# Biological Resources Assessment

±167.3-Acre Silva Valley Parkway Interchange
El Dorado County, California

Prepared for:
MJM Properties, LLC

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Submitted by:
FOOTHILL ASSOCIATES

# Table of Contents

## List of Tables



## List of Figures

## 1.0 EXECUTIVE SUMMARY

Foothill Associates biologists conducted a biological resources assessment on June 9 and June 14, 2004, on the Silva Valley Parkway Interchange site that occurs within El Dorado County, along highway 50 immediately east of El Dorado Hills Blvd. The purpose of this document is to summarize the general biological resources on the site, to assess the suitability of the site to support special-status species and sensitive habitat types, and to provide recommendations for regulatory permitting or further analysis that may be required. An environmental impact report (EIR) has been previously prepared for the proposed interchange project.

The proposed project site consists of ±167.3 acres of land that currently consists primarily of annual grassland and oak woodland. Construction for the extension of Silva Valley Parkway has begun on a portion of the study area and highway 50 bisects the study area running west to east. Land uses surrounding the project site include residential development and a golf course to the west, a school and residential development to the north, oak woodland and low-density residential to the east, and annual grassland and oak woodland to the south. Known or potential biological constraints on the site include:

- Potential habitat for special-status plant species;
- Potential wintering habitat for ferruginous hawk;
- Potential habitat for western burrowing owl;
- Potential habitat for valley elderberry longhorn beetle;
- Potential habitat for California horned lizard;
- Potential roosting habitat for special-status bat species;
- Potential nesting sites and foraging habitat for raptors; and
- Sensitive habitats (potentially jurisdictional waters of the U.S. including seasonal wetlands, and associated ephemeral drainages).

## 2.0 INTRODUCTION

This report summarizes the findings of a biological resources assessment completed for a ±167.3-acre project, located within El Dorado County, California. This document addresses the onsite physical features, as well as, plant communities present and the common plant and wildlife species occurring, or potentially occurring on the site. Furthermore, the suitability of habitats onsite to support special-status species are analyzed and recommendations are provided for any regulatory permitting or further analysis required prior to development occurring on the project site.

## 3.0 REGULATORY FRAMEWORK

The following describes federal, state, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process. The CEQA significance criteria are also included in this section.

### 3.1 Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [(3)(19)]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR §17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR §17.3). Actions that result in take can result in civil or criminal penalties.

FESA and Clean Water Act (CWA) Section 404 guidelines prohibit the issuance of wetland permits for projects that jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. The U.S. Army Corps of Engineers (Corps) must consult with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) when threatened or endangered species under their jurisdiction may be affected by a proposed project. In the context of the proposed project, FESA would be initiated if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species or adversely modify critical habitat of such a species.

### 3.2 Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of state and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes 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."

### 3.3 California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to the FESA but pertains to state-listed endangered and threatened species. CESA requires state agencies to consult with the California Department of Fish and Game (CDFG) when preparing California Environmental Quality Act (CEQA) documents. The purpose is to ensure that the state lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code §2080). CESA directs agencies to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur and allows CDFG to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows CDFG to authorize exceptions to the state's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code § 2081).

### 3.4 CDFG Species of Concern

In addition to formal listing under FESA and CESA, species receive additional consideration by CDFG and local lead agencies during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFG. It tracks species in California whose numbers, reproductive success, or habitat may be threatened.

### 3.5 California Native Plant Society

The California Native Plant Society (CNPS) maintains a list of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS listings:

- List 1A: Plants presumed Extinct in California
- List 1B: Plants Rare, Threatened, or Endangered in California and elsewhere
- List 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
- List 3: Plants about which we need more information – A Review List
- List 4: Plants of limited distribution – A Watch List

## 3.6 Jurisdictional Waters of the United States

### *3.6.1 Federal Jurisdiction*

The Corps regulates discharge of dredge or fill material into waters of the United States under Section 404 of the CWA. "Discharges of fill material" is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)]. In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a Federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Boundaries between jurisdictional waters and uplands are determined in a variety of ways depending on which type of waters is present. Methods for delineating wetlands and non-tidal waters are described below.

- Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Presently, to be a wetland, a site must exhibit three wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the "normal circumstances" for the site.
- The lateral extent of non-tidal waters is determined by delineating the ordinary high water mark (OHWM) [33 C.F.R. §328.4(c)(1)]. The OHWM is defined by the Corps as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

### *3.6.2 State Jurisdiction*

CDFG is a trustee agency that has jurisdiction under Section 1600 *et seq*. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFG if a proposed project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds…except when the department has been notified pursuant to Section 1601." If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFG may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFG identifying the approved activities and associated mitigation measures.

### 3.7 Wildlife Migration Corridors

Wildlife migration corridors are important for the movement of migratory wildlife populations. Corridors provide foraging opportunities and shelter during migration. Generally, wildlife migration corridors are established migration routes for many species of wildlife. In wooded areas, these corridors often occur in open meadow or riverine habitats and provide a clear route for migration in addition to supporting ample food and water sources during movement.

### 3.8 CEQA Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional or state habitat conservation plan; and

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource

on a population-wide or region-wide basis. The proposed project has prepared an EIR, so the significance criteria have already been addressed as of the writing of this document.

### 3.9 El Dorado Hills Specific Plan

In addition to federal and state regulations, the El Dorado Hills Specific Plan identifies goals, objectives, and policies regarding establishment and maintenance of open space and wetland areas. The extension of Silva Valley Parkway and construction of the Silva Valley Interchange is in conformance with this specific plan.

## 4.0 METHODS

Available information pertaining to the natural resources of the region was reviewed. All references reviewed for this assessment are listed in the References section. Site-specific information was reviewed including:

- California Department of Fish and Game (CDFG). *California Natural Diversity Data Base.* (CNDDB: Clarksville quadrangle, 2003) Sacramento, CA.;
- El Dorado County Department of Transportation. 1990. Silva Valley Parkway Interchange Final Environmental Impact Report. Prepared by Jones & Stokes Associates, Inc., Sacramento, CA;
- Soil Conservation Service. 1974. *Soil Survey of El Dorado Area*, California. U.S. Department of Agriculture;
- Soil Conservation Service. March 1992. *Official List of Hydric Soil Map Units for El Dorado County*. California. U.S. Department of Agriculture; and
- U.S. Fish and Wildlife Service. 2004. Federal Endangered and Threatened Species that may be affected by Projects in the Clarksville 7.5 minute series quadrangle. Sacramento, CA.

Foothill Associates' biologists conducted field surveys on the site on June 9 and June 14, and July 12, 2004. The site was systematically surveyed on foot with binoculars to ensure total search coverage, with special attention given to identifying those portions of the site with the potential for supporting special-status species and sensitive habitats. During the field surveys, biologists recorded plant and animal species observed, and characterized biological communities occurring onsite.

A wetland delineation was performed separately utilizing the Corps 1987 three-parameter methodology to delineate potentially jurisdictional waters of the U.S. The wetland delineation report is contained under separate cover. The delineated acreages for wetland communities and waters of the U.S. are summarized in this report.

## 5.0 RESULTS

### 5.1 Site Location and Description

The proposed project site consists of ±167.3 acres of land that currently consists primarily of annual grassland, oak woodland, and wetland features. Land uses surrounding the site include residential development and a golf course to the west, a school and residential development to the north, oak woodland and low-density residential to the east, and annual grassland and oak woodland to the south. The site is located in El Dorado County adjacent to U.S. Highway 50 immediately east of Latrobe Road and southwest of Bass Lake. The site is located within Township 9 north, Range 8 east, Sections 1, 2, 11, and 12 of the Clarksville USGS 7.5-minute series quadrangle (**Figure 1**).

### 5.2 Physical Features

#### *5.2.1 Topography and Drainage*

Topography on the site ranges from relatively level to moderately sloped with elevations ranging from approximately 600 to 700 feet above mean sea level. Surface runoff flows towards and exits the project via riverine drainages occurring on the project site. The drainages eventually enter a perennial riverine feature along the western portion of the project site. The perennial riverine feature is a tributary to Carson Creek to the southwest of the project site.

#### *5.2.2 Soils*

The Natural Resources Conservation Service (NRCS), previously known as the Soil Conservation Service, has mapped three soil units on the site (**Figure 2**). The soil units that occur on the site include the following: Auburn silt loam, 2 to 30 percent slopes, Auburn very rocky silt loam, 2 to 30 percent slopes, and placer diggings. General characteristics associated with these soils types are described below.

- **Auburn silt loam, 2 to 30 percent slopes:** The soils in this series are well drained. Permeability is moderate. Vegetation associated with this soil series includes annual grasses, forbs, and oaks. These soils have no mapped hydric inclusions or components,
- **Auburn very rocky silt loam, 2 to 30 percent slopes:** The soils in this series are well drained. Permeability is moderate. Vegetation associated with this soil series includes annual grasses, forbs, and oaks. These soils have no mapped hydric inclusions or components.
- **Placer diggings:** The soils in this type consist of stony, cobbly material in beds of creeks or streams that have been placer mined. Vegetation associated with this soil type includes grasses, oaks, and scattered conifers. This soil type has no mapped hydric inclusions or components.

## 5.3 Biological Communities

Six biological communities occur on the Silva Valley Parkway Interchange site including annual grassland, oak woodland, slope seep wetlands, perennial marsh, riverine seasonal wetland, and depressional seasonal wetland. The majority of the site is composed of annual grassland and oak woodland. These communities provide habitat to a number of common species of wildlife and may provide potentially suitable habitat for special-status species. Each of the biological communities including associated common plant and wildlife species observed, or that are expected to occur within these communities are described below.

### *5.3.1 Annual Grassland*

The plant community covering the majority of the site is annual grassland, which is characterized primarily by an assemblage of non-native grasses and herbaceous species. Dominant grass species consists of barley (*Hordeum marinum*), ryegrass (*Lolium*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), barbed goatgrass (*Aegilops triumcialis*), rattlesnake grass (*Briza minor*), and wild oat (*Avena fatua*). Common herbaceous species onsite include black mustard (*Brassica nigra*), California horkelia (*Horkelia californica*), vetch (*Vicia villosa*), St. John's wort (*Hypericum perforatum*), brodiaea (*Brodiaea elegans*), fiddleneck (*Amsinckia* sp.), clover (*Trifolium repens*), milkthistle (*Silybum marianum*), and bindweed (*Convolvulus arvensis*).

There are some scattered oak trees within portions of the grasslands. Oak species within the annual grassland include blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), and valley oak (*Quercus lobata*).

Annual grassland habitat supports breeding, foraging, and shelter habitat for several species of wildlife. Species observed in this habitat during the biological assessment included European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), western kingbird (*Tyrannus verticalis*), mourning dove (*Zenaida macroura*), lesser goldfinch (*Carduelis psaltria*), western meadowlark (*Sturnella neglecta*), and black-tailed jackrabbit (*Lepus californicus*).

### *5.3.2 Oak Woodland*

The southwestern, western, and eastern portions of the project site contain oak woodland habitat associated with riparian drainages. Oak species within this community include blue oak, interior live oak, and valley oak. Understory species within this vegetation community include coffeeberry (*Rhamnus* sp.), and poison oak (*Toxicodendron diversilobum*).

Oak woodland habitat supports breeding, foraging, and shelter habitat for several species of wildlife. Species observed in this habitat during the biological assessment included acorn woodpecker (*Melanerpes formicivorus*), oak titmouse (*Baeolophus inornatus*), and California whipsnake (*Masticophis lateralis*).

### *5.3.3 Slope Seep Wetlands*

Slope wetlands occur along the western portion of the project site within annual grassland habitat where groundwater intersects with the soil surface. The seeps within the project area were wet at the time of the biological assessment and probably remain wet throughout the year. Plant species found within these communities onsite included pennyroyal (*Mentha arvensis*), spikerush (*Eleocharis pachycarpa*), rabbitsfoot grass (*Polypogon monspeliensis*), and nutsedge (*Cyperus niger*).

### *5.3.4 Perennial Marsh*

The southern portion of the project site near the intersections of Silva Valley Parkway and White Rock Road contain perennial marsh habitat. Plant species found within this community onsite include rushes (*Juncus* sp.), cattail (*Typha* sp.), spikerush, fireweed (*Epilobium ciliatum*), pennyroyal, rabbitsfoot grass, and bulrush (*Scirpus* sp.).

Wildlife species observed within this habitat community include red-winged blackbird (*Agelaius phoeniceus*), cliff swallow (*Petrochelidon pyrrhonota*), and bullfrog (*Rana catesbeiana*).

### *5.3.5 Riverine Seasonal Wetland*

Riverine seasonal wetlands occur in association with the seasonal marsh areas to the north and west of Silva Valley Parkway and to the east of Silva Valley Parkway south of U.S. Highway 50. Plant species found within this community onsite include coyote thistle (*Eryngium vaseyi*), and rabbitsfoot grass.

### *5.3.6 Depressional Seasonal Wetland*

There is a small seasonal wetland located in the northwestern portion of the project site. Plant species found within this community onsite include fireweed, rabbitsfoot grass, rushes, and sedges (*Carex* sp.).

## 5.4 Special-Status Species

Special-status species are plant and animal species that have been afforded special recognition by federal, state, or local resource agencies or organizations. Listed and special-status species are of relatively limited distribution and may require specialized habitat conditions. Listed and special-status species are defined as:

- Listed or proposed for listing under the state or Federal Endangered Species acts;
- Protected under other regulations (e.g. Migratory Bird Treaty Act);
- CDFG Species of Special Concern;
- Listed as species of concern by CNPS or USFWS; or
- Receive consideration during environmental review under CEQA.

Special-status species considered for this analysis are based on field survey results, review of the CNDDB occurrence records of species, review of the USFWS lists for special-status species occurring in the region, and CNPS literature (**Table 1**). The locations of special-status species occurrences in the project vicinity are shown in **Figure 3**, which is from a search of the CNDDB. **Table 1** includes, the common name and scientific name for each species, regulatory status (federal, state, local, CNPS), habitat descriptions, and potential for occurrence on the project site. The following set of criteria has been used to determine each species potential for occurrence on the site:

- **Present**: Species known to occur on the site, based on CNDDB records, and/or was observed on the site during the field survey(s).
- **High**: Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi, and/or based on professional expertise specific to the site or species) and there is suitable habitat on the site.
- **Low**: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.-**OR**-Species is not known to occur in the vicinity of the site, however there is suitable habitat on the site.
- **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site.-**OR**-Species was surveyed for during the appropriate season with negative results.

Only those species that are known to be present or that have a high or low potential for occurrence will be discussed further following **Table 1**.

**TABLE 1 – LISTED AND SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING ON THE SITE OR IN THE VICINITY**

| Common Name | Regulatory Status (Federal; State; Local; CNPS) | Habitat Requirements | Potential for Occurrence |
|---|---|---|---|
| **Plants** | | | |
| Ahart's dwarf rush *Juncus leiospermus* var. *ahartii* | --;--;--;4 | Found on margins of vernal pools. | **None**; there is no habitat for this species onsite. |
| Bisbee Peak rush-rose *Helianthemum suffrutescens* | --;--;--;3 | Rocky hillsides in chaparral areas. Often associated with gabbro soil types. | **None**; there is no habitat for this species onsite. |
| Boggs Lake hedge-hyssop *Gratiola heterosepala* | --;CE;--;1B | Shallow ponds and margins of vernal pools. | **Low**; margins of riparian habitat provides potential habitat. |
| Brandegee's clarkia *Clarkia biloba* ssp. *brandegeeae* | --;--;--;1B | Foothill woodlands and conifer habitats. Usually in dry areas. | **Low**; oak woodland areas provide potential habitat for this species. |
| El Dorado mule ears *Wyethia reticulata* | FSC;--;--;1B | Wooded slopes and chaparral between 1000-1500 feet above mean sea level. Usually associated with gabbro soils. | **None**; there is no habitat for this species onsite. |
| El Dorado bedstraw *Galium californicum* ssp. *sierrae* | FE; --; SLC; 1B | Open pine forests and oak woodlands between 300 and 2000 feet above mean sea level associated with gabbro soils. | **None**; there is no habitat for this species onsite. |
| Layne's ragwort *Senecio layneae* | FT;--;--;1B | Dry pine woodlands, oak woodlands, or chaparral areas associated with serpentine soils. | **None**; there is no habitat for this species onsite. |
| Legenere *Legenere limosa* | --;--;--;1B | Moist areas and vernal pools. | **Low**; margins of riverine seasonal wetlands provide marginal habitat for this species. |
| Pine Hill ceanothus *Ceanothus roderickii* | FE; --; --; 1B | Dry, stony soils in chaparral areas. Often associated with serpentine or gabbro soil types. | **None**; there is no habitat for this species onsite. |
| Pine Hill flannelbush *Fremontodendron decumbens* | FE; --; -- 1B | Chaparral and oak and pine woodlands often on rocky ridges with gabbro soils. | **None**; there is no habitat for this species onsite. |
| Red Hills soaproot *Chlorogalum grandiflorum* | FSC;--;--;1B | Open hillsides in chaparral communities. Usually associated with gabbro or serpentine soils. | **None**; there is no habitat for this species onsite. |
| Sacramento orcutt grass *Orcuttia viscida* | FE;--;--;1B | Found in deep vernal pools. Populations known from eastern Sacramento County. | **None**; there is no habitat for this species onsite. |
| San Joaquin spearscale | FSC;--;--;1B | Seasonal alkali wetlands and | **None**; there is no habitat |

| Common Name | Regulatory Status (Federal; State; Local; CNPS) | Habitat Requirements | Potential for Occurrence |
|---|---|---|---|
| *Atriplex joaquiniana* | | alkali sinks. | for this species onsite. |
| Slender orcutt grass<br>*Orcuttia tenuis* | FE;--;--;1B | Vernal pools with annual grasslands and blue oak woodlands from Siskiyou to Sacramento Counties. | **None**; there is no habitat for this species onsite. |
| Stebbins' morning glory<br>*Calystegia stebbinsii* | FE;CE;--;1B | Open hillsides in chaparral communities. Typically associated with gabbro soil types although it can be found on serpentine soils. | **None**; there is no habitat for this species onsite. |
| **Wildlife** | | | |
| **Invertebrates** | | | |
| California linderiella<br>*Linderiella occidentalis* | FSC;--;--;-- | Vernal pools, swales, and ephemeral freshwater habitat. | **None**; there is no habitat for this species onsite. |
| Midvalley fairy shrimp<br>*Branchinecta mesovallensis* | FSC;--;--;-- | Vernal pools, swales, and ephemeral freshwater habitat. | **None**; there is no habitat for this species onsite. |
| Valley elderberry longhorn beetle<br>*Desmocerus californicus dimorphus* | FT;--;--;-- | Blue elderberry shrubs usually associated with riparian areas. | **Low**; there was one elderberry shrub observed outside of the project boundary and one observed under the Hwy 50 underpass. |
| Vernal pool fairy shrimp<br>*Branchinecta lynchi* | FT; --; --; -- | Vernal pools, swales, and ephemeral freshwater habitat. | **None**; there is no habitat for this species onsite. |
| Vernal pool tadpole shrimp<br>*Lepidurus packardi* | FE;--;--;-- | Vernal pools, swales, and ephemeral freshwater habitat. | **None**; there is no habitat for this species onsite. |
| **Amphibians/Reptiles** | | | |
| California horned lizard<br>*Phrynosoma coronatum frontale* | FSC;CSC;--;-- | Found in open oak and conifer woodlands, grasslands, and riparian areas. Most often found in areas with sandy soil types. | **Low**; species could occur in grassland or woodland communities onsite. |
| California red-legged frog<br>*Rana aurora draytonii* | FT; CSC; --; -- | Requires a permanent water source and is typically found along quiet slow moving streams, ponds, or marsh communities with emergent vegetation. | **None**; there is no potential habitat for this species on the site. |
| California tiger salamander<br>*Ambystoma californiense* | FPT;CSC;--;-- | Ponded water required for breeding. Adults spend summer in small mammal burrows. | **None**; there is no potential breeding habitat for this species on the site and the species in not known to occur in El Dorado County. |
| Foothill yellow-legged frog<br>*Rana boylii* | FSC;CSC;--;-- | Typically found in slow-moving streams or channels with rocky or muddy | **None**; there is no potential habitat for this species on the site. |

| Common Name | Regulatory Status (Federal; State; Local; CNPS) | Habitat Requirements | Potential for Occurrence |
|---|---|---|---|
| | | bottoms. | |
| Giant garter snake<br>*Thamnophis gigas* | FT; CT; --; -- | Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands. | **None**; there is no potential breeding habitat for this species on the site. |
| Western pond turtle<br>*Clemmys marmorata* | FSC;CSC;--;-- | Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands. | **Low**; perennial marsh on the southern portion of the project site could provide potential habitat for this species. |
| Western spadefoot<br>*Spea hammondii* | FSC;CSC;--;-- | Open grasslands and woodlands. Requires vernal pools or seasonal wetlands for breeding. | **None**; there is no potential breeding habitat for this species on the site. |
| **Fish** | | | |
| Central Valley fall/late fall-run Chinook salmon<br>*Oncorhynchus tshawytscha* | FC; CSC; --; -- | Sacramento and San Joaquin Rivers and their tributaries. | **None**; there is no potential habitat for this species on the site. |
| Central Valley winter-run Chinook salmon<br>*Oncorhynchus tshawytscha* | FE;CE;--;-- | Sacramento and San Joaquin Rivers and their tributaries. | **None**; there is no potential habitat for this species on the site. |
| Central Valley steelhead<br>*Oncorhynchus mykiss* | FT;--;--;-- | Sacramento and San Joaquin Rivers and their tributaries. | **None**; there is no potential habitat for this species on the site. |
| Delta smelt<br>*Hypomesus transpacificus* | FT;CT;--;-- | Sacramento and San Joaquin Rivers and their tributaries. | **None**; there is no potential habitat for this species on the site. |
| Green sturgeon<br>*Acipenser medirostris* | --;CSC;--;-- | Sacramento and San Joaquin Rivers and their tributaries. | **None**; there is no potential habitat for this species on the site. |
| Longfin smelt<br>*Spirinchus thaleichthys* | FSC;CSC;--;-- | Sacramento and San Joaquin Rivers and their tributaries. | **None**; there is no potential habitat for this species on the site. |
| Sacramento splittail<br>*Pogonichthys macrolepidotus* | FSC;CSC;--;-- | Sacramento and San Joaquin Rivers and their tributaries. | **None**; there is no potential habitat for this species on the site. |
| **Birds** | | | |
| Aleutian Canada goose<br>*Branta Canadensis leucopareia* | FD (FSC); CSC; --<br>(Wintering) | Winter resident of agricultural lands. | **None**; there is no potential habitat for this species on the site. |
| American peregrine falcon | FD(FSC);CE;--;-- | Nests on high cliffs, banks, dunes, or mounds in | **None**; there is no potential nesting habitat for this |

| Common Name | Regulatory Status (Federal; State; Local; CNPS) | Habitat Requirements | Potential for Occurrence |
|---|---|---|---|
| *Falco peregrinus anatum* | | woodland, forest, and coastal habitats near permanent water sources. | species on the site. |
| Bald eagle *Haliaeetus leucocephalus* | FT;CE;--;-- | Nesting restricted to the mountainous habitats near permanent water sources in the northernmost counties of California, the Central Coast Region, and on Santa Catalina Island. Winters throughout most of California at lakes, reservoirs, river systems, and coastal wetlands. | **None**; there is no potential habitat for this species on the site. |
| Bank swallow *Riparia riparia* | FSC; CT;--;-- | Nests in riverbanks and forages over riparian areas and adjacent uplands. | **None**; there is no potential nesting habitat for this species on the site. |
| Black swift *Cypseloides niger* | FSC;CSC;--;-- | Nests on cliffs near water sources. | **None**; there is no potential nesting habitat for this species on the site. |
| California thrasher *Toxostoma redivivum* | FSC;--;--;-- | Found in dense chaparral or thickets in riparian corridors. | **Low**; could occur in wetland and marsh margins along western portion of project boundary. |
| Cooper's hawk *Accipiter cooperii* | --;CSC;--;-- | Nests in riparian corridors. Forages in woodlands and riparian areas. | **Low**; suitable nesting habitat within oak woodland and riparian habitat. |
| Ferruginous hawk *Buteo regalis* | FSC;CSC;--;-- | A winter resident of open habitats in California including grasslands, shrubsteppes, sagebrush, deserts, saltbush-greasewood shrublands, and outer edges of pinyon-pine and other forests. | **Low**; suitable wintering foraging habitat present within annual grassland habitat. |
| Lawrence's goldfinch *Carduelis lawrencei* | FSC;--;--;-- | Nests in open oak or other arid woodland and chaparral habitats near water. | **Low**; habitat exists in oak woodlands onsite. |
| Lewis' woodpecker *Melanerpes lewis* | FSC;--;--;-- | Coniferous forests and oak woodlands. | **None**; there is no potential habitat for this species on the site. |
| Little willow flycatcher *Empidonax traillii brewsteri* | FSC;CE;--;-- | Nests in dense riparian vegetation such as willows, alders, up to 18 feet | **None**; there is no potential habitat for this species on the site. |
| Loggerhead shrike *Lanius ludovicianus* | FSC; CSC;--;-- | Found in a variety of woodland and grassland habitats throughout California. | **High**; habitat on the site provides potential nesting and foraging habitat for this species. |
| Long-billed curlew | FSC;CSC;--;-- | Mudflats and shallow marsh | **None**; there is no potential |

| Common Name | Regulatory Status (Federal; State; Local; CNPS) | Habitat Requirements | Potential for Occurrence |
|---|---|---|---|
| *Numenius* | (nesting) | areas. | habitat for this species on the site. |
| Mountain plover<br>*Charadrius montanus* | FSC;CSC;--;-- | Winters in California in agricultural fields and grasslands. | **None**; there is no potential habitat for this species on the site. |
| Nuttall's woodpecker<br>*Picoides nuttallii* | FSC;--;--;-- | Permanent resident of low-elevation riparian deciduous and oak habitats. | **High**; species could occur in oak woodland habitat onsite. |
| Oak titmouse<br>*Baeolophus inornatus* | FSC;--;--;-- | Oak savannah and oak woodlands. | **Present**; observed during biological assessment. |
| Rufous hummingbird<br>*Selasphorus rufus* | --;CSC;--;-- | Nests within berry tangles, shrubs, and conifers in areas north of California and in the Trinity Mountains of Trinity and Humboldt County. | **None**; there is no potential habitat for this species on the site. |
| Swainson's hawk<br>*Buteo Swainsoni* | FSC; CT; --<br>(Nesting) | Nests in isolated trees or riparian woodlands adjacent to suitable foraging habitat (agricultural fields, grasslands, etc.). | **None**; species is restricted to Central Valley. |
| Tricolored blackbird<br>*Agelaius tricolor* | FSC;CSC;--;-- | Nests in dense blackberry, cattail, tules, willow, or wild rose within emergent wetlands throughout the Central Valley and foothills surrounding the valley. | **Low**; marsh vegetation along southern portion of project site could provide nesting habitat. |
| Vaux's swift<br>*Chaetura vauxi* | FSC;CSC(nesting);--;-- | Nests within large hollow trees and snags in redwood and Douglas-fir habitats. | **None**; there is no potential habitat for this species on the site. |
| Western burrowing owl<br>*Athene cunicularia hypugaea* | FSC;CSC; (burrow sites);--;-- | Nests in burrows in the ground, often in old ground squirrel burrows or badger, within open dry grassland and desert habitat. | **Low**; annual grassland provides potential habitat. However, suitable burrows not observed onsite during biological assessment. |
| White-faced ibis<br>*Plegadis chihi* | FSC;CSC;--;-- | Nests colonially in riparian areas with large trees. | **None**; there is no potential habitat for this species on the site. |
| White-tailed kite<br>*Elanus leucurus* | FSC;CFP;--;-- | Nests in isolated trees or woodland areas with suitable open foraging habitat. | **High**; oak woodlands provide potential nesting habitat and grasslands provide potential foraging habitat for this species. |
| Other Raptors (Hawks, Owls and Vultures) | MBTA and §3503.5 Department of Fish and Game Code | Nests in a variety of communities including cismontane woodland, mixed coniferous forest, chaparral, montane meadow, riparian, and urban communities. | **High**; raptors were observed foraging onsite during the biological assessment and oak trees provide potential nesting habitat. |
| **Mammals** | | | |
| Fringed myotis | FSC;--;--;-- | Found in a variety of habitats | **None**; there is no potential |

| Common Name | Regulatory Status (Federal; State; Local; CNPS) | Habitat Requirements | Potential for Occurrence |
|---|---|---|---|
| *Myotis thysanodes* | | in California except in the Central Valley and desert areas. Roosts in caves, buildings, and rock crevices. | roosting habitat for this species on the site. |
| Greater western mastiff bat<br>*Eumops perotis californicus* | FSC;CSC;--;-- | Found in grasslands and open woodlands and conifer habitats. Roosts in cliff faces, buildings, tunnels, and caves. | **Low**; the U.S. 50 overpass could provide potential roosting habitat for this species. |
| Long-eared myotis<br>*Myotis evotis* | FSC;--;--;-- | Found throughout California except for the Central Valley and desert areas. Roosts in buildings, snags, and rock crevices. | **None**; there is no potential roosting habitat for this species on the site. |
| Long-legged myotis<br>*Myotis volans* | FSC; --; --; -- | Woodland and forest communities above approximately 4,000 feet above MSL. Roosts in rock crevices, buildings, under tree bark, in snags, mines, and caves. | **None**; there is no potential roosting habitat for this species on the site. |
| Pacific western big-eared bat<br>*Corynorhinus townsendii townsendii* | FSC;CSC;--;-- | Roosts in a wide variety of habitats (i.e., riparian, scrub, woodland), in abandoned buildings, and bridges. | **Low**; the U.S. 50 overpass could provide potential roosting habitat for this species. |
| San Joaquin pocket mouse<br>*Perognathus inornatus* | FSC;--;--;-- | Annual grassland and scrub habitats with fine-textured soil conditions. | **None**; no records exist for this species within 5 miles of the project site and the soil conditions are not typical for this species to occur. |
| Spotted bat<br>*Euderma maculatum* | FSC;CSC;--;-- | Roosts in rock crevices and occasional buildings of foothills and desert areas. | **Low**; the U.S. 50 overpass could provide potential roosting habitat for this species. |
| Small-footed myotis<br>*Myotis ciliolabrum* | FSC;--;--;-- | Roosts in a wide variety of habitats (i.e., riparian, scrub, woodland), in abandoned buildings, and bridges. | **Low**; the U.S. 50 overpass could provide potential roosting habitat for this species. |
| Yuma myotis<br>*Myotis yumanensis* | FSC; CSC; --; -- | Reside in open forests and woodland habitats with sources of water over which to feed. Roost in buildings, mines, caves, and crevices | **Low**; the U.S. 50 overpass could provide potential roosting habitat for this species. |

| **Federally Listed Species:** | | **California State Listed Species:** | **CNPS* List Categories:** |
|---|---|---|---|
| FE = federal endangered | FC = candidate | CE = California state endangered | 1A = plants presumed extinct in California |
| FT = federal threatened | PT = proposed threatened | CT = California state threatened | 1B = plants rare, threatened, or endangered in California and elsewhere |
| FSC = federal species of concern | FPD = proposed for delisting | CR = California state rare | 2 = plants rare, threatened, or endangered in California, but |

| Common Name | Regulatory Status (Federal; State; Local; CNPS) | Habitat Requirements | Potential for Occurrence |
|---|---|---|---|
| | | | common elsewhere |
| | FD = delisted | CSC = California Species of Special Concern | 3 = plants about which we need more information<br>4 = plants of limited distribution<br>**Other Special-status Listing:**<br>SLC = species of local or regional concern or conservation significance |

*Source: Foothill Associates*

### *5.4.1 Listed and Special-Status Plants*

Based on a records search of the CNDDB and the USFWS list, suitable habitat for special-status plant species occurs on the site. Based on field observations and literature review specific to the special-status plants listed in **Table 1**, the potential for occurrence has been determined for each species. The species that are considered to have a low potential on the site include the following: Bogg's Lake hedge-hyssop (*Gratiola heterosepala*), Brandegee's clarkia (*Clarkia brandegeae*) and legenere (*Legenere limosa*).

**Bogg's Lake hedge-hyssop**

Bogg's Lake hedge-hyssop is an annual herb. It is typically found on the margins of vernal pools or shallow ponds. The blooming period is May through June. There are no records for this species occurring within five miles of the project site (CNDDB 2003) and this species was not observed onsite during the biological assessment. However, the biological assessment was conducted outside of the typical blooming period for this species and the margins of the riparian wetlands along the western boundary of the site contain potential habitat for this species. Therefore, the potential for this species to occur on the site is low.

**Brandegee's clarkia**

Brandegee's clarkia is typically found in foothill woodlands and low elevation conifer forests. The blooming period is from May through June. There are no records of this species occurring within five miles of the project site (CNDDB 2003) and this species was not observed onsite during the biological assessment. However, the biological assessment was performed outside of the typical blooming period for this species and the oak woodlands onsite contain potential habitat for this species. Therefore, the potential for this species to occur on the site is low.

**Legenere**

Legenere is a small annual herb. It is found in vernal pools and seasonal marsh habitat. The blooming period is April through May. There are no records for this species within five miles of the project site (CNDDB 2003) and the species was not observed onsite during the biological assessment. However, the biological assessment was performed outside of the typical blooming period for this species and the marsh habitat on the southern portions of the project site contain potential habitat for this species. Therefore, the potential for this species to occur on the site is low.

### *5.4.2 Listed and Special-Status Animals*

Based on a records search of the CNDDB and the USFWS list, suitable habitat for special-status animal species occurs on the site. Based on field observations and literature review specific to the special-status animals listed in **Table 1**, the potential for occurrence has been determined for each species. Species that are known to be present or

that are considered to have a high potential to occur on the site include the following: California horned lizard (*Phrynosoma coronatum*), loggerhead shrike (*Lanius ludovicianus*), Nuttall's woodpecker (*Picoides nuttallii*), oak titmouse, white-tailed kite (*Elanus leucurus*) as well as other raptor species. The species that are considered to have a low potential to occur on the site include the following: California thrasher (*Toxostoma redivivum*), Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), greater western mastiff bat (*Eumops perotis californicus*), Lawrence's goldfinch (*Carduelis psaltria*), Pacific western big-eared bat (*Corynorhinus townsendii townsendii*), small-footed myotis (*Myotis ciliolabrum*), spotted bat (*Euderma maculatum*), tricolored blackbird (*Agelaius tricolor*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), western burrowing owl (*Athene cunicularia hypugea*), western pond turtle (*Clemmys marmorata*), and Yuma myotis (*Myotis yumanensis*).

**California Horned Lizard**

The California horned lizard is found in a variety of grassland and woodland habitats. It forages in open areas between shrubs primarily on ants and other insects. There are no CNDDB records for this species within five miles of the project site (CNDDB 2003) and the species was not observed on the site during the biological assessment. However, the annual grassland habitats onsite provide potential habitat for this species, and the final environmental impact report for the Silva Valley Parkway Interchange Project (El Dorado County Department of Transportation 1990) identifies this species as potentially occurring within the project area. Therefore, the potential for this species to occur on the site is low.

**Loggerhead Shrike**

The loggerhead shrike utilizes open habitats with scattered shrubs and trees, posts, fences, utility lines, and occurs often in cropland (Zeiner, et al 1990). This species nests from March to May, building twig nests within the dense foliage of shrubs or trees that conceal the nest. There are no CNDDB records for loggerhead shrike within five miles of the project area and this species was not observed onsite during the biological assessment (CNDDB 2003). However, based on the existence of potential foraging habitat in the annual grasslands within the project site and available nesting habitat in the riparian oak woodland on the project site, there is a high potential for this species to occur. However, no significant impacts to this species' nesting habitat are expected to occur and no mitigation for this species is expected to be necessary.

**Nuttall's Woodpecker**

The Nuttall's woodpecker is a year-round resident in oak woodlands and riparian woodlands throughout the Central Valley, Coast Ranges, and lower elevations of the Sierra Nevada and Cascades. It is a cavity nester in snags. Breeding typically occurs between March and July (Zeiner et al 1990). There are no CNDDB records of Nuttall's woodpecker within five miles of the project area (CNDDB 2003) and this species was not observed onsite during the biological assessment. However, the riparian oak woodland onsite provides good potential habitat for the species. Therefore, the potential for the

species to nest onsite is high. However, no significant impacts to this species' nesting habitat are expected to occur because of the regulation of oak trees on the site that provide potential nesting habitat for this species. Therefore, no mitigation for this species is expected to be necessary.

**Oak Titmouse**

The oak titmouse is a year-round resident in oak woodlands and mixed conifer habitats. It nests in tree cavities or old woodpecker holes. Breeding typically occurs between March and July (Zeiner et al 1990). There are no CNDDB records of oak titmouse within five miles of the project area (CNDDB 2003). However, the species was observed onsite during the biological assessment and the riparian oak woodland onsite provides good nesting habitat for the species. However, no significant impacts to this species' nesting habitat are expected to occur and mitigation for this species is expected to be necessary.

**White-tailed Kite**

The white-tailed kite is a medium-sized raptor that is a yearlong resident in coastal and valley lowlands in California. White-tailed kite are monogamous and breed from February to October, peaking from May to August (Zeiner et. al. 1990). This species nests near the top of dense oaks, willows, or other large trees. There is one CNDDB record of white-tailed kite listed within five miles of the project site. The species was not observed onsite during the biological assessment. However, the oak woodland onsite provides good potential nesting habitat for this species and the annual grassland onsite provides good potential foraging habitat. Therefore, the potential for this species to occur on the site is high.

**Other Raptor Species**

Other raptor species forage and nest in a variety of habitats throughout El Dorado County. Raptor nests are protected under the MBTA and Section 3503.5 of the California Fish and Game Code, which makes it illegal to destroy any active raptor nest. Large trees onsite and in the vicinity of the project area may provide potential nesting habitat for raptor species. In addition, potential foraging habitat for raptors occurs within the annual grassland habitat on the project site. Raptor species were observed foraging over the site during the biological assessment. Consequently, raptors and other migratory birds have a high potential to occur on the site.

**California Thrasher**

The California thrasher is a year-round resident of foothill and lowland habitats west of the Sierras. It typically is found in chaparral habitat or open riparian woodlands. It feeds on fruits, seeds, and a variety of invertebrates. It nests in scrub habitat usually within 10 feet of the ground. The breeding season can last from December through August (Zeiner et al 1990). There are no CNDDB records for this species within five miles of the project site (CNDDB 2003) and the species was not observed onsite during the biological assessment. However, there is suitable breeding and foraging habitat within the oak woodland communities within the project area. Therefore, the potential for this species

to occur within the project site is low. The oak woodlands are protected by El Dorado County General Plans and the El Dorado Hills Specific Plan. Therefore, impacts to these habitats are not expected to significantly impact this species and mitigation measures for this species are not expected to be necessary.

**Cooper's Hawk**

Cooper's hawk is a summer resident in the Sierra foothills to southern California. It winters in the Central Valley. This species nests in woodland habitats with high canopy cover. It feeds primarily on small birds. This species nests in woodland areas often near water sources. The breeding season is typically March through August (Zeiner et al 1990). There are no CNDDB records for this species within five miles of the project site (CNDDB 2003) and the species was not observed onsite during the biological assessment. However, there is suitable breeding and foraging habitat within the oak woodland communities within the project area. Therefore, the potential for this species to occur on the site is low.

**Ferruginous Hawk**

Ferruginous hawk is a winter resident and migrant of California. In the winter, this species can be found throughout California, with the exception of the extreme northeastern and northwestern regions (Zeiner et. al 1990). Ferruginous hawks migrate to California in August or September and return to their breeding grounds in late February or early March. This species occurs in open habitats including, grasslands, shrubsteppes, sagebrush, deserts, saltbush-greasewood shrublands, and outer edges of pinyon-pine and other forest. Ferruginous hawks forage for prey, including rabbits (*Lepus* sp.), ground squirrels (*Spermophilus* sp.), and mice (*Peromyscus* sp.), by low flights over open, treeless areas, and glide to intercept prey on the ground. There are no CNDDB records of ferruginous hawk within five miles of the project site (CNDDB 2003). However, this species is listed on the USFWS list of special-status species for the Clarksville quadrangle as having once occurred in the project vicinity and suitable wintering habitat for this species occurs on the project site. Although this species was not observed during the assessment, ferruginous hawk could occur in the winter on the project site. Consequently, this species has a low potential to occur on the site.

**Lawrence's Goldfinch**

Lawrence's goldfinches are found in open woodlands, chaparral, and grassland habitats throughout central and southern California. This species winters from southern California east to Texas (Zeiner et al 1990). This species typically nests from May through August. There are no CNDDB records for this species within five miles of the project site (CNDDB 2003). However, based on the available woodland and grassland habitat available within the project area, there is a low potential for this species to occur. No impacts to this species' nesting habitat are expected to occur and no mitigation for this species is expected to be necessary.

**Tricolored Blackbird**

The tricolored blackbird is a colonial species that occurs in pastures, dry seasonal pools, and agricultural fields in the Central Valley and the foothills surrounding the valley. This species usually nests with dense cattails (*Typha* sp.) or tules (*Scirpus* sp.) in emergent wetlands. Tricolored blackbird also nests in thickets of blackberry (*Rubus* sp.), wild rose (*Rosa* sp.), willows, and tall herbs (Zeiner et. al. 1990). Nesting locations typically must be large enough to support a minimum colony of approximately fifty pairs (Zeiner et. al. 1990). There are no CNDDB records for this species within five miles of the project site (CNDDB 2003) and the species was not observed onsite during the biological assessment. The cattail and bulrush patches within the perennial marsh habitat onsite could provide potential habitat for this species. However, the patch sizes are most likely not of sufficient size to support a breeding colony. Therefore, the potential for this species to occur on the site is low.

**Western Burrowing Owl**

Western burrowing owl is a small ground-dwelling owl that occurs in western North America from Canada to Mexico, and east to Texas, and Louisiana. Although in certain areas of its range western burrowing owls are migratory, these owls are predominantly non-migratory in California (Zeiner et. al. 1990). The western burrowing owl is an opportunistic forager, foraging on large arthropods, mainly beetle and grasshoppers, small mammals, reptiles, birds, and carrion. The breeding season for western burrowing owls occurs from March to August, peaking in April and May (Zeiner et. al. 1990). Western burrowing owls nest in burrows in the ground, often in old ground squirrel burrows. This owl is also known to use artificial burrows including pipes, culverts, and nest boxes. There are no CNDDB records of occurrences for this species within five miles of the plan area (CNDDB 2003) and no western burrowing owls were observed during the biological assessment. Additionally, very few potential burrow sites that could be utilized by western burrowing owl were observed during the field surveys. However, the annual grassland onsite does provide suitable habitat for this species to occur. Consequently, this species has a low potential to occur within the annual grassland community.

**Valley Elderberry Longhorn Beetle**

The USFWS has determined the range of the beetle to include the watersheds of the American, San Joaquin, and Sacramento Rivers and their tributaries up to approximately 3,000 feet above mean sea level (USFWS 1980). Typically, the beetles are found on elderberry shrubs within riparian plant communities. Some studies have found that multiple elderberry shrubs clumped together provide superior habitat for the beetle while isolated elderberry shrubs are less likely to support beetle populations (Collinge et. al. 2001). Typical plant species that co-occur with the elderberry shrubs include California sycamore (*Platanus racemosa*), willows (*Salix* spp.), blackberry (*Rubus* spp.), and poison oak (*Toxicodendron diversilobum*) (USFWS 1984). Beetles require elderberry stems

with a basal diameter of at least 1 inch in order for the larvae to utilize the stems (USFWS 1999).

The valley elderberry longhorn beetle depends on elderberry shrubs for its entire lifecycle. Adults are typically active from March through May during the flowering period of the elderberry shrub. The female lays its eggs on the leaves and stems of the elderberry shrub. The larvae emerge within a few days and burrow into the elderberry stem. The larvae feed on the stem pith until they pupate. When the host shrub begins flowering, the pupa emerges from the stem as an adult (Barr 1991).

**Western Pond Turtle**

Western pond turtles require slow moving perennial aquatic habitats with suitable basking sites. Pond turtles have sometimes adapted to using irrigation ditches. Suitable aquatic habitat typically has a muddy or rocky bottom and has emergent aquatic vegetation for cover (Stebbins, 2003). There is one CNDDB record for this species within five miles of the project site (CNDDB 2003) and no turtles were observed on the project site during the biological assessment. However, the perennial marsh habitat provides potential habitat for the species. Therefore, the potential for this species to occur on the site is low.

**Special-status Bat Species**

California is home to several special-status bat species. Bat numbers are in decline throughout the United States due to loss of roosting habitat and habitat conversion and habitat alteration. There are no CNDDB records for special-status bat species within five miles of the project site (CNDDB 2003) and no bat species were observed onsite during the biological assessment. However, the U.S. Highway 50 provides some marginal roosting habitat for some special-status bat species and the riparian communities in the vicinity of the project site contain good foraging habitat for bat species. Therefore, the potential for special-status bat species to occur on the site is low.

## 5.5 Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code, or Section 404 of the Clean Water Act. Additionally, sensitive habitats are protected under the specific policies outlined in the El Dorado County General Plan. Sensitive habitats within the site include oak woodlands, and waters of the U.S., which include perennial marsh, riparian wetland, slope-seep wetlands, and seasonal wetlands (**Figure 4**).

### *5.5.1 Potential Jurisdictional Waters of the U.S.*

Potential jurisdictional waters of the U.S. within the project area total approximately 7.68 acres. This acreage includes 3.46 acres of perennial marsh, 2.39 acres of riparian wetland, 1.06 acres of slope-seep wetland, and 0.78 acre of seasonal wetlands and associated ephemeral drainages. The potential wetland areas in the project area have

been formally delineated. As of the writing of this biological assessment, the Corps has not verified these acreages.

Jurisdictional Waters of the U.S. include jurisdictional wetlands as well as all other waters of the U.S. such as creeks, ponds, and intermittent drainages. Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Corps 1987). The majority of jurisdictional wetlands in the United States meet three wetland assessment criteria: hydrophilic vegetation, hydric soils, and wetland hydrology, Jurisdictional waters of the U.S. can also be defined by exhibiting a defined bed and bank and ordinary high water mark (OHWM). As discussed in Regulatory Framework, jurisdictional waters of the U.S. are subject to Section 404 of CWA and are regulated by the Corps.

### *5.5.2 Oak Trees*

As mentioned previously, the project site contains scattered oak trees within the annual grassland community and the western and eastern portion of the project site contain oak woodlands with extensive oak trees. Oak trees are regulated under the El Dorado County general plan based on canopy coverage onsite and the specific project area is within the area covered by the El Dorado Hills specific plan, which generally describes preservation criteria for oak trees within designated open space areas. Oak tree removal, revegetation, and mitigation will be in accordance with the El Dorado General Plan framework.

## 6.0 DISCUSSION AND RECOMMENDATIONS

As discussed, the site consists of ±167.3 acres of land that supports primarily annual grassland and oak woodland habitats. Known or potential biological constraints on the site include:

- Potential habitat for special-status plant species;
- Potential wintering habitat for ferruginous hawk;
- Potential habitat for western burrowing owl;
- Potential habitat for valley elderberry longhorn beetle;
- Potential habitat for the California horned lizard;
- Potential roosting habitat for bat species;
- Potential habitat for tricolored blackbird;
- Potential habitat for western pond turtle;
- Potential nesting sites and foraging habitat for raptors; and
- Sensitive habitats (wetlands including seasonal wetlands, perennial marsh, and associated intermittent drainages).

### 6.1 Special-status plant species

As mentioned previously, portions of the project area contain suitable habitat for special-status plant species that are known to occur in the vicinity. The biological assessment was conducted outside of the typical blooming period for many of the special-status plant species known to occur in the vicinity. Therefore, prior to any ground disturbance, it is recommended that a special-status plant survey be conducted on the project area. The survey should be conducted by a biologist qualified in the field identification of special-status plants known to occur in the vicinity of the project area.

### 6.2 Ferruginous Hawk

As previously discussed, suitable wintering habitat for ferruginous hawk occurs on the project site. Because ferruginous hawk is a winter resident in California, ferruginous hawk is not likely to occur on the project site during the construction season and therefore no further studies would be required. The species does not nest in California and therefore no impacts to nesting habitat for this species would occur.

### 6.3 Western Burrowing Owl

Although burrowing owls were not observed during the biological assessment, the site contains annual grassland that is potentially suitable habitat for burrowing owl. For this reason, it is recommended that a burrowing owl survey be conducted no more than 30 days prior to the onset of construction. Burrowing owls can be present during all times of the year in California, so this survey is recommended regardless of the time construction

activities occur. If active owl burrows are located during the preconstruction survey, it is recommended that a 250-foot buffer zone be established around each burrow with an active nest until the young have fledged and are able to exit the burrow. In the case of occupied burrows without active nesting, active burrows after the young have fledged, or if development commences after the breeding season (typically February-August), passive relocation of the birds should be performed. Passive relocation involves installing a one-way door at the burrow entrance, which encourages the owls to move from the occupied burrow. CDFG should be consulted as to suggested guidelines for passive relocation of any owls found onsite. Mitigation acreage may be required for project impacts that result in permanent impacts to active burrows and foraging habitat. CDFG recommends 6.5 acres of foraging habitat for burrowing owl be preserved for each active burrow that would be impacted by project activities. The CEQA lead agency is responsible for determining what mitigation would be appropriate in coordination with CDFG. These mitigation measures would only apply in the event that active owl burrows were encountered during the preconstruction survey.

### 6.4 Valley Elderberry Longhorn Beetle

Although no VELB were observed, there is a small potential for VELB to be present on the site due to a single blue elderberry shrub observed on the southwest corner of the U.S. 50 overpass where it crosses Silva Valley Parkway. This shrub is large and could potentially provide habitat for VELB. An additional elderberry shrub was observed along the tributary to Carson Creek immediately to the west of the study area (**Figure 4**). Currently, the USFWS suggests mitigation for impacts to any elderberry shrub with stems of greater than 1 inch diameter at ground level. USFWS calls for a 100-foot buffer to be maintained around any existing elderberry shrub to prevent potential VELB habitat from being impacted. If a 100-foot buffer cannot be maintained, then the elderberry shrub should be transplanted according to USFWS guidelines to a suitable designated mitigation area and additional elderberry shrubs and associated riparian plant species should be planted in the designated mitigation area. The number of additional elderberry shrubs and associated vegetation varies depending on the number and diameter of elderberry stems suitable for use by VELB that are impacted by the project. The USFWS requests that transplantation occur between the beginning of November and the first two weeks of February when elderberries are typically dormant and the chance of transplantation success is higher. These mitigation measures would only be required if the elderberry shrub within the project area was impacted.

### 6.5 California Horned Lizard

No California horned lizards were observed during the biological assessment. However, the annual grassland onsite provides potential habitat for this species. It is recommended that a pre-construction survey be conducted for this species by a qualified biologist no more than 30 days prior to the initiation of construction activities. If horned lizards are found onsite, CDFG should be consulted regarding appropriate mitigation measures. Additional mitigation for this species would only be considered if the species was found during pre-construction surveys.

### 6.6 Special-status Bat Species

The existing U.S. Highway 50 overpass could provide potential roosting habitat for various bat species that occur in the vicinity of the study area. Prior to the initiation of construction activities, it is recommended that a preconstruction survey be performed by a qualified biologist to determine if special-status bat species are roosting under the existing U.S. 50 overpass. If special-status bat species are present and roosting on the project site, then CDFG should be consulted regarding potential additional mitigation measures. Adoption of mitigation measures for roosting bat species would be considered only if special-status bat species are found to be roosting within the project area.

### 6.7 Tricolored Blackbird

Perennial marsh habitats within the project area contain suitable nesting habitat for tricolored blackbirds. The marsh habitat is most likely not of sufficient size to support a breeding colony of this species. However, it is recommended that a preconstruction survey for tricolored blackbird be conducted for any construction activity that would directly impact perennial marsh habitat or occur within 300 feet of perennial marsh habitat. If tricolored blackbirds are found during the pre-construction survey, CDFG and USFWS should be contacted regarding additional mitigation measures that may be required. Additional mitigation measures would only be considered in the event that tricolored blackbirds were located during the pre-construction survey.

### 6.8 Western Pond Turtle

Perennial marsh habitats within the project area contain suitable habitat for western pond turtle and there are CNDDB records for this species within the Carson Creek watershed. Therefore, it is recommended that a pre-construction survey for western pond turtle be conducted for any construction activity that would directly impact perennial marsh habitat or occur within 300 feet of perennial marsh habitat. If western pond turtles are found during the pre-construction survey, CDFG and USFWS should be contacted regarding additional mitigation measures that may be required. Additional mitigation measures would only be considered in the event that western pond turtles were located during the pre-construction survey.

### 6.9 Raptors

As discussed earlier, several species of raptors forage and may nest on the site including the special-status species Cooper's hawk, and white-tailed kite. A pair of red-tailed hawks (*Buteo jamaicensis*) was observed foraging over the project site during the biological assessment. Active raptor nests are protected by the California Fish and Game code Section 3503.5 and the MBTA. For this reason, if construction is expected to occur during the nesting season (February-August), a pre-construction raptor survey is recommended to determine if active nests are present on the site. The survey should be conducted by a qualified biologist no more than 30 days prior to the onset of construction activities. If the nests are found and considered to be active, construction activities should not occur within 500 feet of the nests until the young have fledged or a qualified biologist has determined that the nest is no longer active. If construction activities are

proposed to occur during non-breeding season (September-January), a survey is not required and no further studies are necessary.

### 6.10 Sensitive Habitats

A total of 7.68 acres of potentially jurisdictional waters of the U.S. and wetland features were delineated and mapped on the site. Of these 7.68 acres, 3.46 acres are perennial marsh, 2.39 acres are riparian wetland, 1.06 acres are slope-seep wetland, and 0.78 acre is seasonal wetlands and associated ephemeral drainages (**Figure 4**). These areas are potentially regulated by the Corps and CDFG. Additionally, these areas are protected under the El Dorado County General Plan. Consequently, it is recommended that prior to the issuance of a grading permit, the wetland delineation for the project site should be submitted to the Corps and the appropriate Section 404 permit should be acquired. Any waters of the U.S. or jurisdictional wetlands that would be lost or disturbed should be replaced or rehabilitated on a "no-net-loss" basis in accordance with the Corps' mitigation guidelines. Habitat restoration, rehabilitation, and/or replacement should be at a location and by methods agreeable to the Corps.

If the project would result in impacts to the tributary to Carson Creek along the western boundary of the project area, a Streambed Alteration Agreement should be obtained from CDFG, pursuant to Section 1600 of the CDFG Code, for each stream crossing and any other activities affecting the bed, bank or associated riparian vegetation of the stream. If required, the project applicant should coordinate with CDFG in developing appropriate mitigation, and should abide by the conditions of any executed permits.

If the project would result in impacts to oak trees, El Dorado County should be consulted regarding oak tree avoidance and replacement guidelines.

## 7.0 REFERENCES


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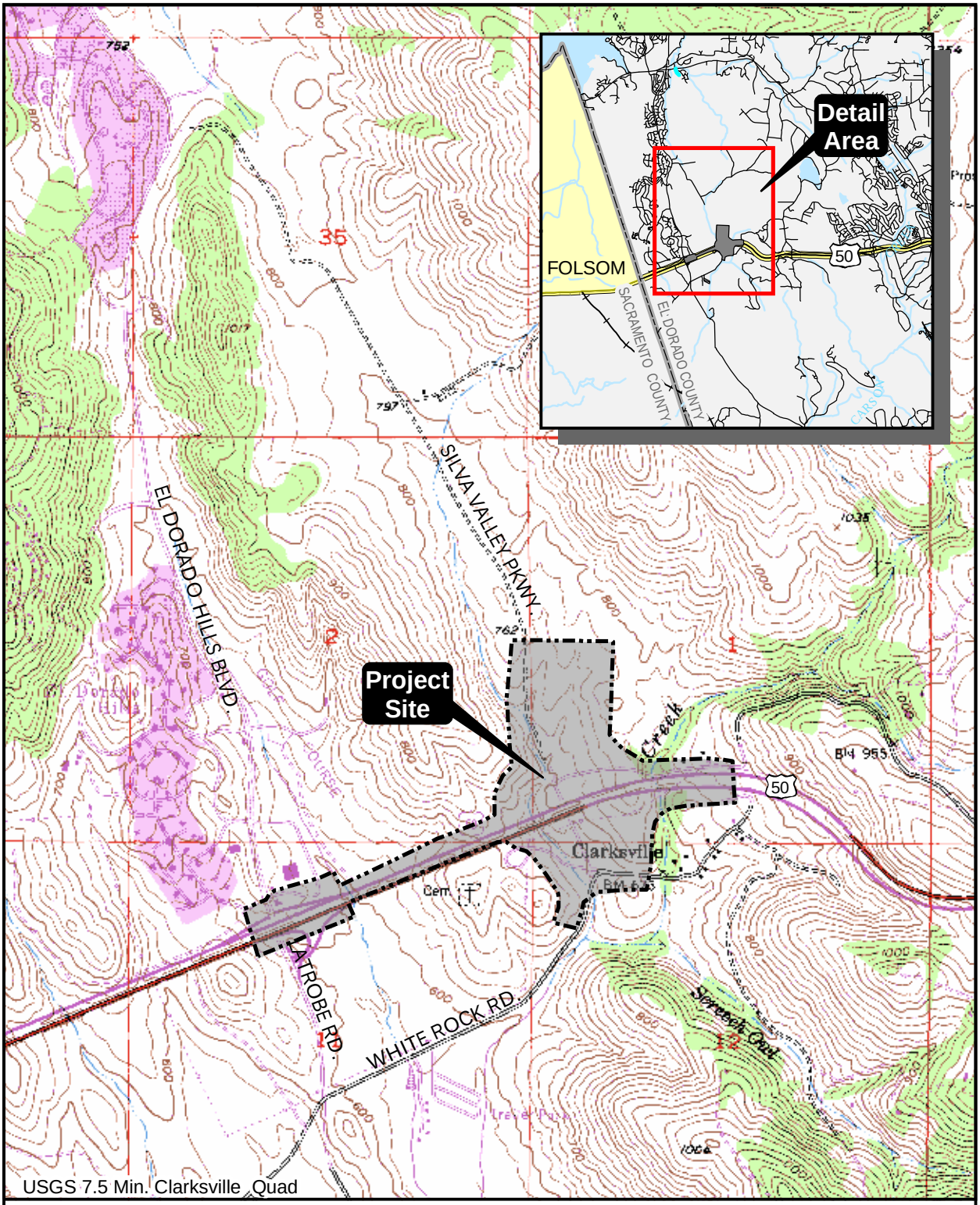


SITE AND VICINITY

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LANDSCAPE ARCHITECTURE

N

0 1000 2000
SCALE IN FEET

FIGURE 1

SILVA VALLEY PARKWAY ROAD IMPROVEMENTS

site_and_vicinity.mxd


# SOILS

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USDA, Soil Conservation Service, digital soil data derived from SSURGO data, El Dorado County, California, 2002
3.75 Min. DOQQ Digital base data provided by USGS for Clarksville SW & SE, 1993

N

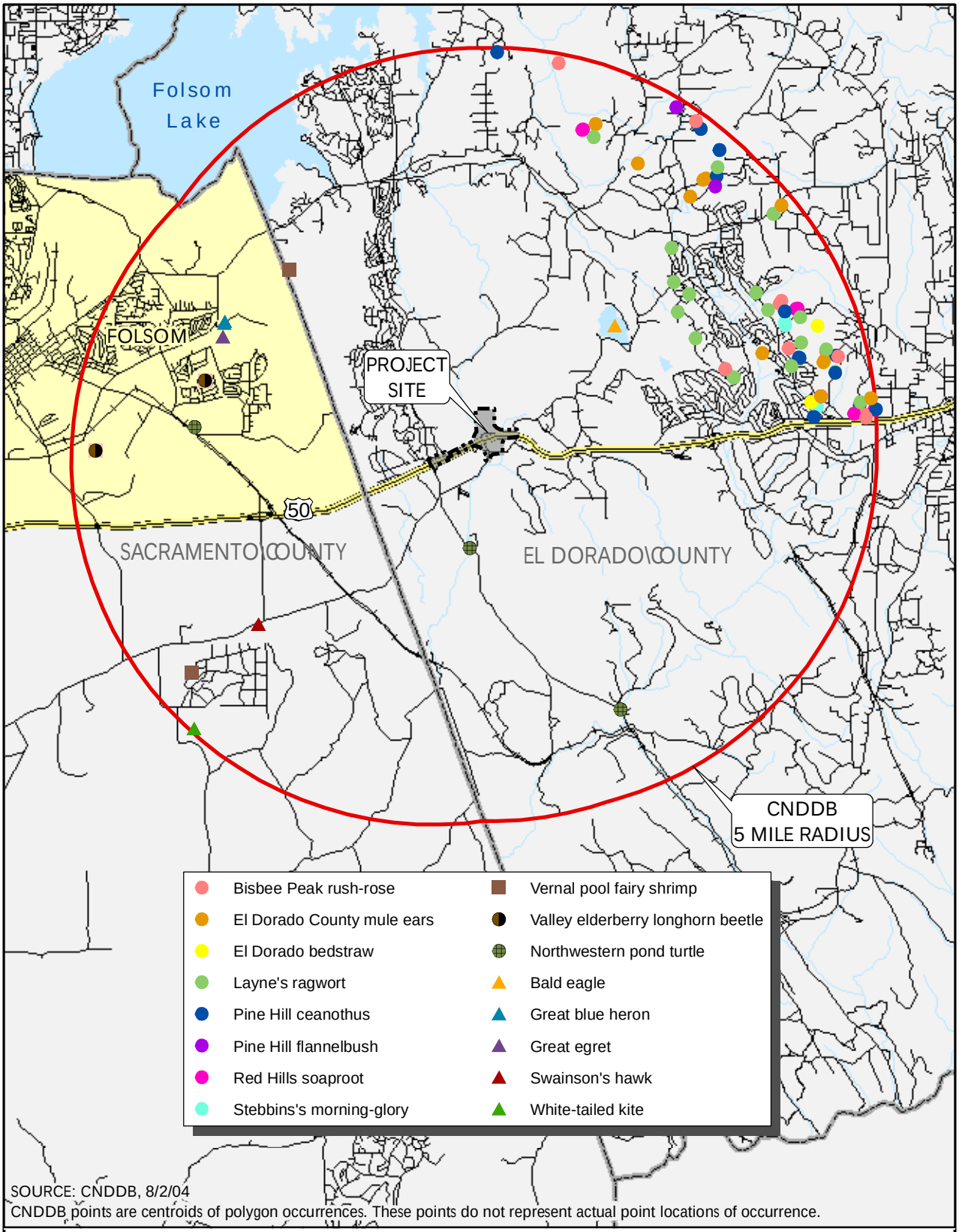
0 500 1000
SCALE IN FEET

Drawn By: MMJ
Date: 10/05/04

FIGURE 2

SILVA VALLEY PARKWAY ROAD IMPROVEMENT

 soils.mxd




SOURCE: CNDDB, 8/2/04
CNDDB points are centroids of polygon occurrences. These points do not represent actual point locations of occurrence.

# CNDDB

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N

0 1 2
SCALE IN MILES

Drawn By: MMJ
Date: 10/05/04

FIGURE 3

SILVA VALLEY PARKWAY INTERCHANGE

cnddb.mxd


# BIOLOGICAL CONSTRAINTS

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3.75 Min. DOQQ Digital base data provided by USGS for Clarksville SW & SE, 1993

N

0 525 1050
SCALE IN FEET

Drawn By: DBV
Date: 05/19/05

FIGURE 4

SILVA VALLEY INTERCHANGE

bio_constraints.mxd