Appendix D:
Biological Resource Assessments

D.1 - Biologcial Resources Assement - Parkway, Michael Brandman Associates, October 31, 2008

Michael Brandman Associates

October 31, 2008

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Subject: Biological Resources Assessment Report for the Diamond Springs Parkway Alignment Project, El Dorado County, California

Ms. Maxwell,

A biological resources assessment has been conducted by Michael Brandman Associates (MBA) within the proposed Diamond Springs Parkway Project (project). The location of the Project corresponds to Sections 24 and 25, Township 10N, Range 10E, and Sections 19 and 30, Township 30N, Range 11E (Mount Diablo Baseline Meridian [MDBM]) of the *Placerville, California* U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle just northwest of Diamond Springs, El Dorado County, California.

Results of the assessment indicate that the project study area supports the following sensitive resources:

- Suitable habitat for six (6) special-status plant species;
- Suitable habitat for 11 special-status wildlife species;
- Riparian habitat and waters of the U.S. and the state, including wetlands; and
- Protected trees.

Introduction and Purpose

MBA conducted a biological resources assessment to document existing biological conditions within the proposed Diamond Springs Parkway Project (project) study area, located just north of Diamond Springs, California (Exhibit 1). The project would extend eastward from Missouri Flat Road near its intersection with the Southern Pacific Railroad (SPRR), north of China Garden Road, and would connect to Diamond Road (SR-49). As part of the traffic mitigation measures required for the proposed project, the Department of Transportation (DOT) also will construct improvements to Diamond Road (SR-49) from north of the proposed intersection with the Parkway, continuing south to Pleasant Valley Road into the town of Diamond Springs. The improvements would require minor improvements and/or realignment of China Garden Road, Black Rice Road, Happy Lane, Throwita Way, Old Depot, Truck Street, and Lime Kiln Road.

Based on available funding and other considerations, the project would be constructed in two phases. Phase 1 would involve the acquisition of the necessary rights-of-way (ROW) for the four-lane Parkway and two-lane SR-49 improvements. Phase 1 of the Parkway would include grading sufficient to establish the full roadway prism sufficient to accommodate Phase 2 improvements. However, under Phase 1, the Parkway would be constructed as a 2-Lane Arterial, with medians and turn pockets lanes where applicable. Under Phase 2, DOT would widen the Parkway to four lanes and incorporate center dividers or medians and turn-pocket lanes, where applicable.

The purpose of this biological resources assessment is to:

- Generally characterize all habitat types within the project study area;
- Determine the presence or absence of habitat suitable for special-status plant and wildlife species;
- Determine the presence or absence of waters of the U.S. and waters of the State, including wetlands, within the project study area; and
- Determine the presence or absence of other sensitive resources within the project study area.

Location and Environmental Setting

Elevation of the project study area is approximately 1,800 feet above mean sea level (msl). Average temperatures range from January lows of 32.4 ˚F to July highs of 92.6 ˚F. Average annual precipitation is approximately 38.5 inches; precipitation falls primarily as rain with most precipitation occurring between the months of October and April (Western Regional Climate Center 2007).

The project study area is located along portions of Missouri Flat Road and State Highway 49, but departs these roads and crosses both developed and undeveloped parcels. The location of the site corresponds to Sections 24 and 25, Township 10N, Range 10E; and Sections 19 and 30, Township 30N, Range 11 E *Placerville, California* USGS 7.5-minute topographic quadrangle (Exhibit 1). The project study area encompasses approximately 92.86 acres and is bordered by several land use types, including undeveloped land, industrial facilities, vacant lots, and scattered residences (Exhibit 2). Land uses within the project study area are primarily industrial, although there are several highly disturbed undeveloped areas as well as scattered undisturbed areas.

Methodology

Prior to conducting the field survey of the project study area, the following information sources were reviewed:

- The *Placerville, California* USGS 7.5-minute topographic quadrangle (1973);
- Aerial photography of the project study area (Google Earth 2007);
- A Natural Resource Conservation Service (NRCS) soils map of the project study area (Soil Survey Staff undated);

- California Department of Fish and Game (CDFG) California Natural Diversity Data Base (CNDDB) records for the *Placerville, California* 7.5-minute topographic quadrangle and the surrounding eight quandrangles (CNDDB 2008) (Attachment A);
- CDFG California Wildlife Habitat Relationship System (CWHR) (CDFG 2005);
- U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur, or be affected by the Project, in the Placerville, California quadrangle (USFWS 2007) (Attachment B);
- The California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2008) (Attachment C);
- Pertinent literature including: the *Jepson Manual, Higher Plants of California* (Hickman 1993); *Amphibian and Reptile Species of Special Concern in California* (Jennings and Hayes 1994); *California Birds: Their Status and Distribution* (Small 1994); *Bird Species of Special Concern in California* (Remsen 1978); and *Mammalian Species of Special Concern in California* (Williams 1986)

For the purpose of this assessment, special-status species are those species:

- Listed as threatened or endangered under the Endangered Species Act (ESA) and those species formally proposed or candidates for listing;
- Listed as threatened or endangered under California ESA (CESA) or candidates for listing;
- Designated as endangered or rare pursuant to California Fish and Game Code (§1901);
- Designated as fully protected pursuant to California Fish and Game Code (§3511, §4700, §5050);
- Designated as a species of special concern by CDFG;
- Plants listed as rare under the California Native Plant Protection Act or considered by CNPS as List 1A, 1B, or 2 species.

MBA biologists Brian Hoffmann, Deborah Stout, and Eric Guzman conducted the field assessment on October 15 and 16, 2007. The project study area was surveyed by walking meandering transects. The assessment included describing the vegetation communities present (Mayer and Laudenslayer 1988); identifying common plant and wildlife species observed; determining the potential presence of any special habitat features, such waters of the U.S. or state, including wetlands; and identifying any linkages within the project study area to important adjacent wildlife habitats. Habitat types were assessed and evaluated for their potential to support special-status plant and wildlife species and any other sensitive biological resources. Trails identified as potential wildlife movement corridors were documented.

An additional assessment of aquatic habitats was conducted by MBA biologists T'Shaka Touré and Deborah Stout concurrent with a wetland delineation on January 10 and 11, 2008. The purpose of this additional assessment was to determine whether aquatic habitats within the project study area were suitable for special-status amphibian species, particularly California red-legged frog (*Rana aurora draytonii*). The project study area is located within Core Area 4 (Cosumnes River – South Fork American River) as defined in the *Recovery Plan for the California Red-Legged Frog* (Rana aurora draytonii) published by the U.S. Fish and Wildlife Service (USFWS) in 2002. According to the Recovery Plan, areas mapped as a core area may not represent suitable California red-legged frog habitat, and

habitats within core areas should be assessed for suitability. T'Shaka Touré has a Memorandum of Understanding (MOU) with CDFG that covers a variety of special-status amphibians, reptiles, fish, and small mammal species (permit ID number SC005444).

Protocol-level special-status plant surveys were conducted by MBA botanist Deborah Stout on June 19, 2008.

Results

Topography and Soils

The NRCS Web Soil Survey (Soil Staff undated) shows five (5) soil types mapped within the project study area. Placer diggings (PrD) occur over a majority of the project study area, and predominate in the portion of the site that runs east-west between Missouri Flat Road and SR 49. These soils are classified as fine sandy loam with cobbles; the parent material is alluvium derived from mixed sources. Diamond Springs very fine sandy loam, 3 to 9 percent slopes and Diamond Springs very fine sandy loam, 9 to 15 percent slopes (DfC) are restricted to the eastern half of the project study area. The parent material is fine-grained, acidic residuum weathered from igneous rock. Mixed alluvial land (MpB) Tailings (TaD) occur in the extreme northwestern portion of the project study area west of Missouri Flat Road and are comprised of fragmental material

Vegetation Communities

The project study area includes four (4) habitat types: blue oak - foothill pine, valley foothill riparian, annual grassland, and urban (Exhibit 3). Blue oak – foothill pine habitat (20.88 acres) is scattered throughout the project study area, with the largest area occurring in the southeast just west of State Highway 49. Overstory species observed within the project study area are blue oak (*Quercus douglasii*), foothill pine (*Pinus sabiniana*), valley oak (*Q. lobata*), California black walnut (*Juglans californica*), and interior live oak (*Q. wislizenii*). Shrub species include whiteleaf manzanita (*Arctostaphylos viscida*), greenleaf manzanita (*A. patula*), toyon (*Heteromeles arbutifolia*), buckbrush (*Ceanothus cuneatus*), California coffeeberry (*Rhamnus californica*), coyotebrush (*Baccharis pilularis*), bitter cherry (*Prunus emarginata*) and Himalayan blackberry (*Rubus discolor*). Other understory species include narrowleaf plantain (*Plantago lanceolata*), yellow star-thistle (*Centaurea solstitialis*), clover (*Trifolium* sp.), tall annual willowherb (*Epilobium brachycarpum*), California grape (*Vitis californica*), dogtail grass (*Cynosurus echinatus*), mugwort (*Artemesia douglasiana*), St. John's wort (*Hypericum perfoliatum*), prickly lettuce (*Lactuca serriola*), tall wheatgrass (*Elytrigia pontica*), Queen Anne's lace (*Daucus carota*), and hairypink (*Petrorhagia dubia*).

Valley foothill riparian habitat (2.73 acres) is restricted to small, typically linear inclusions within urban habitat. Overstory species include Fremont cottonwood (*Populus fremontii*), valley oak, foothill pine, and arroyo willow (*Salix lasiolepis*). Shrub species observed include coyotebrush and Himalayan blackberry. Understory species include sweetpea (*Lathyrus latifolius*), white sweetclover (*Melilotus alba*), St. John's

wort, rabbitfoot grass (*Polypogon monspeliensis*), dogtail grass, seashore vervain (*Verbena litoralis*), soft chess (*Bromus hordeaceus*), Queen Anne's lace, and nutsedge (*Cyperus* sp.). This habitat is associated largely with a stream that runs roughly north-south from the north-central portion of the project study area. Aquatic habitat here is degraded. The habitat is surrounded by industrial developments, which discharge runoff directly into this feature via a number of PVC pipes that enter above the ordinary high water mark. The habitat also degraded by dumping; old oil bottles, large 50 gallon drums, and other garbage were observed throughout this feature.

Annual grassland (5.05 acres) occurs in patches throughout the project study area. Many of these patches contain shrubs and young trees that suggest they are early successional blue-oak foothill pine habitat. Species observed in these areas include interior live oak, buckbrush, coyotebush, valley oak, yellow-star thistle, narrowleaf plantain, tumble mustard (*Sisymbrium altissimum*), medusahead grass (*Taeniatherum caput-medusae*), soft chess, rip-gut brome (*Bromus diandrus*), hare barley (*Hordeum leporinum*), tree-of-heaven (*Ailanthus altissima*), madia (*Madia elegans*), Queen Anne's lace, clover (*Trifolium* sp.), narrowleaf plantain, and rabbitfoot grass, tall annual willow-herb, and seashore vervain.

Urban habitat (64.20 acres) occurs primarily along the southeastern edge of State Highway 49 and is associated with residences. These areas of urban habitat are dominated by lawns and a variety of horticultural ornamental plants such as rose (*Rosa* sp.), iris (*Iris* sp.), and shade trees. Other urban areas are located on the east side of Missouri Flat road, and the portion of the project study area that runs east-west between Missouri Flat Road and State Route 49. These areas, however, are heavily disturbed and largely unvegetated.

Wildlife and Movement Corridors

The following wildlife species or their sign (i.e., scat, bones) were observed within the project study area during the October 15 and 16 field assessment: black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*), western fence lizard (*Sceloporus occidentalis*), turkey vulture (*Cathartes aura*), vole (*Microtus* sp.), mockingbird (*Mimus polyglottis*), scrub jay (*Aphelocoma coerulescens*), house finch (*Carpodacus mexicanus*), white-crowned sparrow (*Zonotrichia leucophrys*), mule deer (*Odocoileus hemionus*), American goldfinch (*Carduelis tristis*), dark-eyed junco (*Junco hyemalis*), chipping sparrow (*Spizella passerina*), spotted towhee (*Pipilo erythrophthalmus*), and mourning dove (*Zenaida macroura*).

Wildlife trails were observed scattered throughout the project study area. These are assumed to be from black-tailed jackrabbit and mule deer. It is anticipated that riparian corridors traversed by the project study area also provide movement corridors for a variety of mammal and bird species. Although no known wildlife corridors are included in the El Dorado County General Plan, one area was identified during the field assessment as a potentially important wildlife corridor. It is located on the east side of Missouri Flat Road where the project study area departs Missouri Flat Road and runs east towards State Route 49. This corridor runs through industrial developments and connects two relatively undeveloped areas of blue oak-foothill pine habitat (Exhibit 3).

Special-Status Species

Special-Status Plant Species

The special-status plant species considered for review in this document are included in a table provided in Attachment D. This list was compiled based upon query results from CNDDB and the CNPS on-line inventory, as well as a list obtained from USFWS. CNDDB-recorded occurrences of special-status species within five miles of the project study area are shown in Exhibit 4.

Several regionally occurring species were determined not to have potential to occur with the project study area either because the range of the species does not extend into the project study area vicinity, or because the habitat and/or microsite conditions (e.g., serpentine soils, mesic sites) required by the species are not present.

Based upon results of the species review, there are six (6) special-status plant species with potential to occur within the Project. These species were not identified during protocol-level plant surveys conducted on June 19, 2008, by MBA botanist Deborah Stout. Therefore, these species are considered absent from the project study area.

Special-Status Wildlife Species

The special-status wildlife species considered for review in this document are included in a table provided in Attachment D. This list was compiled based on the USFWS list and query results from CNDDB and CWHR. CWHR is a predictive model that lists species likely to occur in a given location under certain habitat conditions. It also predicts the suitability of those conditions for reproduction, cover, and feeding for each modeled species. Information fed into the model for this project study area includes location (El Dorado County) and habitat type (blue oak-foothill pine). CWHR does not include any information on plants, fish, invertebrates, or rare natural communities.

Several regionally occurring species were determined not to have potential to occur within the project study area, either because the distribution range of the species does not extend into the project study area vicinity, or because the habitat or habitat elements (e.g., caves, tall snags) required by the species are not present.

Based upon results of the species review, there are 11 special-status wildlife species with potential to occur within the Project. Table 2 lists these species, their regulatory status, general habitat requirements, and the period during which they are most identifiable. Recorded occurrences of special-status wildlife species within five miles of the project study area are shown in Exhibit 4.

Table 1. Special-Status Wildlife Species With Potential to Occur Within the Diamond Springs Parkway Project Study Area

Scientific Name **Common name**	**Listing Status USFWS/ CDFG**	**General Habitat Description**	**Potential for Presence**	**Period of Identification***
AMPHIBIANS				
Rana aurora draytonii California red-legged frog	FT/CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to aestivation habitat.	**Low.** There are no permanent sources of deep water within the project study area that are suitable for breeding. The drainage that runs through the project study area is ephemeral in nature and highly degraded, and does not support any backwater ponds or other deep water habitats. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	January – February (adult visual survey)
BIRDS				
Accipiter striatus Sharp-shinned hawk	--/CSC	Winter resident throughout much of the state; permanent at higher elevations. Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers but is not restricted to riparian habitats.	**High.** Blue oak-foothill pine and riparian habitats throughout the project study area are suitable for nesting and foraging by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	Year-round
Asio otus Long-eared owl	--/CSC	Breeding resident throughout much of the state. Found in dense riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats; also found in dense conifer stands at higher elevations.	**Moderate.** Dense riparian wetland habitat at the north-central edge of the project study area may be suitable for breeding by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	Year-round
Dendroica petechia brewsteri Yellow warbler	--/CSC	Requires riparian thickets of willow and other brushy tangles near watercourses for cover. Nests in dense shrubs along a stream or river.	**Moderate.** Riparian habitat associated with the drainage the north-central portion of the project study area may be suitable for nesting and foraging. There are no CNDDB-recorded occurrences of this species within five miles of the Project study area (CNDDB 2007).	April - September
Elanus leucurus White-tailed kite	--/CFP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**High.** Blue oak-foothill pine and riparian habitats throughout the project study area are suitable for nesting by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	January – August (breeding)

Scientific Name **Common name**	**Listing Status USFWS/ CDFG**	**General Habitat Description**	**Potential for Presence**	**Period of Identification***
Falco columbarius Merlin	--/CSC	Uncommon winter migrant. Seldom found in heavily wooded areas or open deserts. Frequents open habitats at low elevations near water and tree stands. Favors coastlines, lakeshores, and wetlands. Ranges from annual grasslands to ponderosa pine and montane hardwood-conifer habitats.	**Moderate.** Blue oak-foothill pine habitat within the project study area is suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	September - May
Lanius ludovicianus Loggerhead shrike	--/CSC	Found in a variety of habitats with open areas, available perches, and dense shrubs for nesting.	**Moderate.** The project study area provides suitable nesting and foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	March - August
Progne subis Purple martin	--/CSC	An uncommon to rare, local summer resident in a variety of wooded, low-elevation habitats throughout the state; a rare migrant in spring and fall, absent in winter. Breeding habitat includes old-growth, multi-layered, open forest and woodland with snags; forages over riparian areas, forest, and woodlands	**Low.** Blue oak-foothill pine habitat in the eastern portion of the project study area may provide suitable nesting habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	April - September
MAMMALS				
Antrozous pallidus Pallid bat	--/CSC	Broadly distributed in California from sea level to over 6,000 feet. Roosts in caves, buildings, rock crevices, and tree hollows. Overwinters in summer habitats at lower elevations.	**Moderate.** Riparian and blue oak-foothill pine habitats within the project study area may provide suitable maternity roosts for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	April - October
Bassariscus astutus Ringtail	--/FP	Widely distributed, common to uncommon permanent resident. Occurs in various riparian habitats and in brush stands of most forest and shrub habitats at low to middle elevations. Nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat nests.	**Moderate.** Thick, riparian woodland habitat at the northern edge of the project study area may be suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project study area (CNDDB 2007).	Year-round
Lasionycteris noctivagans Silver-haired bat	--/CSC	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes and rarely under rocks. Needs drinking water.	**Moderate.** Blue oak-foothill pine and riparian habitat within the project study area may provide suitable roosting habitat for this species. There is a CNDDB-recorded occurrence of this species approximately five miles northeast of the project study area (CNDDB 2007).	April - October

Federal	State
FE = Federally Endangered FT = Federally Threatened FD = Federally Delisted	CE = State Endangered CT = State Threatened CSC = State Species of Special Concern

Additional Species Information – California Red-Legged Frog

On June 30, 2008, MBA submitted to Sacramento Fish and Wildlife Office (SFWO) a request for concurrence regarding the absence of suitable habitat for red-legged frog within the project study area. On July 24, 2008 SFWO responded to our request stating that they do not agree with MBA's determination of no suitable habitat (Attachment E):

> Based on our review of the information provided in your June 30, 2008 letter, the Service does not agree with your determination that the proposed project site does not contain suitable habitat for this listed amphibian. While it is apparent that the project site does not contain suitable breeding habitat, the information provided was insufficient for us to conclude that the on-site drainage does not provide potential non-breeding habitat…..The proposed project is located approximately 0.4 miles west of Weber Creek, an area that has historically been known to contain frogs, and is located adjacent to an aquatic feature that may provide suitable breeding habitat for the frog…Since the project is located within the range of the frog and there are no apparent dispersal barriers between the project site and potentially suitable breeding habitat, we recommend that an adequate site assessment be conducted following the Service's 2005, *Revised Guidance on Site Assessment and Field Surveys for the California Red-Legged Frog.*

On September 18, 2008, MBA spoke with Jeremiah Karuzas, a biologist with the SFWO, to discuss the habitats and developments that occur within 1 mile of the project and determine what assessments and/or surveys may be required. On October 3, 2008, MBA again spoke with Mr. Karuzas. Based on information included in the Initial Study/Mitigated Negative Declaration (IS/MND) for the El Dorado Trail Improvement Project Forni Road to Missouri Flat Road, which identifies a large pond that is owned by the El Dorado Irrigation District (EID) and located just north of the project study area and is considered as suitable breeding habitat for California red-legged frog. The USFWS stated that while a site assessment is not required, protocol-level surveys for this species within the EID pond are required prior to project construction.

Wetlands and Other Waters

A delineation of waters of the U.S., including wetlands, was conducted by qualified MBA delineators on December 11, 12, and 13, 2007; January 10 and 11, 2008; and March 20, 2008. The delineation identified seven (7) features that are U.S. Army Corps of Engineers (USACE) jurisdictional. These include four (4) ephemeral drainages, two (2) roadside ditches, and one (1) fresh emergent wetland. These features exhibit a "significant nexus" to Weber Creek, a Traditionally Navigable Water (TNW). As such, these features are subject to regulation by the USACE. Total acreage of USACE jurisdictional features is 0.17 acres (3,940 linear feet).

The Project study area contains 11 features not considered federally jurisdictional. They include nine (9) roadside ditches that do not enter, intersect, or otherwise capture flows from any TNW, relatively permanent water (RPW), or seasonal wetland; therefore, these features do not contain any federally jurisdictional waters. There is also one isolated wetland swale and one fresh emergent wetland that are

isolated and, therefore, considered federally non-jurisdictional. Total acreage of non-federally jurisdictional features is 0.18 acre (5,136 linear feet).

Protected Trees

El Dorado County finalized an oak Woodland Management Plan (OWMP) in May 2008. Prior to project construction, an oak woodland canopy survey will be conducted and a certified arborist report prepared to determine mitigation requirements.

Regulatory Setting

Regulation of Special-Status Species

Federal Regulations

Federal Endangered Species Act

The USFWS administers the federal ESA, which provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The ESA defines as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its known geographic range. A "threatened" species is a species that is likely to become endangered. A "proposed" species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

Under Section 9 of the ESA, "take" of threatened or endangered species is prohibited. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species in a project study area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under ESA regulations, USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

State Regulations

CEQA Guidelines Section 15380

Threatened and endangered species are protected by specific federal and state statutes. In addition, CEQA Guidelines section 15380 provides that a species not listed on the federal or state lists of threatened or endangered species may be considered rare or endangered under CEQA review if the species can be shown to meet certain specified criteria. This section was included in the CEQA Guidelines primarily to deal with situations in which a public agency is reviewing a project study area that may have a significant impact on for example, a "candidate species" that has not yet been listed under FESA or CESA. Therefore, CEQA provides an agency with the ability to protect a species from a Project's potential impacts until the respective government agency has an opportunity to formally designate the species as protected, if warranted.

Sensitive plant species are afforded protection under CEQA through the CNPS inventory of rare, threatened, and endangered plants of California. CNPS is a California resource conservation organization that has developed an inventory of California's sensitive plant species. This inventory summarizes information on the distribution, rarity, and endangerment of California's vascular plants. The inventory is divided into four lists based on the rarity of the species. In addition, CNPS provides an inventory of plant communities that are considered sensitive by state and federal resource agencies, academic institutions, and various conservation groups. The level of sensitivity is determined by the number and size of remaining occurrences as well as recognized threats.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States (U.S.) except the house sparrow, starling, pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs. In addition, disturbance to an occupied nest is considered "take" under this act.

California Fish and Game Code - § 3503 and § 3511

CDFG administers the California Fish and Game Code. Under § 3503 of the Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird that is protected under MBTA. The Code § 3503.5 further protects all birds in the orders Falconiformes and Strigiformes, birds of prey such as hawks and owls, and their eggs and nests from any form of take. Code § 3511 lists fully protected bird species for which CDFG is unable to authorize the issuance of permits or licenses to take these species.

Regulation of Waters and Wetlands

Federal Regulation - U.S. Army Corps of Engineers

The USACE regulates the discharge of dredge or fill material including, but not limited to, grading, placing of rip-rap for erosion control, pouring concrete, laying sod, and stockpiling excavated material. Activities that generally do not involve a regulated discharge, if performed specifically in a manner to avoid discharges, include driving pilings, drainage channel maintenance, temporary mining and farm/forest roads, and excavating without stockpiling.

Federal Clean Water Act - § 404

USACE administers § 404 of the federal Clean Water Act (CWA). This section regulates the discharge of dredge and fill material into waters of the U.S. USACE has established a series of nationwide permits that authorize certain activities in waters of the U.S., if a proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acre of waters of the U.S. Projects that result in impacts to less than 0.5 acre or 300 feet of stream channel can normally be conducted pursuant to one of the nationwide

permits, if consistent with the standard permit conditions. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

Waters of the United States

Waters of the U.S., as defined in the Code of Federal Regulations (CFR) § 328.3, include all waters or tributaries to waters such as lakes, rivers, intermittent and perennial streams, mudflats, sand-flats, natural ponds, wetlands, wet meadows, and other aquatic habitats. Frequently, waters of the U.S., with at least intermittently flowing water or tidal influences, are demarcated by an ordinary high water mark (OHWM). The OHWM is defined in CFR § 328.3(e) as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. In this region, the OHWM is typically indicated by the presence of an incised streambed with defined bank shelving.

Wetlands

According to the USACE Wetlands Delineation Manual, Technical Report, three criteria must be satisfied to classify an area as a jurisdictional wetland:

1. A predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation)
2. Soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils)
3. Permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology)

Wetland vegetation is characterized by vegetation in which more than 50 percent of the composition of dominant plant species are obligate wetland, facultative wetland, and/or facultative species that occur in wetlands. As a result of the 2001 Solid Waste Agency of North Cook County (SWANCC) case, a wetland must show connectivity to a stream course in order for such a feature to be considered jurisdictional. More recently, subsequent to the U.S. Supreme Court decision in *Rapanos, et al v. United States* (2006) the Environmental Protection Agency (EPA) and USACE issued a joint memorandum (*Clean Water Act Jurisdiction Following Rapanos v. United States*, June 5, 2007), which determined that a jurisdictionally significant nexus exists if a tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological integrity of a navigable water.

Resulting from this decision, EPA and USACE will not assert jurisdiction over the following geomorphic features:

- "Swales or erosional features (e.g., gullies small washes characterized by low volume, infrequent or short duration flows)," and

- "Ditches (including roadsides ditches) excavated wholly in and draining only uplands that do not carry relatively permanent water flows."

Regional Regulations – Regional Water Quality Control Boards

Under § 401 of the CWA, RWQCBs also regulate all activities that require permits from USACE. Additionally, under the Porter-Cologne Water Quality Act, RWQCBs regulate all activities, including dredging, filling, or discharge of materials into waters of the state that are not regulated by USACE due to a lack of connectivity with a navigable water body and/or lack of an OHWM.

Clean Water Act - § 401

Per § 401 of the CWA, "any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act." Therefore, before USACE will issue a § 404 permit, applicants must apply for and receive a § 401 water quality certification from their RWQCB.

Porter-Cologne Water Quality Act

RWQCBs regulate actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state" (water code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (water code § 13050 (e)).

State Regulations - California Department of Fish and Game Regulations

California Fish and Game Code - § 1600 to § 1603

The CDFG Code mandates that "it is unlawful for any person to 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, without first notifying the department of such activity." CDFG jurisdiction includes ephemeral, intermittent, and perennial watercourses, including dry washes, characterized by the presence of hydrophytic vegetation, a definable bed and bank, and the presence of existing fish or wildlife resources.

Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear, but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be considered jurisdictional. However, CDFG does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake.

<u>Local Regulations</u>

Wetlands

The El Dorado County General Plan includes policies relating to impacts to wetlands. In addition, General Plan includes buffer requirements for perennial or intermittent streams, rivers, lakes, and wetlands. The Environmental Impact Report (EIR) prepared for the project will evaluate the project against these protections.

Regulation of Oak Woodlands

El Dorado County has in place an Oak Woodland Management Plan (OWMP), finalized in May 2008. The purpose of the OWMP is to outline the County's strategy for conservation of valuable oak woodland resources. Through the OWMP, the County identifies areas where conservation easements may be acquired from willing sellers as a means to offset and mitigate the loss of fragmentation of oak woodlands in other areas as a result of the implementation of the 2004 El Dorado County General Plan. Additionally, the OWMP provides guidance for voluntary conservation and management efforts by landowners and land managers. Lastly, the OWMP sets forth further guidance on General Plan Policy 7.4.4.4 Option A, which includes measures designed to encourage retention of existing oak canopy in areas planned for development.

General Plan Policy 7.4.4.4 applies to all new development projects that would result in soil disturbance on parcels that are less than or equal to one acre with at least 10% total oak woodland canopy cover, or greater than one acre with at least 1% oak woodland canopy cover. Replacement objectives of the OWMP may be achieved by (1) replacement planting on-site at a 1:1 canopy surface area ratio, (2) contributing to the County's Conservation fund at a 2:1 ratio, (3) acquiring an off-site conservation easement on oak woodlands at a 2:1 ratio, or (4) through a combination of 1, 2, and 3.

Recommendations

Special-Status / Protected Wildlife Species

Construction of the proposed project may impact special-status bird species, other migratory songbirds, and raptor species. Any woody vegetation removed for project study area construction should occur outside of the nesting season, which typically runs from March 1 through October 1. If removal of vegetation must occur during the nesting season (March 1 – October 1), pre-construction surveys for active raptor nests shall be conducted with 250 feet of the project study area project study area. If an active nest is located, CDFG shall be consulted to determine if project study area construction may proceed during the nesting season.

Construction of the proposed project may impact California red-legged frog. Prior to project construction, MBA will conduct protocol-level surveys within the EID pond located north of the project and will submit a report to SFWO. Results of the survey will be used to determine what mitigation measures, if any will be required for the project.

Wetlands

A jurisdictional wetland delineation has been conducted and a wetland delineation report prepared. Once finalized, the report will be submitted to the USACE for verification.

Protected Trees

An oak tree canopy survey will be conducted and a certified arborist report prepared to determine oak tree mitigation requirements. The report will be submitted to the County for approval and mitigation will be secured prior to project implementation.

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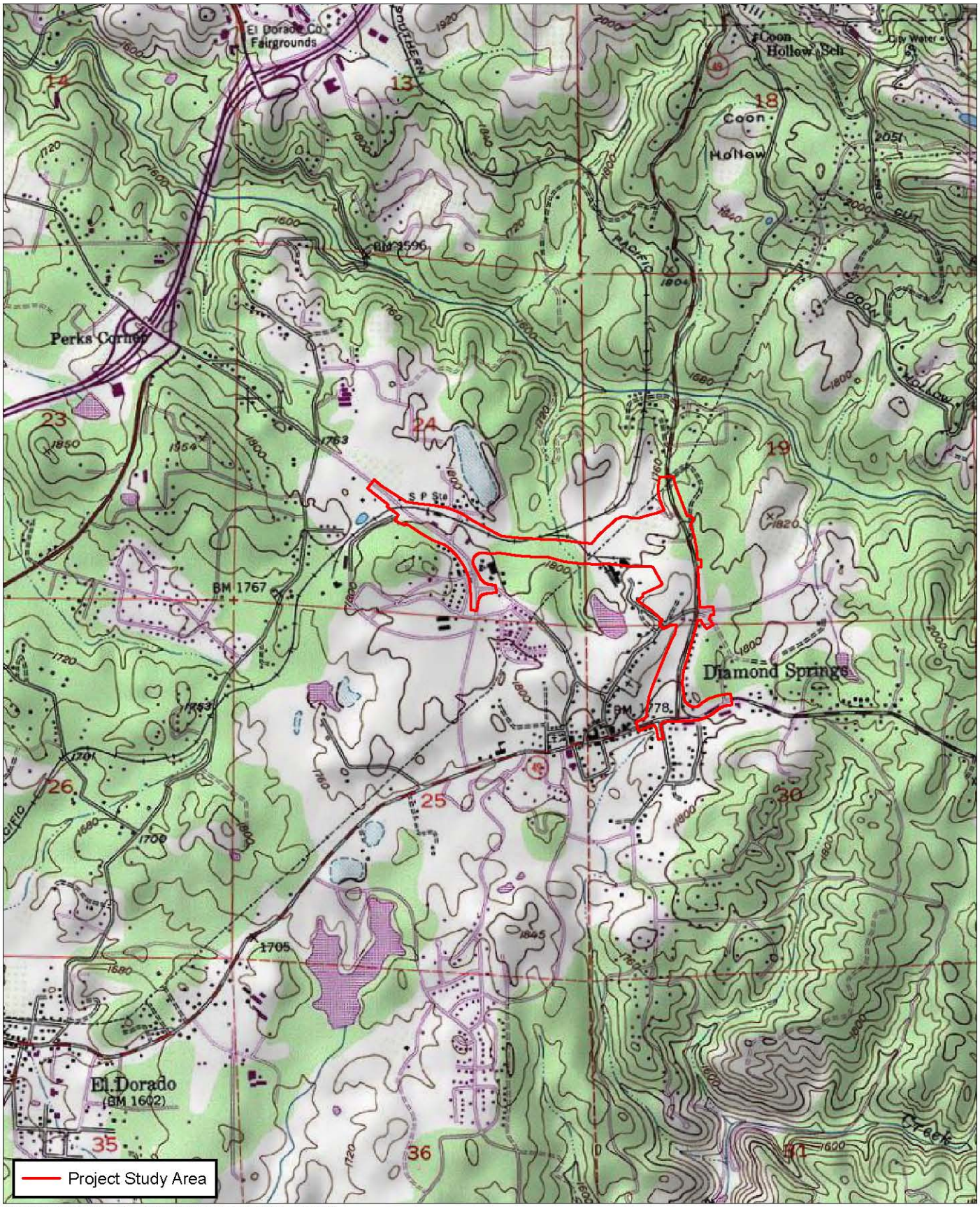
Thank you for the opportunity to assist you with your project needs. Please contact me if you have any questions or require additional information about this report. I can be reached at the contact information provided below.

Sincerely,

MICHAEL BRANDMAN ASSOCIATES

Deborah Stout

Deborah Stout
Ecologist/Botanist/ISA Certified Arborist
916.447.1100
dstout@brandman.com



Source: TOPO! USGS Placerville (1973) 7.5' DRG.

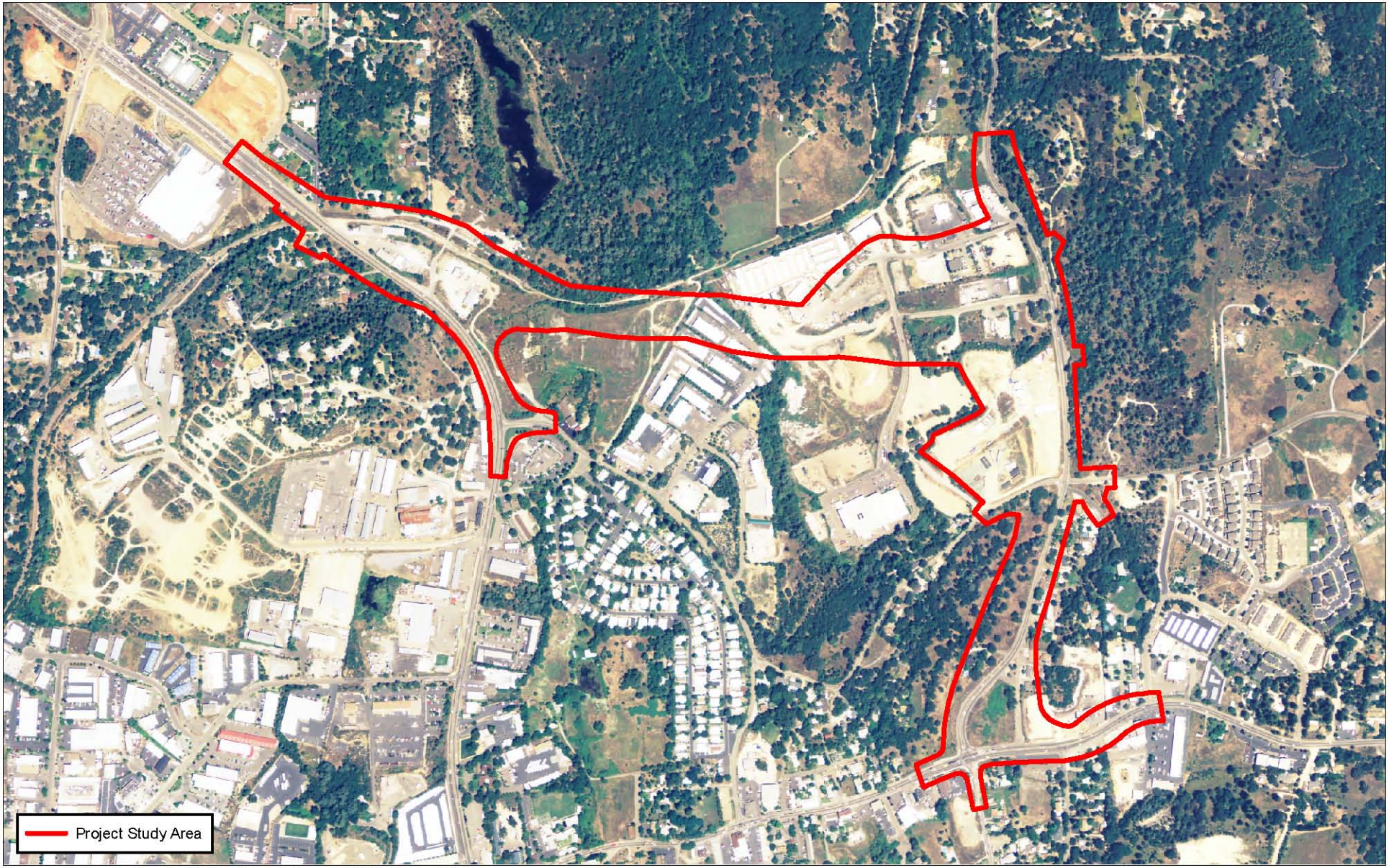
Exhibit 1
Vicinity Map and Topographic Base

NORTH

2,000 1,000 0 2,000 Feet

Michael Brandman Associates

33370003 • 09/2008 | 1_local_vicinity_topo.mxd



Source: El Dorado County, 2007; CTA Engineers, 2007; MBA, 2007

NORTH

800 400 0 800

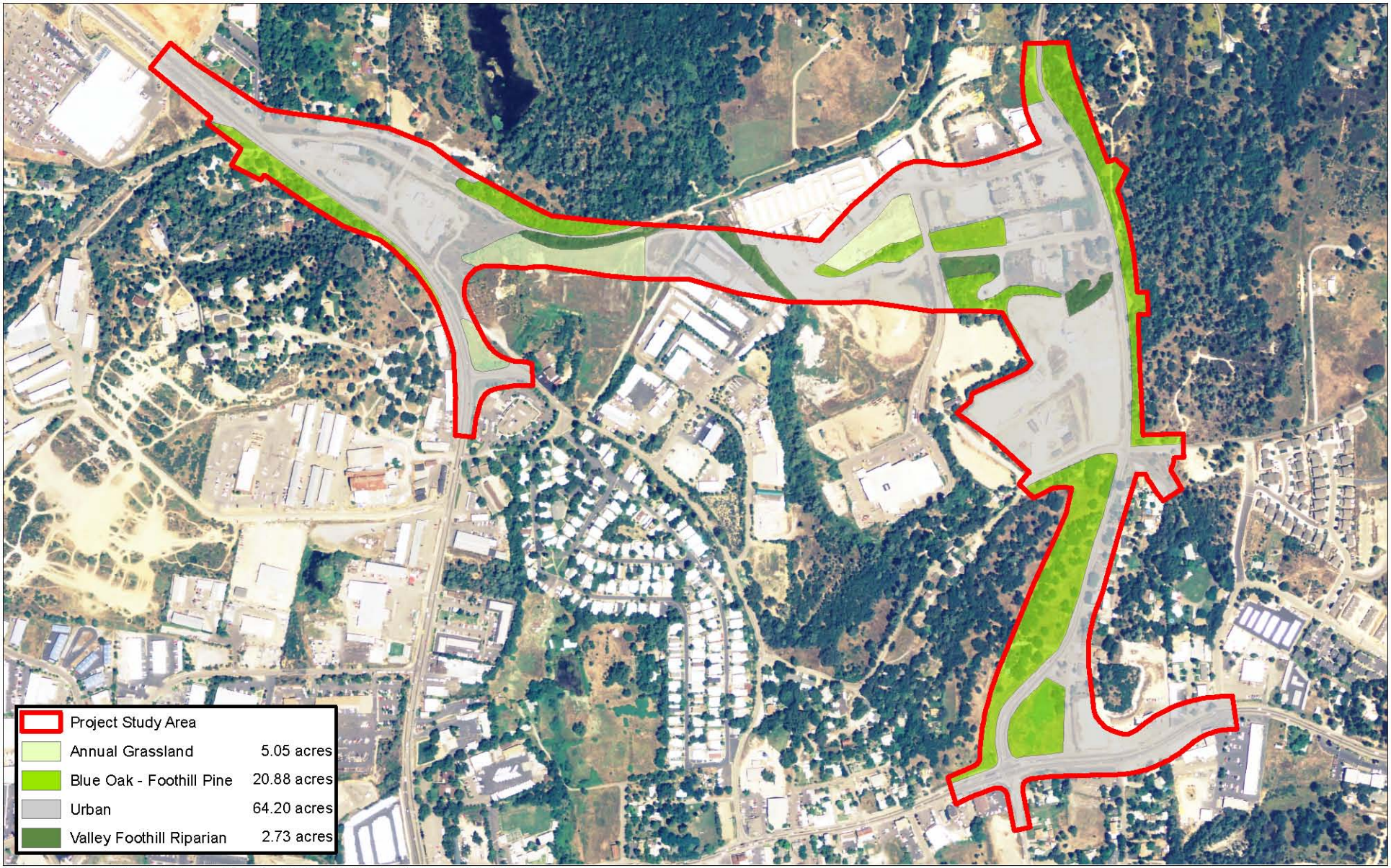
Feet

Michael Brandman Associates

33370003 • 09/2008 | 2_project_aerial.mxd

Exhibit 2
Aerial Base

DIAMOND SPRINGS PARKWAY PROJECT
BIOLOGICAL RESOURCES ASSESSMENT REPORT



Source: USDA NAIP El Dorado County (2005), MBA Field Survey Data (2007).

NORTH

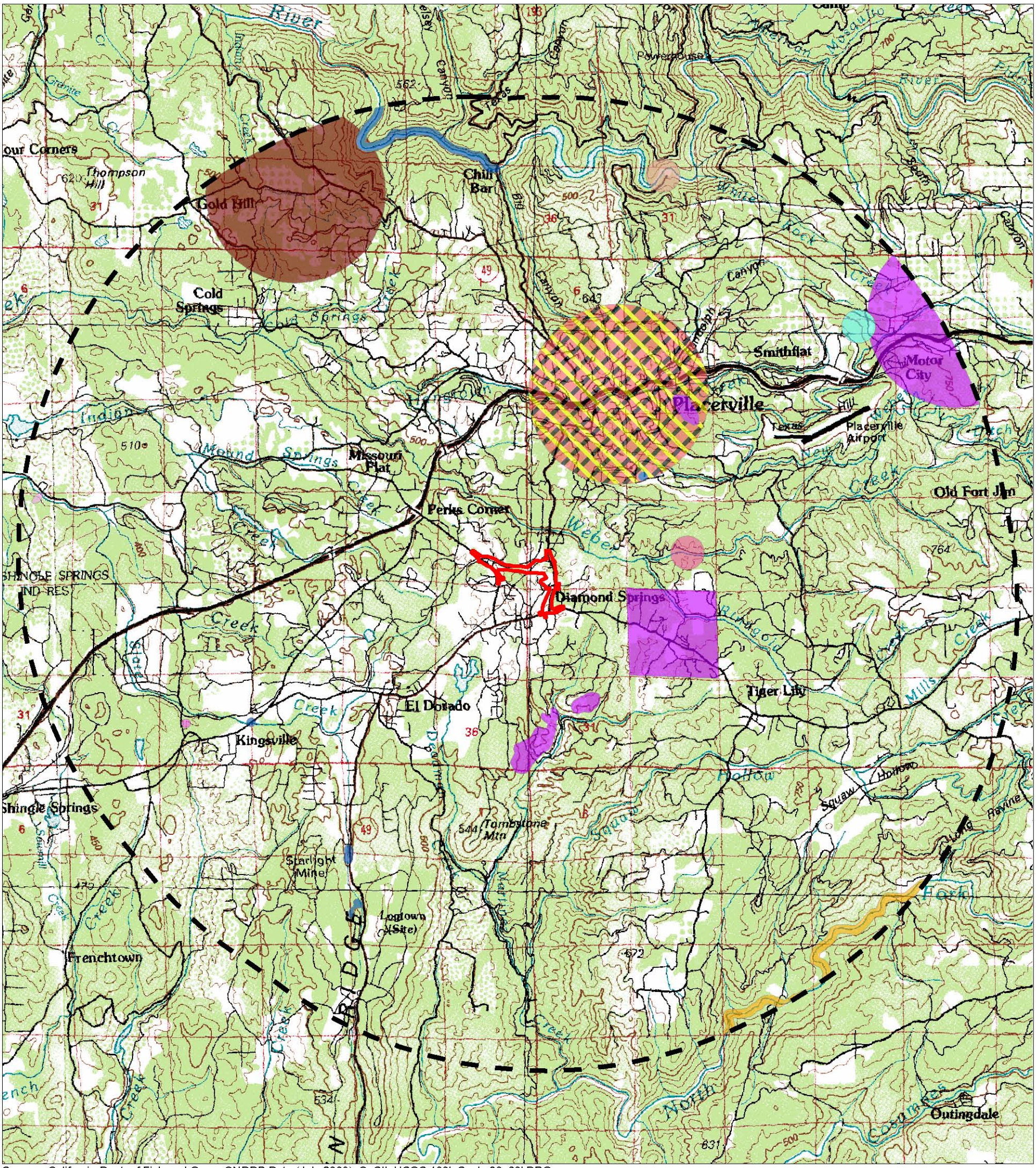
700 350 0 700 Feet

Michael Brandman Associates

33370003 • 10/2008 | 3_plant_communities.mxd

Exhibit 3
Plant Communities Map

DIAMOND SPRINGS PARKWAY PROJECT
BIOLOGICAL RESOURCES ASSESSMENT REPORT



Source: California Dept. of Fish and Game CNDDB Data (July 2008), CaSIL USGS 100k Scale 30x60' DRG.

Legend

- Project Study Area
- 5-Mile Radius

Common Name ***(Scientific Name)***

- Brandegee's clarkia (*Clarkia biloba ssp. brandegeeae*)
- Central Valley Drainage Hardhead/Squawfish Stream (*Central Valley Drainage Hardhead/Squawfish Stream*)
- Jepson's onion (*Allium jepsonii*)
- Layne's ragwort (*Packera layneae*)
- Nissenan manzanita (*Arctostaphylos nissenana*)
- Parry's horkelia (*Horkelia parryi*)
- Red Hills soaproot (*Chlorogalum grandiflorum*)
- Yuma myotis (*Myotis yumanensis*)
- great egret (*Ardea alba*)
- northwestern pond turtle (*Actinemys marmorata marmorata*)
- oval-leaved viburnum (*Viburnum ellipticum*)
- silver-haired bat (*Lasionycteris noctivagans*)
- tricolored blackbird (*Agelaius tricolor*)

Exhibit 4
CNDDB-Recorded Occurrences of Special-Status Species Within Five Miles of the Project Study Area

Michael Brandman Associates

33370003 • 09/2008 | 4_cnddb.mxd

Attachment A

CNDDB Query Results

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait
Missouri Flat
9-Quad Query Results

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	Accipiter gentilis northern goshawk	ABNKC12060			G5	S3	SC
2	Actinemys marmorata marmorata northwestern pond turtle	ARAAD02031			G3G4T3	S3	SC
3	Agelaius tricolor tricolored blackbird	ABPBXB0020			G2G3	S2	SC
4	Allium jepsonii Jepson's onion	PMLIL022V0			G1	S1.2	1B.2
5	Arctostaphylos nissenana Nissenan manzanita	PDERI040V0			G2	S2.2	1B.2
6	Ardea alba great egret	ABNGA04040			G5	S4	
7	Calochortus clavatus var. avius Pleasant Valley mariposa lily	PMLIL0D095			G4T3	S3.2	1B.2
8	Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1.1	1B.1
9	Ceanothus roderickii Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G2	S2.1	1B.2
10	Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA			G?	SNR	
11	Central Valley Drainage Resident Rainbow Trout Stream	CARA2421CA			G?	SNR	
12	Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020			G2	S2.2	1B.2
13	Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053			G4G5T2	S2.2	1B.2
14	Cosumnoperla hypocrena A Spring Stonefly	IIPLE23020			G1	S1	
15	Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1.2	1B.2
16	Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1.2	1B.2
17	Helianthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0			G2Q	S2.2	3.2
18	Horkelia parryi Parry's horkelia	PDROS0W0C0			G2	S2.2	1B.2
19	Lasionycteris noctivagans silver-haired bat	AMACC02010			G5	S3S4	SC
20	Myotis yumanensis Yuma myotis	AMACC01020			G5	S4?	
21	Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2.1	1B.2
22	Phrynosoma coronatum (frontale population) Coast (California) horned lizard	ARACF12022			G4G5	S3S4	SC

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
23	Rana boylii foothill yellow-legged frog	AAABH01050			G3	S2S3	SC
24	Sacramento-San Joaquin Foothill/Valley Ephemeral Stream	CARA2130CA			G?	SNR	
25	Viburnum ellipticum oval-leaved viburnum	PDCPR07080			G5	S2.3	2.3
26	Wyethia reticulata El Dorado County mule ears	PDAST9X0D0			G2	S2.2	1B.2

Attachment B

Official List, U.S. Fish and Wildlife Service

These buttons will not appear on your list.

<- Revise Selection

Print this page

Make Official Letter ->

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 070907043638

Database Last Updated: August 16, 2007

Quad Lists

Listed Species

Invertebrates

- Branchinecta conservatio
  - Conservancy fairy shrimp (E)
- Branchinecta lynchi
  - vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus
  - valley elderberry longhorn beetle (T)
- Lepidurus packardi
  - vernal pool tadpole shrimp (E)

Fish

- Hypomesus transpacificus
  - delta smelt (T)
- Oncorhynchus mykiss
  - Central Valley steelhead (T) (NMFS)
  - Critical habitat, Central Valley steelhead (X) (NMFS)
- Oncorhynchus tshawytscha
  - Central Valley spring-run chinook salmon (T) (NMFS)
  - winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

- Ambystoma californiense
  - California tiger salamander, central population (T)

- Rana aurora draytonii
  - California red-legged frog (T)

Reptiles

- Thamnophis gigas
  - giant garter snake (T)

Plants

- Orcuttia viscida
  - Critical habitat, Sacramento Orcutt grass (X)
  - Sacramento Orcutt grass (E)

Quads Containing Listed, Proposed or Candidate Species:

FOLSOM (511B)

County Lists

No county species lists requested.

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or may be affected by projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county

list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.
- During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.
- Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air,

light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our critical habitat page for maps.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be December 06, 2007.

Attachment C

California Native Plant Society Online Inventory Query Results

CNPS Inventory of Rare and Endangered Plants

Status: Plant Press Manager window with 22 items - Fri, Sep. 7, 2007, 15:33 b

Reformat list as: Ecological Report

ECOLOGICAL REPORT

scientific	family	life form	blooming	communities	elevation	CNPS
Balsamorhiza macrolepis var. macrolepis	Asteraceae	perennial herb	Mar-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/sometimes serpentinite	90 - 1400 meters	List 1B.2
Calystegia stebbinsii	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	•Chaparral (Chprl)(openings) •Cismontane woodland (CmWld)/gabbroic	185 - 730 meters	List 1B.1
Ceanothus roderickii	Rhamnaceae	perennial evergreen shrub	Apr-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld)/serpentinite or gabbroic	260 - 630 meters	List 1B.2
Chlorogalum grandiflorum	Liliaceae	perennial bulbiferous herb	May-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/serpentinite or gabbroic	245 - 1170 meters	List 1B.2
Clarkia biloba ssp. brandegeeae	Onagraceae	annual herb	May-Jul	•Chaparral (Chprl) •Cismontane woodland (CmWld)/often roadcuts	73 - 915 meters	List 1B.2
Cordylanthus mollis ssp. hispidus	Scrophulariaceae	annual herb hemiparasitic	Jun-Sep	•Meadows and seeps (Medws) •Playas (Plyas) •Valley and foothill grassland (VFGrs)/alkaline	1 - 155 meters	List 1B.1
Downingia pusilla	Campanulaceae	annual herb	Mar-May	•Valley and foothill grassland (VFGrs)(mesic) •Vernal pools (VnPls) •Cismontane woodland (CmWld)	1 - 445 meters	List 2.2

Eryngium pinnatisectum	Apiaceae	annual/perennial herb	Jun-Aug	•Lower montane coniferous forest (LCFrs) •Vernal pools (VnPls)/mesic	70 - 915 meters	List 1B.2
Fremontodendron decumbens	Sterculiaceae	perennial evergreen shrub	Apr-Jul	•Chaparral (Chprl) •Cismontane woodland (CmWld)/gabbroic or serpentinite, rocky	425 - 760 meters	List 1B.2
Galium californicum ssp. sierrae	Rubiaceae	perennial herb	May-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/gabbroic	100 - 585 meters	List 1B.2
Gratiola heterosepala	Scrophulariaceae	annual herb	Apr-Aug	•Marshes and swamps (MshSw) (lake margins) •Vernal pools (VnPls)/clay	10 - 2375 meters	List 1B.2
Helianthemum suffrutescens	Cistaceae	perennial evergreen shrub	Apr-Jun	•Chaparral (Chprl)(often serpentinite, gabbroic, or Ione soil)	45 - 840 meters	List 3.2
Juncus leiospermus var. ahartii	Juncaceae	annual herb	Mar-May	•Valley and foothill grassland (VFGrs)(mesic)	30 - 100 meters	List 1B.2
Juncus leiospermus var. leiospermus	Juncaceae	annual herb	Mar-May	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Meadows and seeps (Medws) •Valley and foothill grassland (VFGrs) •Vernal pools (VnPls)/vernally mesic	35 - 1020 meters	List 1B.1
Legenere limosa	Campanulaceae	annual herb	Apr-Jun	•Vernal pools (VnPls)	1 - 880 meters	List 1B.1
Navarretia myersii ssp. myersii	Polemoniaceae	annual herb	May	•Vernal pools (VnPls)/often acidic	20 - 330 meters	List 1B.1
Orcuttia tenuis	Poaceae	annual herb	May-Sep(Oct) Months in parentheses are uncommon.	•Vernal pools (VnPls)	35 - 1760 meters	List 1B.1
Orcuttia viscida	Poaceae	annual herb	Apr-Jul	•Vernal pools (VnPls)	30 - 100 meters	List 1B.1

Packera layneae	Asteraceae	perennial herb	Apr-Aug	•Chaparral (Chprl) •Cismontane woodland (CmWld)/serpentinite or gabbroic, rocky	200 - 1000 meters	List 1B.2
Pseudobahia bahiifolia	Asteraceae	annual shrub	Mar-Apr	•Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/clay, often acidic	15 - 150 meters	List 1B.1
Sagittaria sanfordii	Alismataceae	perennial rhizomatous herb emergent	May-Oct	•Marshes and swamps (MshSw) (assorted shallow freshwater)	0 - 650 meters	List 1B.2
Wyethia reticulata	Asteraceae	perennial herb	Apr-Jul	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/clay or gabbroic	185 - 630 meters	List 1B.2

Attachment D

Summary of Special-Status Species Review

Scientific Name **Common name**	**Listing Status USFWS/ CDFG/CNPS**	**General Habitat Description**	**Potential for Presence**	**Period of Identification***
PLANTS				
Allium jepsonii Jepson's onion	--/--/1B.2	Chaparral, cismontane woodland, and lower montane coniferous forest. Restricted to serpentinite or volcanic soils. 300-1,320 meters in elevation.	**Moderate.** DfC soils underlying blue oak-foothill pine habitat along State Highway 49 may be suitable for this species. This species was not identified during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	May - August
Arctostaphylos nissenana Nissenan manzanita	--/--/1B.2	Rocky areas in closed-cone coniferous forest and chaparral. 450-1,100 meters in elevation.	**Very Low.** There is a very small area of disturbed chaparral habitat that may be suitable for this species east of the intersection of Missouri Flat and China Garden roads. This species was not identified during protocol-level surveys. There are CNDDB-recorded occurrences of this species one mile east and two miles southeast of the project site (CNDDB 2007).	February - March
Balsamorhiza macrolepis var. macrolepis Big-scale balsamroot	--/--/1B.2	Valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 35-1000 meters in elevation.	**Moderate.** Blue oak-foothill pine habitat throughout the project site may be suitable for this species. This species was not identified during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	March - June
Calochortus clavatus var. *clavatus* Pleasant Valley mariposa lily	--/--/1B.2	Lower montane coniferous forest in Josephine silt loam and volcanic soils. 305-1,800 meters in elevation.	**None.** The project site does not contain lower montane coniferous forest. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	May - July
Calystegia stebbinsii Stebbins morning glory	FE/CE/1B.1	Chaparral, cismontane woodland. On red clay soils of the pine hill formation; gabbro or serpentine, open areas. 180-725 meters in elevation.	**None.** The project site does not contain gabbroic or serpentine soils. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April – July
Ceanothus roderickii Pine Hill ceanothus	FE/CR/1B.2	Chaparral, cismontane woodland. Gabbroic soils; often-in "historically disturbed" areas with an ensemble of other rare plants. 260-630 m meters in elevation.	**None.** The project site does not contain gabbroic soils. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - June
Chlorogalum grandiflorum Red Hills soaproot	--/--/1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. Occurs on both serpentine and gabbro substrates; often on "historically disturbed" sites. 240-760 meters in elevation.	**None.** The project site does not contain gabbroic or serpentine soils. There is a NCDDB-recorded occurrence of this species approximately four miles southwest of the project site (CNDDB 2007).	May - June

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Clarkia biloba ssp. *brandegeeae* Brandegee's clarkia	--/--/1B.1	Chaparral, cismontane woodland. Often in roadcuts. 295-885 meters in elevation.	**Moderate.** Blue oak-foothill pine habitat throughout the project site may be suitable for this species. This species was not identified during protocol-level surveys. There is a NCDDB-recorded occurrence of this species approximately five miles northeast of the project site (CNDDB j2007).	May - July
Cordylanthus mollis ssp. *hispidus* Hispid birds-beak	--/--/1B.1	Meadows, playas, valley and foothill grassland. In damp alkaline soils, especially in alkaline meadows and alkali sinks with *Distichlis*. 10-155 meters in elevation.	**None.** The project site does not contain alkaline soils. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	June - September
Downingia pusilla Dwarf downingia	--/--/2.2	Valley and foothill grassland (mesic sites), vernal pools, vernal lakes, and pool margins. Most common in smaller, shallower pools. 1-485 meters in elevation.	**None.** The project site does not contain vernal pool habitat. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	March - May
Eryngium pinnatisectum Tuolumne button-celery	--/--/1B.2	Vernal pools and mesic sites within cismontane woodland and lower montane coniferous forest. 250-450 meters in elevation.	**None.** The project site does not contain vernal pools or mesic sites suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	June - August
Fremontodendron decumbens Pine hill flannelbush	FE/CR/1B.2	Chaparral, cismontane woodland. Rocky ridges; gabbro or serpentine endemic; often among rocks and boulders. 420-685 meters in elevation.	**None.** The project site does not contain gabbroic or serpentine soils. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - July
Galium californicum ssp. *sierrae* El Dorado bedstraw	FE/CR/1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. More often in pine-oak woodland than in chaparral; restricted to gabbroic soils. 100-585 meters in elevation.	**None.** The project site does not contain gabbroic soils. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	May - June
Gratiola heterosepala Boggs Lake hedge-hyssop	--/CE/1B.2	Marshes and swamps (freshwater), and large, deep, well-developed vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 5-2400 meters in elevation.	**None.** The project site does not contain marshes and swamps or well-developed vernal pools. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - August
Helianthemum suffrutescens Bisbee Peak rush-rose	--/--/3.2	Chaparral. Often on serpentine, gabbroic, or ione formation soils; in openings in chaparral. 45-610 meters in elevation.	**None.** The project site does not contain chaparral habitat. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - June

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Horkelia parryi Parry's horkelia	--/--/1B.2	Chaparral and cismontane woodlands, especially on the Ione formation. 30 to 1,035 meters in elevation.	**Moderate.** Blue oak-foothill pine habitat within the project site may be suitable for this species. This species was not identified during protocol-level surveys. There is a CNDDB-recorded occurrence of this species approximately two miles northwest of the project site (CNDDB 2007).	April – September
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	--/--/1B.2	Vernal pools. Restricted to the edges of vernal pools. 30-100 meters in elevation.	**None.** The project site does not contain vernal pools. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	March - May
Juncus leiospermus var. *leiospermus* Red Bluff dwarf rush	--/--/1B.1	Chaparral, valley and foothill grassland, cismontane woodlands, vernal pools. Vernally mesic sites. Sometimes on edges of vernal pools. 30-1020 meters in elevation.	**None.** The project site does not contain vernal pools or mesic sites that are suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	March - May
Legenere limosa Legenere	--/--/1B.1	Vernal pools. Many historical occurrences are extirpated. In beds of vernal pools. 1-880m.	**None.** The project site does not contain vernal pools. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - June
Navarretia mysersii ssp. *myersii* Pincushion navarretia	--/--/1B.1	Vernal pools, valley and foothill grassland. Clay soils within nonnative grassland. Most common in shallower, smaller vernal pools. 20-330 meters in elevation .	**None.** The project site does not contain vernal pools or mesic sites that are suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	May
Orcuttia tenuis Slender orcutt grass	--/--/1B.1	Associated with large, deep vernal pools. 30-1735 meters in elevation .	**None.** The project site does not contain vernal pools. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	May - September
Orcuttia viscida Sacramento orcutt grass	FE/SE/1B.1	Associated with large, deep vernal pools. 30-100 meters in elevation .	**None.** The project site does not contain vernal pools. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - July
Packera layneae Layne's ragwort	--/--/1B.1	Chaparral, cismontane woodland. Ultramafic soil; occasionally along streams. 200-1000 meters in elevation .	**None.** The project site does not contain ultramafic soils. There is a CNDDB-recorded occurrence of this species approximately two miles east of the project site (CNDDB 2007).	April - August
Pseudobahia bahiifolia Hartweg's golden sunburst	FE/CE/1B.1	Valley and foothill grassland, cismontane woodland. Clay, often acidic, soils. Predominantly on the northern slopes of knolls, but also along shady creeks or near vernal pools. 15-150 meters in elevation .	**None.** The project site does not contain clay soils. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Mar - April

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Sagittaria sanfordii Sanford's arrowhead	--/--/1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-610 meters in elevation .	**None.** There are no marshes, swamps, freshwater ponds, or other freshwater habitats suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	May - October
Viburnum ellipticum Oval-leaved viburnum	--/--/2.3	Chaparral, cismontane woodland, and lower montane coniferous forest. 215-1,400 meters in elevation.	**Moderate.** Blue oak-foothill pine habitat within the project site may be suitable for this species. This species was not identified during protocol-level surveys. There is a CNDDB-recorded occurrence of this species approximately two miles northwest of the project site (CNDDB 2007).	May - June
Wyethia reticulata El Dorado County mule ears	--/--/1B.2	Chaparrals, cismontane woodland, lower montane coniferous forest. Stony red clay and gabbroic soils; often in openings in gabbro chaparral. 180-630 meters in elevation .	**None.** The project site does not contain stony red clay or gabbroic soils. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - July
ANIMALS				
INVERTEBRATES				
Branchinecta conservatio Conservation fairy shrimp	FE/--	Vernal pools, swales, and ephemeral freshwater habitats.	**None.** The project site does not contain vernal pools or other ephemeral freshwater habitats that are suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	November - May
Branchinecta lynchi Vernal pool fairy shrimp	FT/--	Vernal pools, swales, and ephemeral freshwater habitats.	**None.** The project site does not contain vernal pools or other ephemeral freshwater habitats that are suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	November - May
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT/--	Occurs only in the central valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**None.** No elderberry shrubs were observed during the field assessment. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	March - June
Lepidurus packardi Vernal pool tadpole shrimp	FE/--	Inhabits vernal pools and swales in the Sacramento valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**None.** The project site does not contain vernal pools or other ephemeral freshwater habitats that are suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	November - May
FISH				

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Hypomesus transpacificus Delta smelt	FT/CT	Restricted to the Sacramento-San Joaquin Delta.	**None.** The project site is outside of the known range of this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Consult agency
Oncorhynchus mykiss Central Valley steelhead	FT/--	The Sacramento and San Joaquin rivers and their tributaries.	**None.** The project site does not contain aquatic habitat suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Consult agency
Oncorhynchus tshawytscha Central Valley spring-run Chinook salmon	FT/CT	The Sacramento and San Joaquin Rivers and their tributaries.	**None.** The project site does not contain aquatic habitat suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Consult agency
AMPHIBIANS				
Ambystoma californiense California tiger salamander	FT/CT	Annual grassland habitat and grassy understory of valley-foothill hardwood habitats. Uncommon along streamcourses in valley-foothill riparian habitats. Adults spend most of the year in subterranean refugia, especially burrows of California ground squirrels. Migrate to vernal pools and other temporary rainwater ponds to breed and lay eggs.	**None.** The project site is outside of the current range of this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	October - May
Rana aurora draytonii California red-legged frog	FT/CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to aestivation habitat.	**Low.** There are no permanent sources of deep water within the project site that are suitable for breeding. The drainage that runs through the project site is ephemeral in nature and highly degraded, and does not support any backwater ponds or other deep water habitats. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	January – February (adult visual survey)
Rana boylii Foothill yellow-legged frog	--/CSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	**None.** There are no streams with rocky substrates within the project site. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	January - February (adult visual survey)
REPTILES				
Actinemys marmorata marmorata Northwestern pond turtle	--/CSC	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nests sites may be found up to 0.5 km from water.	**None.** There is no permanent or nearly permanent water within the project site. There are several CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round (for adults in aquatic environment)

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Phrynosoma coronatum (frontale population) Coast horned lizard	--/CSC	Several habitat types including open shrublands, clearings in riparian woodlands, chamise chaparral, annual grassland; typically in sandy or gravelly soils.	**None.** The project site does not contain open shrublands or clearings in riparian woodlands, chaparral, or annual grassland habitats. Open habitats within the alignment are barren and/or highly compacted resulting from soil removal during past mining operations. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round
Thamnophis gigas Giant garter snake	FT/CT	Marshes, sloughs, irrigation channels, and occasionally in slow-moving streams. Requires emergent vegetation for cover.	**None.** The project site is outside of the current range of this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Mid-March - October
BIRDS				
Accipiter gentilis Northern goshawk	--/SC	Casual throughout most of the state; resident in portions of the Sierra Nevada, Cascade, and Klamath ranges and some southern mountains. Breeds in dense, mature conifer and deciduous forests, interspersed with meadows, other openings and riparian areas; nesting habitat includes north-facing slopes near water.	**None.** The project site does not contain suitable nesting or foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round
Accipiter striatus Sharp-shinned hawk	--/CSC	Winter resident throughout much of the state; permanent at higher elevations. Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers but is not restricted to riparian habitats.	**High.** Blue oak-foothill pine and riparian habitats throughout the project site are suitable for nesting and foraging by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round
Agelaius tricolor Tricolored blackbird	--/CSC	Colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area within 4 miles of nesting area. Breeding territory approximately is 3 square meters per pair; minimum colony size is approximately 50 pairs.	**None.** The project site does not contain fresh emergent wetland habitat of sufficient size for this species. There is a CNDDB-recorded occurrence of this species approximately four miles northwest of the project site (CNDDB 2007).	April - July
Aquila chrysaetos Golden eagle	--/CSC,CFP	Breeds on cliffs or in large trees or electrical towers, forages in open habitats.	**None.** The project site does not contain suitable breeding or foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round

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Asio flammeus Short-eared owl	--/CSC	Widespread winter migrant. Breeding range includes coastal areas in Del Norte and Humboldt counties, the San Francisco Bay Delta, northeastern Modoc plateau, the east side of the Sierra from Lake Tahoe south to Inyo county, and the San Joaquin valley. Found in open, treeless areas with elevated sites for perching and dense vegetation for roosting and cover.	**None.** Open, treeless areas are not present within the project site. The species does not breed within the region. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round
Asio otus Long-eared owl	--/CSC	Breeding resident throughout much of the state. Found in dense riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats; also found in dense conifer stands at higher elevations.	**Moderate.** Dense riparian wetland habitat at the north-central edge of the project site may be suitable for breeding by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round
Athene cunicularia Burrowing owl	--/CSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester; dependent upon burrowing mammals (e.g., California ground squirrel).	**None.** Suitable habitat with burrows was not observed during the field assessment. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Feb 1 – Aug 31 And Dec 1 – Jan 31
Buteo regalis Ferruginous hawk	--/CSC	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon-juniper habitats. Eats mostly lagomorphs (hares, rabbits, pikas), ground squirrels, and mice. Population trends may follow lagomorph's population cycles.	**None.** The project site does not contain open grasslands, sagebrush flats, or other habitats suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	September - April
Buteo swainsoni Swainson's hawk	--/CT	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**None.** The project site is outside of the known range of this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	January - July
Chaetura vauxi Vaux's swift	--/CSC	Common migrant throughout the state; summer resident in the north. Nests in large, hollow trees and snags in coniferous forest habitats. Often nests in flocks.	**None.** The project site does not contain coniferous forest habitats. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	May - August
Circus cyaneus Northern harrier	--/CSC	Winter resident throughout most of the state; year-round in the Central Valley and Coast Range. Forages in marshes, grasslands, and ruderal habitats; nests in extensive marshes and wet fields or grasslands.	**None.** There are no extensive open areas for foraging or wetland habitats for nesting. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - September (breeding)
Cypseloides niger Black swift	--/CSC	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above surf.	**None.** The project site does not contain and is not adjacent to any cliffs or deep canyons. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	June - August

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Dendroica petechia brewsteri Yellow warbler	--/CSC	Requires riparian thickets of willow and other brushy tangles near watercourses for cover. Nests in dense shrubs along a stream or river.	**Moderate.** Riparian habitat associated with the drainage the north-central portion of the project site may be suitable for nesting and foraging. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - September
Elanus leucurus White-tailed kite	--/CFP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**High.** Blue oak-foothill pine and riparian habitats throughout the project site are suitable for nesting by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	January – August (breeding)
Falco columbarius Merlin	--/CSC	Uncommon winter migrant. Seldom found in heavily wooded areas or open deserts. Frequents open habitats at low elevations near water and tree stands. Favors coastlines, lakeshores, and wetlands. Ranges from annual grasslands to ponderosa pine and montane hardwood-conifer habitats.	**Moderate.** Blue oak-foothill pint habitat within the project site is suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	September - May
Falco mexicanus Prairie falcon	--/CSC/	Year-round resident throughout much of the state; winters in the Central Valley and along the coast. Occurs in open habitats such as grasslands, desert scrub, rangelands and croplands. Nests in a scrape on a sheltered ledge of a cliff overlooking a large, open area.	**None.** The project site does not provide suitable nesting or foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round
Haliaeetus leucocephalus Bald eagle	FD/CFP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mi of water. Nests in large, old growth, or dominant live tree w/open branches, especially ponderosa pine. Roosts communally in winter.	**None.** The project site does not contain suitable nesting or foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year Round
Icteria virens Yellow-breasted chat	--/CSC	Breeds in riparian habitats having dense understory vegetation, such as willow and blackberry.	**None.** The project site does not contain riparian habitat with dense understory vegetation. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - July
Lanius ludovicianus Loggerhead shrike	--/CSC	Found in a variety of habitats with open areas, available perches, and dense shrubs for nesting.	**Moderate.** The project site provides suitable nesting and foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	March - August
Phalacrocorax auritus Double-crested cormorant	--/CSC	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	**None.** The project site does not contain suitable nesting or foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April – August (breeding)

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Progne subis Purple martin	--/CSC	An uncommon to rare, local summer resident in a variety of wooded, low-elevation habitats throughout the state; a rare migrant in spring and fall, absent in winter. Breeding habitat includes old-growth, multi-layered, open forest and woodland with snags; forages over riparian areas, forest, and woodlands	**Low.** Blue oak-foothill pine habitat in the eastern portion of the project site may provide suitable nesting habitat for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - September
MAMMALS				
Antrozous pallidus Pallid bat	--/CSC	Broadly distributed in California from sea level to over 6,000 feet. Roosts in caves, buildings, rock crevices, and tree hollows. Overwinters in summer habitats at lower elevations.	**Moderate.** Riparian and blue oak-foothill pine habitats within the project site may provide suitable maternity roosts for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - October
Bassariscus astutus Ringtail	--/FP	Widely distributed, common to uncommon permanent resident. Occurs in various riparian habitats and in brush stands of most forest and shrub habitats at low to middle elevations. Nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat nests.	**Moderate.** Thick, riparian woodland habitat at the northern edge of the project site may be suitable for this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round
Corynorhinus townsendii Townsend's big-eared bat	--/CSC	Roosts in colonies in caves, mines, tunnels, or buildings in mesic habitats. The species forages along habitat edges, gleaning insects from bushes and trees. Habitat must include appropriate roosting or hibernacula sites free from disturbance by humans.	**None.** The project site does not contain caves, mines, tunnels, or undisturbed buildings suitable for roosting by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Consult agency
Euderma maculatum Spotted bat	--/CSC	In north and central California from the low Sierra Nevada foothills east. From Ventura Co. south occurs throughout. Prominent rock features required for roosting. It is unknown whether species migrates or hibernates locally.	**None.** The project site does not contain prominent rock features suitable for roosting by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - October
Eumops perotis californicus Greater western mastiff-bat	--/CSC	From central to southern California. Low elevations in the coastal basins of southern California. Rugged, rocky areas with suitable crevices for roosting, or human-made structure.	**None.** The project site does not contain rugged, rocky areas or undisturbed buildings suitable for roosting by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	April - October
Lasionycteris noctivagans Silver-haired bat	--/CSC	Primarily a coastal and montane forest dweller feeding over streams, ponds and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes and rarely under rocks. Needs drinking water.	**Moderate.** Blue oak-foothill pine and riparian habitat within the project site may provide suitable roosting habitat for this species. There is a CNDDB-recorded occurrence of this species approximately two miles north of the project site.	April - October

Scientific Name **Common name**	**Listing Status USFWS/ CDFG/CNPS**	**General Habitat Description**	**Potential for Presence**	**Period of Identification***
Taxidea taxus American badger	--/CSC	Herbaceous, shrub, and open stages of most habitats with dry, friable soils. Minimum reported home range size is approximately 350 acres.	**None.** The project site does not contain open habitat of the areal extent required by this species. There are no CNDDB-recorded occurrences of this species within five miles of the project site (CNDDB 2007).	Year-round

Attachment E

California Red-Legged Frog Response Letter

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
81420-2009-TA-0040-1

OCT 20 2008

RECEIVED OCT 22 2008

Ms. Deborah Stout
Michael Brandman Associates
2000 O Street, Suite 200
Sacramento, California 95811

Subject: Information Request for the Diamond Springs Parkway Project, El Dorado County, California

Dear Ms. Stout:

The purpose of this letter is to provide clarification and guidance as to the information that the U.S. Fish and Wildlife Service (Service) recommends in order to assist us in determining the effects of the proposed Diamond Springs Parkway Project on the threatened California red-legged frog (*Rana aurora draytonii*) (frog). The proposed project is the construction of a connector road between Missouri Flat Road and State Highway 49, in Diamond Springs, El Dorado County, California. No details on the proposed project were provided. However, it is our understanding El Dorado County is currently working on the preparation of a draft Environmental Impact Report for the proposed project, and in preparation of the document Michael Brandman Associates is coordinating with the Service in an attempt to ensure the information provided is adequate to assess the potential for take of this listed amphibian. This letter is issued under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

Based on our review of the project location, we are concerned that if frogs are present near to project area, there exists the likelihood that they could be directly or indirectly affected by the project. Indirect effects could be in the form of increased traffic near breeding areas which may result in direct mortality to frogs crossing newly constructed roadways. In order to help reduce direct effects of the project on this listed amphibian, we recommend incorporating conservation measures into the project description. The conservation measures could include limiting ground disturbing activities to the dry season when frogs are not likely to be found far from aquatic features.

In our July 24, 2008, letter (Service File 81420-2008-1701), we provided comment that even if the project area did not contain suitable habitat, the project still may have the potential to affect the frog depending on habitat characteristics of adjacent land. In February of 2008, we reviewed

El Dorado County's El Dorado Trails Project – Forni Road to Missouri Flat Road (Service File 81420-2008-0646), for potential effects to California red-legged frog. Because the trails project is located adjacent to the proposed project, we have determined the California red-legged frog site assessment for that project can be used to provide information for your proposed project. Based on our review of the site assessment, the pond immediately north of the proposed Diamond Springs Parkway Project provides suitable breeding habitat for this listed amphibian. As such, we recommend that protocol level surveys be conducted of the pond immediately north of the project following the Service's August 2005 *Revised Guidance on Site Assessment and Field Surveys for California Red-legged Frogs*, and the Service be provided with the results for review.

Additionally, it is our understanding that a major purpose of the project is to alleviate congestion at the Missouri Flat/Pleasant Valley Road Intersection. What is unclear, however, is whether the construction of the connector road will increase vehicle traffic along Highway 49 near the project area and, specifically, along Weber Creek. Although this portion of Weber Creek is located approximately 12 miles downstream of the nearest known frog population, the creek provides suitable habitat for the frog and it maintains hydrologic connectivity to the known population. There are also recorded occurrences of the frog near the Highway 49 overcrossing and as a result the proposed project may have additional indirect affects on the frog. As such, we request that your biological assessment of the project include all direct and indirect effects to the frog. As we receive more information, and depending on the affects analysis provided by the County, additional conservation measures and/or surveys may be recommended.

Please address any questions or concerns regarding this letter to Jeremiah Karuzas, or Arnold Roessler, Forest and Foothills Branch Chief, at (916) 414-6600.

Sincerely,

Chris Nagano
Deputy Assistant Field Supervisor

D.2 - California Red Legged Frog Protocol Survey Report - Parkway, Michael Brandman Associates, August 12, 2009

California Red-Legged Frog Protocol Survey Report
Diamond Springs Parkway Project
Unincorporated Missouri Flat Area of El Dorado County, California

Placerville, California
USGS 7.5-minute Topographic Quadrangle Map
Section 24, Township 10 North, Range 10 East

Prepared for:

El Dorado County
Department of Transportation
2850 Fairlane Court
Placerville, CA 95667

Contact: Jennifer Maxwell; Senior Engineer, Project Manager

Prepared by:

Michael Brandman Associates
2000 'O' Street, Suite 200
Sacramento, CA 95811
916.447.1100

Contact: Kerri Tuttle, Project Manager
Author/Biologist: Deborah Stout

Michael Brandman Associates

August 12, 2009

TABLE OF CONTENTS

LIST OF TABLES

LIST OF EXHIBITS

SECTION 1: SUMMARY

This report contains the results of California red-legged frog (CRLF) protocol surveys conducted by Michael Brandman Associates (MBA) during June and July 2009 for the Diamond Springs Parkway Project (Project) in the unincorporated Missouri Flat area of El Dorado County, California. The survey area for the Project is Bray Reservoir, which is owned and operated by the El Dorado County Irrigation District (EID), The survey area is located north of the Project, within the Placerville, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle. Surveys were initiated at the request of the U.S. Fish and Wildlife Service Forest Foothills Branch (USFWS). On June 30, 2008, MBA submitted to USFWS a letter requesting concurrence that suitable habitat for CRLF was not present within the Project site. On July 24, 2008, USFWS responded that they did not concur with MBA's determination; and that although suitable habitat may be absent, the Project's proximity to Weber Creek, historical habitat for CRLF, and to Bray Reservoir may result in impacts to CRLF should they be present. On October 20, 2008, the USFWS indicated that they had reviewed a CRLF site assessment prepared for a project at the same location (El Dorado Trails Project), which determined that Bray Reservoir provides suitable breeding habitat for CRLF. Therefore, USFWS recommended that, in lieu of a habitat assessment, protocol-level surveys be conducted within the Reservoir.

A total of eight surveys were conducted in accordance with the Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog (USFWS 2005). No CRLF tadpoles, metamorphs, juveniles, or adults were observed during the surveys. Surveys did detect several adult bullfrogs (*Rana catesbeiana*); tadpoles, metamorphs, and juvenile Pacific chorus frog (*Pseudacris regilla*); and several juvenile western toad (*Bufo boreas halophilus*). Although scattered fresh emergent wetland features located throughout the survey area appear suitable for CRLF, it is anticipated that the well-established population of bullfrogs would prevent successful occupation of these features by CRLF.

SECTION 2: INTRODUCTION

The following report documents the results of the CRLF protocol surveys for the Diamond Springs Parkway Project located in the unincorporated Missouri Flat area of El Dorado County, California (Exhibit 1). The objective of the protocol surveys was to determine the presence/absence and distribution of CRLF within Bray Reservoir (Reservoir), and to determine the potential for the Project to impact this species should it be present.

2.1 - Project Location

The Diamond Springs Parkway Project is located approximately 0.4 mile north of Diamond Springs and 1.5 miles east of Highway 50. It is near State Route (SR) 49 to the east, Truck Street to the north, Lime Kiln Road to the south, and Chuckwagon Way to the west. The location corresponds to Sections 24 and 25, Township 10N, Range 10E, and Sections 19 and 30, Township 30N, Range 11E *Placerville, California* USGS 7.5-minute topographic quadrangle (Exhibit 2). The approximate center of the study area has a latitude/longitude corresponding to 38°42'6.61"N and 120°49'6.26"W.

The purpose of the project is to improve traffic circulation along the Pleasant Valley Road and Missouri Flat Road corridors, in the vicinity of Diamond Springs, by constructing the Diamond Springs Parkway (Parkway or project), which would connect Missouri Flat Road with State Route 49 (SR-49)/Diamond Road.

The portion of the Project nearest to the survey area is approximately 350 feet southwest of the Reservoir. The intervening area is upland blue oak-foothill pine habitat (Exhibit 3).

Source: Census 2000 Data, The CaSIL, MBA GIS 2009.

NORTH

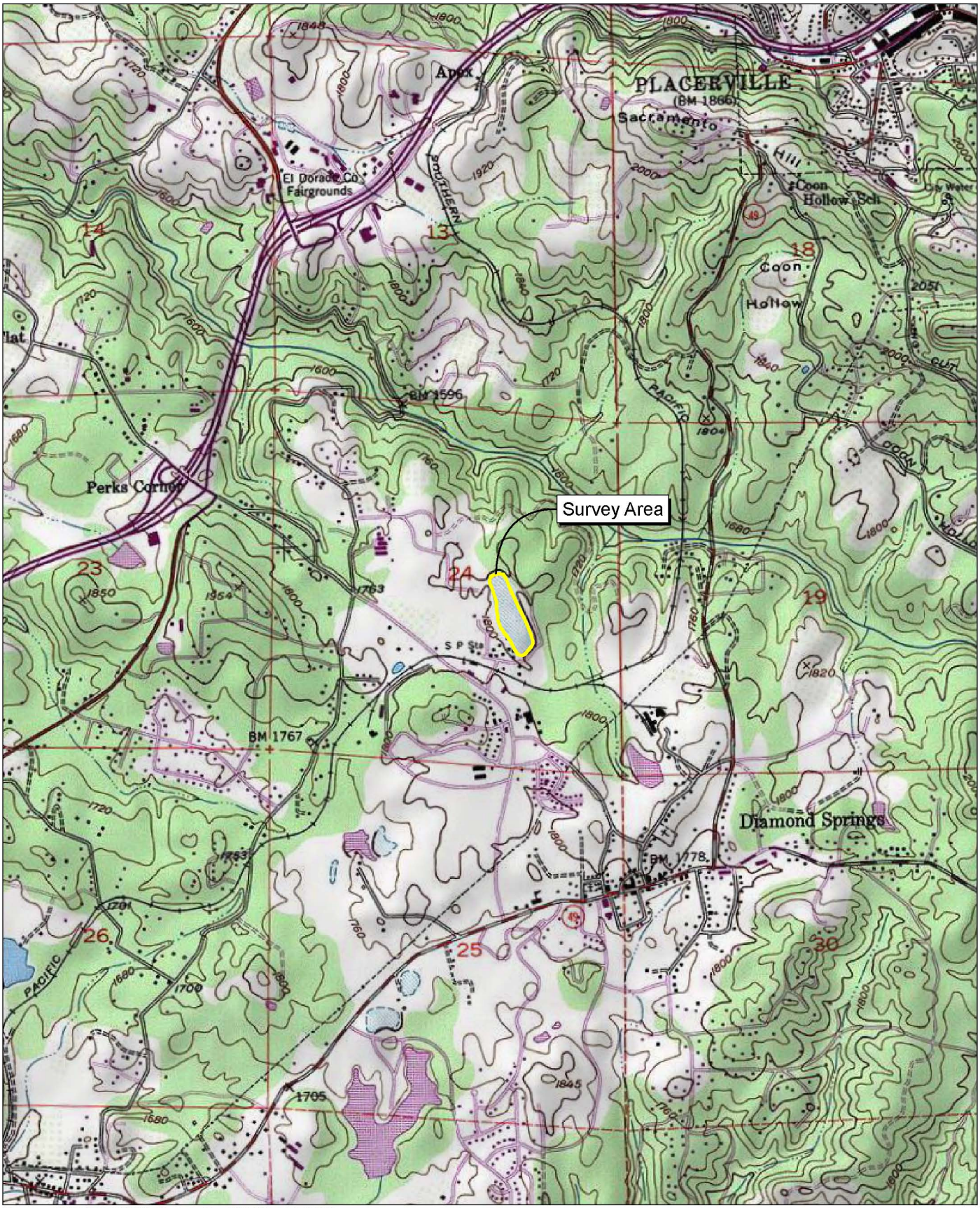
5 2.5 0 5 Miles

Michael Brandman Associates

11730028 • 07/2009 | 1_regional.mxd

Exhibit 1
Regional Location Map

DIAMOND SPRINGS PARKWAY PROJECT
CALIFORNIA RED-LEGGED FROG SURVEY REPORT



Source: TOPO! USGS Placerville (1973) 7.5' DRG.

Exhibit 2
Local Vicinity Map
Topographic Base

Michael Brandman Associates

NORTH

2,000 1,000 0 2,000 Feet

11730028 • 07/2009 | 2_local_topo.mxd

SECTION 3: TARGET SPECIES BIOLOGY

3.1 - California Red-Legged Frog

The California red-legged frog (CRLF) is a federally threatened species and California State species of special concern. The CRLF is a relatively large aquatic frog ranging from 4 to 13 centimeters (1.5 to 5 inches) from the tip of the snout to the vent. From above, the CRLF can appear brown, gray, olive, red or orange, often with a pattern of dark flecks or spots. The skin usually does not look rough or warty. The back of the CRLF is bordered on either side by an often prominent dorsolateral fold of skin running from the eye to the hip. The hind legs are well-developed with large webbed feet. A cream, white, or orange stripe usually extends along the upper lip from beneath the eye to the rear of the jaw. The undersides of adult CRLF are white, usually with patches of bright red or orange on the abdomen and hind legs. The groin area can show a bold black mottling with a white or yellow background.

The California red-legged frog is generally distributed along the coast and coastal mountain ranges of California from Humboldt County to San Diego County, and in mid-elevations above 1,000 feet in the Sierra Nevada from Butte County to Fresno County. Breeding habitat for the CRLF species may consist of coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, ponded and backwater portions of streams, as well as artificial impoundments such as stock ponds, irrigation ponds, and siltation ponds. Summer habitat for CRLF includes areas close to deep pools in creeks or ponds that support emergent vegetation, undercut banks, or semi-submerged rootballs that provide refuge. Small mammal burrows and other refugia up to 100 meters away from water sources may be used in the summer. Upland habitat used by CRLF may include grasslands that support seeps and springs for foraging and dispersal.

SECTION 4: METHODOLOGY

4.1 - Literature Review

Prior to conducting protocol surveys, a literature review was conducted to obtain background information and identify pertinent resources. The literature review began with a review of aerial imagery of the study area and vicinity, as well as the topographic electronic and hard copies of the *Placerville, California* USGS 7.5-minute topographic quadrangle maps.

Data on previous observations of the target species that have been recorded in the vicinity of the study area was compiled from the California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDB), a sensitive species and plant community account database (CNDDB 2009). MBA conducted a query of the CNDDB records based on a 5-mile radius surrounding the Project site.

The literature review also included a review of existing documents prepared for other projects located near the Project site. These include a 2002 report for a site assessment and protocol-level surveys conducted along Weber Creek at U.S. Highway 50 (Jones and Stokes 2002), and correspondence between USFWS and project proponents going back to 2003. These include 2008 correspondence from USFWS to the Department of Transportation regarding informal consultation for potential impacts to CRLF that may result from the El Dorado Trails Project, a portion of which is located within the Diamond Springs Parkway Extension Project footprint.

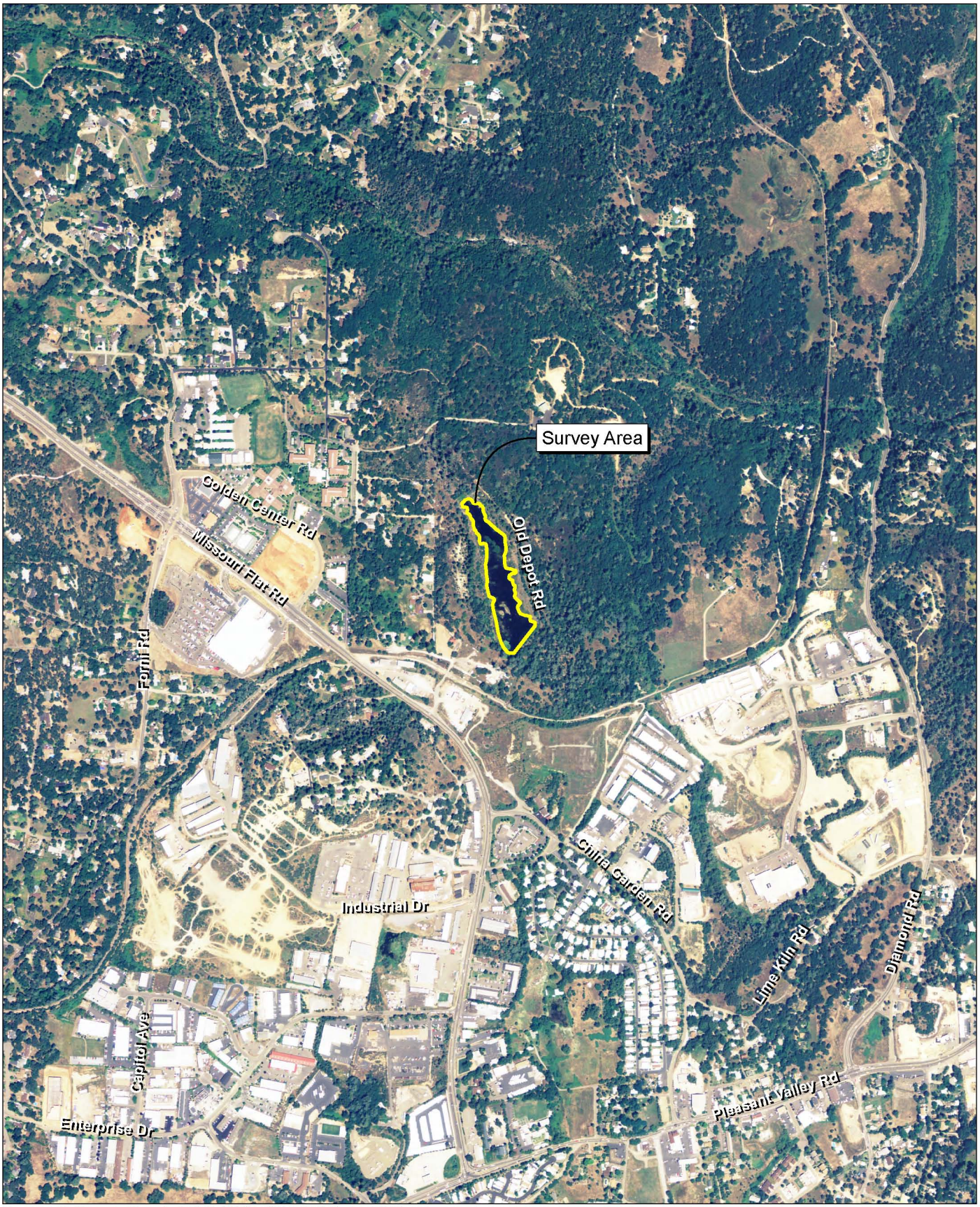
4.2 - Protocol Survey

Qualified MBA biologist Deborah Stout conducted daytime and nighttime protocol surveys for the CRLF on during June and July 2009 in accordance with the protocol provided by the USFWS in the Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog (USFWS 2005). The objective of the protocol surveys was to determine the presence/absence and distribution of CRLF within the survey area.

All protocol surveys were conducted on foot and included 100 percent coverage over the entire survey area, as discussed below. This included a minimum distance of 250 feet upslope from all suitable habitat that may be affected by the proposed project. All potentially suitable habitats were surveyed during appropriate daytime and nighttime hours. Qualified MBA biologists methodically walked and inspected all fresh emergent wetland features within the survey area that contained water. The air and water temperatures were recorded for each reach of the survey area. Binoculars (10 X 25) and a flashlight (Nite Lite Sport Lite II) were used during nighttime surveys to detect eye shine of frogs.

4.2.1 - Survey Area

The survey area for the CRLF protocol surveys is the Reservoir, which contains several fresh emergent wetlands and small ponds supporting emergent vegetation. Although available aerial photographs suggest the entire Reservoir may pond to various depths (Exhibit 3), at the time that surveys started in early June ponding was restricted to scattered depressions. It appears that the Reservoir captures precipitation during the winter months; no inlets were observed. There is a weir at the north end of the Reservoir that presumably allows water releases.



Source: El Dorado County NAIP, 2005. MBA GIS Data, 2009.

Michael Brandman Associates

NORTH

1,000 500 0 1,000

Feet

Exhibit 3
Survey Area Map

SECTION 5: PROTOCOL SURVEY RESULTS

5.1 - California Red-Legged Frog Protocol Survey

Breeding season surveys were conducted on June 8, June 15, June 22, and June 29 (nighttime), and on June 6 and June 28, 2009 (daytime). Non-breeding season surveys were conducted on July 9 (nighttime) and July 22, 2009 (daytime).

No CRLF tadpoles, metamorphs, juveniles, or adults were observed during the surveys. Surveys did detect several adult bullfrogs (*Rana catesbeiana*); up to 11 adult individuals were identified during one nighttime survey. Also identified were tadpoles, metamorphs, and juvenile Pacific chorus frog (*Pseudacris regilla*), and several juvenile western toad (*Bufo boreas halophilus*). Hundreds of metamorphs and juvenile Pacific chorus frog were observed during each survey period adjacent to all features. Later in the surveys, beginning on June 28, juvenile western toads were also observed with Pacific chorus frog, though at much lower numbers. Table 1, below, provides a summary of the protocol survey results.

Table 1: CRLF Protocol Survey Data

Survey Date	Observers	Survey Type	Time	Air / Water Temp (Avg. °F)	Weather	Species Observed
06/06/09	DS	Day	15:30 to 18:00	75°F / na	Partly cloudy	*Rana catesbeiana, Pseudacris regilla*
06/08/09	DS/CM	Night	21:25 to 24:15	65°F / 70°F	Clear	*Rana catesbeiana, Pseudacris regilla*
06/15/09	DS/JW	Night	21:30 to 24:00	65°F / 70°F	Clear	*Rana catesbeiana, Pseudacris regilla*
06/22/09	DS/JW	Night	21:30 to 23:45	65°F / 72°F	Clear	*Rana catesbeiana, Pseudacris regilla*
06/28/09	DS	Day	15:00 to 17:00	102°F / 84°F	Clear	*Rana catesbeiana, Pseudacris regilla, Bufo boreas*
06/29/09	DS/CM	Night	21:45 to 24:00	82°F / 82°F	Clear	*Rana catesbeiana, Pseudacris regilla, Bufo boreas*
07/09/09	DS/CM	Night	21:45 to 24:00	73°F / 83°F	Clear	*Rana catesbeiana, Pseudacris regilla, Bufo boreas*
07/22/09	DS	Day	10:40 to 12:00	90°F / 86°F	Clear skies	*Rana catesbeiana, Pseudacris regilla, Bufo boreas*
DS = Deborah Stout JW = Janna Waligorski CM – Chryss Meier						

During the first daytime and nighttime surveys, approximately eight individual wetlands/ponds of various size and depth were surveyed. By the third survey on June 15, only two features remained ponded. They include a small fresh emergent wetland at the northern edge of the Reservoir, and a small pond just south of the wetland. Throughout the remainder of the survey period, surveys were restricted to these two features and the surrounding uplands. These are also the only features where bullfrogs were identified. In and around the remaining smaller features to the south only Pacific chorus frog and western toad were observed.

Vegetation characteristic of all features within the Reservoir include cattail (*Typha latifolia*), water plantain (*Alisma plantago-aquatica*), and tule (*Scirpus* sp.). The largest pond also has a dense stand of willow (*Salix* sp.) along the southwestern bank. Other wildlife observed during the surveys are western pond turtle (*Actinemys marmorata*), garter snake (*Thamnophis sirtalis*), and green heron (*Butorides striatus*).

SECTION 6: DISCUSSION

Observation of vegetative composition, cover, density, and ponding duration suggest that at least the two northernmost features contain habitat elements required for CRLF. Although it is known that CRLF historically occupied Weber Creek, which is approximately 0.35 miles north of the Reservoir, the nearest occupied habitat is Spivey Pond, which is approximately 9 miles east of the Reservoir and which has been designated by USFWS as Critical Habitat for CRLF.

Historical aerials obtained for the Project show that the Reservoir was created sometime between 1935 and 1952. If CRLF were present in Weber Creek during this time, it is likely that at some time the Reservoir may have supported a population of CRLF. If CRLF did occupy the Reservoir, it appears that the introduction of bullfrogs may have resulted in their extirpation through predation and interference competition.

SECTION 7: REFERENCES

CNDDB (California Natural Diversity Data Base). 2009. Biogeographic Data Branch. Department of Fish and Game. Version 3.1.0; May 30, 2009.

Jones & Stokes. 2002. Results of a Site Assessment and Protocol-Level Surveys for the California Red-Legged Frog, U.S. Highway 50/ Missouri Flat Road Interchange Project, El Dorado County, California. May. Prepared for Quincy Engineering, Inc., Sacramento, CA. Sacramento, CA.

Nafis, Gary. 2009. California Reptiles and Amphibians. Available at: https://www.californiaherps.com

Stebbins, R. C. 2003. A Field Guide to Western Reptiles and Amphibians. 2nd ed. Houghton-Mifflin Company. Boston, Massachusetts.

USFWS. 1994. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species. Federal Register 50 CFR Part 17. U.S. Department of the Interior. Washington, D.C. November 15.

USFWS. 2005. U. S Fish and Wildlife Service. Revised Guidance of Site Assessments and Field Surveys for the California Red-legged Frog. August.

Attachment A: Site Photographs

Photograph 1: View of the largest feature during the first daytime survey on June 6, 2009, looking southeast from the western bank.

Photograph 2: View of the same feature in Photograph 1 taken from the same perspective on July 22, 2009. The ponded portion of the feature has been dramatically reduced.

Source: Michael Brandman Associates, 2009.

Representative Photographs

Michael Brandman Associates

Photograph 3: View from the north-central portion of the pond looking south. Taken July 22, 2009.

Photograph 4: Photograph of smaller wetlands in the central portion of the pond looking east. Taken July 22, 2009.

Source: Michael Brandman Associates, 2009.

Representative Photographs

Photograph 5: View of one of the smallest features taken June 6, 2009.

Photograph 6: Juvenile western toad observed at the largest feature (pond) on July 22, 2009.

Source: Michael Brandman Associates, 2009.

Representative Photographs

Attachment B: California Red-Legged Frog Survey Data Sheets

Appendix E.

California Red-legged Frog Survey Data Sheet

Survey results reviewed by _____ (FWS Field Office) _____ (date) _____ (biologist)

Date of Survey: 6/6/09 (mm/dd/yyyy)

Survey Biologist: Stout (Last name) Deborah (first name)

Survey Biologist: _____ (Last name) _____ (first name)

Site Location: El Dorado Co., Missouri Flat Area (38°42'18.20"N, 120°49'20.17"W)
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

ATTACH A MAP (include habitat types, important features, and species locations)

Proposed project name: Diamond Springs Parkway

Brief description of proposed action:

Construct Diamond Springs Parkway between Missouri Flat Road and State Route 49.

Type of Survey (circle one): (DAY) NIGHT (BREEDING) NON-BREEDING

Survey number (circle one): (1) 2 3 4 5 6 7 8

Begin Time: 3:30 pm End Time: 6:00 pm

Cloud cover: partly- mostly Cloudy Precipitation: 0

Air Temperature: 75° Water Temperature: n/a

Wind Speed: 0-5 mph w/ occ gusts Visibility Conditions: 10 mi

Moon phase: Waxing gibbous, 99% Humidity: 35%

Description of weather conditions: Clear, sunny, slight breeze

Brand name and model of light used to conduct surveys: n/a

Were binoculars used for the surveys (circle one)? YES (NO)

Brand, model, and power of binoculars: n/a

Appendix E.
California Red-legged Frog Survey Data Sheet

AMPHIBIAN OBSERVATIONS

Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification
Pseudacris regilla	>100	O	metamorphs	~0.5"	100%
Pseudacris regilla	>50	O	tadpoles	1.3/4-2"	100%
Rana catesbiana	2	H	n/a	n/a	100%

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: _____

Other notes, observations, comments, *etc.*

Necessary Attachments:

4. All field notes and other supporting documents
5. Site photographs
6. Maps with important habitat features and species locations

Appendix E.
California Red-legged Frog Survey Data Sheet

Survey results reviewed by _____
(FWS Field Office) (date) (biologist)

Date of Survey: 6/18/09 (mm/dd/yyyy)

Survey Biologist: Stout (Last name) Deborah (first name)

Survey Biologist: Meyer (Last name) Chuss (first name)

Site Location: El Dorado Co, Missouri Flat Area (38°42'18.20"N, 120°49'20.17"W)
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

****ATTACH A MAP** (include habitat types, important features, and species locations)**

Proposed project name: Diamond Springs Parkway
Brief description of proposed action:

Construct Diamond Springs Parkway between Missouri Flat Rd. and State Route 49.

Type of Survey (circle one): **DAY** (**NIGHT**) (**BREEDING**) **NON-BREEDING**

Survey number (circle one): 1 (2) 3 4 5 6 7 8

Begin Time: 9:25 pm **End Time:** 11:15 pm

Cloud cover: clear **Precipitation:** Ø

Air Temperature: 65° **Water Temperature:** 70°

Wind Speed: 0-2 mph **Visibility Conditions:** 10 mi

Moon phase: waning gibbous, 96% **Humidity:** 90%

Description of weather conditions: clear, calm

Brand name and model of light used to conduct surveys: Nite Lite Sport Lite II

Were binoculars used for the surveys (circle one)? (**YES**) **NO**
Brand, model, and power of binoculars: Pentax 10x DCF MCII, 10x25

Appendix E.
California Red-legged Frog Survey Data Sheet

AMPHIBIAN OBSERVATIONS

Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification
Rana catesbiana	5	O, H	adult		100%
Pseudacris regilla	>>	O	metamorphs juveniles		100%

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: _____

_____

_____

_____

_____

Other notes, observations, comments, *etc.*

Necessary Attachments:

4. All field notes and other supporting documents
5. Site photographs
6. Maps with important habitat features and species locations

Appendix E.
California Red-legged Frog Survey Data Sheet

Survey results reviewed by _____ _____ _____
(FWS Field Office) (date) (biologist)

Date of Survey: 6/15/09 (mm/dd/yyyy)

Survey Biologist: Stout (Last name) Deborah (first name)

Survey Biologist: D. Ligouri (Last name) Jenna (first name)

Site Location: El Dorado Co, Missouri Flat Area, (38° 42' 18.20"N, 120° 49' 20.17"W)
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

ATTACH A MAP (include habitat types, important features, and species locations)

Proposed project name: Diamond Springs Parkway
Brief description of proposed action:

Construct Diamond Springs Parkway between Missouri Flat Rd and State Route 49.

Type of Survey (circle one): DAY (NIGHT) (BREEDING) NON-BREEDING

Survey number (circle one): 1 2 (3) 4 5 6 7 8

Begin Time: 9:30 pm End Time: 11:00 pm

Cloud cover: Ø Precipitation: Ø

Air Temperature: 65° F Water Temperature: 70°

Wind Speed: 0 mph Visibility Conditions: 10 mi

Moon phase: Waning Crescent, 46% Humidity: 60 %

Description of weather conditions: Very clear, chill

Brand name and model of light used to conduct surveys: _____

Were binoculars used for the surveys (circle one)? (YES) NO
Brand, model, and power of binoculars: Pentax 10x PCF MCII, 10x25

Appendix E.
California Red-legged Frog Survey Data Sheet

AMPHIBIAN OBSERVATIONS

Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification
Rana catesbeiana	9	5-O 4-H	Adult		100%
Pseudacris regilla	∞	O	metamorphs juveniles		100%

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: _____

Other notes, observations, comments, *etc.*

Necessary Attachments:

4. All field notes and other supporting documents
5. Site photographs
6. Maps with important habitat features and species locations

Appendix E.
California Red-legged Frog Survey Data Sheet

Survey results reviewed by _____ (FWS Field Office) _____ (date) _____ (biologist)

Date of Survey: 6/22/09 (mm/dd/yyyy)

Survey Biologist: Stout (Last name) Deborah (first name)

Survey Biologist: L. DeGrassi (Last name) Anna (first name)

Site Location: El Dorado Co., Missouri Flat Area. (38° 42' 18.20" N, 120° 49' 20.17" W)
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

ATTACH A MAP (include habitat types, important features, and species locations)

Proposed project name: Diamond Springs Parkway
Brief description of proposed action:

Construct Diamond Springs Parkway between Missouri Flat Rd. and State Route 49.

Type of Survey (circle one): DAY (NIGHT) (BREEDING) NON-BREEDING

Survey number (circle one): 1 2 3 (4) 5 6 7 8

Begin Time: 9:30 pm End Time: 10:45pm

Cloud cover: 0 Precipitation: 0

Air Temperature: 65° Water Temperature: 72°

Wind Speed: 0mph Visibility Conditions: 10 mi

Moon phase: new moon (0%) Humidity: 60°

Description of weather conditions: warm, clear, very still

Brand name and model of light used to conduct surveys: Nite Lite Spot Lite II

Were binoculars used for the surveys (circle one)? (YES) NO
Brand, model, and power of binoculars: Pentax 10x DCF MCII (10x25)

Appendix E.
California Red-legged Frog Survey Data Sheet

AMPHIBIAN OBSERVATIONS

Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification
Rana catesbeiana	5	2-O 3-H	Adult		100%
Pseudacris Regilla	∞	O	metamorps juveniles		100%

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: _____

Other notes, observations, comments, *etc.*

Necessary Attachments:

4. All field notes and other supporting documents
5. Site photographs
6. Maps with important habitat features and species locations

Appendix E.

California Red-legged Frog Survey Data Sheet

Survey results reviewed by _____ (FWS Field Office) _____ (date) _____ (biologist)

Date of Survey: 4/28/09 (mm/dd/yyyy)

Survey Biologist: Stout (Last name) Deborah (first name)

Survey Biologist: _____ (Last name) _____ (first name)

Site Location: El Dorado Co. Missouri Flat Area (38°42'18.20"N 120°49'20.17"W)
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

ATTACH A MAP (include habitat types, important features, and species locations)

Proposed project name: Diamond Springs Parkway

Brief description of proposed action:

Construct Diamond Springs Parkway between Missouri Flat Rd and State Route 49.

Type of Survey (circle one): (DAY) NIGHT (BREEDING) NON-BREEDING

Survey number (circle one): 1 2 3 4 (5) 6 7 8

Begin Time: 3pm End Time: 5pm

Cloud cover: Ø Precipitation: Ø

Air Temperature: 102° F Water Temperature: 84°

Wind Speed: 0 mph Visibility Conditions: 10 mi.

Moon phase: Waxing crescent 47% Humidity: 13%

Description of weather conditions: Hot, still, clear

Brand name and model of light used to conduct surveys: n/a

Were binoculars used for the surveys (circle one)? (YES) NO

Brand, model, and power of binoculars: Pentax IOV DCF MCII 10x25

Appendix E.
California Red-legged Frog Survey Data Sheet

AMPHIBIAN OBSERVATIONS

Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification
Pseudacris regilla	>>	O	juvenile		100%
Bufo boreas	2	O	juvenile		100%
Rana catesbeiana	1	O	adult		100%

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: _____

Other notes, observations, comments, *etc.*

Necessary Attachments:

4. All field notes and other supporting documents
5. Site photographs
6. Maps with important habitat features and species locations

Appendix E.
California Red-legged Frog Survey Data Sheet

Survey results reviewed by _____ (EWS Field Office) _____ (date) _____ (biologist)

Date of Survey: 6/29/09 (mm/dd/yyyy)

Survey Biologist: Stout (Last name) Deborah (first name)

Survey Biologist: Meyer (Last name) Chryss (first name)

Site Location: El Dorado Co, Missouri Flat Area (38°42'18.20"N, 120°49'20.17"W)
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

ATTACH A MAP (include habitat types, important features, and species locations)

Proposed project name: Diamond Springs Parkway
Brief description of proposed action:

Construct Diamond Springs Parkway between Missouri Flat Rd and State Route 49.

Type of Survey (circle one): DAY (NIGHT) (BREEDING) NON-BREEDING

Survey number (circle one): 1 2 3 4 5 (6) 7 8

Begin Time: 9:45 pm End Time: 11:00 pm

Cloud cover: Ø Precipitation: Ø

Air Temperature: 82° Water Temperature: 82°

Wind Speed: 0 mph Visibility Conditions: 10 mi

Moon phase: Waxing gibbous 58% Humidity: 19°

Description of weather conditions: warm, chilly, clear

Brand name and model of light used to conduct surveys: _____

Were binoculars used for the surveys (circle one)? (YES) NO
Brand, model, and power of binoculars: Pentax 10x DCF MCII 10x25

Appendix E.
California Red-legged Frog Survey Data Sheet

AMPHIBIAN OBSERVATIONS

Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification
Rana catesbeiana	11	10 - O 1 - H	adult		100%
Pseudacris regilla	>>	O	juvenile		100%

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: _____

Other notes, observations, comments, *etc.*

Necessary Attachments:

4. All field notes and other supporting documents
5. Site photographs
6. Maps with important habitat features and species locations

Appendix E.
California Red-legged Frog Survey Data Sheet

Survey results reviewed by _____ _____ _____
(FWS Field Office) (date) (biologist)

Date of Survey: 7/9/2009 (mm/dd/yyyy)

Survey Biologist: Stout (Last name) Deborah (first name)

Survey Biologist: Mauer (Last name) Chryss (first name)

Site Location: El Dorado Co. Missouri Flat Area (38°42' 18.20" N 120° 49' 20.17" W)
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

****ATTACH A MAP** (include habitat types, important features, and species locations)**

Proposed project name: Diamond Springs Pkwy
Brief description of proposed action:

Construct Diamond Springs Parkway between Missouri Flat Rd and State Route 49.

Type of Survey (circle one): **DAY** **(NIGHT)** **BREEDING** **(NON-BREEDING)**

Survey number (circle one): 1 2 3 4 5 6 **(7)** 8

Begin Time: 9:45 pm **End Time:** 11:00 pm

Cloud cover: 0 **Precipitation:** 0

Air Temperature: 73.4 **Water Temperature:** 83° F

Wind Speed: 0-2 mph **Visibility Conditions:** 10 mi

Moon phase: Waxing gibbous (92%) **Humidity:** 38°

Description of weather conditions: clear, mild, chill

Brand name and model of light used to conduct surveys: Nite Lite Spot Lite II

Were binoculars used for the surveys (circle one)? **(YES)** **NO**
Brand, model, and power of binoculars: Pinbax 10x DCF MCII, 10x25

Appendix E.
California Red-legged Frog Survey Data Sheet

AMPHIBIAN OBSERVATIONS

Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification
Rana catesbeiana	9	7-O 2-H	Adult		100%

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: _____

Other notes, observations, comments, *etc.*

Necessary Attachments:

4. All field notes and other supporting documents
5. Site photographs
6. Maps with important habitat features and species locations

Appendix E.
California Red-legged Frog Survey Data Sheet

Survey results reviewed by _____ _____ _____
(FWS Field Office) (date) (biologist)

Date of Survey: 7/22/2009 (mm/dd/yyyy) **Survey Biologist:** Stout (Last name) Deborah (first name)

Survey Biologist: _____ (Last name) _____ (first name)

Site Location: El Dorado Co., Missouri Flat Area (38.421820N 120.492017W)
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

****ATTACH A MAP** (include habitat types, important features, and species locations)**

Proposed project name: Diamond Springs Parkway
Brief description of proposed action:

Construct Diamond Springs Parkway between Missouri Flat Rd and State Route 49.

Type of Survey (circle one): **DAY** NIGHT BREEDING **NON-BREEDING**

Survey number (circle one): 1 2 3 4 5 6 7 **8**

Begin Time: 10:40 a.m. **End Time:** 12:00 pm

Cloud cover: 0 **Precipitation:** 0

Air Temperature: 90° **Water Temperature:** 86°

Wind Speed: 0-2 mph **Visibility Conditions:** 10 mi.

Moon phase: Waxing crescent (1%) **Humidity:** 27%

Description of weather conditions: clear, warm, slight breeze

Brand name and model of light used to conduct surveys: n/a

Were binoculars used for the surveys (circle one)? **YES** NO
Brand, model, and power of binoculars: Pentax 10x DCF mCII, 10x25

Appendix E.
California Red-legged Frog Survey Data Sheet

AMPHIBIAN OBSERVATIONS

Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification
Rana catesbeiana	2	H	adult		100%
Rana catesbeiana	2	jumped w/o vocalizing O	adult		50%
Bufo boreas	10	O	juvenile		100%
Pseudacris regilla	25-50	O	juvenile		100%

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: _____

Other notes, observations, comments, *etc.*

Also western pond turtle, green heron, valley garter snake.

Necessary Attachments:

4. All field notes and other supporting documents
5. Site photographs
6. Maps with important habitat features and species locations

D.3 - California Red Legged Frog Protocol Survey Concurrence US Fish and Wildlife Service, September 11, 2009

Deborah Stout - Diamond Springs Parkway Project Survey Report

From: <Jeremiah_M_Karuzas@fws.gov>
To: <dstout@brandman.com>
Date: 9/11/2009 9:44 AM
Subject: Diamond Springs Parkway Project Survey Report

Deborah,

I received your survey results for the above referenced project. It appears that you have followed the U.S. Fish and Wildlife's most recent guidelines on conducting surveys for the California red-legged frog and did not detect any. As you are likely aware, these, as with many types of surveys, cannot demonstrate absence, rather can only confirm presence. Given that your appropriately-conducted surveys did not result in the detection of California red-legged frogs, and instead resulted in the detection of numerous bullfrogs, it is unlikely that the California red-legged frog occupies Bray Reservoir. However, as you may recall, the recommendation for conducting surveys of this reservoir was intended to address the potential for take of the frog as it related to traffic-induced mortality of the frog after project construction. The low likelihood of frogs occupying the nearby aquatic feature does not equate to the project not affecting this frog, as construction activities may still result in take if frogs are present within dispersal distance of the project. My thoughts on addressing this portion of the issue would be through the actual timing of the ground disturbing activities, and/or implementation of other conservation measures to minimize the effects of the project , given the potential that frogs may occupy and utilize the Weber Creek drainage near the project area.

Please feel free to contact me if you have any questions.

Jeremiah

Jeremiah M. Karuzas, Fish and Wildlife Biologist
Forest & Foothills Branch
U.S. Fish and Wildlife Service
2800 Cottage Way, Suite W-2605
Sacramento, CA 95825

916-414-6736
916-414-6713 (fax)
jeremiah_m_karuzas@fws.gov

D.4 - Biologcial Resources Assement - Highway 49 Intertie, Michael Brandman Associates, November 20, 2008

Michael Brandman Associates

Bakersfield
661.334.2755

Fresno
559.497.0310

Irvine
714.508.4100

Palm Springs
760.322.8847

Sacramento
916.447.1100

San Bernardino
909.884.2255

San Ramon
925.830.2733

November 20, 2008

Dan Corcoran, Environmental Review Division Manager
El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667

Subject: Biological Resources Assessment for the El Dorado Irrigation District Highway 49 Intertie Improvements Project, El Dorado County, California

Dear Mr. Corcoran:

A biological resources assessment has been conducted by Michael Brandman Associates (MBA) within an approximately 1.3-acre portion of El Dorado Irrigation District's (EID) Highway 49 Intertie Improvements Project (project) located north of Diamond Springs, in El Dorado County, California (Exhibit 1). The remainder of the EID Project was investigated as part of the adjacent Diamond Springs Parkway Project (Exhibit 2), the results of which are documented in two reports: the Biological Resources Assessment for the Diamond Springs Parkway Project (MBA 2008a), and the Delineation of Waters of the U.S., Including Wetlands for the Diamond Springs Parkway Project (MBA 2008b). The location of the project corresponds to Section 19, Township 30 North, Range 11 East (Mount Diablo Baseline Meridian [MDBM]) of the Placerville, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Exhibit 3).

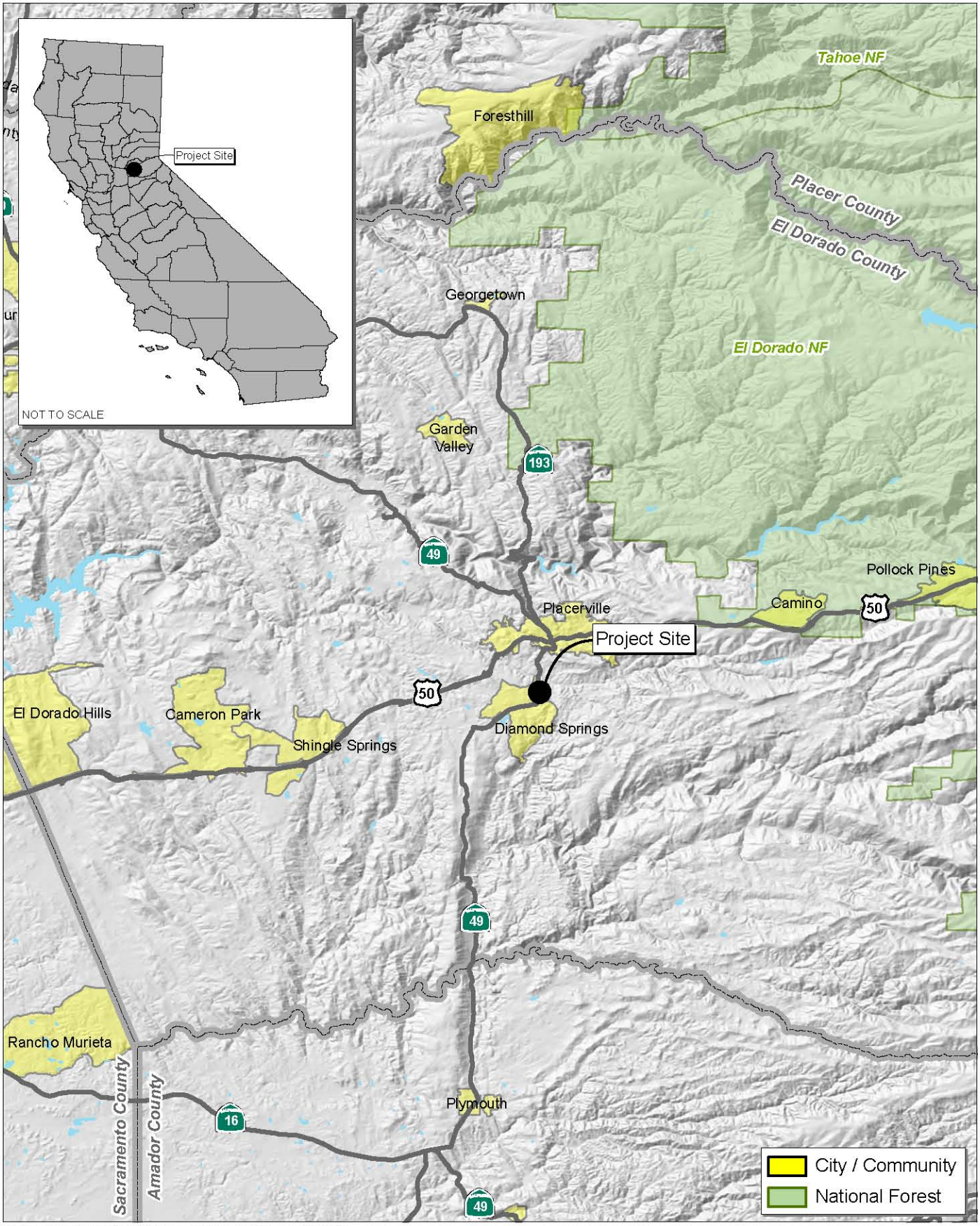
Results of this assessment indicate that the EID study area supports the following sensitive resources:

- Suitable habitat for eight (8) special-status wildlife species
- Two potentially federally jurisdictional roadside ditches

Introduction and Purpose

The Highway 49 Intertie serves as an important means to transmit water from the northern El Dorado Main system to the southern Diamond Springs Main system. The Highway 49 Intertie mostly consists of 12-inch waterline; however, a segment of the Intertie is 6 inches and 8 inches in diameter. This reduction in pipe diameter creates a bottleneck that significantly reduces the capacity of the Intertie. This project replaces the bottleneck in the Highway 49 Intertie to improve the flow of water through the transmission system. The project involves the replacement of approximately 2,000 feet of 6-inch waterline with a new 12-inch waterline in Highway 49 near Diamond Springs, and approximately 3,800 feet of new 18-inch waterline that will intertie to an existing 18-inch waterline to aid in supply for existing and future customers as demands increase.

Increasing water demands require increased transmission capacity to provide adequate service. The Highway 49 Intertie is a crucial transmission main used to supplement the Diamond Spring Main during high flow periods. It also has been the only feed to maintain water service in Diamond Springs during the recent Pleasant Oak Main line breaks. Increasing the capacity of the line will improve the reliability and redundancy of the overall transmission system.



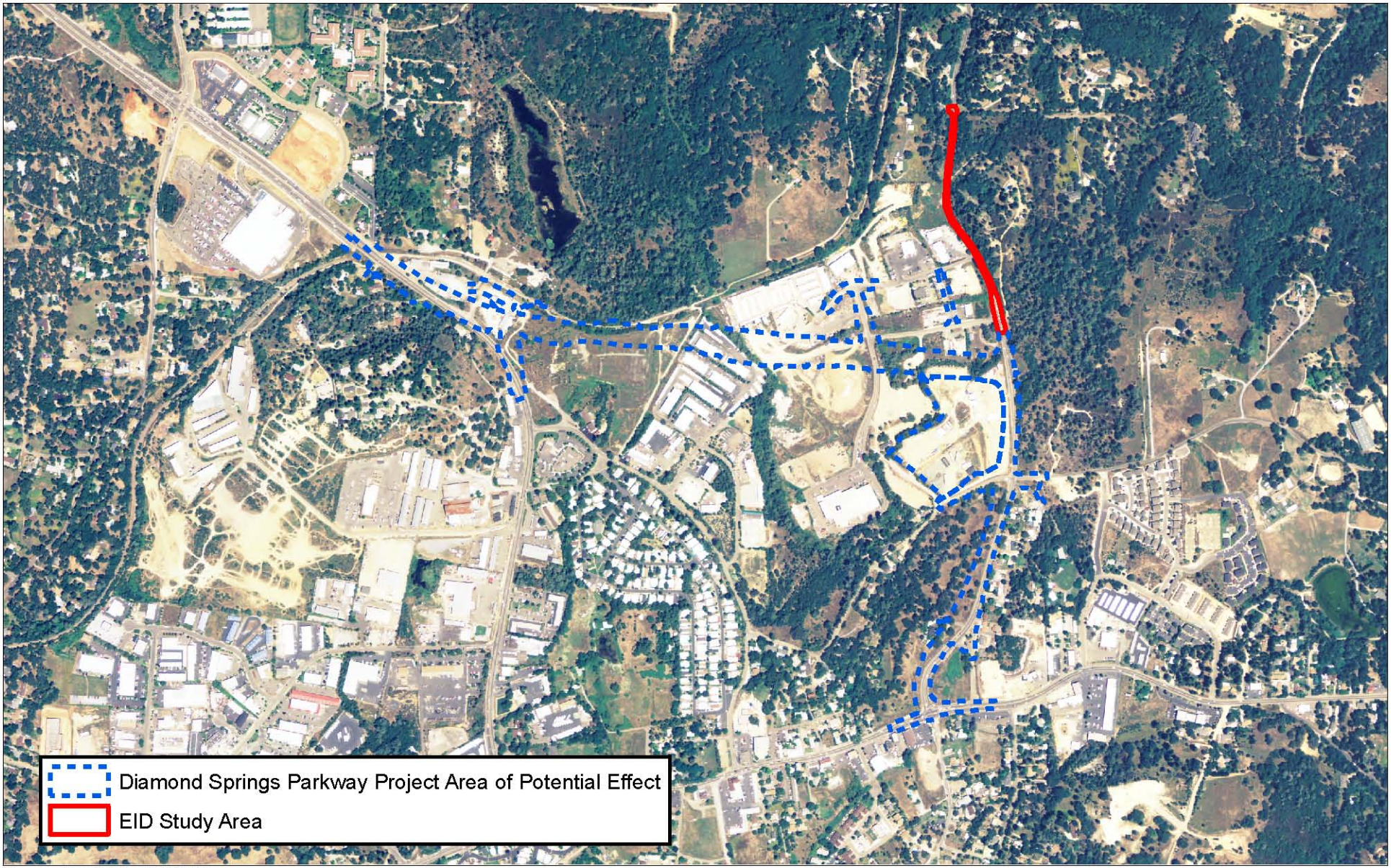
Source: Census 2000 Data, CaSIL 2007, MBA 2008.

NORTH

5 2.5 0 5 Miles

Michael Brandman Associates

Exhibit 1
Regional Location Map



Source: CTA 2008; MBA 2008.

Michael Brandman Associates

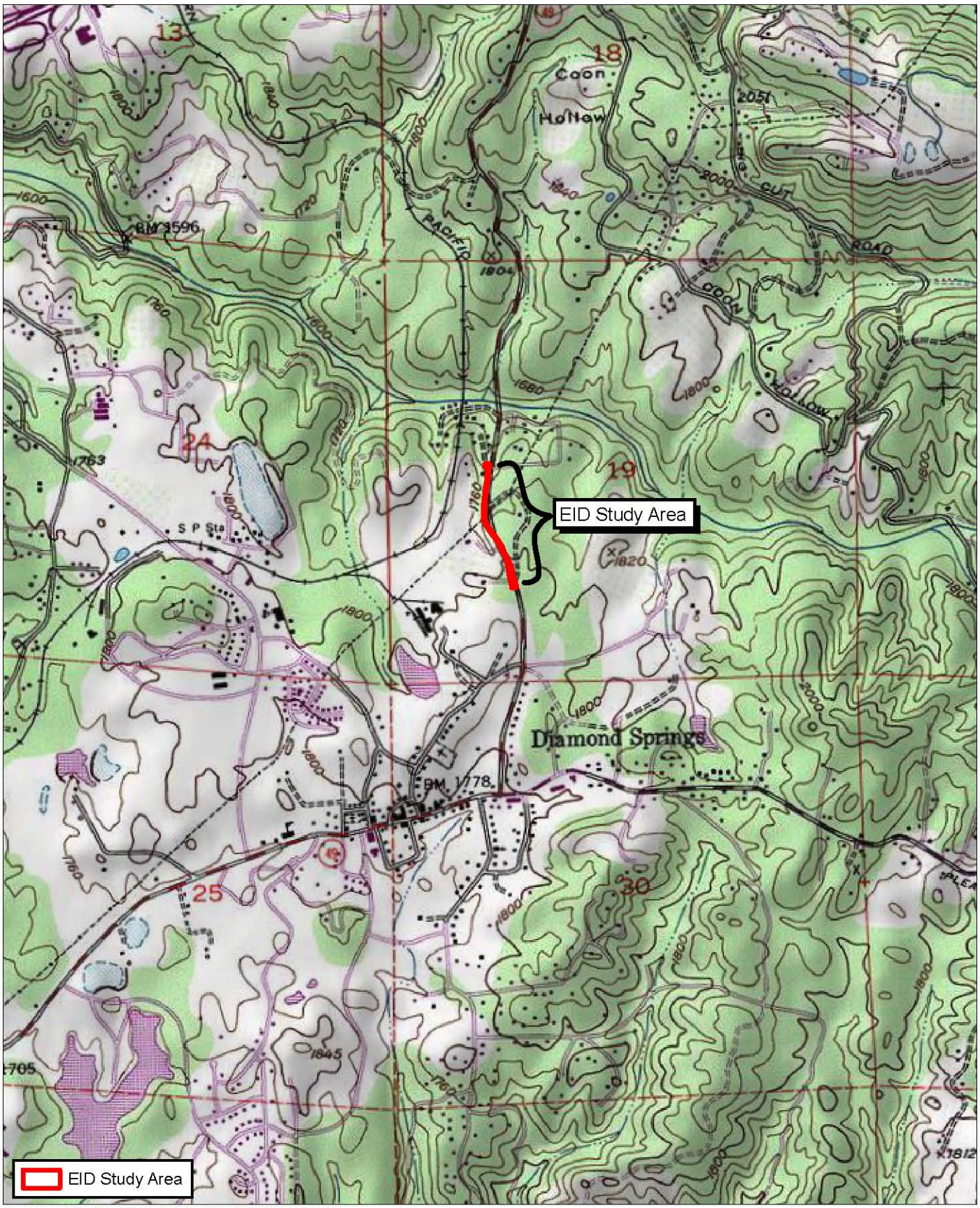
NORTH

1,000 500 0 1,000

Feet

28490004 • 10/2008 | 3_Proximity_to_Parkway .mxd

Exhibit 2
Proximity to the Diamond Springs Parkway Project Area of Potential Effect



Source: TOPO! USGS Placerville (1973) 7.5' DRG.

Michael Brandman Associates

NORTH

1,000 500 0 1,000 2,000

Feet

Exhibit 3
Topographic Map

The project will be concurrently constructed with the Diamond Spring Parkway Project (Parkway). The location of the Intertie Improvements Project relative to the Parkway is shown in Exhibit 2. The Parkway is being constructed to improve traffic circulation along the Pleasant Valley Road and Missouri Flat Road corridors, in the vicinity of Diamond Springs, by directly connecting Missouri Flat Road with State Route 49 (SR-49). As mentioned above, MBA conducted a biological resources assessment and prepared a biological resources assessment report (MBA 2008a) and delineation report (MBA 2008b) for the Parkway. A 1.03-acre portion of this project was not investigated or covered in these reports. Therefore, this report assesses biological resources within the 1.03-acre portion of the project not previously assessed under the Parkway ("EID study area").

The purpose of this biological resources assessment is to:

- Generally characterize all habitat types within the EID study area.
- Determine the presence or absence of habitat suitable for special-status plant and wildlife species.
- Determine the presence or absence of waters of the U.S. and waters of the State, including wetlands, within the EID study area.
- Determine the presence or absence of other sensitive resources within the EID study area.

Location and Environmental Setting

Elevation of the EID study area is approximately 1,800 feet above mean sea level (msl). Average temperatures range from January lows of 32.4 Fahrenheit (˚F) to July highs of 92.6˚F. Average annual precipitation is approximately 38.5 inches; precipitation falls primarily as rain, with most precipitation occurring between the months of October and April (Western Regional Climate Center 2008).

The EID study area is located along SR-49 from Bradley Drive north to Finch Road. The project includes 1,630 linear feet of SR-49. Land uses within the project vicinity are primarily industrial and residential. An aerial photograph of the EID study area is provided in Exhibit 4.

Methodology

Prior to conducting the field survey of the EID study area, the following information sources were reviewed:

- The *Placerville, California* USGS 7.5-minute topographic quadrangle (1973)
- Aerial photography of the EID study area (Google Earth undated)
- A Natural Resource Conservation Service (NRCS) soils map of the EID study area (Soil Survey Staff undated)
- California Department of Fish and Game (CDFG) California Natural Diversity Data Base (CNDDB) records for the *Placerville, California* 7.5-minute topographic quadrangle and the surrounding eight quadrangles (CNDDB 2008) (Attachment A)
- CDFG California Wildlife Habitat Relationship System (CWHR) (CDFG 2005)

Source: El Dorado County 2007; MBA 2008.

Michael Brandman Associates

NORTH

250 125 0 250 500

Feet

Exhibit 4
Wetlands

- U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur, or be affected by the project, in the Placerville, California quadrangle (USFWS 2008) (Attachment B).
- The California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2008) (Attachment C).
- Pertinent literature including the Jepson Manual, Higher Plants of California (Hickman 1993); Amphibian and Reptile Species of Special Concern in California (Jennings and Hayes 1994); California Birds: Their Status and Distribution (Small 1994); Bird Species of Special Concern in California (Remsen 1978); and Mammalian Species of Special Concern in California (Williams 1986).

For the purpose of this assessment, special-status species are those species that are:

- Listed as threatened or endangered under the Endangered Species Act (ESA) and those species formally proposed or candidates for listing.
- Listed as threatened or endangered under California ESA (CESA) or candidates for listing.
- Designated as endangered or rare pursuant to California Fish and Game Code (Section 1901).
- Designated as fully protected pursuant to California Fish and Game Code (Section 3511, Section 4700, Section 5050).
- Designated as a species of special concern by CDFG.
- Plants listed as rare under the California Native Plant Protection Act or considered by CNPS as List 1A, 1B, or 2 species.

MBA biologist Deborah Stout conducted the field assessment within the EID study area on October 8, 2008. The assessment included describing the vegetation communities present (Mayer and Laudenslayer 1988); identifying common plant and wildlife species observed; determining the potential presence of any special habitat features, such as waters of the U.S. or state, including wetlands; and identifying any linkages within the EID study area to important adjacent wildlife habitats. Habitat types were assessed and evaluated for their potential to support special-status plant and wildlife species and any other sensitive biological resources.

Results

Topography and Soils

The NRCS Web Soil Survey (Soil Staff undated) shows two soil types mapped within the EID study area: Diamond Springs very fine sandy loam, 3 to 9 percent slopes, and Diamond Springs very fine sandy loam, 9 to 15 percent slopes (DfC) occur along the length of SR-49. In addition, there is a very small area of Placer diggings (PrD) in the northernmost portion of the EID study area. These soils are classified as fine sandy loam with cobbles; the parent material is alluvium derived from mixed sources. The parent material is fine-grained, acidic residuum weathered from igneous rock.

Vegetation Communities

The EID study area is a developed highway; it includes SR-49 and the adjacent unvegetated roadside. The adjacent areas are dominated by blue oak – foothill pine habitat. Overstory species observed within this habitat type are blue oak (*Quercus douglasii*), foothill pine (*Pinus sabiniana*), valley oak (*Q. lobata*), California black walnut (*Juglans californica*), and interior live oak (*Q. wislizenii*). Shrub species include whiteleaf

manzanita (*Arctostaphylos viscida*), greenleaf manzanita (*A. patula*), toyon (*Heteromeles arbutifolia*), buckbrush (*Ceanothus cuneatus*), California coffeeberry (*Rhamnus californica*), coyotebrush (*Baccharis pilularis*), bitter cherry (*Prunus emarginata*) and Himalayan blackberry (*Rubus discolor*). Other understory species include narrowleaf plantain (*Plantago lanceolata*), yellow star-thistle (*Centaurea solstitialis*), clover (*Trifolium* sp.), tall annual willowherb (*Epilobium brachycarpum*), California grape (*Vitis californica*), dogtail grass (*Cynosurus echinatus*), mugwort (*Artemesia douglasiana*), St. John's wort (*Hypericum perfoliatum*), prickly lettuce (*Lactuca serriola*), tall wheatgrass (*Elytrigia pontica*), Queen Anne's lace (*Daucus carota*), and hairypink (*Petrorhagia dubia*).

SPECIAL-STATUS SPECIES

Special-Status Plant Species

The special-status plant species considered for review in this document are included in a table provided in Attachment D. This list was compiled from query results from CNDDB and the CNPS online inventory as well as a list obtained from USFWS. CNDDB-recorded occurrences of special-status species within 5 miles of the EID study area are shown in Exhibit 5.

Several regionally occurring species were determined not to have potential to occur with the EID study area either because the range of the species does not extend into the EID study area or vicinity, or because the habitat and/or microsite conditions (e.g., serpentine soils, mesic sites) required by the species are not present.

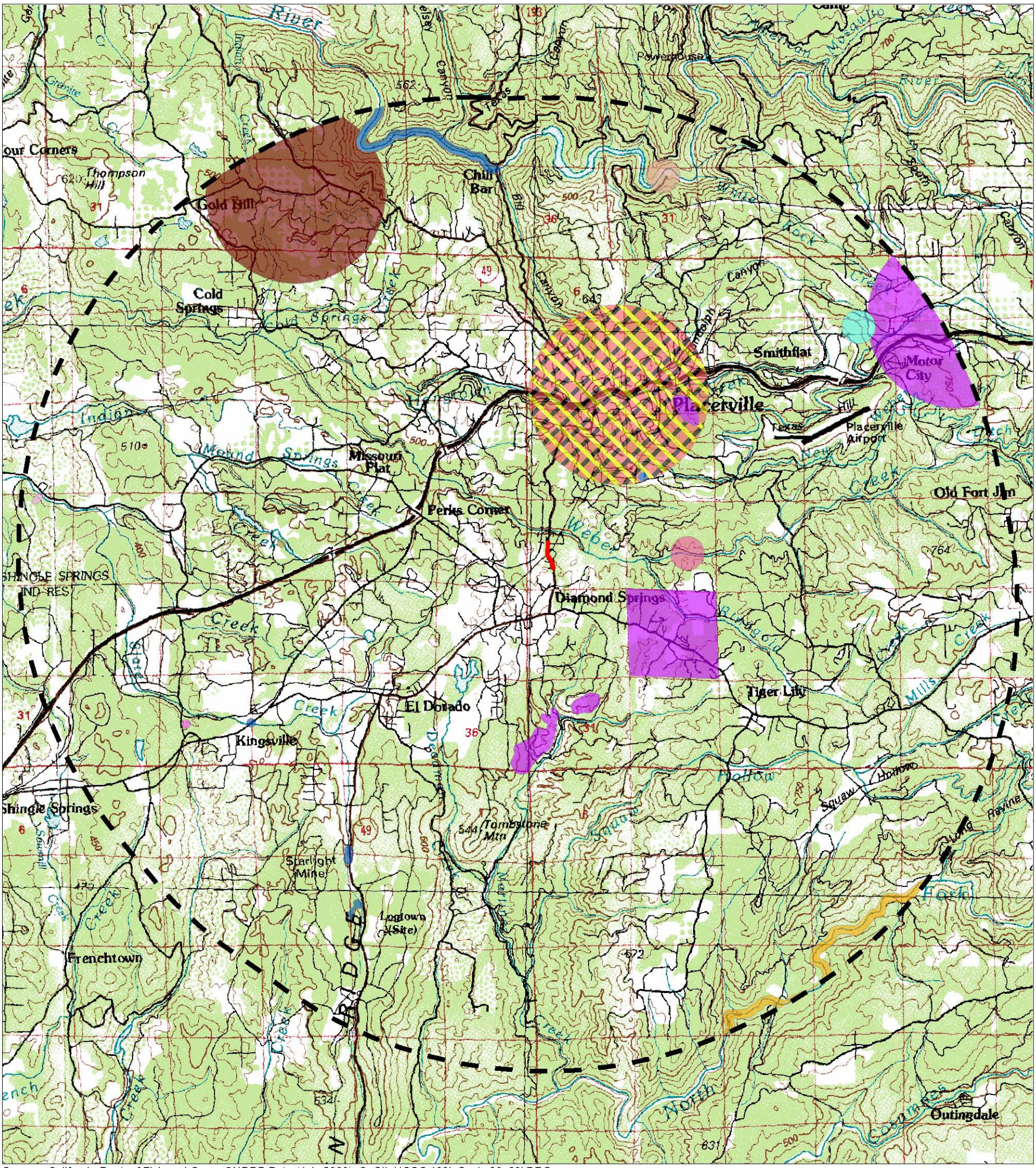
Based upon results of the species review, there are no special-status plant species with potential to occur within the EID study area.

Special-Status Wildlife Species

The special-status wildlife species considered for review in this document are included in a table provided in Attachment D. This list was compiled based on the USFWS list and query results from the CNDDB and the CWHR. The CWHR is a predictive model that lists species likely to occur in a given location under certain habitat conditions. It also predicts the suitability of those conditions for reproduction, cover, and feeding for each modeled species. Information fed into the model for this EID study area includes location (El Dorado County) and habitat type (blue oak-foothill pine). The CWHR does not include any information on plants, fish, invertebrates, or rare natural communities.

Several regionally occurring species were determined not to have potential to occur within the EID study area, either because the distribution range of the species does not extend into the EID study area or vicinity or because the habitat or habitat elements (e.g., caves, tall snags) required by the species are not present.

Based upon results of the species review, there are eight special-status wildlife species with potential to occur within the EID study area. Table 1 lists these species, their regulatory status, general habitat requirements, and the period during which they are most identifiable. Recorded occurrences of special-status wildlife species within 5 miles of the EID study area are shown in Exhibit 5.



Source: California Dept. of Fish and Game CNDDB Data (July 2008), CaSIL USGS 100k Scale 30x60' DRG.

Legend

- EID Study Area
- 5-Mile Radius

Common Name ***(Scientific Name)***

- Brandegee's clarkia (*Clarkia biloba ssp. brandegeeae*)
- Central Valley Drainage Hardhead/Squawfish Stream (*Central Valley Drainage Hardhead/Squawfish Stream*)
- Jepson's onion (*Allium jepsonii*)
- Layne's ragwort (*Packera layneae*)
- Nissenan manzanita (*Arctostaphylos nissenana*)
- Parry's horkelia (*Horkelia parryi*)
- Red Hills soaproot (*Chlorogalum grandiflorum*)
- Yuma myotis (*Myotis yumanensis*)
- great egret (*Ardea alba*)
- northwestern pond turtle (*Actinemys marmorata marmorata*)
- oval-leaved viburnum (*Viburnum ellipticum*)
- silver-haired bat (*Lasionycteris noctivagans*)
- tricolored blackbird (*Agelaius tricolor*)

NORTH

1 0.5 0 1 Mile

Michael Brandman Associates

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Exhibit 5
CNDDB-Recorded Occurrences of Special-Status Species Within Five Miles of the EID Study Area

Table 1: Special-Status Wildlife Species with Potential to Occur Within the EID Study Area

Scientific Name Common name	Listing Status USFWS/ CDFG	General Habitat Description	Potential for Presence	Period of Identification*
AMPHIBIANS				
Rana aurora draytonii California red-legged frog	FT/CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to aestivation habitat.	**Low.** There are no permanent sources of deep water within the EID study area. However, Weber Creek is considered suitable breeding habitat, and this species disperses overland during the wet season. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	January – February (adult visual survey)
BIRDS				
Accipiter striatus Sharp-shinned hawk	—/CSC	Winter resident throughout much of the state; permanent at higher elevations. Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers but is not restricted to riparian habitats.	**Moderate.** Blue oak-foothill pine and riparian habitats adjacent to the EID study area are suitable for nesting and foraging by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round
Elanus leucurus White-tailed kite	—/CFP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Moderate.** The EID study area is located within blue oak-foothill pine habitat that is suitable for nesting by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	January – August (breeding)
Falco columbarius Merlin	—/CSC	Uncommon winter migrant. Seldom found in heavily wooded areas or open deserts. Frequents open habitats at low elevations near water and tree stands. Favors coastlines, lakeshores, and wetlands. Ranges from annual grasslands to ponderosa pine and montane hardwood-conifer habitats.	**Moderate.** The EID study area is located within blue oak-foothill pine habitat that is suitable for nesting by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	September - May
Lanius ludovicianus Loggerhead shrike	—/CSC	Found in a variety of habitats with open areas, available perches, and dense shrubs for nesting.	**Moderate.** The EID study area is located within blue oak – foothill pine habitat that is suitable nesting and foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	March - August

Scientific Name Common name	Listing Status USFWS/ CDFG	General Habitat Description	Potential for Presence	Period of Identification*
Progne subis Purple martin	—/CSC	An uncommon to rare, local summer resident in a variety of wooded, low-elevation habitats throughout the state; a rare migrant in spring and fall, absent in winter. Breeding habitat includes old-growth, multi-layered, open forest and woodland with snags; forages over riparian areas, forest, and woodlands.	**Low.** The EID study area is located within blue oak – foothill pine habitat that is suitable nesting and foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - September
MAMMALS				
Antrozous pallidus Pallid bat	—/CSC	Broadly distributed in California from sea level to over 6,000 feet. Roosts in caves, buildings, rock crevices, and tree hollows. Overwinters in summer habitats at lower elevations.	**Moderate.** Riparian and blue oak-foothill pine habitats adjacent to the EID study area may provide suitable maternity roosts for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - October
Lasionycteris noctivagans Silver-haired bat	—/CSC	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes and rarely under rocks. Needs drinking water.	**Moderate.** Blue oak-foothill pine and riparian habitat adjacent to the EID study area may provide suitable roosting habitat for this species. There is a CNDDB-recorded occurrence of this species approximately 2 miles north of the EID study area.	April - October
STATUS CODES				
Federal FE = Federally Endangered FT = Federally Threatened FD = Federally Delisted		State CE = State Endangered CT = State Threatened CSC = State Species of Special Concern		

WETLANDS AND OTHER WATERS

A delineation of waters of the U.S., including wetlands, was conducted by qualified MBA delineators on December 11, 12, and 13, 2007; January 10 and 11, 2008; and March 20, 2008 in conjunction with the Diamond Springs Parkway Project (MBA 2008b). The delineation identified 0.07 acre of potentially federally jurisdictional roadside ditch that exist within the EID study area. These features collect stormwater and nuisance runoff from SR-49 and channel it north to Weber Creek, which is a Relatively Permanent Water (RPW) and is tributary to the American River, a Traditionally Navigable Water (TNW).

PROTECTED TREES

El Dorado County finalized an Oak Woodland Management Plan (OWMP) in May 2008. Because the project is not expected to require tree removal, the policies of the OWMP would not apply. However, should tree removal be required in order to construct the project, EID would be required to revisit the policies of the OWMP to ensure compliance.

Regulatory Setting

REGULATION OF SPECIAL-STATUS SPECIES

Federal Regulations

Federal Endangered Species Act

The USFWS administers the federal ESA, which provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The ESA defines as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its known geographic range. A "threatened" species is a species that is likely to become endangered. A "proposed" species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

Under Section 9 of the ESA, "take" of threatened or endangered species is prohibited. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species in a project site generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under ESA regulations, USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

State Regulations

CEQA Guidelines Section 15380

Threatened and endangered species are protected by specific federal and state statutes. In addition, CEQA Guidelines Section 15380 provides that a species not listed on the federal or state lists of threatened or endangered species may be considered rare or endangered under CEQA review if the species can be shown to meet certain specified criteria. This section was included in the CEQA Guidelines primarily to deal with situations in which a public agency is reviewing a project site that may have a significant impact on, for example, a "candidate species" that has not yet been listed under FESA or CESA. Therefore, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agency has an opportunity to formally designate the species as protected, if warranted.

Sensitive plant species are afforded protection under CEQA through the CNPS inventory of rare, threatened, and endangered plants of California. The CNPS is a California resource conservation organization that has developed an inventory of California's sensitive plant species. This inventory summarizes information on the distribution, rarity, and endangerment of California's vascular plants. The inventory is divided into four lists based on the rarity of the species. In addition, CNPS provides an inventory of plant communities that are considered sensitive by state and federal resource agencies, academic institutions, and various conservation groups. The level of sensitivity is determined by the number and size of remaining occurrences as well as recognized threats.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States (U.S.) except the house sparrow, starling, pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs. In addition, disturbance to an occupied nest is considered "take" under this act.

California Fish and Game Code - Section 3503 and Section 3511

CDFG administers the California Fish and Game Code. Under Section 3503 of the Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird that is protected under MBTA. The Code Section 3503.5 further protects all birds in the orders Falconiformes and Strigiformes, birds of prey such as hawks and owls, and their eggs and nests from any form of take. Section 3511 lists fully protected bird species for which CDFG is unable to authorize the issuance of permits or licenses to take these species.

REGULATION OF WATERS AND WETLANDS

Federal Regulations

U.S. Army Corps of Engineers

The USACE regulates the discharge of dredge or fill material including, but not limited to, grading, placing of rip-rap for erosion control, pouring concrete, laying sod, and stockpiling excavated material. Activities that generally do not involve a regulated discharge, if performed specifically in a manner to avoid discharges, include driving pilings, drainage channel maintenance, temporary mining and farm/forest roads, and excavating without stockpiling.

Federal Clean Water Act - Section 404

USACE administers Section 404 of the federal Clean Water Act (CWA). This section regulates the discharge of dredge and fill material into waters of the U.S. USACE has established a series of nationwide permits that authorize certain activities in waters of the U.S., if a proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acre of waters of the U.S. Projects that result in impacts to less than 0.5 acre or 300 feet of stream channel can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

Waters of the United States

Waters of the U.S., as defined in the Code of Federal Regulations (CFR) Section 328.3, include all waters or tributaries to waters such as lakes, rivers, intermittent and perennial streams, mudflats, sand-flats, natural ponds, wetlands, wet meadows, and other aquatic habitats. Frequently, waters of the U.S., with at least intermittently flowing water or tidal influences, are demarcated by an ordinary high water mark (OHWM). The OHWM is defined in CFR Section 328.3(e) as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. In this region, the OHWM is typically indicated by the presence of an incised streambed with defined bank shelving.

Wetlands

According to the USACE Wetlands Delineation Manual, Technical Report, three criteria must be satisfied to classify an area as a jurisdictional wetland:

1. A predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation)
2. Soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils)
3. Permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology)

Wetland vegetation is characterized by vegetation in which more than 50 percent of the composition of dominant plant species are obligate wetland, facultative wetland, and/or facultative species that occur in wetlands. As a result of the 2001 Solid Waste Agency of North Cook County case, a wetland must show connectivity to a stream course in order for such a feature to be considered jurisdictional. More recently, subsequent to the U.S. Supreme Court decision in *Rapanos, et al v. United States* (2006) the Environmental Protection Agency (EPA) and USACE issued a joint memorandum (*Clean Water Act Jurisdiction Following Rapanos v. United States*, June 5, 2007), which determined that a jurisdictionally significant nexus exists if a tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological integrity of a navigable water.

Resulting from this decision, EPA and USACE will not assert jurisdiction over the following geomorphic features:

- "Swales or erosional features (e.g., gullies small washes characterized by low volume, infrequent or short duration flows)
- "Ditches (including roadsides ditches) excavated wholly in and draining only uplands that do not carry relatively permanent water flows"

REGIONAL REGULATIONS

Regional Water Quality Control Boards

Under Section 401 of the CWA, RWQCBs also regulate all activities that require permits from USACE. Additionally, under the Porter-Cologne Water Quality Act, RWQCBs regulate all activities, including dredging, filling, or discharge of materials into waters of the State that are not regulated by USACE, due to a lack of connectivity with a navigable water body and/or lack of an OHWM.

Clean Water Act - Section 401

Pursuant to Section 401 of the CWA, "any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act." Therefore, before USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from their RWQCB.

Porter-Cologne Water Quality Act

RWQCBs regulate actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state" (Water Code Section 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050 (e)).

STATE REGULATIONS

California Department of Fish and Game Regulations

California Fish and Game Code - Section 1600 to Section 1603

The CDFG Code mandates that "it is unlawful for any person to 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, without first notifying the department of such activity." CDFG jurisdiction includes ephemeral, intermittent, and perennial watercourses, including dry washes, characterized by the presence of hydrophytic vegetation, a definable bed and bank, and the presence of existing fish or wildlife resources.

Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear, but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be considered jurisdictional. However, CDFG does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake.

RECOMMENDATIONS

Special-Status/Protected Wildlife Species

Construction of the project may impact special-status bird species, other migratory songbirds, and raptor species. If construction occurs during the nesting season, which typically runs from March 1 through October 1, pre-construction nesting bird surveys are required. Pre-construction surveys for active nests shall be conducted within 250 feet of the project site. If an active nest is located, CDFG shall be consulted to determine if project site construction may proceed during the nesting season.

Wetlands

A jurisdictional wetland delineation has been conducted and a wetland delineation report has been prepared. Once finalized, the report will be submitted to the USACE for verification.

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Thank you for the opportunity to assist you with your project needs. Please contact me if you have any questions or require additional information about this report. I can be reached at the contact information provided below.

Sincerely,

Deborah Stout

Michael Brandman Associates
Deborah Stout
Ecologist/Botanist/ISA Certified Arborist
916.447.1100
dstout@brandman.com

Attachment A

CNDDB Query Results

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait
2849.0004 9-quad query results (Placerville)

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	Accipiter gentilis northern goshawk	ABNKC12060			G5	S3	SC
2	Actinemys marmorata marmorata northwestern pond turtle	ARAAD02031			G3G4T3	S3	SC
3	Agelaius tricolor tricolored blackbird	ABPBXB0020			G2G3	S2	SC
4	Allium jepsonii Jepson's onion	PMLIL022V0			G1	S1.2	1B.2
5	Arctostaphylos nissenana Nissenan manzanita	PDERI040V0			G2	S2.2	1B.2
6	Ardea alba great egret	ABNGA04040			G5	S4	
7	Calochortus clavatus var. avius Pleasant Valley mariposa-lily	PMLIL0D095			G4T3	S3.2	1B.2
8	Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1.1	1B.1
9	Ceanothus roderickii Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G2	S2.1	1B.2
10	Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA			G?	SNR	
11	Central Valley Drainage Resident Rainbow Trout Stream	CARA2421CA			G?	SNR	
12	Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020			G2	S2.2	1B.2
13	Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053			G4G5T2	S2.2	1B.2
14	Cosumnoperla hypocrena Cosumnes spring stonefly	IIPLE23020			G1	S1	
15	Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1.2	1B.2
16	Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1.2	1B.2
17	Helianthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0			G2Q	S2.2	3.2
18	Horkelia parryi Parry's horkelia	PDROS0W0C0			G2	S2.2	1B.2
19	Lasionycteris noctivagans silver-haired bat	AMACC02010			G5	S3S4	
20	Myotis yumanensis Yuma myotis	AMACC01020			G5	S4?	
21	Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2.1	1B.2
22	Phrynosoma coronatum (frontale population) coast (California) horned lizard	ARACF12022			G4G5	S3S4	SC
23	Rana boylii foothill yellow-legged frog	AAABH01050			G3	S2S3	SC

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24	Sacramento-San Joaquin Foothill/Valley Ephemeral Stream	CARA2130CA			G?	SNR	
25	Viburnum ellipticum oval-leaved viburnum	PDCPR07080			G5	S2.3	2.3
26	Wyethia reticulata El Dorado County mule ears	PDAST9X0D0			G2	S2.2	1B.2

Attachment B

Official List, U.S. Fish and Wildlife Service

These buttons will not appear on your list.

<- Revise Selection

Print this page

Make Official Letter ->

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 081012052923

Database Last Updated: January 31, 2008

Quad Lists

Listed Species

Invertebrates

- Desmocerus californicus dimorphus
  - valley elderberry longhorn beetle (T)

Fish

- Hypomesus transpacificus
  - delta smelt (T)
- Oncorhynchus mykiss
  - Central Valley steelhead (T) (NMFS)
- Oncorhynchus tshawytscha
  - Central Valley spring-run chinook salmon (T) (NMFS)
  - winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

- Rana aurora draytonii
  - California red-legged frog (T)

Plants

- Senecio layneae
  - Layne's butterweed (=ragwort) (T)

Quads Containing Listed, Proposed or Candidate Species:

PLACERVILLE (510A)

County Lists

No county species lists requested.

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or may be affected by projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.
- During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.
- Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our critical habitat page for maps.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be January 10, 2009.

Attachment C

California Native Plant Society Online Inventory Query Results

CNPS Inventory of Rare and Endangered Plants

Status: Plant Press Manager window with 14 items - Mon, Oct. 13, 2008 11:58 c

Reformat list as: Standard List - with Plant Press controls

ECOLOGICAL REPORT

scientific	family	life form	blooming	communities	elevation	CNPS
Allium jepsonii	Liliaceae	perennial bulbiferous herb	Apr-Aug	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/serpentinite or volcanic	300 - 1320 meters	List 1B.2
Arctostaphylos nissenana	Ericaceae	perennial evergreen shrub	Feb-Mar	•Closed-cone coniferous forest (CCFrs) •Chaparral (Chprl)/rocky	450 - 1100 meters	List 1B.2
Calochortus clavatus var. avius	Liliaceae	perennial bulbiferous herb	May-Jul	•Lower montane coniferous forest (LCFrs)(Josephine silt loam and volcanic)	305 - 1800 meters	List 1B.2
Calystegia stebbinsii	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	•Chaparral (Chprl) (openings) •Cismontane woodland (CmWld)/gabbroic or serpentinite	185 - 730 meters	List 1B.1
Ceanothus roderickii	Rhamnaceae	perennial evergreen shrub	Apr-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld)/serpentinite or gabbroic	260 - 630 meters	List 1B.2
Chlorogalum grandiflorum	Liliaceae	perennial bulbiferous herb	May-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/serpentinite, gabbroic and other soils	245 - 1170 meters	List 1B.2
Clarkia biloba ssp. brandegeeae	Onagraceae	annual herb	May-Jul	•Chaparral (Chprl) •Cismontane woodland (CmWld)/often roadcuts	73 - 915 meters	List 1B.2
Fremontodendron decumbens	Sterculiaceae	perennial evergreen shrub	Apr-Jul	•Chaparral (Chprl) •Cismontane woodland (CmWld)/gabbroic or serpentinite, rocky	425 - 760 meters	List 1B.2
Galium californicum ssp. sierrae	Rubiaceae	perennial herb	May-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/gabbroic	100 - 585 meters	List 1B.2

Helianthemum suffrutescens	Cistaceae	perennial evergreen shrub	Apr-Jun	•Chaparral (Chprl) (often serpentinite, gabbroic, or Ione soil)	45 - 840 meters	List 3.2
Horkelia parryi	Rosaceae	perennial herb	Apr-Sep	•Chaparral (Chprl) •Cismontane woodland (CmWld)/Ione formation and other soils	80 - 1035 meters	List 1B.2
Packera layneae	Asteraceae	perennial herb	Apr-Aug	•Chaparral (Chprl) •Cismontane woodland (CmWld)/serpentinite or gabbroic, rocky	200 - 1000 meters	List 1B.2
Viburnum ellipticum	Caprifoliaceae	perennial deciduous shrub	May-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)	215 - 1400 meters	List 2.3
Wyethia reticulata	Asteraceae	perennial herb	Apr-Aug	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/clay or gabbroic	185 - 630 meters	List 1B.2

Attachment D

Summary of Special-Status Species Review

Scientific Name **Common name**	**Listing Status USFWS/ CDFG/CNPS**	**General Habitat Description**	**Potential for Presence**	**Period of Identification***
PLANTS				
Allium jepsonii Jepson's onion	--/--/1B.2	Chaparral, cismontane woodland, and lower montane coniferous forest. Restricted to serpentinite or volcanic soils. 300-1,320 meters in elevation.	**None.** The project study area is a developed highway; no suitable habitat for this species is present. There is a CNDDB-recorded occurrence of this species approximately 5 miles west of the EID study area (CNDDB 2008).	May - August
Arctostaphylos nissenana Nissenan manzanita	--/--/1B.2	Rocky areas in closed-cone coniferous forest and chaparral. 450-1,100 meters in elevation.	**None.** The project study area is a developed highway; no suitable habitat for this species is present. There are several CNDDB-recorded occurrences of this species south and east of the EID study area (CNDDB 2008).	February - March
Calochortus clavatus var. *clavatus* Pleasant Valley mariposa lily	--/--/1B.2	Lower montane coniferous forest in Josephine silt loam and volcanic soils. 305-1,800 meters in elevation.	**None.** The EID study area does not contain lower montane coniferous forest. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	May - July
Calystegia stebbinsii Stebbins morning glory	FE/CE/1B.1	Chaparral, cismontane woodland. On red clay soils of the pine hill formation; gabbro or serpentine, open areas. 180-725 meters in elevation.	**None.** The EID study area does not contain gabbroic or serpentine soils. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April – July
Ceanothus roderickii Pine Hill ceanothus	FE/CR/1B.2	Chaparral, cismontane woodland. Gabbroic soils; often-in "historically disturbed" areas with an ensemble of other rare plants. 260-630 m meters in elevation.	**None.** The EID study area does not contain gabbroic soils. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - June
Chlorogalum grandiflorum Red Hills soaproot	--/--/1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. Occurs on both serpentine and gabbro substrates; often on "historically disturbed" sites. 240-760 meters in elevation.	**None.** The EID study area does not contain gabbroic or serpentine soils. There is a CNDDB-recorded occurrence of this species approximately four miles southwest of the EID study area (CNDDB 2008).	May - June
Clarkia biloba ssp. *brandegeeae* Brandegee's clarkia	--/--/1B.1	Chaparral, cismontane woodland. Often in roadcuts. 295-885 meters in elevation.	**None.** The project study area is a developed highway; no suitable habitat for this species is present. There is a CNDDB-recorded occurrence of this species approximately 5 miles northeast of the EID study area (CNDDB 2008).	May - July
Fremontodendron decumbens Pine hill flannelbush	FE/CR/1B.2	Chaparral, cismontane woodland. Rocky ridges; gabbro or serpentine endemic; often among rocks and boulders. 420-685 meters in elevation.	**None.** The EID study area does not contain gabbroic or serpentine soils. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - July

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Galium californicum ssp. *sierrae* El Dorado bedstraw	FE/CR/1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. More often in pine-oak woodland than in chaparral; restricted to gabbroic soils. 100-585 meters in elevation.	**None.** The EID study area does not contain gabbroic soils. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	May - June
Helianthemum suffrutescens Bisbee Peak rush-rose	--/--/3.2	Chaparral. Often on serpentine, gabbroic, or ione formation soils; in openings in chaparral. 45-610 meters in elevation.	**None.** The project study area is a developed highway; no suitable habitat for this species is present. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - June
Horkelia parryi Parry's horkelia	--/--/1B.2	Chaparral and cismontane woodlands, especially on the Ione formation. 30 to 1,035 meters in elevation.	**None.** The project study area is a developed highway; no suitable habitat for this species is present. There is a CNDDB-recorded occurrence of this species approximately 2 miles northwest of the EID study area (CNDDB 2008).	April – September
Packera layneae Layne's ragwort	--/--/1B.1	Chaparral, cismontane woodland. Ultramafic soil; occasionally along streams. 200-1000 meters in elevation .	**None.** The EID study area does not contain ultramafic soils. There is a CNDDB-recorded occurrence of this species approximately 2 miles east of the EID study area (CNDDB 2008).	April - August
Viburnum ellipticum Oval-leaved viburnum	--/--/2.3	Chaparral, cismontane woodland, and lower montane coniferous forest. 215-1,400 meters in elevation.	**None.** The project study area is a developed highway; no suitable habitat for this species is present. There is a CNDDB-recorded occurrence of this species approximately 2 miles northwest of the EID study area (CNDDB 2008).	May - June
Wyethia reticulata El Dorado County mule ears	--/--/1B.2	Chaparrals, cismontane woodland, lower montane coniferous forest. Stony red clay and gabbroic soils; often in openings in gabbro chaparral. 180-630 meters in elevation .	**None.** The EID study area does not contain stony red clay or gabbroic soils. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - July
ANIMALS				
INVERTEBRATES				
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT/--	Occurs only in the central valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**None.** No elderberry shrubs were observed during the field assessment. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	March - June
FISH				
Hypomesus transpacificus Delta smelt	FT/CT	Restricted to the Sacramento-San Joaquin Delta.	**None.** The EID study area is outside of the known range of this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Consult agency

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Oncorhynchus mykiss Central Valley steelhead	FT/--	The Sacramento and San Joaquin rivers and their tributaries.	**None.** The EID study area does not contain aquatic habitat suitable for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Consult agency
Oncorhynchus tshawytscha Central Valley spring-run Chinook salmon	FT/CT	The Sacramento and San Joaquin Rivers and their tributaries.	**None.** The EID study area does not contain aquatic habitat suitable for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Consult agency
AMPHIBIANS				
Rana aurora draytonii California red-legged frog	FT/CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to aestivation habitat.	**Low.** There are no permanent sources of deep water within the EID study area. However, Weber Creek is considered suitable breeding habitat, and this species disperses overland during the wet season. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	January – February (adult visual survey)
Rana boylii Foothill yellow-legged frog	--/CSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	**None.** There are no permanent sources of deep water within the EID study area. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	January - February (adult visual survey)
REPTILES				
Actinemys marmorata marmorata Northwestern pond turtle	--/CSC	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nests sites may be found up to 0.5 km from water.	**None.** There is no permanent or nearly permanent water within the EID study area. There are several CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round (for adults in aquatic environment)
Phrynosoma coronatum (frontale population) Coast horned lizard	--/CSC	Several habitat types including open shrublands, clearings in riparian woodlands, chamise chaparral, annual grassland; typically in sandy or gravelly soils.	**None.** The EID study area does not contain open shrublands or clearings in riparian woodlands, chaparral, or annual grassland habitats. Open habitats within the alignment are barren and/or highly compacted resulting from soil removal during past mining operations. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round
BIRDS				
Accipiter gentilis Northern goshawk	--/SC	Casual throughout most of the state; resident in portions of the Sierra Nevada, Cascade, and Klamath ranges and some southern mountains. Breeds in dense, mature conifer and deciduous forests, interspersed with meadows, other openings and riparian areas; nesting habitat includes north-facing slopes near water.	**None.** The EID study area and vicinity does not contain suitable nesting or foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round

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Accipiter striatus Sharp-shinned hawk	--/CSC	Winter resident throughout much of the state; permanent at higher elevations. Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers but is not restricted to riparian habitats.	**Moderate.** Blue oak-foothill pine and riparian habitats adjacent to the EID study area are suitable for nesting and foraging by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round
Agelaius tricolor Tricolored blackbird	--/CSC	Colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area within 4 miles of nesting area. Breeding territory approximately is 3 square meters per pair; minimum colony size is approximately 50 pairs.	**None.** The EID study area does not contain fresh emergent wetland habitat. There is a CNDDB-recorded occurrence of this species approximately 4 miles northwest of the EID study area (CNDDB 2008).	April - July
Aquila chrysaetos Golden eagle	--/CSC,CFP	Breeds on cliffs or in large trees or electrical towers, forages in open habitats.	**None.** The EID study area does not contain suitable breeding or foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round
Asio flammeus Short-eared owl	--/CSC	Widespread winter migrant. Breeding range includes coastal areas in Del Norte and Humboldt counties, the San Francisco Bay Delta, northeastern Modoc plateau, the east side of the Sierra from Lake Tahoe south to Inyo county, and the San Joaquin valley. Found in open, treeless areas with elevated sites for perching and dense vegetation for roosting and cover.	**None.** Open, treeless areas are not present within the EID study area. The species does not breed within the region. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round
Asio otus Long-eared owl	--/CSC	Breeding resident throughout much of the state. Found in dense riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats; also found in dense conifer stands at higher elevations.	**None.** There is no dense riparian woodland or liver oak thickets in proximity to the project study area. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round
Athene cunicularia Burrowing owl	--/CSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester; dependent upon burrowing mammals (e.g., California ground squirrel).	**None.** There is no suitable habitat for this species within or adjacent to the project study area. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Feb 1 – Aug 31 And Dec 1 – Jan 31
Buteo regalis Ferruginous hawk	--/CSC	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon-juniper habitats. Eats mostly lagomorphs (hares, rabbits, pikas), ground squirrels, and mice. Population trends may follow lagomorph's population cycles.	**None.** The project study area is not located within open grasslands, sagebrush flats, or other habitats suitable for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	September - April

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Chaetura vauxi Vaux's swift	--/CSC	Common migrant throughout the state; summer resident in the north. Nests in large, hollow trees and snags in coniferous forest habitats. Often nests in flocks.	**None.** The project study area is not located within coniferous forest habitats. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	May - August
Circus cyaneus Northern harrier	--/CSC	Winter resident throughout most of the state; year-round in the Central Valley and Coast Range. Forages in marshes, grasslands, and ruderal habitats; nests in extensive marshes and wet fields or grasslands.	**None.** There are no extensive open areas for foraging or wetland habitats for nesting. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - September (breeding)
Cypseloides niger Black swift	--/CSC	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above surf.	**None.** The project study area does not contain and is not adjacent to any cliffs or deep canyons. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	June - August
Dendroica petechia brewsteri Yellow warbler	--/CSC	Requires riparian thickets of willow and other brushy tangles near watercourses for cover. Nests in dense shrubs along a stream or river.	**None.** The project study area is not located within riparian habitat. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - September
Elanus leucurus White-tailed kite	--/CFP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Moderate.** The project study area is located within blue oak-foothill pine habitat that is suitable for nesting by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	January – August (breeding)
Falco columbarius Merlin	--/CSC	Uncommon winter migrant. Seldom found in heavily wooded areas or open deserts. Frequents open habitats at low elevations near water and tree stands. Favors coastlines, lakeshores, and wetlands. Ranges from annual grasslands to ponderosa pine and montane hardwood-conifer habitats.	**Moderate.** The project study area is located within blue oak-foothill pine habitat that is suitable for nesting by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	September - May
Falco mexicanus Prairie falcon	--/CSC/	Year-round resident throughout much of the state; winters in the Central Valley and along the coast. Occurs in open habitats such as grasslands, desert scrub, rangelands and croplands. Nests in a scrape on a sheltered ledge of a cliff overlooking a large, open area.	**None.** The EID study area does not provide suitable nesting or foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round
Icteria virens Yellow-breasted chat	--/CSC	Breeds in riparian habitats having dense understory vegetation, such as willow and blackberry.	**None.** The EID study area is not located within riparian habitat. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - July

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Lanius ludovicianus Loggerhead shrike	--/CSC	Found in a variety of habitats with open areas, available perches, and dense shrubs for nesting.	**Moderate.** The EID study area is located within blue oak – foothill pine habitat that is suitable nesting and foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	March - August
Phalacrocorax auritus Double-crested cormorant	--/CSC	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	**None.** The EID study area is not located within habitat that is suitable for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April – August (breeding)
Progne subis Purple martin	--/CSC	An uncommon to rare, local summer resident in a variety of wooded, low-elevation habitats throughout the state; a rare migrant in spring and fall, absent in winter. Breeding habitat includes old-growth, multi-layered, open forest and woodland with snags; forages over riparian areas, forest, and woodlands	**Low.** The EID study area is located within blue oak – foothill pine habitat that is suitable nesting and foraging habitat for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - September
MAMMALS				
Antrozous pallidus Pallid bat	--/CSC	Broadly distributed in California from sea level to over 6,000 feet. Roosts in caves, buildings, rock crevices, and tree hollows. Overwinters in summer habitats at lower elevations.	**Moderate.** Riparian and blue oak-foothill pine habitats adjacent to the EID study area may provide suitable maternity roosts for this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - October
Bassariscus astutus Ringtail	--/FP	Widely distributed, common to uncommon permanent resident. Occurs in various riparian habitats and in brush stands of most forest and shrub habitats at low to middle elevations. Nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat nests.	**None.** The EID study area is not located within riparian habitat. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round
Corynorhinus townsendii Townsend's big-eared bat	--/CSC	Roosts in colonies in caves, mines, tunnels, or buildings in mesic habitats. The species forages along habitat edges, gleaning insects from bushes and trees. Habitat must include appropriate roosting or hibernacula sites free from disturbance by humans.	**None.** The EID study area does not contain caves, mines, tunnels, or undisturbed buildings suitable for roosting by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Consult agency
Euderma maculatum Spotted bat	--/CSC	In north and central California from the low Sierra Nevada foothills east. From Ventura Co. south occurs throughout. Prominent rock features required for roosting. It is unknown whether species migrates or hibernates locally.	**None.** The EID study area does not contain prominent rock features suitable for roosting by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - October

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Eumops perotis californicus Greater western mastiff-bat	--/CSC	From central to southern California. Low elevations in the coastal basins of southern California. Rugged, rocky areas with suitable crevices for roosting, or human-made structure.	**None.** The EID study area does not contain rugged, rocky areas or undisturbed buildings suitable for roosting by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	April - October
Lasionycteris noctivagans Silver-haired bat	--/CSC	Primarily a coastal and montane forest dweller feeding over streams, ponds and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes and rarely under rocks. Needs drinking water.	**Moderate.** Blue oak-foothill pine and riparian habitat adjacent to the EID study area may provide suitable roosting habitat for this species. There is a CNDDB-recorded occurrence of this species approximately 2 miles north of the EID study area.	April - October
Taxidea taxus American badger	--/CSC	Herbaceous, shrub, and open stages of most habitats with dry, friable soils. Minimum reported home range size is approximately 350 acres.	**None.** The EID study area does not contain open habitat of the areal extent required by this species. There are no CNDDB-recorded occurrences of this species within 5 miles of the EID study area (CNDDB 2008).	Year-round