BIOLOGICAL TECHNICAL REPORT UPDATE: PROPOSED MARTIN RANCH PROJECT, SAN BERNARDINO CALIFORNIA

Prepared for:
LILBURN CORPORATION
1905 Business Center Dr., San Bernardino, CA 92408
(909) 890-1818 lilsb@gte.net

Prepared by:
Scott D. White, WHITE & LEATHERMAN BIOSERVICES
99 East C St., No. 206, Upland, CA 91786
(909) 949-3686 swhite@cyberg8t.com

5 December 2002

Scott D. White 5 Dec 2002

INTRODUCTION

The City of San Bernardino is considering approval of a residential development called Martin Ranch in the San Bernardino Mountain foothills east of Devore. Potential project impacts to biological resources have been addressed in a report prepared by PCR Services Corporation (1999). This report is provided to update information in the PCR report, and to provide specific responses to several comments to the project EIR prepared by Environmental Service Associates on behalf of the City of San Bernardino.

METHODS

Scott D. White reviewed available literature to identify special status plants, animals, or plant communities known from the project site and vicinity. Literature reviewed included the California Natural Diversity Data Base (CNDDB 2002), California Native Plant Society's *Inventory of Rare and Endangered Vascular Plants of California* (Tibor 2001), maps of designated critical habitat for California gnatcatcher and San Bernardino kangaroo rat provided by the US Fish and Wildlife Service, and compendia of special status species published by the US Fish and Wildlife Service (1999) and California Department of Fish and Game (2002a, 2002b). Appendix 1 lists special status species known from comparable habitats within the region and summarizes their natural history, agency status, and occurrence probability on-site.

PCR (1999) completed focused surveys to determine presence or absence of listed threatened or endangered species including: (1) San Bernardino kangaroo rat, (2) California gnatcatcher, (3) slender-horned spineflower, and (4) Santa Ana River woollystar, and determined that each species is absent from the site. Methods and results are provided in their report.

PCR reported that California red-legged frog (*Rana aurora draytonii*) was absent, but did not review its habitat requirements. PCR did not address mountain yellow-legged frog (*Rana muscosa*). We provide additional data on both species here.

California red-legged frog is federally listed as a threatened species. It can occur in a variety of aquatic habitats (marshes, streams, lakes, reservoirs, ponds) in forests, woodlands, or grasslands (Stebbins 1985). More specifically, its habitat is characterized by dense, emergent or shrubby riparian vegetation associated with deep (> 0.7m), still or slow-moving water (Hayes and Jennings 1988). California red-legged frog populations probably cannot persist in ephemeral streams where there is no surface water during dry seasons (Jennings and Hayes 1994). In summer months, adults are usually found close to a pond or a deep pool in a creek where emergent vegetation, undercut banks, or partially submerged root masses afford shelter from predators. They also occur in seeps or springs within grasslands. Adult red-legged frogs are strictly nocturnal. The known elevational range extends from near sea level to about 4500 feet (Jennings and Hayes 1994). They breed during winter and spring, from late November to late April (Jennings and Hayes 1994). Egg masses are usually attached to emergent vegetation. Larvae (tadpoles) are infrequently observed in the field because they are often hidden in submerged vegetation; however, juvenile frogs spend much of their time basking in the warm surface-water layer in areas with floating and submerged vegetation.

There are several historical red-legged frog occurrences in the Inland Empire and western San Bernardino Mountains, but all are now presumed extinct (Jennings and Hayes 1994). The only known extant locations in southern California are in Santa Barbara, Ventura, and northwestern Los Angeles Co. and a single population on the Santa Rosa Plateau (Riverside Co.).

Since completion of the PCR report, southern California populations of mountain yellow-legged frog have been listed by the US Fish and Wildlife Service (2002b) as threatened. The frog has disappeared from greater than 99 percent of its range in southern California (Jennings and Hayes 1994a), and is currently known from only seven small populations in the San Gabriel, San Bernardino, and San Jacinto Mountains (Backlin et al. 2002). They are apparently intolerant of introduced predatory fishes (Bradford et al. 1993, Knapp and Matthews 2000). Likely causes of decline include predation from introduced trout and other game fish, habitat destruction and development, and possibly other environmental effects (e.g., airborne contaminants, water quality etc.; USFWS 1999b).

In southern California, the mountain yellow-legged frog is a diurnal, highly aquatic species, occupying rocky streams with cool waters originating from springs and snowmelt. Historically, it ranged from roughly 1,300 to 7,500 feet (Jennings and Hayes 1994), but its currently known elevational range is from 2,500 to 6,000 feet (USFWS 1999b). It typically occurs in steep rock-walled canyons (Grinnel and Camp 1917) along high gradient streams in the chaparral belt (Zweifel 1955). Because of its highly aquatic nature, it only occurs in streams with permanent or nearly permanent water. Mountain yellow-legged frogs had not been observed in the San Bernardino Mountains since the 1970's (Jennings and Hayes 1994a,b) until a recently rediscovered population was found in City Creek in 1999.

Brian Leatherman visited the site to evaluate the habitat suitability for the California red-legged frog and mountain yellow-legged frog on 26 March 2002. He determined that suitable habitat for mountain yellow-legged frog, but not California red-legged frog, occurs along Cable Creek through the northwestern corner of the project site and upstream for at least one mile. We therefore surveyed for the mountain yellow-legged frog to determine its presence or absence.

We reviewed available literature on the mountain yellow-legged frog in the study region to determine if historic records for frogs exist for the project vicinity or region. Sources consulted for documentation of historical records for mountain yellow-legged frog included the California Natural Diversity Data Base (CDFG 2001), USFWS (2001), Stephenson and Calcarone (1999),

USFWS (1996), Jennings and Hayes (1994a), Jennings and Hayes (1994b), Zweifel (1955), and Grinnel and Camp (1917).

Because the mountain yellow legged frog was not listed until 3 July 2002, no standard guidelines for conducting focused surveys had been developed by the USFWS. Therefore, we developed a project specific survey protocol based on the frog's known life history traits in southern California to maximize the likelihood of detecting frogs, if present. The protocol included four focused surveys between 1 May and 30 September with at least two weeks between surveys, including at least one survey in September because recently metamorphosed juvenile frogs can be easily found in remnant pools along intermittent streams. Surveys were to be conducted between 1000 and 1500 hours depending on local weather conditions.

Focused surveys for mountain yellow-legged frogs were conducted by Brian Leatherman and Justin Wood, by walking slowly and methodically within and along the edge of the stream along about one to two miles on the Martin Ranch site and upstream. Certain portions of the creek that contained water during the assessment (in March) were dry during the focused surveys. One stretch of the creek, fed by a spring, maintained surface flows for several hundred yards; otherwise surface water continued to recede throughout the survey period. Our survey area was reduced over the season as surface water continued to recede. The focus of the surveys was on the detection and identification of mountain yellow-legged frogs, but all herpetofauna observed were noted. Survey dates, times and weather data for the surveys are shown in Table 1.

After the final focused survey on 19 September 2002, Leatherman and Wood visited the east fork of City Creek to confirm that mountain yellow-legged frogs could be located at this known reference site. Most of that creek was dry below the Highway 330 crossing. Upstream of the Highway 330 crossing, surface water persisted in occasional pools. We observed as many as eight tadpoles, ten recently metamorphosed juveniles, and one adult mountain yellow-legged frog within the pools.

Table 1. Survey Data for Focused Mountain Yellow-legged Frog Surveys at Martin Ranch

Date	Times	Air Temperature	Wind	Cloud Cover
3 June	1200 – 1600	76 – 77 °F	3 – 7 mph	Clear (after a.m. haze)
19 June	0930 – 1400	76 – 92 °F	3 – 8 mph	Clear to 50% high clouds
17 July	1030 – 1430	80 – 92 °F	0 – 6 mph	Clear, smoggy
19 September	1000 – 1330	85 °F	10 – 18 mph	Clear

RESULTS

Special Status Species

Plants or animals may be considered "sensitive" due to declining populations, vulnerability to habitat change, or restricted distributions. Certain sensitive species have been listed as threatened or endangered under state or federal Endangered Species Acts. Others are included in lists compiled by the California Dept. of Fish and Game, US Fish and Wildlife Service, or private conservation organizations. Special status plants and animals known from the general area and elevational range are listed in Appendix 1, with brief descriptions of their habitats, seasonality, agency status, and likelihood of occurring on the site. This compilation updates the special status species list provided by PCR (1999).

Special Status Plants: No state or federally-listed threatened or endangered plant species were observed on the project site. Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) and slender-horned spineflower (*Dodecahema leptocerus*) are the two listed species of particular importance for these surveys. Santa Ana River woollystar is a shrub which can be recognized year-around (even in years of poor rainfall) by its overall structure, leaf shape, and inflorescence form. It was not observed during PCR's field surveys. Due to an absence of wash habitat and the site's location above its known elevational range, we conclude that it is absent from the site.

Slender-horned spineflower is an ephemeral annual species and is difficult to find outside its flowering season and the few weeks that follow. In this year of exceptionally poor rainfall, its seeds may not have germinated. It occurs on mature alluvial deposits, long-undisturbed by flooding or other disturbance, generally with chaparral shrubs, but in open areas. It sometimes occurs with natural soil crusts of lichens and blue-green algae. It generally does not occur with high cover of annual grasses, though a few sites are exceptions to this generality. The most consistent habitat characteristics are the ages of the alluvial deposits (Wood, no date) and low salinity and nutrient availability (Allen 1996). The nearest recorded location is near the Devore Fire Station, about 1 mile west. Habitat on the project site is unlike typical spineflower habitat, since it generally is dominated by shrubland species typical of coastal sage scrub (rather than chaparral or alluvial shrublands) with relatively high cover and has been disturbed by previous agricultural uses (PCR 1999). Open areas between shrubs generally have high cover of weedy annual grasses. Chaparral shrubs are scattered through the area, but the alluvial soils do not support open chaparral vegetation with low annual grass cover among the shrubs, as is typical of slender-horned spineflower habitat. We conclude that the habitat is only marginally suitable for slender-horned spineflower and that there is a low probability that it may occur there, though it likely would not have germinated this year due to low rainfall.

Southern California black walnut (*Juglans californica* var. *californica*), a species on the California Native Plant Society's "watch list," occurs occasionally throughout the site, especially in and near the Cable Creek riparian area. Plummer's mariposa lily (*Calochortus plummerae*) occurs occasionally in shrublands near Cable Creek and perhaps elsewhere on the site.

A few other special status plants were not observed, but may occur with likelihoods ranging from low to high. Those with a moderate or greater probability of occurring on the site are: Parry's spineflower (*Chorizanthe parryi* var. *parryi*, moderate probability in open sites in shrublands), ocellated Humboldt lily (*Lilium humboldtii* var. *ocellatum*, high probability in riparian habitat along Cable Creek), California spineflower (*Mucronea californica,* moderate probability in open sites in shrublands), and California muhly grass (*Muhlenbergia californica,* high probability in riparian habitat along Cable Creek). Other sensitive plants known from the region occur in other habitat types, well above or below the site's elevation, or so distant that they are unlikely to occur on the study site.

Special Status Wildlife: Based on habitat, geographic range, elevation, and focused surveys completed by PCR (1999) and White and Leatherman (2002), we conclude that no state or federally-listed threatened or endangered wildlife species occur on the site. Several special status species not listed as threatened or endangered were detected during these surveys.

Fish: There is a low probability that Santa Ana sucker could occur in perennial surface water in Cable Creek, though no formal surveys have been completed. The site is within the watershed and historic elevational range, but well above the elevations of all known extant Santa Ana

sucker populations. There also is an unknown probability that Santa Ana speckled dace could occur in Cable Creek.

Amphibians: On the project site, the only habitat offering perennial surface water is the East Fork of Cable Creek. It is a high-gradient creek within a steep rock-walled canyon. The slopes are covered with late successional chaparral, and the riparian habitat consists of a well-developed multi-layered tree canopy and thick undergrowth. Dominant species in the canopy include white alder (*Alnus rhombifolia*), California bay (*Umbellularia californica*), western sycamore (*Platanus racemosa*) and a variety of arborescent and shrubby willows (*Salix* spp.). The understory is thick and impenetrable in some areas, but relatively open in others. Representative dominant species include poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), wild grape (*Vitis girdiana*) and a variety of herbs. The creek is a very shallow rocky stream lacking deep pools typically occurring in similar systems. Most of the reach surveyed appeared to have high silt content suggesting that flows have not been high enough in recent years to "blow out" sediments and maintain deeper clear pools.

A variety of human disturbances were evident along most of the creek. There is a trail immediately adjacent to the creek or just upslope (to the east) for most of the reach surveyed. Water pipelines (some defunct and others still functional) were observed at several locations; the largest was immediately below the active spring. We do not know the ultimate use of the diverted water. The trail is evidently maintained regularly by trimming vegetation, and a large white alder along the stream (estimated DBH 16 inches) was sawn down for no apparent reason between our second and third focused survey.

The area surveyed superficially appears to represent a healthy stream system, but does not support a diverse herpetofauna. We suspect that the combined effects of sedimentation, water diversion, and other human disturbance are responsible for the depauperate state of aquatic life.

This stream is well-vegetated, which would offer appropriate cover for California red-legged frogs. But the creek also flows at a fairly high gradient (thus, water flows rapidly), has no pools or deep riffles, it has been degraded by various human uses, and water is well below 0.7 m deep. For these reasons, we conclude that California red-legged frogs do not occur on the site.

No mountain yellow-legged frogs were observed during our focused surveys. In fact, no evidence of any stream-breeding amphibians was detected, and no two-striped garter snakes (*Thamnophis hammondii*), which can be very common in creeks such as this, were observed. The only herpetofauna observed included one western whiptail (*Cnemidophorus tigris*), three western fence lizards (*Sceloporus occidentalis*), and one snake that could not be positively identified, but may have been a ringneck snake (*Diadophis punctatus*) based on a brief look. For comparison, more aquatic life, including a two-striped garter snake, was observed in the single visit to City Creek than in all the surveys of Cable Creek combined.

Reptiles: Coastal western whiptail and San Diego horned lizard occur in shrublands on the project site and several other special status reptiles could occur, with probabilities ranging from moderate to high. These include San Diego banded gecko, California silvery legless lizard, rosy boa, San Bernardino ringneck snake, California glossy snake, coast patch-nosed snake, two-striped garter snake, and San Bernardino mountain kingsnake. None of these species is listed as threatened or endangered under state or federal Endangered Species Acts or meets criteria for listing; instead, they are generally regarded as species of special concern by the California Department of Fish and Game (see Appendix 1).

Birds: No listed threatened or endangered birds occur on the site (PCR 1999). Sensitive birds

observed on or near the site include Swainson's hawk (migratory but not resident), sharp-shinned hawk (winter but not breeding), rufous-crowned sparrow, Bell's sage sparrow, and Lawrence's goldfinch (all resident). Other special status birds, listed below, were not observed but could occur on the site or use it for foraging. These include burrowing owl (low probability, open places), loggerhead shrike (high probability, throughout), olive-sided flycatcher (migratory but not resident), cactus wren (resident), black-chinned sparrow (breeding season only), chipping sparrow, grasshopper sparrow, and black-chinned sparrow (all resident). None of these species is listed as threatened or endangered under state or federal Endangered Species Acts or meets criteria for listing; instead, they are generally regarded as species of special concern by the California Department of Fish and Game (see Appendix 1).

Many migratory birds, including some sensitive species, might use the site briefly during spring or fall; these include southwestern willow flycatcher, least Bell's vireo, yellow warbler, and yellow-breasted chat. Several sensitive raptors might forage over the site, particularly during winter, but do not nest on the site. These include white-tailed kite, northern harrier, golden eagle, ferruginous hawk, sharp-shinned hawk, Cooper's hawk, merlin, and prairie falcon.

Swainson's hawk is listed as threatened under the California Endangered Species Act. It is a migratory raptor, spending winters in South America. All known nesting locations are well to the north of San Bernardino County. Swainson's hawks regularly migrate through our area, but do not nest locally.

Northern harriers breed in low-lying shrubby or grassy areas and forage widely over open lands. They are migratory and occur regularly in southern California during winter. Breeding sites in California are generally described as coastal or interior marshes and wetlands (the species is also known as "marsh hawk"). In California, their breeding range is generally from central California northward and the southern limits of the breeding range are contracting northward (Johnsgard 1990). Historically, northern harriers have bred in the Inland Empire in the Lakeview, Corona and Chino areas (Grinnell and Miller 1944; Garrett and Dunn 1981). Northern harriers have been "almost eliminated" as a breeding species in southern California (Small 1994) though Unitt (1984) mapped several known and probable breeding locations in San Diego Co. The CNDDB reports no local breeding occurrences, and northern harrier is only considered a Species of Special Concern by CDFG in its breeding locations. No suitable marshy lowlands occur on the site. Northern harriers likely forage at the Martin Ranch site during winter and migration seasons, but they do not breed on or near the site.

Mammals: No listed mammals occur on the site, but several special status mammals were documented on the site during trapping surveys for San Bernardino kangaroo rat and other field work. These were: San Diego pocket mouse, Los Angeles pocket mouse, and San Diego desert woodrat. All three are California Species of Special Concern. San Diego pocket mouse and San Diego desert woodrat are relatively widespread in southern California and do not meet criteria for state or federal listing.

Los Angeles pocket mouse is poorly known, but apparently is nearly restricted to shrublands with sandy soils in the Inland Empire region (reviewed by Patten et. al. 1993). The Department of Fish and Game (2002a) indicates that is known from fewer than 6 occurrences, but qualifies this ranking with a question mark. Its populations seem to fluctuate widely, and it probably spends winters in a state of torpor; thus, it may often go undetected even on sites where it occurs. Its limited geographic range, occurrence in habitats subject to extensive ongoing land use conversions, and poorly known ecology support its status as a Species of Special Concern. Los Angeles pocket mouse often overlaps in its distribution and habitat with the listed endangered

San Bernardino kangaroo rat, and ongoing efforts to preserve this habitat will likely also favor long-term persistence of Los Angeles pocket mouse. Based on the present state of knowledge, Los Angeles pocket mouse does not meet criteria for state or federal listing.

White-eared pocket mouse (*Perognathus alticola alticola*) was historically known from the San Bernardino Mountains near Strawberry Peak, but has not been collected since 1938. They were apparently found in Jeffrey pine forests with bracken fern ground cover, and in mixed chaparral and sagebrush habitats. They are considered "probably extirpated" by the San Bernardino National Forest. All historic locations were at higher elevation than the Martin Ranch site, and were not found on the site or on the proposed alternate access route during nocturnal trapping surveys for other special status small mammals. We conclude that white-eared pocket mouse is absent from the project site.

Greater Western Mastiff Bat (*Eumops perotis*) occurs in open, semi-arid to arid woodlands and shrublands. They roost in cliff crevices, tall buildings, trees, and tunnels. Nursery sites are located in tight rock crevices at least 35 inches deep and 2 inches wide, or in crevices in buildings. They are nocturnal, foraging on insects in flight over rugged terrain. They are not migratory, and instead spend much of the winter in a hibernation-like state. No suitable nursery sites occur on the Martin Ranch property, but greater western mastiff bats could use trees on the site for roosting, and are likely to forage over the site at night.

Other special status mammals not seen during surveys but likely to use the site include San Diego black-tailed jackrabbit (high probability) and American badger (high probability, but uncommon). Also, several sensitive bats could use the site for foraging or roosting (Appendix 1).

PROJECT IMPACTS

Project approval and subsequent construction would result in subdividing most of the 330 acre Martin Ranch site for residential and recreational uses, while retaining (XX) acres as natural open space. Under CEQA Guidelines (California Code of Regulations 1999, sect.5065) a lead agency must conclude that a project would have a significant effect on the environment if any of the following would occur (italics added):

> (a) The project has the potential to substantially degrade the quality of the environment, *substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminage a plant or animal community, reduce the number or restrict the range or an endangered, rare, or threatened species*, or eliminate important examples of California history or prehistory.
>
> (b) The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
>
> (c) The project has possible environmental effects which are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of probable future projects as defined in Section 15130 [of CEQA].

CEQA guidelines (section 15380) provide several definitions of endangered, rare, or threatened as they apply here, including listing as threatened or endangered under either state or federal Endangered Species Acts or meeting criteria for listing, quoted below:

> (b) A species of animal or plant is:
>
> (1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation,

competition, disease, or other factors; or

(2) "Rare" when either:

(A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or

(B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

(c) A species of animal or plant shall be presumed to be endangered, rare or threatened, as it is listed in:

(1) Sections 670.2 or 670.5, Title 14, California Code of Regulations [i.e., state Endangered Species Act]; or

(2) Title 50, Code of Federal Regulations Section 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered.

(d) A species not included in any listing identified in subsection (c) shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet the criteria in subsection (b).

Thus, a species need not be listed as rare, threatened, or endangered to meet mandatory criteria for significance in terms of CEQA, but its rarity or vulnerability to extinction must be similar to listing criteria under the state and federal Endangered Species Acts. These criteria are generally met for species included on the Fish and Wildlife Service's list of "candidate" species (formerly "category 1 candidates") or in special cases where new information becomes available (e.g., when a previously unknown threat is identified or when a species formerly considered extinct is rediscovered). Adverse impacts to other special status plants and animals (e.g., the Department of Fish and Game's "species of special concern," or many of the California Native Plant Society's "List 1B" plants) generally do not meet these mandatory CEQA criteria for significance, though local agencies may apply less stringent criteria in judging significance. Thus, impacts to "species of special concern," or "List 1B" plants may be considered significant by local criteria.

Impacts to Sensitive Plants

Two sensitive plant species, California black walnut and Plummer's mariposa lily, were observed on the site. No other special status plants were observed during field surveys, but there is low probability that the endangered slender-horned spineflower could occur in coastal sage scrub on the site, and a few other special status plants have moderate or high probabilities of occurring on-site.

Impacts to slender-horned spineflower, if it occurs, would be considered significant in terms of CEQA. Impacts to the other species do not meet CEQA criteria for significance.

Impacts to Sensitive Wildlife

There is a low probability that Cable Creek could support the threatened fish, Santa Ana sucker. The project would not directly affect the Creek, and the only potential for adverse impacts would result from indirect effects such as increased sedimentation or human disturbance within the creek and adjacent riparian vegetation. The project description includes measures to prevent or minimize these disturbances. We conclude that potential impacts to Santa Ana sucker do not meet the CEQA criteria for mandatory findings of significant impacts, discussed above.

Shrublands and trees on the site are occupied by several special status wildlife species (coastal western whiptail, rufous-crowned sparrow, chipping sparrow, Lawrence's goldfinch, San Diego pocket mouse, Los Angeles pocket mouse, and San Diego desert woodrat) and there is potential for several others (San Diego banded gecko, California silvery legless lizard, San Diego

horned lizard, rosy boa, San Bernardino ringneck snake, California glossy snake, coast patch-nosed snake burrowing owl, loggerhead shrike, Bell's sage sparrow, grasshopper sparrow, black-chinned sparrow, San Diego black-tailed jackrabbit, American badger, and several sensitive bats). Project development would affect woodlands and shrublands by removing them from much of the site and replacing them with revegetated and replanted areas in remaining open space and common areas. These impacts would result in the loss of potential nesting or foraging habitat for these species throughout most of the site. The project would also result in increased noise and disturbance to the habitat and wildlife occurring in adjacent undisturbed areas due to increased vehicle traffic and human activity. None of the species occurring or potentially occurring have formal status under state or federal Endangered Species Acts and adverse impacts generally would not meet the CEQA criteria for mandatory findings of significance. One potential exception is the Los Angeles pocket mouse; while this animal does not clearly meet CEQA criteria for a mandatory finding of significance, its seeming rarity and narrow habitat and geographic ranges suggest that impacts may be regarded as significant. Project approval will result in an adverse impact to Los Angeles pocket mouse populations. We conclude that this impact will not meet CEQA criteria for mandatory findings of significance because available data do not demonstrate that pocket mouse's population status meets criteria for listing as threatened or endangered under state or federal Endangered Species Acts.

While the listed endangered San Bernardino kangaroo rat (PCR 1999) is absent from the site, we note that part of the site is within designated critical habitat for this animal. The project would result in loss of unoccupied but designated critical habitat. Without mitigation, loss of this habitat may be viewed by the US Fish and Wildlife Service (FWS) as "adverse modification," though it would not meet CEQA significance threshold described above. In its discussion of critical habitat, FWS (2002) identified four "primary constituent elements" of San Bernardino kangaroo rat habitat: (1) sandy or loamy soils, (2) alluvial scrub or associated vegetation, (3) landscapes subject to flooding processes, and (4) upland areas adjacent to such landscapes. The project site fulfills the first two elements, but no longer seems subject to significant flooding and is isolated from suitable active floodplains and terraces by the 215 Freeway (Dodd 2002). Due to its location east of the 215 Freeway and the active flood channel in Cajon Wash, the site also does not appear to provide a suitable linkage between occupied or suitable habitat areas.

POTENTIAL MITIGATION MEASURES AND MONITORING

Adverse impacts to slender-horned spineflower, if it occurs along the route, would be considered significant in terms of CEQA. Impacts to other special-status plants and animals would not meet CEQA significance criteria, but several measures might reasonably be taken (in addition to measures described in the Draft EIR) to minimize or mitigate impacts. These are listed below:

1. Pre-construction survey for slender-horned spineflower. If grading can be delayed until at least late spring 2003, then shrublands on the site can be surveyed again. Presuming that the 2003 rainfall year approaches average, then the follow-up survey will provide a substantial conclusion of present or absent for this plant. If the species occurs on the site then the applicant may wish to consider redesign to avoid the occurrence or other measures to mitigate adverse impacts.

2. Pre-construction survey and, if needed, forced dispersal of burrowing owls. Surveys and forced dispersal work should be completed by biologists familiar with techniques and in coordination

with California Department of Fish and Game biologists.

3. Prepare and implement a detailed revegetation plan to address all areas scheduled for native habitat restoration or revegeation. The plan should include (1) quantitative success criteria (vegetation cover, species richness, etc.), (2) recommendations for soil preparation, (3) a plant palette to include exclusively native species occurring on the site, both those to be planted as seeds and nursery stock, (4) planting methods, including densities and locations; lb. / acre of seed, etc., (5) irrigation and maintenance requirements, (6) monitoring plan over a minimum 5 year period, and (7) remedial actions to be required if success criteria are not met.

4. Contact the California Department of Fish and Game (CDFG) and Army Corps of Engineers (Corps) to determine whether proposed impacts to Cable Creek fall within the jurisdiction of either agency, under either Sections 1601-3 of the California Fish and Game Code or Section 404 of the federal Clean Water Act. If the Corps claims jurisdiction over the creek crossing, then they will be required to consult with the US Fish and Wildlife Service under Section 10 of the federal Endangered Species Act due to the potential for adverse modification to designated critical habitat for the endangered San Bernardino kangaroo rat, and potential adverse impacts to Santa Ana sucker. We recommend preparing a Habitat Conservation Plan to accompany the 404 application in order to mitigate any potential impacts to designated critical habitat.

5. In order to avoid incidental killing of birds protected under the Migratory Bird Treaty Act and the California Fish and Game Code, we recommend scheduling grading and brush removal of previously undisturbred habitat outside the breeding season (i.e., no vegetation removal should occur between early spring and mid summer).

Mitigation monitoring: California law requires monitoring for mitigation measures imposed under CEQA. Compliance with the mitigation measures recommended above could be verified by supplying a letter or report describing the follow-up plant survey and copies of correspondence with CDFG and the Corps to the Planning Department for approval prior to issuance of a grading permit.

CONCLUSION

CEQA requires the lead agency to reach findings regarding potentially significant impacts to biological resources. CEQA guidelines recommend addressing the six questions quoted below.

Would the project:

a) have a substantial adverse effect either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Yes. Loss of occupied habitat for special status species and suitable habitat not documented as occupied for other special status species would occur. One of the plant species (slender-horned spineflower) meets CEQA criteria for significance. Anticipated loss of other special status plants or wildlife could be regarded as substantial but impacts to these species generally do not meet significance criteria in terms of CEQA. Incorporation of the mitigation measures described above would partially offset these impacts.

b) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The project could indirectly affect a blueline perennial stream channel (Cable Creek). This effect to riparian habitat would probably be less than significant, but may require permitting through the California Department of Fish and Game or US Army Corps of Engineers. Construction would also affect coastal sage scrub throughout much of the site. This habitat is not occupied by California gnatcatcher or San Bernardino kangaroo rat, but part of the site is within designated critical habitat for the listed San Bernardino kangaroo rat. It probably is not occupied by slender-horned spineflower, though we cannot conclusively determine presence or absence due to the poor rainfall this year. This coastal sage scrub is somewhat degraded due to previous land uses. Impacts to designated critical habitat would be addressed through interagency consultation resulting from 404 permit application to the Corps of Engineers.

c) have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No direct impacts to jurisdictional wetlands would result from the proposed project. Indirect impacts to Cable Creek on site or direct impacts to its channel for the off-site secondary access route may meet state or federal jurisdiction and may be subject to permitting under Section 1601-3 of the state Fish and Game Code and Section 404 of the federal Clean Water Act. Implementing the mitigation measure recommend above would clarify agency jurisdiction. Impacts to the channel would not be significant in terms of CEQA.

d) interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No.

e) conflict with any local policies or ordinances protecting biological resources, such as a tree preserevation policy or ordinance?

White & Leatherman BioServices is unaware of any such conflict.

f) conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

White & Leatherman BioServices is unaware of any such conflict.

Literature Cited

Abrams, L. 1923, 1944, 1951. Illustrated Flora of the Pacific States, Volumes I-III. Stanford University Press, Stanford, California.

Abrams, L. and R.S. Ferris. 1960. Illustrated Flora of the Pacific States, Volume IV. Stanford University Press, Stanford, California.

Allen, E.B. 1996. Characterizing the habitat of slender-horned spineflower (Dodecahema leptocerus): Ecological analysis. Unpublished report prepared for California Dept. of Fish and Game, Long Beach, CA (distributed May 1997 by DFG Natural Heritage Division, Sacramento).

American Ornithologists' Union. 1983. Checklist of North American birds, sixth edition, and supplements through 1991. American Ornithologists' Union, Washington, D.C., and Auk (July issue, odd-numbered years).

Barbour, R.W. and W.H. Davis. 1969. Bats of America. University Press of Kentucky, Lexington, Kentucky.

California Department of Fish and Game. 2002a. Special animals. Unpublished report, California Department of Fish and Game Natural Diversity Data Base, Sacramento, California.

California Department of Fish and Game. 2002b. Special plants. Unpublished report, California Department of Fish and Game Natural Diversity Data Base, Sacramento, California.

California Natural Diversity Data Base. 2002. Rarefind (electronic records of sensitive species on the USGS 7.5' Cajon, Devore, San Bernardino North, and Silverwood Lake quads). Natural Heritage Division, California Department of Fish and Game, Sacramento, California.

County of San Bernardino. 1991. Open space: A plan of open space and trails for the County of San Bernardino (map). Planning Department, County of San Bernardino, San Bernardino, Calif.

Dodd, S. 2002. Letter to White and Leatherman BioServices, 2 April.

Erickson, R.A. and M.A. Patten. 1999. Identification and distribution of spiny pocket mice (*Chaetodipus*) in cismontane southern California. Southern Calif. Academy of Sciences Bulletin 98:57-65.

Garrett, K. and J. Dunn. 1981. Birds of Southern California: Status and Distribution. Los Angeles Audubon Society, Los Angeles, California.

Grinnell, J. and C. Camp. 1917. A distributional list of the amphibians and reptiles of California. University of California Publications in Zoology 17: 127-208.

Grinnell, J. and A.H. Miller. 1944. The Distribution of the Birds of California. Cooper Ornithological Club, Berkeley (1987 reprint Artemisia Press, Lee Vining, California).

Hall, E.R. 1981. The Mammals of North America. John Wiley and Sons, New York.

Hayes, M. and M. Jennings. 1988. Habitat correlates of distribution of the California red-legged frog (Rana aurora draytonii) and the foothill yellow-legged frog (Rana boylii): Implications for Management. In: Proceedings of the Symposium on the Management of Amphibians, Reptiles, and Small Mammals in North America. USDA Forest Service. pp. 144-158.

Hickman, J. (editor). 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, California.

Ingles, L. G. 1965. Mammals of the Pacific States. Stanford University Press, Stanford, California.

Jennings, M.R. and M.P. Hayes. 1994a. Amphibian and Reptile Species of Special Concern in California. California Department of Fish and Game, Sacramento.

Jennings, M. & M. Hayes. 1994b. Decline of native ranids in the desert southwest. Proceedings of a Symposium on the Herpetology of the North American Deserts. Southwestern Herpetologists Society. Special Publication No. 5.

Johnsgard, P.A. 1990. Hawks, eagles, and falcons of North America. Smithsonian Institution Press, Washington DC.

McKernan, R. L. 1997. The status and known distribution of the San Bernardino kangaroo rat (*Dipodomys merriami parvus*): field surveys conducted between 1987 and 1996. Unpublished report prepared for US Fish and Wildlife Service, Carlsbad, California.

Mullally, Don P. 1959. Notes on the natural history of *Rana muscosa* Camp in the San Bernardino Mountains. Herpetologica 15:78-80.

Munz, P.A. 1974. A Flora of Southern California. University of California Press, Berkeley.

Patten, M.A., S.J. Myers, C. McGaugh, and J.R. Easton. 1993. Los Angeles pocket mouse (*Perognathus longimembris brevinasus*). In Biology and management of rodents in southern California. Unpublished workshop materials, San Bernardino County Museum, Redlands, California.

PCR Services Corp. 1999. Biological Resources Assessment: Martin Ranch, San Bernardino, San Bernardino County, California. Unpublished report prepared for Dave Tanner and Associates (Newport Beach, CA) and submitted to City of San Bernardino.

Remsen, J.V. 1978. Bird species of special concern in California. Calif. Department of Fish and Game, Sacramento.

Small, A. 1994. California birds: their status and distribution. Ibis Publishing Company, Vista, California.

Stebbins, R.C. 1954. Amphibians and reptiles of western North America. McGraw-Hill, New York.

Stebbbins, R.C. 1985. Western reptiles and amphibians. Houghton Mifflin Company, Boston Mass.

Stephenson, J.R. and Calcarone, G.M. 1999. Southern California mountains and foothills assessment: habitat and species conservations issues. General technical Report GTR-PSW-172. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture.

Tibor, D. (ed.) 2001. Inventory of Rare and Endangered Vascular Plants of California. Calif. Native Plant Society, Sacramento.

Unitt, P. 1984. The birds of San Diego County. San Diego Society of Natural History, San Diego.

USDI Fish and Wildlife Service. 1999 (25 Oct.). Endangered and threatened wildlife and plants; review of plant and animal taxa that are candidates or proposed for listing as endangered or threatened species. Federal Register 64:57534-57547.

USDI Fish and Wildlife Service. 1999. Endangered and threatened wildlife and plants: Proposed endangered status for the southern California distinct vertebrate population segment of the mountain yellow-legged frog. Federal Register 64:71714-71722.

USDI Fish and Wildlife Service. 2000. Endangered and threatened wildlife and plants; Proposed designation of critical habitat for the California red-legged frog (*Rana aurora draytonii*). Federal Register 65:54892-54932.

USDI Fish and Wildlife Service. 2002a (23 Apr). Endangered and threatened wildlife and plants; final designation of critical habitat for the San Bernardino kangaroo rat. Federal Register 67:19812-19847.

USDI Fish and Wildlife Service. 2002b (2 Jul). Endangered and threatened wildlife and plants; determination of endangered status for the southern California distinct vertebrate population segment of the mountain yellow-legged frog (*Rana muscosa*). Federal Register 67:44382-44392.

Williams, D.F. 1976. Mammalian species of special concern in California. California Department of Fish and Game, Sacramento.

Wood, Y. and S.G. Wells. No date. Final report: Characterizing the habitat of slender-horned spineflower (Dodecahema leptocerus): Geomorphic analysis. Unpublished report prepared for California Dept. of Fish and Game, Long Beach, CA (distributed May 1997 by DFG Natural Heritage Division, Sacramento).

Zeiner, D.C., W.F. Laudenslayer and K.E. Mayer (editors). 1988, 1990. California's Wildlife: Vol. 1, Amphibians and Reptiles; Vol. 2, Birds; Vol. 3, Mammals. California Department of Fish and Game, Sacramento, California.

Zweifel, R. G. 1955. Ecology, distribution and systematics of frogs of the *Rana boylei* group. University of California Publications is Zoology 54: 209-292.

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Plants	Habitat and Distribution[1]	Flower season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Arenaria paludicola Marsh sandwort	Freshwater marsh and bogs, historically from Wash. thr. LA Co. & SW San Bern. Co.; only extant sites are in SLO Co.; below about 1000 ft. elev.	May - August	Fed: **END** Calif: S1.1 **END** CNPS: List 1B R-E-D:3-3-2	Absent (no suitable habitat)	None	No
Berberis nevinii (*Mahonia nevinii*) Nevin's barberry	Coastal sage scrub, chaparral, oak woodland, usually below 2000 ft.; scattered localities in LA, San Bernardino, Riverside, and San Diego Cos.	Spring; (can be IDd all year)	Fed: **END** Calif: 2.2, **END** CNPS: List 1B R-E-D:3-3-3	Absent (PCR survey results, outside known geogr. range)	None	No
Brodiaea filifolia Thread-leaved brodiaea	Vernal pools and alkali sink in inland valleys; upland mesic heavy clay soils near coast; hot spring soils at Arrowhead Hot Spr; scattered locations in S Calif. foothills and valleys (LA Co inland to San Bern., S to San Diego Cos.), below ±2000 ft. elev.	May - June	Fed: **THR** Calif: S2.1 **END** CNPS: List 1B R-E-D:3-3-3	Absent (no suitable soils or mesic habitat)	None	No
Brodiaea orcuttii Orcutt's brodiaea	Vernal pools, grasslands, springs, seeps, and streamsides; heavy soils; San Diego Co and Sta Rosa Plateau (SW Riverside Co.); below about 5200 ft. elev.	April - July	Fed: none Calif: S3.1 CNPS: List 1B R-E-D:1-3-2	Absent (far outside geographic range)	None	No
Calochortus palmeri var. *palmeri* Palmer's mariposa lily	Meadows and other sites where water available in spring, ±3900-7200 ft. elev.; S Coast Ranges, Transverse Ranges	May - June	Fed: none Calif: S2.1 CNPS: List 1B R-E-D:2-2-3	Absent (no suitable habitat)	None	No
Calochortus plummerae Plummer's mariposa lily	Chaparral, alluvial fans, pine forest, below ±5600 ft. elev.; widespread but uncommon throughout S. Calif. mts., foothills & valleys	May - July	Fed: none Calif: S3.2 CNPS: List 1B R-E-D:2-2-3	Occurs (all CSS habitat suitable)	Anticipated loss of plants (number unknown) and occupied habitat	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Plants	Habitat and Distribution[1]	Flower season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Castilleja lasiorhyncha (*Orthocarpus lasiorhynchus*) San Bernardino Mountain owl's clover	Meadows, streamsides, seeps, other mesic sites, ±4200-7500 ft. elev.; S Calif. mtns.	June - July	Fed: none Calif: S2.2 CNPS: List 1B R-E-D:2-2-3	Absent (below elev. range)	None	No
Chorizanthe parryi var. *parryi* Parry's spineflower	LA, San Bern, Riv Cos.; "sandy places, gen in coastal or desert scrub," ±1000-4000 ft. elev. (Hickman, ed. 1993)	April - June	Fed: none Calif: S2.1 CNPS: List 3 R-E-D:?-2-3	Moderate (occurs in similar habitat in region)	Moderate probability of loss of a few isolated plants	No
Chorizanthe xanti var. *leucotheca* White-bracted spineflower	Desert shrubland, pinyon-juniper woodland, about 1000-4000 ft. elev.; E San Bernardino and N San Jacinto Mts. CNPS record in San Bernardino area.	April-June	Fed: none Calif: S1S2.2 CNPS: List 1B R-E-D:2-2-3	Low (may be outside geogr. range)	Low probability of loss of a few isolated plants	No
Cordylanthus maritimus ssp. *maritimus* Salt marsh bird's beak	Coastal salt marshes, Baja Calif. to San Luis Obispo Co. (local report presumably in error)	May - Oct	Fed: **END** Calif: **END** 2.1 CNPS: List 1B R-E-D:2-2-2	Absent (no suitable habitat, outside range)	None	No
Docecahema leptocerus (*Chorizanthe leptocerus, Centrostegia leptocerus*) Slender-horned spineflower	Open, sandy alluvial benches in valleys and canyons; San Fernando Vally, Santa Ana River Valley, western Riverside Co.; about 600-2200 ft. elev.	April - June	Fed: **END** Calif: S1.1 **END** CNPS: List 1B R-E-D:3-3-3	Low (marginal habitat, upper margin of elev. range, not seen by PCR [1995])	Low probability of taking plants and occupied habitat	Yes, if species occurs. Otherwise, no.
Dudleya multicaulis Many-stemmed dudleya	Heavy soils, often clay, in grassland or shrubland, SW Calif., below about 2000 ft. elev.	May - June	Fed: none Calif: S2.1 CNPS: List 1B R-E-D:1-2-3	Absent (no suitable soils, far outside known range)	None	No
Eriastrum densifoloium ssp. *sanctorum* Santa Ana River woollystar	Shrubland, alluvial fans and plains; endemic to Santa Ana River watershed, primarily in San Bern. Co.; below about 2000 ft. elev.	May - Sept.	Fed: **END** Calif: S1.1 **END** CNPS: List 1B R-E-D:3-3-3	Absent (not seen; above known elev. range)	None	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Plants	Habitat and Distribution[1]	Flower season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Fimbristylis thermalis Hot springs fimbristylis	Alkaline meadows near hot springs; San Bernardino Mts. (Arrowhead Hot Spr.), Sierra Nevada Mts. (Kern, Mono, Inyo Cos.), Nevada, and Arizona; wide elev. range	July - Sept.	Fed: none Calif: S2.2 CNPS: List 2 R-E-D:2-2-1	Absent (no suitable habitat)	None	No
Hemizonia laevis (*H. pungens* ssp. *laevis; Centromadia p.* ssp. *laevis*) Smooth tarplant	Seasonally wet low elev. grassland, also fallow fields, drainage ditches; primarily in SW Riv. Co. but a few sites in interior valleys of LA, San Bern., San Diego Cos.	April - Sept	Fed: none Calif: 2.1 CNPS: List 1B R-E-D:2-3-3	Low (margin of geogr. range)	Low probability of loss of a few isolated plants	No
Horkelia cuneata ssp. *puberula* Mesa horkelia	Shrublands, woodlands, gen sandy alluvial plains; SLO to San Diego Co, away from immediate coast; rarely inland to San Bern. Co., about 200-2300 ft. elev.	April - Sep.	Fed: none Calif: S2.1 CNPS: List 1B R-E-D:2-3-3	Low (probably outside geogr. range)	Low probability of loss of a few isolated plants	No
Juglans californica var. *californica* So. California black walnut	Walnut woodland, coastal sage scrub, chaparral, gen. < ±3000 ft. elev.; Ventura, LA, Orange, San Bernardino Cos.	Can be IDd all year	Fed: none Calif: S3.2 CNPS: List 4 R-E-D:1-2-3	Occurs (PCR report)	Loss of individual trees; no direct disturbance to trees in undeveloped riparian habitat	No
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	Chaparral & coastal sage scrub below about 1700 ft. elev.; LA Co, inland to Riverside & San Bernardino Cos, and S to Baja Calif	Jan - July	Fed: none Calif: SH (error) CNPS: List 1B R-E-D:3-2-2	Absent (well above elev. range)	None	No
Lilium humboldtii var. *ocellatum* Ocellated Humboldt lily	Shaded forest, woodland, canyons, below about 6000 ft. elev.; cent. Coast Ranges and S Calif. mts.	June - July	Fed: none Calif: S3.2 CNPS: List 4 R-E-D:1-2-3	High (riparian)	None or minimal loss of plants and habitat; no direct disturbance to plants in undeveloped riparian habitat	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Plants	Habitat and Distribution[1]	Flower season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Lilium parryi Lemon lily	Meadows and streambanks above about 4000 ft. elev.; mts. of S Calif. and SE Arizona	July - August	Fed: none Calif: S2.1 CNPS: List 1B R-E-D:2-2-2	Absent (below elev. range)	None	No
Lycium parishii Parish's desert thorn	Arid slopes and sand flats, below about 3300 ft. elev.; low desert (Riv. and San Diego Cos., Ariz., Sonora) and interior valleys (Riv Co.); historic locations in San Bernardino Valley now extinct	March - April	Fed: none Calif: S2S3 CNPS: List 2 R-E-D:2-1-1	Absent (geographic range; survey results)	None	No
Malacothamnus parishii Parish's bush mallow	Chaparral or coastal sage scrub; one historic occurrence (1895, now extirpated), in San Bernardino Valley; now presumed extinct	June - July	Fed: none Calif: SH CNPS: 1A	Absent (survey results; presumed extinct)	None	No
Mucronea californica (*Chorizanthe californica*) California spineflower	Sandy soils, many habitats, below ±4500 ft. elev.; San Luis Obispo to San Diego Cos., inland to San Bernardino and Kern Cos.	April - July	Fed: none Calif: S3.2? CNPS: List 4 R-E-D:1-2-3	Moderate (habitat suitable, margin of geogr. range)	Moderate proba-bility of loss of a few isolated plants	No
Muhlenbergia californica California muhly grass	Stream banks and shaded rocky slopes above streams, 300-6500 ft. elev.; coastal and interior S Calif. valleys and mts	July - Sept.	Fed: none Calif: S3.3 CNPS: List 4 R-E-D:1-2-3	High (riparian)	None or minimal loss of plants and habitat; no direct disturbance to plants in undeveloped riparian habitat	No
Opuntia basilaris var. *brachyclada* Short-joint beavertail	Desert shrublands on N margins of San Bernardino and San Gabriel Mts. (Cajon Summit area), about 4000-6000 ft. elev.	May - June	Fed: none Calif: S1.2 CNPS: List 1B R-E-D:3-2-3	Low (just outside known elev. and geogr. range)	Low probability of loss of a few isolated plants	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Plants	Habitat and Distribution[1]	Flower season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Ribes divaricatum var. *parishii* Parish's gooseberry	Riparian woodland, historically from LA and San Bern. Cos., ± 300-1000 ft. elev.; possibly extinct (most recent obs. at Whittier Narrows, 1980)	Feb. - April	Fed: none Calif: S1.1 CNPS: List 1B R-E-D:3-3-3	Absent (above elev. range; presumed extinct)	None	No
Schoenus nigricans Black sedge	Marshes, hot springs, gen. alkaline soils, below about 6600 ft. elev.; locally in San Bernardino Mts, Mojave Desert; widespread but uncommon in Amer Southwest; Europe and North Africa	Aug - Sep	Fed: none Calif: S2.2 CNPS: List 2 R-E-D:2-2-1	Absent (no suitable habitat)	None	No
Viola aurea Golden violet	Arid slopes and bajadas, Mojave Desert and adjacent mountains, about 3200-6000 ft.; one record from Cajon Pass, ca. 3800 ft. elev.	April - June	Fed: none Calif: S2S3 CNPS: List 2 R-E-D:2-2-1	Absent (below elev. and geogr range)	None	No

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
FISH						
Catostomus santaanae Santa Ana sucker	Major cismontane stream systems in S Calif. incl. Sta Ana Riv., formerly below ± 3000 ft. elev.; extant popns near Riverside and downstream	year - around	Fed: THR Calif: CSC S1	Low (well above elev. limit of known extant populations)	Low potential for minimal indirect impacts to stream; no proposed direct impacts to aquatic habitat	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Gila orcutti Arroyo chub	Major cismontane stream systems in S Calif. incl. Sta Ana Riv.; extant popns near Riverside and down-stream; introduced populations also occur outside historic native range	year - around	Fed: none Calif: CSC S2	Absent (well above elev. of known extant populations)	None	No
Gasterosteus aculeatus williamsonii Unarmored threespine stickleback	Historically from LA Basin (LA, San Gabriel, & Sta Ana Rivs.); known extant populations in Soledad Cyn watershed, LA Co.	year around	Fed: **END** Calif: **END**	Absent (extinct from Santa Ana River watershed)	None	No
Rhinichthys osculus "subspecies 3" Santa Ana speckled dace	Endemic to Santa Ana and San Gabriel Riv. watersheds, historically in Big Tujunga Cyn. Sta Ana Riv populations in lower San Bernardino Mtn foothills and washes	year - around	Fed: none Calif: CSC S1	Unknown	Unknown potential for minimal indirect impacts to stream; no proposed direct impacts to aquatic habitat	No
AMPHIBIANS						
Batrachoseps gabrieli San Gabriel Mts slender salamander	Mesic canyons and talus slopes, cismontane San Gabriel Mts and San Bernardino Mts, ca. 3000 - 5000 ft. elev.	winter	Fed: none Calif: S1	Absent	None	No
Ensatina escschholtzii croceater Yellow-blotched salamander *E. eschscholtzii klauberi* Large-blotched salamander	Moist sites in forests, e.g. beneath fallen logs; ssp. *croceater* occurs in Tehachapi Mtns; *klauberi* in Transverse & Peninsular Ranges; intergrades between these sspp. occur in SB Mts.; ssp. *klauberi* hybridizes w/ ssp. *eschscholtzii* (no special status) in some areas.	Spring	Fed: none Calif: CSC S2S3	Absent	None	No
Scaphiopus hammondii Western spadefoot toad	Breeds in quiet streams and vernal pools, burrows beneath sand during dry season; western Calif., Central Valley through Baja Calif.	Late winter - spring	Fed: none Calif: CSC S3?	Low (no known extant populations in San Bern. Co.)	Low probability of disturbing potential breeding habitat	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Bufo californicus (*B. microscaphus calif.*) Arroyo toad	Alluvial washes, often xeric areas; desert margins and scattered locations in cismontane S Calif.	Late winter to spring	Fed: **END** Calif: CSC S2S3	Absent (no suitable habitat)	None	No
Rana aurora draytonii California red-legged frog	Pools in low-gradient foothill and valley streams to ±4000 ft.; few extant S. Calif. locations	Spring	Fed: **THR** Calif: CSC S2S3	Absent (no suitable habitat [see text])	None	No
Rana boylii Foothill yellow-legged frog	Foothill and montane streams to about 6000 ft. elev.; SW Oregon, Central Valley & NW Calif.; not known from SB Mts.; historic records in San Gabriel Mts. (Schoenherr 1976); possibly extinct in S Calif.	Spring	Fed: none Calif: CSC S2S3	Absent (outside historic range)	None	No
Rana muscosa Mountain yellow-legged frog	Perennial mountain streams above about 6000 ft. elev.; Sierra Nevada Mts. and mts. of S. Calif. (where its elev. range historically was as low as 2000 ft.); extinct in much of range.	Just after snow-melt to August (diurnal)	Fed: **END** (So. Calif. only) Calif: CSC S2	Absent (survey results)	None	No
REPTILES						
Clemmys marmorata pallida Southwestern pond turtle	Perennial ponds, streams, irrigation ditches; coastal S and cent. Calif., NW Baja Calif.	Year-around	Fed: none Calif: CSC S2	Absent (survey results)	None	No
Coleonyx variegatus abbotti San Diego banded gecko	Rock outcrops in shrublands, to 5000 ft. elev.; SW Calif. through much of N Baja Calif.	Spring - summer	Fed: none Calif: S2S3	Moderate - high (potential on slopes & floodplain)	Moderate - high probability of losing occupied habitat and individual animals	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Anniella pulchra pulchra California silvery legless lizard	Gen. shrublands below about 6000 ft. elev.; Coast Ranges from Bay area to N Baja Calif., SW Sierra Nevada, parts of Cent. Valley, Transverse and Peninsular Ranges	Spring - fall	Fed: none Calif: CSC, S3	Expected	Expected loss of occupied habitat and individual animals	No
Phrynosoma coronatum blainvillei San Diego horned lizard	Forest, shrubland or grassland with sandy areas; W Calif. from LA Co. S through Baja Calif., below ±6000 ft. elev.	Spring - summer	Fed: none Calif: CSC S2S3	Occurs (PCR report)	Loss of occupied habitat; possibly individual animals	No
Cnemidophorus hyperythrus beldingi Belding's orange-throated whiptail	Coastal sage scrub, chaparral; Orange Co., extreme SE LA Co., W Riv. Co., through Baja Calif.	Spring - summer	Fed: none Calif: CSC S2	Absent (outside geographic range)	None	No
Cnemidophorus tigris multiscutatus Coastal western whiptail	Woodlands, shrublands; SW Calif. through much of Baja Calif. , below ±7500 ft. elev.	Spring - summer	Fed: none Calif: S2S3	Occurs (PCR report)	Loss of individual animals and occupied habitat	No
Lichanura trivirgata Rosy boa	Rocky, chaparral-covered hillsides; LA Co. through nw Baja Calif.	Spring - summer	Fed: none Calif: S3S4	Moderate - high (suitable habitat ±throughout)	Moderate-high probability of losing habitat and individual animals	No
Charina bottae umbricata Southern rubber boa	Moist montane forest and woodland; Mt. Pinos, San Bernardino and San Jacinto Mts; usually cool, moist areas w/ deep rocky crevices	Summer	Fed: none Calif:THR S2S3	Absent (well below elev. range)	None	No
Diadophis punctatus modestus San Bernardino ringneck snake	Open rocky areas in woodlands, chaparral and grasslands habitats; W San Diego and Riv. Cos., SW San Bern. Co., Vent. and LA Co., NW Baja Calif.	Spring - summer	Fed: none Calif: S2?	Moderate - high (suitable habitat ±throughout)	Moderate-high probability of losing habitat and individual animals	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Arizona elegans occidentalis California glossy snake	Gen open shrublands; cismontane Calif. from SF Bay area south thr. N Baja Calif.; very few recent observations	Spring - summer	Fed: none Calif: none local concern	Moderate (suitable habitat; local occurrence)	Moderate probability of loss of a few isolated plants	No
Salvadora hexalepis virgultea Coast patch-nosed snake	Shrublands, usually with open sand; Sta. Barb. Co. through SW Calif., to NW Baja Calif.	Spring - summer	Fed: none Calif: CSC S2S3	Moderate - high (suitable habitat ±throughout)	Moderate-high probability of losing habitat and individual animals	No
Thamnophis hammondii Two-striped garter snake	In or near perennial fresh water and adjacent riparian habitat, usually about pools in streams; SW Calif and NW Baja Calif.	Spring - summer	Fed: none Calif: CSC S2	Absent (survey results)		No
Lampropeltis zonata parvirubra San Bernardino Mountain kingsnake	Forests, shrublands; often riparian; San Bernardino and San Jacinto Mts endemic (one record in San Gabriels at Lone Pine Cyn: Schoenherr 1976)	Spring - summer	Fed: none Calif: CSC S2?	Moderate (suitable habitat, lower margin of elev. range)	Moderate potential for minimal indirect impacts to stream; no proposed direct impacts to aquatic habitat	No
Crotalus ruber ruber Red diamond rattlesnake	Coastal sage scrub, chaparral, desert scrub; SW Calif. (gen. Peninsular Ranges and west), Baja Calif.	Spring - summer	Fed: none Calif: CSC, S2?	Absent (outside geographic range)	None	No
BIRDS						
Elanus leucerus White-tailed kite	Breeds in woodlands and riparian forests, forages over open terrain; Pacific Coast (Calif., N Baja, Oregon), other scattered localities worldwide	Spring - summer	Fed: none Calif: S3 (nesting only)	Nesting: Moderate - high Foraging: High (occas.)	Loss or degradation of suitable nesting foraging habitat expected; potential loss of nest sites	No
Circus cyaneus Northern harrier	Breeds colonially in grasslands and wetlands; forages over open terrain; N America and Eurasia	Winter; rare in summer	Fed: none Calif: CSC S3 (nesting only)	Nesting: Absent Foraging: High (occas.)	None to nest sites; loss or degradation of foraging habitat expected	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Haliaeetus leucocephalus Bald eagle	Breed in large trees, usually near major rivers or lakes; winters more widely; wide but scattered distribution in N America; esp. coastal regions	Winter	Fed: THR (prop. for delisting) Calif: S2 END	Absent (except as uncommon flyover)	None	No
Aquila chrysaetos Golden eagle	Nests in remote trees and cliffs; forages over shrublands and grasslands; breeds throughout W N America, winters to E coast	Year-around	Fed: none Calif: CSC S3 (year-around)	Nesting: Absent Foraging: High (occas.)	None to nest sites; loss or degradation of foraging habitat expected	No
Buteo regalis Ferruginous hawk	Forages over grassland and shrubland; winters in W and SW N Amer. (breeds in Great Basin and N plains)	Winter	Fed: none Calif: CSC S3S4 (wintering)	Nesting: Absent Winter: High (occas.)	None to nest sites; loss or degradation of winter foraging habitat expected	No
Buteo swainsonii Swainson's hawk	Breeds in trees in open habitats (e.g., grassland), Central Valley (Calif.) and W. to cent. US, S. Canada, N. Mexico; winters in S. America. Recorded near Lee Vining in 1985.	Spring - summer	Fed: none Calif: S2, THR	Nesting: Absent Migration: Occurs	None in breeding range; minor disturbance to migratory stopover	No
Accipiter striatus Sharp-shinned hawk	Nests and hunts in forests and woodlands, also forages in open areas; throughout N America, parts of S America	Spring - early summer	Fed: none Calif: CSC S3 (nesting only)	Nesting: Absent Winter: Observed (PCR)	None to nest sites; loss or degradation of winter foraging habitat expected	No
Accipiter cooperii Cooper's hawk	Nests and hunts in forests and woodlands occasionally forages in open areas; most of US, Central and S America	Year-around	Fed: none Calif: CSC S3 (nesting only)	Nesting: High Foraging: High	Loss of potential nest sites; additional loss or degradation of nesting and foraging habitat expected	No
Falco columbaris Merlin	Uncommon wintering species in S Calif. desert and valleys (breeds in northern N America and Eurasia)	Winter	Fed: none Calif: CSC S3 (wintering)	Nesting: Absent Winter: High (infreq.)	None to nest sites; loss or degradation of winter foraging habitat expected	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Falco mexicanus Prairie falcon	Nests on high cliffs, forages primarily over open lands; occurs throughout arid western US and Mexico	Year-around	Fed: none Calif: CSC S3 (nesting only)	Nesting: Absent Foraging: High (infreq.)	None to nest sites; loss or degradation of foraging habitat expected	No
Coccyzus americanus occidentalis Western yellow-billed cuckoo	Nests in dense riparian forest; rare and local in Calif.; subspecies not recognized as distinct by some authors	Summer	Fed: none Calif: END S1	Absent (local occurrences extinct)	None	No
Speotyto cunicularia (*Athene cunicularia hypugea*) Burrowing owl	Nests in rodent burrows, usually in grasslands; forages in open habitat; increasingly uncommon in S Calif.; occurs through W US and Mexico	Year-around	Fed: none Calif: CSC S2 (burrow sites)	Breeding: Low (PCR concl.) Foraging: Low	Low probability of degrading or losing breeding or foraging habitat	No
Asio otus Long-eared owl	Breeds & roosts in riparian forests & woodlands; forages (at night) over open lands; rare breeding in S Calif.; occurs through N America and Eurasia	Year-around	Fed: none Calif: CSC S3 (nesting only)	Breeding: Low (local rarity) Foraging: Low	Low probability of degrading or losing breeding or foraging habitat	No
Contopus borealis Olive-sided flycatcher	Breeds in forest lands, Calif. and Rocky Mts; higher latitudes of N Amer.; winters in S Amer.	Summer	Fed: none Calif.: S4	Breeding: Absent Migration: High	None to breeding range; minor disturbance to migratory stopover	No
Empidonax traillii extimus Southwestern willow flycatcher	Rare and local is S Calif.; breeds in willow riparian forests; SW US and N Baja	Summer	Fed: END Calif: END S1	Nesting: Absent (PCR concl.) Migration: High	High probability of minor disturbance to migratory stopover	No
Eremophila alpestris actia California horned lark	Grasslands, meadows, alkali flats; breeds in western Calif (San Diego Co through Humboldt Co) and Baja Calif	Summer	Fed: none Calif: CSC S3	Low (habitat poorly suitable at best)	Low probability of habitat loss	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Campytorhynchus bruneicapillus couesi San Diego (coastal population) cactus wren	Coastal sage scrub with cactus patches; S Calif. and NW Baja Calif.	Year-around	Fed: none Calif: CSC S2?	Low on-site, but occurs nearby	Some loss of foraging area; low possiblilty of loss of occupied nest sites or individual birds	No
Lanius ludovicianus Loggerhead shrike	Woodlands, shrublands, open areas with scattered perch sites; widespread in N America	Year-around	Fed: none Calif: CSC S4	High	High probability of losing habitat and individual birds	No
Polioptila californica California gnatcatcher	Coastal sage scrub; scattered in Ven and LA Cos; regular in Riv and San Diego Cos. and N Baja Calif; evidently extirpated in San Bern. Mtn. foothills	Year-around	Fed: THR Calif: CSC S2	Absent (PCR focused survey results)	None	No
Vireo bellii ssp. *pusillus* Least Bell's vireo	Riparian forests and willow scrub; breeds in S Calif. and N Baja, winters in Baja; endangered by habitat loss and cowbird parasitism	Spring - summer	Fed: END Calif: END S2	Nesting: Absent (PCR concl.) Migration: Low	Low probability of minor disturbance to migratory stopover	No
Agelaius tricolor Tricolored blackbird (nesting colony)	Breeds colonially in freshwater marshes, nomadic among marshes and fields in winter; almost completely endemic to Calif.	Year-around	Fed: none Calif: CSC S2	Absent (no suitable habitat)	None	No
Dendroica petechia Yellow warbler	Breeds in riparian habitat; much of N Amer. but increasingly rare in S Calif. (habitat loss, cowbird parasitism); winters Mex. to S Amer.	Spring - summer	Fed: none Calif: CSC S2 (nesting only)	Nesting: High Migration: High	High probability of minor impact to nesting habitat and migratory stopover	No
Icteria virens Yellow-breasted chat	Breeds in dense riparian habitat, low elev., much of US, winters S to Cent. Amer.; becoming rare in Calif. (cowbirds & habitat loss)	Spring - summer	Fed: none Calif: CSC S3 (nesting only)	Nesting: High Migration: High	High probability of minor disturbance to nesting habitat and migratory stopover	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Ammodramus savannarum Grasshopper sparrow	Breeds in grasslands and similar habitats, mostly E and midwestern US, scattered locns in Calif.; winters near Gulf Coast and Mexico	spring - summer	Fed: none Calif: S2	Nesting: Low Migration: High	Minor disturbance to migratory stopover	No
Spizella atrogularis Black-chinned sparrow	Breeds in shrublands, cent. and S Calif., Ariz, NM, Northern and cent. Mexico; winters in SE Calif., adj Ariz, western Mexico	spring - summer	Fed: none Calif: S3 (nesting)	High (occurs just off-site, migration or nesting unknown)	Probable loss of nesting or foraging habitat	No
Spizella passerina Chipping sparrow	Breeds in forests, woodlands, thickets; through most of N America; winters to S; year-around S Calif. & much of Mexico	year-around, Spring-summer (nesting)	Fed: none Calif: S3S4 (nesting only)	High (occurs just off-site, migration or nesting unknown)	Probable loss of nesting or foraging habitat	No
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	Coastal sage scrub, open chaparral; S Calif. and NW Baja Calif.	Year - around	Fed: none Calif: CSC S2S3	Occurs	Loss of suitable nesting and foraging habitat	No
Amphispiza belli belli Bell's sage sparrow	Coastal sage scrub, chaparral, saltbush scrub, cismontane cent. and S Calif., NW Baja Calif.	Year - around	Fed: none Calif: CSC S2? (nesting only)	Occurs	Loss of suitable nesting and foraging habitat	No
Carduelis lawrencei Lawrence's goldfinch	Western Calif. and NW Baja; expands range in winter into Arizona and Sonora (Mexico); breeds in woodlands and shrublands, gen. near water	Year - around	Fed: none Calif: S3 (nesting only)	Occurs	Loss of suitable nesting and foraging habitat	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
MAMMALS						
Lepus californicus bennettii San Diego black-tailed jackrabbit	Most habitat types, esp. shrublands; W Calif. and NW Baja Calif.	Year-around	Fed: none Calif: CSC S3?	Expected	Loss of animals and occupied habitat	No
Chaetodipus fallax fallax (*Perognathus fallax*) San Diego pocket mouse	Open shrublands and sandy areas; SW Calif. and NW Baja Calif.	Year-around (?)	Fed: none Calif: CSC S2S3	Occurs (PCR concl.)	Loss of occupied habitat and individual animals	No
Perognathus alticola alticola White-eared pocket mouse	Patches of grass or ferns, historically from San Bernardino Mts, though evidently now extinct	Year - around (?)	Fed: none Calif: CSC SH	Absent (well below known elev. range)	None	No
Perognathus longimembris brevinasus Los Angeles pocket mouse	Open shrublands, grasslands; S Calif. valleys, LA, SW San Bernardino and W Riverside Cos.	Year-around (?)	Fed: none Calif: CSC S1?	Occurs (PCR concl.)	Loss of occupied habitat and individual animals	No (see text)
Dipodomys merriami parvus San Bernardino Merriam's kangaroo rat	Alluvial scrub; interior valleys of S Calif., Cajon Pass and San Gorgonio Pass south to Aguanga	Year-around	Fed: **END** Calif: CSC S1	Absent (PCR's FWS protocol survey results)	None	No
Onychomys torridus ramona Southern grasshopper mouse	Arid cismontane lowlands, LA through San Diego Cos. and NW Baja Calif.	Year-around	Fed: none Calif: CSC S3	Low (not found during SBKR survey)	Low probability of affecting habitat or individual animals	No
Neotoma lepida intermedia San Diego desert woodrat	Chaparral and other shrublands, W Calif., Point Conception south, through NW Baja Calif.	Year-around	Fed: none Calif: CSC S3	Occurs	Loss of occupied habitat and individual animals	No
Macrotus californicus (*M. waterhousii*) California leaf-nosed bat	Arid lowlands, S Calif., S and W Ariz., Baja Calif. and Sonora, Mexico; roost in mineshafts, forage over open shrub-lands	Year-around	Fed: none Calif: CSC S2S3	Roosting: Absent Foraging: Moderate	Moderate probability of losing or degrading foraging habitat	No

APPENDIX 1: Special status species of Devore, northern San Bernardino, and San Bernardino Mountain foothills.

Special Status Wildlife	Habitat and Distribution[1]	Activity season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated impact	CEQA significance criteria
Myotis lucifugus occultus Occult little brown bat (*M. occultus*, Arizona brown bat)	Mostly pine forests, 6000-9000 ft. elev. (also lower elev. riparian habitat); roost in buildings, trees, rocks, etc.; feed over water or open land; hibernates in winter; SE Calif thr AZ & NM	warm season	FWS: none Calif: CSC S2S3	Roosting: Moderate-high Foraging: Moderate	Moderate-high probability of losing or degrading foraging or roosting habitat	No
Eumops perotis californicus California mastiff bat	Lowlands (with rare exceptions); cent. and S Calif., S Ariz., NM, SW Tex., N Mexico; roost in deep rock crevices, forage over wide area	Un-known	Fed: none Calif: CSC S3?	Roosting: Absent Foraging: Unknown	Unknown probability of losing or degrading foraging habitat	No
Nyctinomops macrotis (*Tadarida molossa*) Big free-tailed bat	Rocky cliffs, scattered localities in W N. Amer. through Cent. Amer.	Year-around (?)	Fed: none Calif: CSC S2	Roosting: Absent Foraging: Unknown	Unknown probability of losing or degrading foraging habitat	No
Nyctinomops femorosaccus (*Tadarida femorosaccus*) Pocketed free-tailed bat	Deserts and arid lowlands, SW US, Baja Calif., mainland Mexico; Roost mainly in crevices of high cliffs	Year-around	Fed: none Calif: CSC S2S3	Roosting: Absent Foraging: Unknown	Moderate probability of losing or degrading foraging habitat	No
Bassariscus astutus Ringtail	SW US (SW Oregon to coastal Texas), to tropical Mexico; forests, woodlands, shrublands, gen. within 1 km of water; nocturnal	Year-around	Fed: none USFS "special" Calif: none	Expected (infrequent)	Loss of habitat	No
Taxidea taxus American badger	Mts, deserts, interior valleys where burrowing animals avail as prey and soil permits digging; throughout cent and W N Amer	Year-around	Fed: none Calif: S4	Expected (infrequent)	Loss of habitat	No

[1] **References and notes**

Barbour & Davis 1969 (bats); Calif. Dept. of Fish & Game 2001a, 2001b; California Natural Diversity Data Base 2001;Garrett & Dunn 1981; Grinell and Miller 1943; Hall and Kelson 1959; Hickman 1993; Ingles 1965; Jennings and Hayes 1994; McKernan 1997 (San Bernardino kangaroo rat); Munz 1974; Remsen 1978; Stebbins 1954, 1985; Tibor 2001; US Fish and Wildlife Service 1999; Williams 1976; Zeiner et al. 1988, 1990a, 1990b.

[2] **Status Designations**

Federal designations (US Fish and Wildlife Service). Note that some agencies, but not FWS, continue to use "SOC" as a federal status designation. Until 1996, FWS maintained a list of "category 2 candidates," described as species of concern, but for which insufficient data were available to support listing. This list is no longer maintained and FWS has no "SOC" category.

END: **Federally listed, endangered.**
THR: **Federally listed, threatened.**
PROP: Proposed for the federal status shown.
CAND: Candidate for federal listing; sufficient data are available to support listing, but not yet listed.
None: Not designated.

State designations (California Dept. of Fish and Game):

END: **State listed, endangered.**
THR: **State listed, threatened.**
RARE: **State listed as rare** (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
PROP: Proposed for the state status shown.
None: Not designated.

CDFG Natural Diversity Data Base Designations: Applied to special status species and sensitive plant communities; where correct category is uncertain, CDFG uses two categories or question marks.

S1: Fewer than 6 occurrences or fewer than 1000 individuals or less than 2000 acres.
- S1.1: Very threatened
- S1.2: Threatened
- S1.3: No current threats known

S2: 6-20 occurrences or 1000-3000 individuals or 2000-10,000 acres (decimal suffixes same as above).
S3: 21-100 occurrences or 3000-10,000 individuals or 10,000-50,000 acres (decimal suffixes same as above).
S4: Apparently secure in California; clearly lower than S3 but factors exist to cause some concern, i.e., some threat or somewhat narrow habitat. No threat rank.
S5: Demonstrably secure or ineradicable in California. No threat rank.
SH: All California sites are historical (i.e., no known extant occurrences; generally presumed extinct)

California Native Plant Society (CNPS) designations: (Note: According to CNPS (Tibor 2001), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code.)

List 1A: Plants presumed extinct in California.
List lB: Plants rare and endangered in California and throughout their range.
List 2: Plants rare, threatened or endangered in California but more common elsewhere in their range.
List 3: Plants about which we need more information; a review list.
List 4: Plants of limited distribution; a watch list.

CNPS R-E-D Code:

Rarity

1: Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.
2: Occurrence confined to several populations or one extended population.
3: Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

Endangerment

1: Not endangered.
2: Endangered in a portion of its range.
3: Endangered throughout its range.

Distribution

1: More or less widespread outside California.
2: Rare outside California.
3: Endemic to California (i.e., does not occur outside California).

[3] **Occurrence Probabilities**

Occurrence probabilities are determined from field surveys and habitat analyses reported here, plus information in the references cited earlier.

Occurs: Observed on the site during this study, or recorded on-site by other qualified biologists.

Expected: Not observed or recorded on the site, but very likely present during at least a portion of the year.

High: Reported sighting(s) in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

Moderate: Reported sighting(s) in surrounding region, or site is within the known range of the species and habitat on the site is marginally suitable or of a type occasionally used by the species.

Low: Site is within the known range of the species but habitat on the site is rarely used by the species, and there are no reported sighting(s) of the species in the vicinity. It is unlikely that the species exists in substantial numbers if present.

Absent: A focused study failed to detect the species, the site is out of the currently known range, or no suitable habitat is present.

Unknown: No focused surveys have been performed in the region, and the species distribution and habitat are poorly known.