society.

### **Field Surveys**

The field assessment portion of the study was conducted on August 7, 2007 by biologists Barry Anderson and Stephanie Martin. Additional surveys were conducted on August 22, 2007 by Stephanie Martin and Gaylene Tupen. Site surveys were conducted to assess habitat conditions and determine the potential for occurrence of special status plant and wildlife species. On all visits, surveys consisted of walking the site, recording notes of species observed or their respective sign (nests, burrows, tracks, scat), and assessing habitat conditions. Appendix A is a list of plants observed, and Appendix B is a list of wildlife observed onsite. Plant names are according to *The Jepson Manual* (Hickman 1993), except for changes obtained from the Jepson Interchange, an online database maintained by the University of California and Jepson Herbaria. Standard manuals were used to identify wildlife species observed.

## Limitations of the Assessment

Field surveys were not conducted at the seasonally appropriate time to detect special status plant species that have the potential to occur within the Study Area.

## SURVEY AND LITERATURE SEARCH RESULTS

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### Geology and Soils

Two geologic types are found on the project area: mesozoic granitic rock and tertiary volcanic flow rocks. Five soil types are found on the project area: Angregg coarse sandy loam, 2 to 9 percent slopes, Angregg coarse sandy loam, rocky, 2 to 15 percent slopes, Exchequer very stony loam, 2 to 15 percent slopes, Inks cobbly loam, 2 to 30 percent slopes, and Inks, cobbly loam, 30 to 50 percent slopes. None of the soil types are affiliated with special status plant species.

### Hydrology

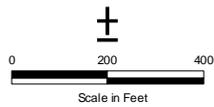
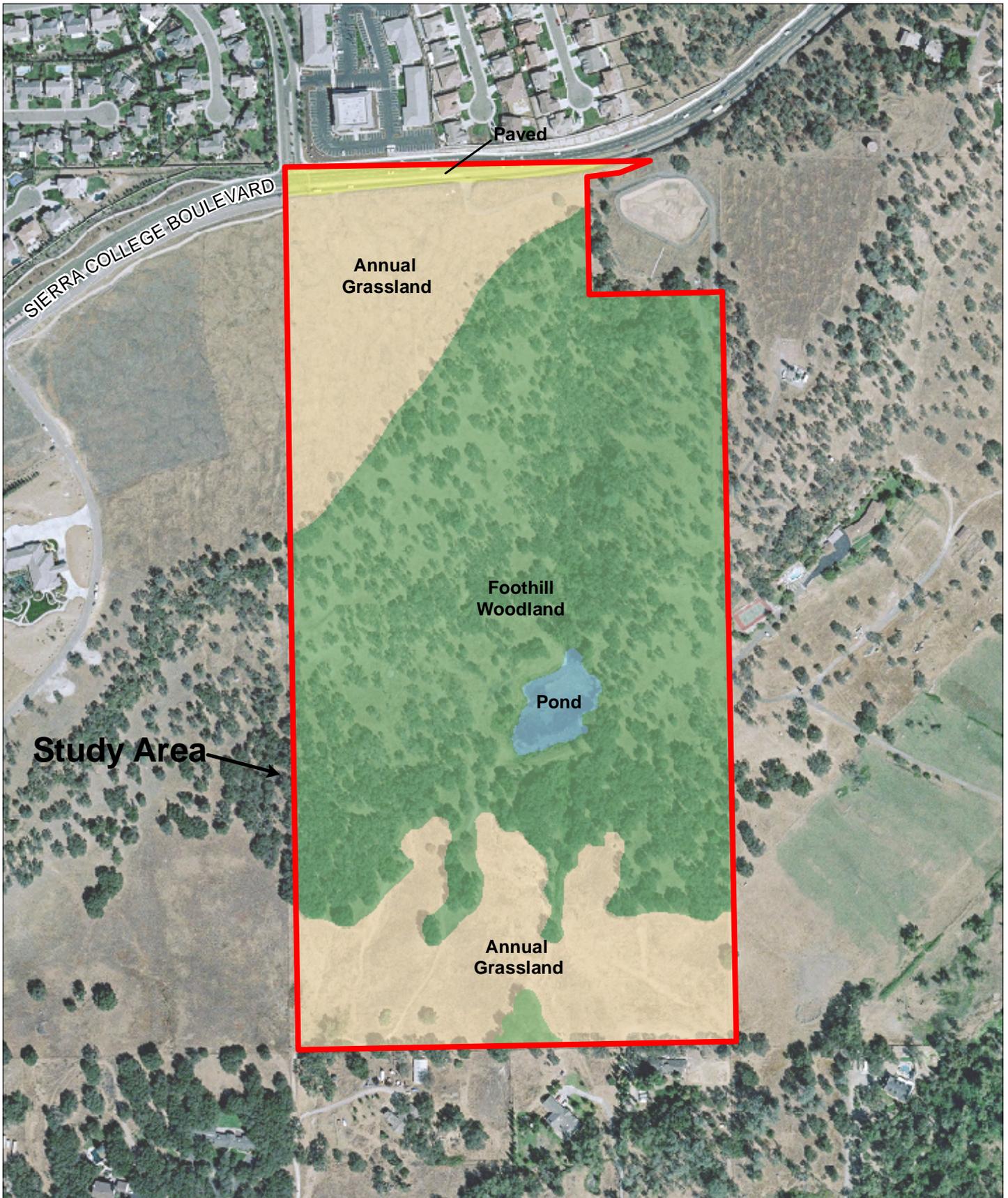
There are vernal pools (0.223 acres) found in the northern portion of the site where the project impacts are expected. The outflow from these pools is relatively minor with respect to quantity and velocity. Additionally, on the southern half of the site there is a seasonal wetland and seasonal wetland swale, seep, intermittent drainage, ephemeral drainage and pond. All of these features drain off the southern boundary of the site.

### Biological Communities

Within the Study Area four biological communities were identified: foothill woodland, annual grassland, and pond. In addition, a small portion of the Study Area is developed. Table 1 is an acreage summary of the community types, and representative photographs are presented in the following paragraphs.

**Table 1.**  
**Biological Communities Present Within the Amazing Facts Study Area**

Biological Community	Estimated Acreage
Foothill woodland	49
Annual grassland	25
Pond	1
Paved (Sierra College Boulevard)	1
Total	76



NOTES:  
Aerial photo date: August 2005

- Study Area (± 76 acres)
- Foothill Woodland (± 49 acres)
- Annual Grassland (± 25 acres)
- Pond (± 1 acre)
- Paved (± 1 acre)

**Figure 3**

**HABITAT MAP**  
*Amazing Facts*  
Placer County, California

### *Foothill Woodland*

Foothill woodland in the Study Area is dominated by blue oaks and interior live oaks.



Blue oaks are more common on the slopes of the Merhten Formation and interior live oaks dominate the lower portions of the slopes. Foothill pines are not common, but occur scattered throughout the woodland. The understory lacks a substantial shrub layer, although poison oak and buck brush are present. Wild oats and Italian ryegrass are the most common understory grasses, but foxtail barley and Italian thistle are common and often abundant beneath trees. Small patches of the native purple needlegrass are

scattered in open places between blue oaks.

Canopy cover varies from about 20 or 30 percent to nearly 100 percent in parts of the Study Area. North Fork Associates completed an Oak Woodland Assessment for the Study Area and the report was produced under a separate cover.

### *Annual Grassland*

Except for the vernal pools, the annual grassland is dominated almost entirely by introduced species adapted to disturbance and California's Mediterranean climate. Dominate grasses include medusahead, soft chess, and Italian ryegrass. The introduced broad-leaf filaree is also present and it often common.

Vernal pools and swales are embedded in the grassland. Shallow pools are dominated by Italian ryegrass and long-beaked hawkbit, both introduced species. Deeper pools have a strong component of native species, including Vasey's coyote-thistle, goldfields, dwarf woolly-heads, stipitate popcornflower, and annual hairgrass.



## *Pond*

The pond is unvegetated open water habitat. The deeper portions may contain rooted, submerged vegetation, but emergent and floating vegetation is mostly restricted to the edges. The pond edge supports a fringe of wetland and riparian species. Scattered willows and Fremont cottonwoods provide a woody riparian canopy. Cattails occur in only a portion of the western edge and were observed in a shallow portion of the pond that had receded. During our site visits, we observed duckweed floating on the surface in the eastern portion of the pond. Sedges, rushes, and dotted smartweed form a seasonal wetland along the northern pond edge.



## **Regulated Habitats**

The following habitats are considered regulated by federal, state, county laws and ordinances.

### *Waters of the United States*

Waters of the United States include ponds, vernal pools, ephemeral and intermittent stream, and other types of wetlands. All these occur within the Study Area. Discharges of dredge or fill material to waters of the United States are regulated by the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act.

### *Streams, Ponds, and Riparian Habitats*

The Study Area has a pond, several streams, and associated riparian vegetation. Except for the pond, these habitats are too small to show on Figure 3, but they are embedded within the oak woodland and annual grassland. The CDFG regulates impacts to lakes, ponds, rivers, and streams. The area regulated by CDFG is the stream zone, which is defined as the area from top-of-bank to top-of-bank or the outside edge of the riparian canopy, whichever is widest. Impacts to the pond and associated riparian vegetation are regulated by the Department pursuant to Section 1602 of the California Fish and Game Code.

### *Oak Woodland, Oaks and Other Trees*

Foothill woodland is a form of oak woodland. Based on current Placer County guidelines for oak woodlands, the woodland within the Study Area would be considered blue oak woodland. Impacts to oak woodland and native trees are regulated by Senate Bill 1334 and the Placer County Tree Ordinance.

## **Special Status Species**

Appendix C is a list of potentially occurring special status plants, and Appendix D is a similar list of special status wildlife compiled from our queries as described in the

Methods section above. The USFWS list for Placer County includes species from the Central Valley to the east side of the Sierra Nevada. Species requiring habitats not occurring in or around the Study Area and species occurring far outside the Study Area are not considered in Appendices C or D. Field surveys and the best professional judgment of North Fork Associates biologists were used to further refine the tables in Appendices C and D.

This refined list of special status species in the region of the Study Area includes 23 plants and 18 animals (Appendix C and Appendix D, respectively). Of the 23 plant species in Appendix C and 18 animal species in Appendix D, 11 plants and 14 animals have some potential for occurrence because the site has some areas of marginal or suitable habitat or they are known from nearby locations. Table 2 is a summary of those species, and they are discussed in more detail in the paragraphs following the table. Although no potential for occurrence, valley elderberry longhorn beetle is also discussed below.

**Table 2.**  
**Special Status Species That Could Occur Within the Amazing Facts Study Area**

Species	Status*			Habitat	Potential for Occurrence**
	Federal	State	CNPS		
<b>Plants</b>					
<b>Big-scale balsam-root</b> <i>Balsamorhiza macrolepis</i> <i>var. macrolepis</i>	-	-	List 1B.2	Cismontane woodland; valley and foothill grassland	Possible. Suitable habitat is present.
<b>Brandegge's clarkia</b> <i>Clarkia biloba subsp. brandegeae</i>	-	-	List 1B.2	Woodlands and grasslands; often on roadcuts.	Possible. Suitable habitat is present.
<b>Dwarf downingia</b> <i>Downingia pusilla</i>	-	-	List 2.2	Seasonal wetlands and vernal pools	Possible. Suitable habitat is present.
<b>Bogg's Lake hedge-hyssop</b> <i>Gratiola heterosepala</i>	-	CE	List 1B.2	Vernal pools	Possible. Suitable habitat is present.
<b>Ahart's dwarf rush</b> <i>Juncus leiospermus var. ahartii</i>	-	-	List 1B.2	Vernal pools	Possible. Suitable habitat is present.
<b>Red Bluff dwarf rush</b> <i>Juncus leiospermus var. leiospermus</i>	-	-	List 1B.1	Vernal pools and seasonal wetlands	Possible. Suitable habitat is present.
<b>Legenere</b> <i>Legenere limosa</i>	-	-	List 1B.1	Vernal pools and seasonal wetlands	Possible. Suitable habitat is present.
<b>Pincushion navarretia</b> <i>Navarretia myersii</i> subsp. <i>myersii</i>	-	-	List 1B.2	Vernal pools	Possible. Suitable habitat is present.

Species	Status*			Habitat	Potential for Occurrence**
	Federal	State	CNPS		
<b>Sacramento Valley Orcutt grass</b> <i>Orcuttia viscida</i>	FE	CE	List 1B.1	Vernal pools	Unlikely. This species prefers deeper pools.
<b>Hartweg's pseudobahia</b> <i>Pseudobahia bahiifolia</i>	FE	CE	List 1B.1	Woodlands and grasslands, usually on heavy clay soil	Unlikely. Only marginal habitat is present
<b>Sanford's arrowhead</b> <i>Sagittaria sanfordii</i>	-	-	List 1B.2	Marshes and other permanent wetlands	Possible. Suitable habitat is present along fringe of pond.
<b>Invertebrates</b>					
<b>Vernal pool fairy shrimp</b> <i>Branchinecta lynchi</i>	FT	-	-	Vernal pools and other temporary bodies of water in southern Central Valley. Most common in smaller grass or mud bottomed swales or basalt flow depression pools in unplowed grasslands.	Possible. Suitable habitat located on the project site.
<b>Conservancy fairy shrimp</b> <i>Branchinecta conservatio</i>	FE	-	-	Vernal pools and seasonal wetlands	Unlikely. Restricted known range in western Placer County.
<b>Vernal pool tadpole shrimp</b> <i>Lepidurus packardii</i>	FE	-	-	Deeper vernal pools and seasonal wetlands	Unlikely. Limited suitable habitat located on the project site; deeper pools not present.
<b>Insects</b>					
<b>Valley elderberry longhorn beetle</b> <i>Desmocerus californicus dimorphus</i>	FT	-	-	Elderberry ( <i>Sambucus</i> spp.) shrubs	None. No elderberry shrubs onsite.
<b>Amphibians</b>					
<b>Western spadefoot toad</b> <i>Spea hammondi</i>	-	CSC	-	Requires vernal pools, seasonal wetlands, or shallow stock ponds.	Possible. Vernal pools and pond may provide habitat.

Species	Status*			Habitat	Potential for Occurrence**
	Federal	State	CNPS		
<b>California red-legged frog</b> <i>Rana aurora draytonii</i>	FT	CSC	-	Ponds	Unlikely. Presence of predators and proximity of nearest occurrence reduce possibility.
<b>Reptiles</b>					
<b>Western pond turtle</b> <i>Actinemys marmorata</i>	-	CSC	-	Ponds and similar aquatic habitats.	Possible. May occur in pond.
<b>Birds</b>					
<b>California black rail</b> <i>Laterallus jamaicensis coturniculus</i>	-	CT	-	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes, and in localized freshwater marshes at low elevations; interior populations in Sacramento and San Joaquin counties as well as the Sierra Nevada foothills in Butte, Nevada, and Placer counties.	Unlikely. Cover habitat not present and rare resident of freshwater marshes of western foothills.
<b>Cooper's hawk</b> <i>Accipiter cooperii</i>	-	CSC	-	Open to interrupted woodland. Nests primarily in deciduous riparian habitat with a dense canopy.	Possible. The Study Area provides patchy riparian vegetation.
<b>White-tailed kite</b> <i>Elanus leucurus</i>	-	CFP	-	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging.	Possible. Suitable habitat present onsite.
<b>Loggerhead shrike</b> <i>Lanius ludovicianus</i>	-	CSC	-	Broken woodland, shrubland, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting. Resident and winter visitor in lowlands and foothills throughout California.	Possible. Suitable habitat present.

Species	Status*			Habitat	Potential for Occurrence**
	Federal	State	CNPS		
<b>Mammals</b>					
<b>Silver-haired bat</b> <i>Lasionycteris noctivagans</i>	-	CSC	-	Coniferous forests, oak woodlands, and riparian habitats. Roosts in hollow trees, snags, buildings, and rocks. Migratory species.	Possible. Individuals may roost in mature trees with cavities.
<b>Pallid bat</b> <i>Antrozous pallidus</i>	-	CSC	-	Deserts, grasslands, shrublands, woodlands, and forests; access to open habitats required for foraging.. Most common in dry habitats with rocky outcrops for roosting. Night roosts often include porches and open buildings. Low elevations throughout California.	Possible. Rocky outcrops present onsite along with trees for roosting habitat.

\*Status Codes:

**Federal**

FE Federal Endangered  
 FT Federal Threatened  
 FP Federal Proposed Species

**State**

CE California Endangered  
 CT California Threatened  
 CR California Rare (plants only)  
 CSC California Species of Concern  
 CFP California Fully Protected

**CNPS**

List 1B Rare, Threatened, or Endangered in California  
 List 2 R, T, or E in California, more common elsewhere  
 1- Seriously threatened in California  
 2- Fairly threatened in California  
 3- Not very threatened in California

\*\*Definitions for the Potential to Occur:

- **None.** Habitat does not occur.
- **Unlikely.** Some habitat may occur, but disturbance or other activities may restrict or eliminate the possibility of the species occurring. Habitat may be very marginal, or the Study Area may be outside the range of the species.
- **Possible.** Marginal to suitable habitat occurs, and the Study Area occurs within the range of the species.
- **Likely.** Good habitat occurs, but the species was not observed during surveys.
- **Occurs:** Species was observed during surveys.

**Plants**

**Big-scale balsam-root** (*Balsamorhiza macrolepis* var. *macrolepis*) is an herbaceous perennial member of the sunflower family (Asteraceae). It has no state or federal status, but it is on the CNPS List 1B.2. This species has large yellow flowering heads and leaves that arise from the ground. It differs, in part, from other balsam-roots by having coarsely serrate leaves. Big-scale balsam-root grows in open woodlands and grasslands at widely scattered locations in northern California, and will tolerate serpentine soil. It blooms from March to June.

**Brandegge's clarkia** (*Clarkia biloba* subsp. *brandegeae*) is an erect annual member of the evening primrose family (Onagraceae). It has no state or federal status, but it is on the CNPS List 1B.2. Brandegge's clarkia differs from similar species by having pendant buds, notched petals, and eight stamens. It can be found in oak woodlands in the Sierra

foothills from Butte County to El Dorado County. Its common name, farewell-to-spring suggests its late blooming period, usually from May to July.

**Dwarf downingia** (*Downingia pusilla*) is a small annual member of the bellflower family (Campanulaceae). It has no state or federal status. The CNPS places the dwarf downingia on their List 2.2, meaning that, although it is rare in California, it is more widespread elsewhere. Dwarf downingia also occurs in Chile where the type specimen was collected. Dwarf downingia is distinguished from other members of the genus by having very small flowers that are not upside down at blooming time. The species is an obligate wetland plant that occurs primarily in vernal pools. It blooms from March to May, depending on the amount and distribution of winter rains.

**Bogg's Lake hedge-hyssop** (*Gratiola heterosepala*) is a small annual member of the figwort family (Scrophulariaceae). It is given endangered status by the state Endangered Species Act, although it has no federal status. The CNPS places it on its List 1B.2. It differs from the common *G. ebracteata* by having blunt tips on the leaves and sepals, which are smaller and of different lengths. It is restricted to the moist margins of vernal pools and marshes in northern California. It blooms from April to June, usually as the pools begin to dry.

**Ahart's dwarf rush** (*Juncus leiospermus* var. *ahartii*) is a very small annual member of the rush family (Juncaceae). It has no state status, and it is on the CNPS List 1B.2. It differs from the more common *J. bufonius* by having terminal flowers and from the introduced *J. capitatus* by having inconspicuous bracts. Ahart's dwarf rush differs from the related Red Bluff dwarf rush by being smaller and having fewer flowers. It grows in vernal pools along the east side of the Central Valley from Butte County to Calaveras County. It blooms from March to May.

**Red Bluff dwarf rush** (*Juncus leiospermus* var. *leiospermus*) is a small annual member of the rush family (Juncaceae) that lacks state or federal status, but is on the CNPS List 1B.1. It differs from the very similar Ahart's dwarf rush by being somewhat larger and by having more flowers on a stem. It occurs in vernal pools along the eastern edge of the Sacramento Valley. It typically blooms from March to May.

**Legenere** (*Legenere limosa*) is small annual member of the bellflower family (Campanulaceae). It is a CNPS List 1B.1 species. The genus name is an anagram of E.L. Greene, one of California's early botanists. It is the only species in the genus and has small, inconspicuous flowers that have pedicels rather than being sessile. Legenere prefers the drying mud of late season vernal pools and swales and it blooms from April to June.

**Pincushion navarretia** (*Navarretia myersii* subsp. *myersii*) is an annual member of the phlox family (Polemoniaceae). It is on the CNPS List 1B.2, but has no state or federal status. Pincushion navarretia differs, in part, from the more common *N. leucocephala* by its larger flowers. It is confined to vernal pools at a relatively few locations in the eastern Central Valley. It generally blooms in May.

**Sacramento Valley Orcutt grass** (*Orcuttia viscida*) is an annual member of the grass family (Poaceae). It is a federal endangered species and is a California endangered species. Technical characteristics, such as longer lemma awns, separate this species from other members of the genus. It prefers large, deep vernal pools, and is known to occur only in Sacramento County. Sacramento Valley Orcutt grass blooms late, typically from May to June.

**Hartweg's golden sunburst** (*Pseudobahia bahiifolia*) is an annual member of the sunflower family (Asteraceae) with state and federal endangered status. It differs from other members of the genus by having entire or three-lobed rather than pinnately-lobed leaves. Hartweg's golden sunburst occurs in grasslands and open woodlands on clay soils in the Sierra foothills. It blooms between March and May.

**Sanford's arrowhead** (*Sagittaria sanfordii*) is an herbaceous perennial member of the water-plantain family (Alismataceae). It is on the CNPS List 1B.2. Sanford's arrowhead lacks the arrow shaped (sagittate) leaves of other members of the genus. It has sharply triangular petioles (leaf stems) that distinguish it in the vegetative state from *Alisma*, in which the back of the petioles are rounded. Its preferred habitat is marshes associated with slow-moving water in sloughs and ditches. It is known to occur in concrete lined channels with only a few inches of soil. It has a long blooming period, starting as early as May and sometimes lasting until August.

### *Wildlife*

Three special status invertebrates potentially occur in vernal pool habitats in the Study Area, including **vernal pool tadpole shrimp** (*Lepidurus packardii*) and **Conservancy fairy shrimp** (*Branchinecta conservatio*), both federally listed endangered species, and **vernal pool fairy shrimp** (*Branchinecta lynchi*), a federally listed threatened species. Each of these species occurs in vernal pools and other seasonal wetland habitats throughout the Central Valley and is known to occur or potentially occurs in western Placer County. There are numerous records of vernal pool fairy shrimp from western Placer County; however, while the species has been documented, there are few records of vernal pool tadpole shrimp in western Placer County. The Conservancy fairy shrimp was recently detected in western Placer County (USFWS 2007), which has resulted in a range expansion for this species that includes the Study Area. As a result of the substantial loss of vernal pool habitats in the Central Valley from urbanization and agricultural conversion, populations of these species have declined throughout their range (USFWS 1994).

Collectively, these species occur within a range of specific environmental conditions that include soil type, vegetation characteristics, water depth, water temperature, inundation duration, and water quality. Emergence of adult animals is also dependent on these and other environmental factors (USFWS 1994).

Dry season surveys are currently being conducted and wet season surveys will take place during the winter of 2007-2008.

**Valley elderberry longhorn beetle** (*Desmocerus californicus dimorphus*) is a federally-listed threatened insect species that requires red or blue elderberry (*Sambucus* spp.) for most of its life cycle.

*Sambucus* shrubs were not observed onsite. The lack of presence of the beetle's known habitat suggests that there is no potential for this federally listed species to occur on the Study Area.

**Western spadefoot toad** (*Spea hammondi*), is a California species of special concern and occurs primarily in annual grassland habitats, open sandy floodplains, alluvial terraces, and occasionally in valley-foothill hardwood woodlands. Adults of this species use vernal pools and other ephemeral sources of water for breeding and egg-laying (Zeiner et al., 1988). Adults remain in underground burrows (up to 36 inches deep) in the vicinities of breeding ponds for most of the year, and rarely are encountered above-ground. Surface movement to adjacent breeding habitat typically occurs following the first significant rainfall of the year, with breeding and egg-laying occurring from late winter to the end of March. Egg masses are attached to plant material or on the top of submerged rocks. Hatching then occurs fairly quickly, usually within two weeks.

Within the Study Area the vernal pools, and perhaps the pond, provide potential breeding habitat for western spadefoot toad, although the vernal pools may be too shallow. Based on the presence of potential breeding and upland habitat, and the proximity to other known occurrences in the region, it is expected that this species has some potential for occurring within vernal pools and pond of the Study Area.

**California red-legged frog** (*Rana aurora draytonii*), a federally-listed threatened species and a California Species of Special Concern, breeds in permanent and semi-permanent aquatic habitats, such as cold-water ponds, slow-moving streams and deep pools in intermittent streams. Inhabited waters typically are at least two feet deep and contain emergent and shoreline vegetation that provides cover from predators and depositional sites for eggs. This species is associated most frequently with arroyo willow (*Salix lasiolepis*), cattail (*Typha* spp.), and bulrush (*Schoenoplectus* spp.). During dry periods, California red-legged frogs will aestivate in ground-squirrel burrows, earthen cracks, and under boulders and logs. Aestivation habitat can occur up to 300 feet from aquatic habitats.

There is minimal potential for this species to occur within the pond and immediate surroundings. Cattails and blackberry throughout the riparian area provide poor to adequate habitat, and the presence of predatory fish species in the pond suggests that the pond is unlikely to support this species.

**Northwestern pond turtle** (*Actinemys marmorata marmorata*) is a California Species of Special Concern. This species is found in quiet waters in a wide variety of aquatic habitats, including ponds, marshes, lakes, streams, and irrigation ditches; this species will utilize water that ranges in salinity content from fresh to brackish to seawater. This species prefers habitats with abundant cover (logs, algae, vegetation) and exposed basking sites (logs, boulders). Females build nests along wetland margins or in adjacent uplands in April and May. Egg-laying occurs in July and August and requires soils that

are at least 10 cm deep, usually with southern exposure. Females leave the watercourse in late afternoon and evening, and travel into adjacent wetland margins or uplands to build nests.

This species may occur within the pond and the upland habitat surrounding the permanent water. There were no observed basking sites within the pond; however, the edges of the pond, especially as the summer progresses and the water line recedes, may provide enough suitable cover and basking areas for this species. No individuals were observed in the pond.

**California black rail** (*Laterallus jamaicensis coturniculus*) is a State listed threatened species that inhabits salt, fresh, and brackish water marshes. In freshwater habitats, their preference is for dense bulrush and cattails. They require marshes with little daily and/or annual water fluctuations in order to provide adequate cover from predators and to conceal nest sites. Their nests are concealed in dense vegetation, usually consisting of herbaceous wetland species. Several scattered populations of the California black rail have been documented from Butte County to Placer County in the Sierra Foothills.

The California black rail is unlikely to occur within the pond, stream, and associated riparian vegetation. Marginal habitat cover is present; moreover, this species is a rare resident of freshwater marshes of the Sierra foothills.

**White-tailed kite** (*Elanus leucurus*), a California fully protected species, is an uncommon to locally fairly common resident and is typically found in grassy foothill slopes interspersed with oaks (including interior live oak, agricultural areas, and marshy bottomlands). They generally forage in undisturbed open grasslands, farmlands, meadows, and emergent wetlands, in areas with a high prey base. Nest trees range from single isolated trees to trees within larger stands. Nests of white-tailed kite are constructed near the top of oaks, willows, or other tall trees from 20 to 100 feet above ground. Breeding takes place from February to October, with peak activity from May to August. Incubation lasts between 28 and 30 days, and young usually fledge by October.

Within the Study Area, potential nesting habitat occurs in association with the oak woodland onsite. Based on the presence of suitable habitat it is expected that white-tailed kite has some limited potential for nesting within taller trees of the Study Area. Relatively undisturbed areas of grassland within the Study Area will also continue to function as suitable foraging habitat for the species.

**Cooper's hawk** (*A. cooperii*) is a California Species of Concern, and has the potential to occur on or adjacent to the Study Area. Cooper's hawks feed on small birds and prefer a dense canopy of trees, and suitable habitat occurs within the oak woodland and riparian habitats. They tend to breed in dense stands of live oak, riparian deciduous woodland, or other forest habitat, most often near water.

Wooded areas, particularly near the stream course in the Study Area, may provide nesting habitat for Cooper's hawk.

**Loggerhead shrike** (*Lanius ludovicianus*) is a California Species of Special Concern that is widespread in California in open habitats with scattered perches, such as shrubs, trees, posts, fences, and utility lines. Habitats utilized include mixed foothill woodland, valley foothill riparian, pinyon-juniper, and desert riparian. This species often impales its prey (primarily large insects, but also small birds, mammals, amphibians, reptiles, fish, and other invertebrates) or caches the food for later consumption. Loggerhead shrikes typically nest in a densely-foliated shrub or tree, from 2 to 50 feet above ground.

The Study Area provides suitable nesting habitat for loggerhead shrike, although none were observed during August field surveys.

Special status bat species, **silver-haired bat** (*Lasiionycteris noctivagans*) and the **pallid bat** (*Antrozous pallidus*), have the potential to occur onsite and use the habitats as both foraging and roosting habitat. Potential roosting habitat includes the larger trees and rock outcroppings on the project site. Both species are known to occur in Placer County in the lower foothill region.

## RECOMMENDATIONS

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### Waters of the United States

1. The Study Area has areas considered waters of the United States. Activities that affect these areas would require a permit from the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the federal Clean Water Act. The project would also need to obtain a water quality certification from the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the federal Clean Water Act. The Corps and the RWQCB would add conditions to the permits that would stipulate the appropriate mitigation, which could include one or more of the following: onsite creation, off-site creation, purchase of credits in a mitigation bank, or payments to an in-lieu fund.

### Streams, Pond, and Riparian Habitat

2. Impacts to the bed, bank, or channel of streams or ponds, including associated riparian habitat, would require a Streambed Alteration Agreement (Section 1602) from CDFG.

### Oak Woodland, Oaks and Other Trees

3. Activities affecting protected trees will require pre-approval by the Placer County Planning Department.

### Special Status Plants

4. Habitat for 11 special status plant species was identified within the Study Area. Most of the potentially occurring species are associated with vernal pools or wetlands, but three occur in upland habitats. Special status plants

surveys should be conducted from March through June. Surveys should be conducted according to guidelines for rare plants surveys issued by CDFG and USFWS. If special status plants are found, the appropriate mitigation measures would be determined through consultations with the appropriate resource agency. Total avoidance is the preferred measure. Where avoidance is not possible, possible mitigation measures may include on- or offsite restoration, compensation, and/or other salvage methods.

### **Special Status Wildlife**

5. The numerous vernal pools located within the site may support federally-listed branchiopod species known to occur in the greater project vicinity, including vernal pool fairy shrimp, vernal pool tadpole shrimp, and Conservancy fairy shrimp. Dry season surveys for these species are currently being conducted. Wet season surveys are planned to take place during the winter of 2007-2008. These protocol-level surveys are being conducted for Section 7 consultation with the USFWS during the 404 permit process.
6. The intermittent stream, pond, and associated riparian vegetation are not proposed to be impacted. However, if impacts to the intermittent stream, pond, and associated riparian vegetation are unavoidable, then a formal California red-legged frog habitat assessment should be conducted and submitted to the USFWS for review. The USFWS will then determine if protocol-level surveys are required for the California red-legged frog. If the California red-legged frog is found onsite, the Service will not allow a "take" of this species without a Section 7 or Section 10 consultation.
7. Potential habitat for western spadefoot toad occurs in the pond and the large vernal pools. There is currently no standardized survey protocol for this species. However, surveys for vernal pool crustaceans conducted during the wet season surveys described above are likely to identify western spadefoot larvae that may be present onsite. Surveys should be conducted within all potentially suitable habitat in any area proposed for development, prior to initiation of construction activities. Those pools that are found to support western spadefoot should be avoided to the extent feasible. If avoidance is not feasible, CDFG should be consulted to determine appropriate mitigation and avoidance measures. Avoidance measures may include capture and relocation of adult or larval western spadefoot toad, or their eggs masses, to a pre-approved preservation area located on or offsite. All plans for western spadefoot toad capture and relocation shall be submitted to CDFG for approval prior to project implementation.
8. The onsite pond provides suitable habitat for the northwestern pond turtle. Where construction activities would affect areas with habitat suitable for the western pond turtle (the onsite pond), pre-construction surveys should be done. If turtles are found, the turtles should be trapped and moved to a safe location and the work area should be fenced to prevent western pond turtles from entering the work area. If no turtles are found, no further action is required.

9. Potential nesting habitat for black rail occurs in the riparian vegetation associated with the pond and stream within the Study Area. If impacts to these areas are unavoidable, then to the extent feasible, all ground disturbance and removal of vegetation should be avoided during the nesting period (approximately March 1 through August 31). If construction activities cannot be avoided during the breeding season, a qualified biologist should be retained to conduct a pre-construction survey (approximately one (1) week prior to construction) to determine presence/absence of active nests. If active nests are found within the Study Area, CDFG should immediately be contacted to determine appropriate avoidance measures.
10. The Study Area provides suitable nesting habitat for raptors (including white-tailed kite and Cooper's hawk), especially in the southern riparian corridor portion. If construction occurs during the typical breeding season (approximately March 1 through August 31), and is within 500 feet of the riparian corridor, potential disturbance of nesting activities could occur. Take of any active raptor nest is prohibited under Fish and Game Code Section 3503.5. To avoid take of active raptor nests, pre-construction surveys should be conducted by a qualified biologist no more than 30 days prior to initiation of proposed development activities. Survey results should then be submitted to CDFG. If active raptor nests are found on or immediately adjacent to the site, consultation should be initiated with CDFG to determine appropriate avoidance measures. If no nests are found, tree removal could proceed without further surveys.
11. The Study Area provides suitable nesting habitat for loggerhead shrike. If vegetation must be removed or construction occurs during the breeding season (approximately March 1 to August 31), preconstruction loggerhead shrike surveys should be conducted by a qualified biologist no more than 30 days prior to initiation of proposed development activities. If an active loggerhead shrike nest is observed within the affected area, consultation with CDFG should take place immediately to determine appropriate avoidance measures. If no active nests are observed, then construction activities can proceed.
12. Potential roosting habitat for silver-haired bat and pallid bat (California Species of Special Concern) occurs in the larger trees and rock outcroppings on the project site. Pre-construction screening surveys for evidence of large numbers of roosting bats or high bat usage should occur. If any evidence of large numbers of roosting bats is observed, CDFG should be contacted to determine the appropriate mitigation (typically avoidance) and/or whether further surveys are needed. If no evidence of large numbers of roosting bats is observed, tree removal and construction could proceed without further surveys.

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**Appendix A.**  
**Plant Species Observed within the Amazing Facts Study Area**

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## Appendix A

### Plant Species Observed within the Amazing Facts Study Area

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#### Gymnosperms

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##### Pinaceae

*Pinus sabiniana* Foothill pine

#### Angiosperms - Dicots

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##### Anacardiaceae

*Toxicodendron diversilobum* Western poison-oak

##### Apiaceae

\**Anthriscus caucalis* Bur-chervil  
*Eryngium vaseyi* Vasey's coyote-thistle  
*Sanicula crassicaulis* Gamble weed  
\**Torilis arvensis* Field hedge-parsley

##### Asteraceae

\**Carduus pycnocephalus* Italian thistle  
\**Centaurea solstitialis* Yellow star-thistle  
*Conyza canadensis* Horseweed  
*Holocarpha virgata* subsp. *virgata* Virgate tarweed  
\**Lactuca serriola* Prickly lettuce  
*Lasthenia* sp. Goldfields  
\**Leontodon saxatilis* Long-beaked hawkbit  
\**Logfia gallica* Narrowleaf cottonrose  
*Psilocarphus brevissimus* var. *brevissimus* Dwarf woolly-heads  
\**Sonchus arvensis* Field sow thistle  
\**Tragopogon* sp. Salsify  
*Xanthium strumarium* Cocklebur

##### Boraginaceae

*Amsinckia menziesii* Common fiddleneck  
*Plagiobothrys stipitatus* var. *micranthus* Stipitate popcornflower

##### Caprifoliaceae

*Lonicera interrupta* Chaparral honeysuckle

##### Caryophyllaceae

\**Petrorhagia dubia* Grass-pink  
\**Silene gallica* Windmill-pink  
\**Spergularia rubra* Ruby sand-spurrey

##### Euphorbiaceae

*Chamaesyce ocellata* subsp. *ocellata* Valley spurge  
*Croton setigerus* Turkey mullein

##### Fabaceae

*Lotus purshianus* var. *purshianus* Spanish-clover  
\**Trifolium dubium* Little hop clover

* <i>Trifolium hirtum</i>	Rose clover
* <i>Vicia sativa</i>	Common vetch
<b>Fagaceae</b>	
<i>Quercus douglasii</i>	Blue oak
<i>Quercus wislizeni</i>	Interior live oak
<b>Geraniaceae</b>	
* <i>Erodium botrys</i>	Broad-leaf filaree
<b>Lamiaceae</b>	
<i>Lycopus americanus</i>	American bugleweed
* <i>Mentha pulegium</i>	Pennyroyal
<b>Lythraceae</b>	
* <i>Lythrum hyssopifolium</i>	Hyssop loosestrife
<b>Malvaceae</b>	
<i>Sidalcea hartwegii</i>	Hartweg's checker-mallow
<b>Oleaceae</b>	
* <i>Olea europaea</i>	Olive
<b>Onagraceae</b>	
<i>Clarkia sp.</i>	Clarkia
<i>Epilobium brachycarpum</i>	Summer cottonweed
<i>Epilobium torreyi</i>	Brook spike-primrose
<i>Ludwigia peploides</i>	Water-primrose
<b>Polemoniaceae</b>	
<i>Navarretia intertexta</i> subsp. <i>intertexta</i>	Needle-leaved navarretia
<i>Navarretia pubescens</i>	Downy navarretia
<b>Polygonaceae</b>	
<i>Persicaria punctata</i>	Dotted smartweed
* <i>Rumex pulcher</i>	Fiddle dock
<b>Rhamnaceae</b>	
<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	Buck brush
<b>Rosaceae</b>	
* <i>Pyracantha sp.</i>	Pyracantha
* <i>Rubus discolor</i>	Himalayan blackberry
<b>Salicaceae</b>	
<i>Populus fremontii</i> subsp. <i>fremontii</i>	Fremont cottonwood
<i>Salix exigua</i> var. <i>exigua</i>	Narrow-leaved willow
<i>Salix gooddingii</i>	Goodding's black willow
<b>Scrophulariaceae</b>	
* <i>Veronica peregrina</i> subsp. <i>xalapensis</i>	Purslane speedwell

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## Angiosperms -Monocots

<b>Araceae</b>	
<i>Lemna sp.</i>	Duckweed
<b>Cyperaceae</b>	
<i>Carex sp.</i>	Sedge

*Cyperus eragrostis*  
*Eleocharis macrostachya*

Tall flatsedge  
Creeping spikerush

### **Juncaceae**

*Juncus bufonius*  
*Juncus mexicanus*

Toad rush  
Mexican rush

### **Liliaceae**

*Chlorogalum pomeridianum* var. *pomeridianum*

Soap plant

### **Poaceae**

\**Aira caryophyllea*  
\**Avena barbata*  
\**Briza minor*  
\**Bromus diandrus*  
\**Bromus hordeaceus*  
\**Bromus madritensis* subsp. *madritensis*  
\**Cynosurus echinatus*  
*Deschampsia danthonioides*  
\**Gastridium phleoides*  
\**Hordeum marinum* subsp. *gussoneanum*  
\**Hordeum murinum*  
*Leersia oryzoides*  
\**Lolium multiflorum*  
*Melica* sp.  
*Nassella pulchra*  
\**Paspalum dilatatum*  
\**Polypogon monspeliensis*  
\**Taeniatherum caput-medusae*  
\**Vulpia bromoides*  
\**Vulpia myuros*

Silver European hairgrass  
Slender wild oat  
Small quaking grass  
Ripgut grass  
Soft chess  
Spanish brome  
Hedgehog dogtail  
Annual hairgrass  
Nit grass  
Mediterranean barley  
Foxtail barley  
Rice cutgrass  
Italian ryegrass  
Melicgrass  
Purple needlegrass  
Dallis grass  
Annual beard grass  
Medusahead  
Brome fescue  
Rattail fescue

### **Themidaceae**

*Brodiaea elegans* subsp. *elegans*  
*Dichelostemma capitatum* subsp. *capitatum*  
*Triteleia laxa*

Harvest brodiaea  
Blue dicks  
Ithuriel's spear

### **Typhaceae**

*Typha angustifolia*

Narrow-leaved cattail

**Appendix B.**  
**Wildlife Species Observed within the Amazing Facts Study Area**

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**Appendix B**  
**Wildlife Species Observed within the Amazing Facts Study Area**

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**Fish**

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Sunfish *Lepomis ssp.*

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**Amphibians**

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Pacific chorus frog *Pseudacris regilla*  
Bullfrog *Rana catesbeiana*

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**Birds**

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Turkey vulture *Cathartes aura*  
Canada goose *Branta canadensis*  
Mallard *Anas platyrhynchos*  
Red-shouldered hawk *Buteo lineatus*  
Red-tailed hawk *Buteo jamaicensis*  
American kestrel *Falco sparverius*  
Wild turkey *Meleagris gallopavo*  
Killdeer *Charadrius vociferus*  
Mourning dove *Zenaida macroura*  
Great Horned owl *Bubo virginianus*  
Anna's hummingbird *Calypte anna*  
Acorn woodpecker *Melanerpes formicivorus*  
Ash-throated flycatcher *Myiarchus cinerascens*  
Oak titmouse *Baeolophus inornatus*  
Bushtit *Psaltriparus minimus*  
White-breasted nuthatch *Sitta carolinensis*  
Lark sparrow *Chondestes grammacus*  
House finch *Carpodacus mexicanus*  
Lesser goldfinch *Carduelis psaltria*

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**Mammals**

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Black-tailed hare *Lepus californicus*  
Raccoon *Procyon lotor*  
Mule deer *Odocoileus hemionus*

**Appendix C.**  
**Special Status Plant Species Known to Occur in the Vicinity of the Amazing Facts  
Study Area**

## Appendix C

### Special Status Plant Species Known to Occur in the Vicinity of the Amazing Facts Study Area

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
<b>Adoxaceae</b>				
<i>Viburnum ellipticum</i> Western viburnum	Fed: - State: - CNPS: List 2.3	May-July	Chaparral; cismontane woodland; lower montane coniferous forest.	None. This species prefers steeper, moister slopes.
<b>Alismataceae</b>				
<i>Sagittaria sanfordii</i> Sanford's arrowhead	Fed: - State: - CNPS: List 1B.2	May-August	Marshes and swamps (assorted shallow freshwater).	Possible. Could occur on pond margins.
<b>Asteraceae</b>				
<i>Balsamorhiza macrolepis macrolepis</i> Big-scale balsam-root	Fed: - State: - CNPS: List 1B.2	March-June	Cismontane woodland; valley and foothill grassland; [sometimes serpentinite].	Possible. Suitable habitat is present.
<i>Packera layneae</i> Layne's ragwort	Fed: FT State: CR CNPS: List 1B.2	April-July	Chaparral; cismontane woodland; [serpentinite or gabbroic].	None. No suitable habitat is present.
<i>Pseudobahia bahiifolia</i> Hartweg's pseudobahia	Fed: FE State: CE CNPS: List 1B.1	March-May	Cismontane woodland; valley and foothill grassland; [clay soil]. About 150 m.	Unlikely. Only marginal habitat is present.
<i>Wyethia reticulata</i> El Dorado County mules ears	Fed: - State: - CNPS: List 1B.2	May-July	Chaparral; cismontane woodland; lower montane coniferous forest; [clay or gabbroic].	None. No suitable habitat is present.

## Appendix C

### Special Status Plant Species Known to Occur in the Vicinity of the Amazing Facts Study Area

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
<b>Campanulaceae</b>				
<i>Downingia pusilla</i> Dwarf downingia	Fed: - State: - CNPS: List 2.2	March-May	Valley and foothill grassland (mesic); vernal pools.	Possible. Suitable habitat is present.
<i>Legenere limosa</i> Legenere	Fed: - State: - CNPS: List 1B.1	April-June	Vernal pools.	Possible. Suitable habitat is present, although this species prefers deeper pools.
<b>Cistaceae</b>				
<i>Helianthemum suffrutescens</i> Bisbee Peark rush-rose	Fed: - State: - CNPS: List 3.2	April-June	Chaparral (often serpentinite, gabbroic, or Ione soil).	None. No suitable habitat is present.
<b>Convolvulaceae</b>				
<i>Calystegia stebbinsii</i> Stebbins' false bindweed	Fed: FE State: CE CNPS: List 1B.1	May-June	Chaparral (openings); cismontane woodland; [serpentinite or gabbroic].	None. No suitable habitat is present.
<b>Juncaceae</b>				
<i>Juncus leiospermus ahartii</i> Ahart's dwarf rush	Fed: - State: - CNPS: List 1B.2	March-May	Vernal pools.	Possible. Suitable habitat is present.
<i>Juncus leiospermus leiospermus</i> Red Bluff dwarf rush	Fed: - State: - CNPS: List 1B.1	March-May	Chaparral; cismontane woodland; valley and foothill grassland; vernal pools; [vernally mesic].	Possible. Suitable habitat is present.

## Appendix C

### Special Status Plant Species Known to Occur in the Vicinity of the Amazing Facts Study Area

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
<b>Liliaceae</b>				
<i>Allium jepsonii</i> Jepson's onion	Fed: - State: - CNPS: List 1B.2	May-August	Cismontane woodland; lower montane coniferous forest [serpentinite or volcanic]. 300 to 1160 meters.	None. No suitable habitat is present.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	Fed: - State: - CNPS: List 1B.2	May-June	Chaparral; cismontane woodland; [serpentinite or gabbroic].	None. No suitable habitat is present.
<i>Fritillaria eastwoodiae</i> Butte County fritillary	Fed: - State: - CNPS: List 3.2	March-May	Chaparral; cismontane woodland; lower montane coniferous forest (openings); [sometimes serpentinite].	Unlikely. Only very marginal habitat is present.
<b>Onagraceae</b>				
<i>Clarkia biloba brandegeae</i> Brandegee's clarkia	Fed: - State: - CNPS: List 1B.2	May-July	Chaparral; cismontane woodland [often on roadcuts].	Possible. Suitable habitat is present.
<b>Poaceae</b>				
<i>Orcuttia viscida</i> Sacramento Valley Orcutt grass	Fed: FE State: CE CNPS: List 1B.1	May-June	Vernal pools.	Unlikely. Very few of the pools are deep enough for this species.
<b>Polemoniaceae</b>				
<i>Navarretia myersii myersii</i> Pincushion navarretia	Fed: - State: - CNPS: List 1B.1	May-May	Vernal pools.	Possible. Suitable habitat is present.

## Appendix C

### Special Status Plant Species Known to Occur in the Vicinity of the Amazing Facts Study Area

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
<b>Rhamnaceae</b>				
<i>Ceanothus roderickii</i> Pine Hill ceanothus	Fed: FE State: CR CNPS: List 1B.2	May-June	Chaparral; cismontane woodland; [serpentinite or gabbroic].	None. No suitable habitat is present.
<b>Rubiaceae</b>				
<i>Galium californicum sierrae</i> Eldorado bedstraw	Fed: FE State: CR CNPS: List 1B.2	May-June	Chaparral; cismontane woodland; lower montane coniferous forest; [gabbroic].	None. No suitable habitat is present.
<b>Scrophulariaceae</b>				
<i>Cordylanthus mollis hispidus</i> Hispid bird's-beak	Fed: - State: - CNPS: List 1B.1	June-September	Meadows; playas; [alkaline]. 1- 155m.	None. No suitable habitat is present.
<i>Gratiola heterosepala</i> Bogg's Lake hedge-hyssop	Fed: - State: CE CNPS: List 1B.2	April-June	Marshes and swamps (lake margins); vernal pools. Below 1200 m.	Possible. Suitable habitat is present.
<b>Sterculiaceae</b>				
<i>Fremontodendron californicum decumbens</i> Pine Hill flannelbush	Fed: FE State: CR CNPS: List 1B.2	April-June	Chaparral; cismontane woodland; [gabbroic or serpentinite].	None. No suitable habitat is present.

## Appendix C

### Special Status Plant Species Known to Occur in the Vicinity of the Amazing Facts Study Area

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Family	Taxon	Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
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#### \*Status

##### Federal:

FE - Federal Endangered  
FT - Federal Threatened  
FPE - Federal Proposed Endangered  
FPT - Federal Proposed Threatened  
FC - Federal Candidate

##### State:

CE - California Endangered  
CT - California Threatened  
CR - California Rare  
CSC - California Species of Special Concern

##### CNPS (California Native Plant Society - List.RED Code):

List 1A - Extinct  
List 1B - Plants rare, threatened, or endangered in California and elsewhere  
List 2 - Plants rare, threatened, or endangered in California, more common elsewhere  
List 3 - Plants about which more information is needed, a review list  
List 4 - Plants of limited distribution, a watch list

##### RED Code

1 - Seriously endangered (>80% of occurrences threatened)  
2 - Fairly endangered (20 to 80% of occurrences threatened)  
3 - Not very endangered (<20% of occurrences threatened)

**Appendix D.**  
**Special Status Wildlife Species Known to Occur in the Vicinity of the Amazing Facts  
Study Area**

**Appendix D**  
**Special Status Wildlife Species Known to Occur in the Vicinity of the Amazing Facts Study Area**

	Status*	Habitat	Probability on Project Site
<b>Invertebrates</b>			
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Fed: FT State: - Other: -	Vernal pools and other temporary bodies of water in southern and Central Valley of California. Most common in smaller grass or mud bottomed swales or basalt flow depression pools in unplowed grasslands.	Possible. Habitat components present on study site.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	Fed: FE State: - Other: -	Found in vernal pools in the Central Valley of California and in the San Francisco Bay area. Inhabits vernal pools with clear to highly turbid water.	Unlikely. Habitat requirement of deeper pools are not present on the study site.
Conservancy fairy shrimp <i>Brachinecta conservatio</i>	Fed: FE State: - Other: -	Endemic to the Central Valley and southern coastal regions of California. Prefers larger, turbid, cool-water vernal pools located in alluvial swales.	Unlikely. Restricted known range in western Placer County.
<b>Insects</b>			
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	Fed: FT State: - Other: *	Requires host plant, elderberry ( <i>Sambucus</i> spp.) for most of its life cycle. Shrubs must have stem diameters at ground level of 1.0 inch or greater and shrubs must be found less than 3,000 feet in elevation. Typically riparian and upland associated.	None. No elderberry shrubs observed on the study area.
<b>Amphibians</b>			
Western spadefoot toad <i>Spea hammondi</i>	Fed: - State: CSC Other: -	Found primarily in grassland habitats, but may occur in valley and foothill woodlands. Requires vernal pools, seasonal wetlands, or stock ponds for breeding and egg laying.	Possible. Deeper vernal pools and pond provide habitat.
California red-legged frog <i>Rana aurora draytonii</i>	Fed: FT State: CSC Other: -	Occurs in lowlands and foothills in deeper pools and slow-moving streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	Unlikely. Presence of predators and proximity of nearest occurrence reduce possibility.

**Appendix D**  
**Special Status Wildlife Species Known to Occur in the Vicinity of the Amazing Facts Study Area**

	Status*	Habitat	Probability on Project Site
<b>Reptiles</b>			
Northwestern pond turtle <i>Actinemys marmorata marmorata</i>	Fed: - State: CSC Other: *	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires suitable basking sites and upland habitat for egg laying.	Possible. Pond provides habitat.
<b>Birds</b>			
White-tailed kite <i>Elanus leucurus</i>	Fed: - State: CFP Other: *	Found in lower foothills and valley margins with scattered oaks and along river bottomlands or marshes adjacent to oak woodlands. Nests in trees with dense tops.	Possible. Nesting habitat occurs within the study area.
Bald eagle <i>Haliaeetus leucocephalus</i>	Fed: FT State: CFP Other: *	Occurs along shorelines, lake margins, and rivers. Nests in large, old-growth or dominant trees with open branches.	None. No habitat on the study area.
Cooper's hawk <i>Accipiter cooperii</i>	Fed: - State: CSC Other: -	Breeds in deciduous, mixed, and coniferous forests. Becoming more common in suburban and urban areas. Occurs in open to interrupted woodland.	Possible. Nesting habitats present.
Swainson's hawk <i>Buteo swainsoni</i>	Fed: - State: CT Other: *	Breeds in open areas with scattered trees; prefers riparian and sparse oak woodland habitats. Requires nearby grasslands, grain fields, or alfalfa for foraging. Rare breeding species in Central Valley.	None. Patches of suitable habitat too small; study area outside of known range.
California black rail <i>Laterallus jamaicensis coturniculus</i>	Fed: - State: CT Other: *	Inhabits salt, fresh, and brackish water marshes with little daily and/or annual water fluctuations. In freshwater habitats, preference is for dense bulrush and cattails. Several scattered populations documented from Butte Co. to southern Nevada Co.	Unlikely. Cover habitat not present and rare resident of freshwater marshes of western foothills.
Burrowing owl <i>Athene cucularia</i>	Fed: - State: CSC Other: *	Found in annual and perennial grasslands. Nests in burrows dug by small mammals, primarily ground squirrels.	None. No burrow systems present on study area.

## Appendix D

### Special Status Wildlife Species Known to Occur in the Vicinity of the Amazing Facts Study Area

	Status*	Habitat	Probability on Project Site
Loggerhead shrike <i>Lanius ludovicianus</i>	Fed: - State: CSC Other: *	Found in broken woodlands, shrubland, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting.	Possible. Suitable nesting habitat present.
Bank swallow <i>Riparia riparia</i>	Fed: - State: CT Other: *	Colonial nester near riparian and other lowland habitats. Requires vertical banks or cliffs with fine-textured, sandy soils near streams, rivers, and lakes.	None. No habitat on the study area.
Tricolored blackbird <i>Agelaius tricolor</i>	Fed: - State: CSC Other: *	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	None. Open water present, but pond lacking suitable adjacent vegetation.

### Mammals

Silver-haired bat <i>Lasiorycteris noctivagans</i>	Fed: - State: CSC Other: -	Coniferous forests, oak woodland, and riparian habitats. Roosts in hollow trees, snags, buildings, and rocks. Migratory species.	Possible. May roost in mature trees with cavities.
Pallid bat <i>Antrozous pallidus</i>	Fed: - State: CSC Other: *	Occurs in grasslands, woodlands, deserts & urban habitats; open habitat required for foraging. Common in dry habitats with rocky outcrops, cliffs, and crevices for roosting. Roosts include caves, mines, bridges & occasionally hollow trees, buildings.	Possible. Rocky outcrops present on site along with trees for roosting habitat.

<b>*Status</b>	Federal:	State:	Other:
	FE - Federal Endangered	CE - California Endangered	Some species have protection under the other designations, such as the California Department of Forestry Sensitive Species, Bureau of Land Management Sensitive Species, U.S.D.A. Forest Service Sensitive Species, and the Migratory Bird Treaty Act. Raptors and their nests are protected by provisions of the California Fish and Game Code. Certain areas, such as wintering areas of the monarch butterfly, may be protected by policies of the California Department of Fish and Game.
	FT - Federal Threatened	CT - California Threatened	
	FPE - Federal Proposed Endangered	CR - California Rare	
	FPT - Federal Proposed Threatened	CC - California Candidate	
FC - Federal Candidate	CFP - California Fully Protected		
FPD - Federal Proposed for Delisting	CSC - California Species of Special Concern		