

In the project area, three defined drainages traverse the proposed routes from, generally, southwest to northeast. The northernmost and largest in area is Pinto Wash, draining toward the northeast about 3,000 feet south of the IV Substation, where it is more than 3,000 feet wide. Another drainage is just south of Highway 98. This area includes the confluence of two streambeds, where a culvert and dam have been placed. The area directly downstream of the culvert has been heavily disturbed due to off-road vehicle traffic. The southernmost area is an extension of an unnamed intermittent drainage that rises to the southwest in Mexico and drains northeasterly. These drainages are normally dry but are probably subject to flash-flooding in occasional torrential storms that can occur in the area. Pinto Wash is the site of the only 100-year floodplain mapped in the proposed transmission line routes by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps.

Groundwater at the IV Substation site in 1980 was encountered in borings at 25 to 30 feet below the ground surface. On USGS topographic maps, the mean sea level contour intersects the substation site. Borings about 3,000 feet east of the IV Substation encountered groundwater about six to seven feet below the ground surface. Agricultural tile drains under fields just east of this area are at a depth of five to six feet. As in most locations in the Imperial Valley, groundwater in the area is brackish and is not used for any beneficial purpose.

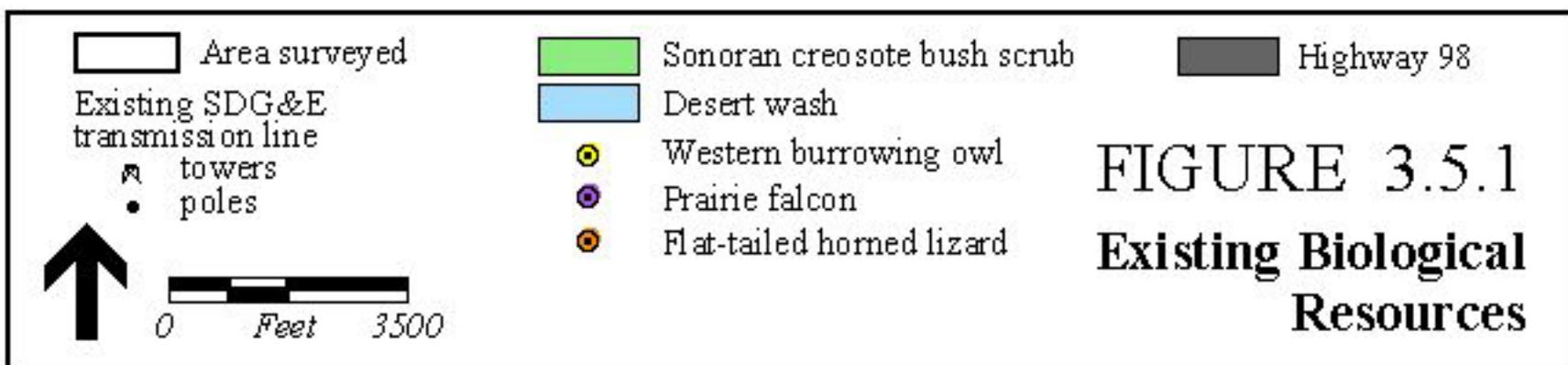
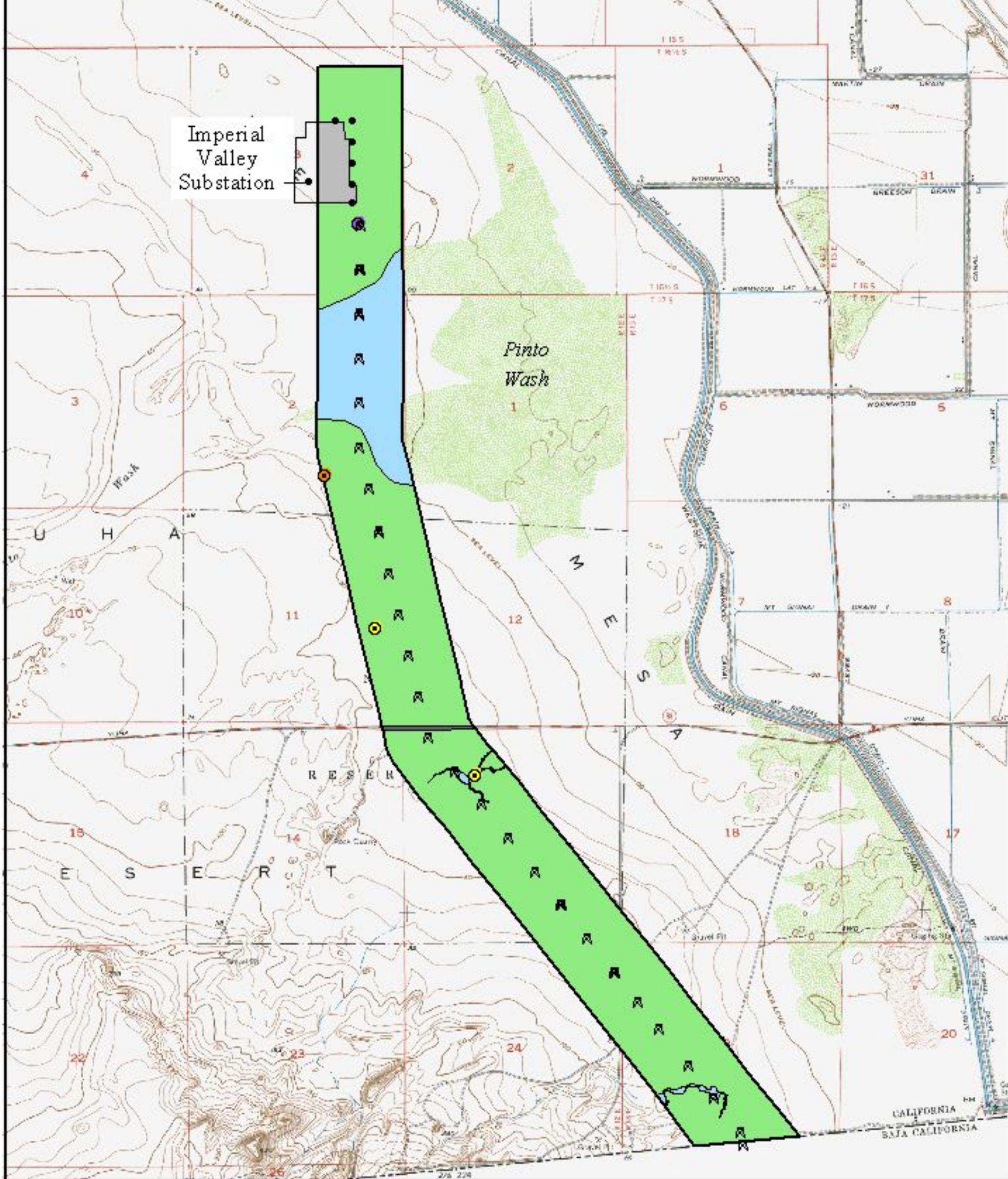
## **3.5 Biological Resources**

The discussion of biological resources in this EA is based on a report of biological surveys conducted in September and October of 2000 of a study area corridor 2,150 feet wide centered on the existing SDG&E transmission line and of the area north and east of the IV Substation. A wetland delineation was also performed. The survey report and wetland delineation report are attached to this EA (Appendix C).

### **3.5.1 Vegetation**

Two vegetation communities were identified within the survey area: Sonoran creosote bush scrub and desert wash (Figure 3.5.1). Neither of these communities is considered a sensitive plant community. Of the approximately 1,464 acres in the survey corridor, about 1,218 are Sonoran creosote bush scrub and about 204 acres are desert wash. The remainder, about 42 acres, is developed. The two major areas of developed land are SR-98 (5.5 acres of the study area) and the IV Substation (36.9 acres). A network of dirt roads used by off-highway vehicles is present around the access roads for the SDG&E transmission line in the center of the study corridor.

Sonoran creosote bush scrub covers most of the study area. It is an open, relatively sparse community dominated by creosote bush (*Larrea tridentata*), with burro-weed (*Ambrosia dumosa*) and two species of saltbush (*Atriplex* spp.) common. Several trees,



**FIGURE 3.5.1**  
**Existing Biological Resources**

such as ironwood (*Olneya tesota*), velvet mesquite (*Prosopis velutina*), and catclaw acacia (*Acacia greggii*), are interspersed throughout the community, particularly in the southern half. A large patch of tamarisk (*Tamarix* sp.) is located along the eastern boundary of the Imperial Valley Substation with a few scattered tamarisk in patches in the southern portion of the survey corridor.

Desert wash is found in three areas of the study area, as shown in Figure 3.5.1. The largest is Pinto Wash, south of the IV Substation, where the dominant plant species is smoke tree (*Psoralea argophylla*), occurring with velvet mesquite, cat claw acacia, encelia (*Encelia frutescens*), verbena (*Abronia villosa* var. *villosa*), and big galleta (*Pleuraphis rigida*). Just south of SR-98 is a smaller area where two streambeds converge and where a dam and culvert have been constructed. Small species such as verbena, chinchweed (*Pectis papposa*), paper flower (*Psilostrophe cooperi*), and white dalea (*Psoralea argophylla*) are present in part of this drainage. The third and southernmost drainage is a desert streambed in which a stand of tamarisk has taken root amid a few native shrubs and a single ironwood tree.

### 3.5.2 Wildlife

The Sonoran creosote bush scrub and desert wash provide cover, foraging, and breeding habitat for a variety of native wildlife species. Two species of reptiles were observed in the study corridor, the desert iguana (*Dipsosaurus dorsalis*) and flat-tailed horned lizard (*Phrynosoma mcallii*). Other common species known from this region and expected to occur within the survey corridor are long-tailed brush lizard (*Urosaurus graciosus*), side-blotched lizard (*Uta stansburiana*), long-nose leopard lizard (*Gambelia wislizenii*), western whiptail (*Cnemidophorus tigris*), zebra-tailed lizard (*Callisaurus draconoides*), coachwhip (*Masticophis flagellum*), sidewinder (*Crotalus cerastes*), western patch-nosed snake (*Salvadora hexalepis*), western shovel-nosed snake (*Chionactis occipitalis*), and spotted leaf-nosed snake (*Phyllorhynchus decurtatus*).

The diversity of bird species is fairly low, due to the uniformity of habitat. Commonly observed species include yellow-rumped warbler (*Dendroica coronata*) and white-crowned sparrow (*Zonotrichia leucophrys*), and two wintering species, blue-gray gnatcatcher (*Polioptila caerulea*) and rock wren (*Salpinctes obsoletus obsoletus*), potentially breed in the study area. Raptors observed include red-tailed hawk (*Buteo jamaicensis*) and prairie falcon (*Falco mexicanus*). The prairie falcon was perched on one of the SDG&E transmission line towers. A western burrowing owl (*Speotyto cunicularia hypugaea*) was observed within one of the small desert washes south of Highway 98.

Mammal species expected in the project area are small mammals adapted to desert conditions. Desert black-tailed jackrabbit (*Lepus californicus deserticola*), cottontail rabbit (*Sylvilagus audubonii*), round-tailed ground squirrel (*Spermophilus tereticaudus tereticaudus*), coyote (*Canis latrans*), and desert kit fox (*Vulpes macrotis*) were identified

within the survey corridor. Other common species known from this region and expected to occur within the survey corridor are badger (*Taxidea taxus*), bobcat (*Lynx rufus*), and raccoon (*Procyon lotor*). Mule deer (*Odocoileus hemionus*) and mountain lion (*Felis concolor*) are occasionally observed within this region as well.

### **3.5.3 Sensitive Biological Resources**

No plant or animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service or California Department of Fish and Game were observed during surveys for the project. A number of sensitive or listed species have the potential to occur on the site. Sensitive animal species with such a potential are listed in Table 3.5.1, which also lists their sensitivity status and probability of occurring on the site. Sensitive plant species with a potential to occur are listed in Table 3.5.2, and the sensitivity codes used in Table 3.5.2 are explained in Table 3.5.3. As Tables 3.5.1 and 3.5.2 show, species that are state or federally listed as endangered or threatened generally would not be expected to occur on the site due to lack of suitable habitat or because the site is not within the species' range.

No sensitive plant species were observed within the survey corridor during the surveys in September and October of 2000. One sensitive plant, brown turban (*Malpertia tenuis*), and two noteworthy plants, Wiggins' cholla (*Opuntia wigginsii*) and Thurber's pilostyles (*Pilostyles thurberi*), have been previously identified on-site. Two sensitive birds were observed on-site: western burrowing owl and prairie falcon. The flat-tailed horned lizard (*Phrynosoma mcallii*) is also known to occur within the survey corridor.

Although it is not state or federally listed, the flat-tailed horned lizard has been designated as a sensitive species by the BLM. Pursuant to a court order of October 24, 2001, the Secretary of the Interior has been ordered to reinstate, within 60 calendar days, a previously effective proposed rule listing the flat-tailed horned lizard as threatened under the Endangered Species Act. A "Rangewide Management Strategy" for the flat-tailed horned lizard has been prepared by representatives from federal, state, and local governments (Foreman 1997). The BLM is a signatory agency to the management strategy, which designates management areas for the flat-tailed horned lizard wherein management and mitigation of actions that may affect the species are to comply with the Rangewide Management Strategy recommendations. The entire study area is suitable habitat for the flat-tailed horned lizard and is within the designated Yuha Desert Management Area for the flat-tailed horned lizard and the Yuha Desert Area of Critical Environmental Concern designated by the California Desert Conservation Area Plan.

### **3.5.4 Special Jurisdictional Areas**

The wetland delineation for the proposed project defined three desert washes as non-wetland jurisdictional waters subject to regulation under the Clean Water Act by the U.S.

**TABLE 3.5.1**  
**SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)**

Species	Status	Habitat	Occurrence/Comments
<u>Amphibians</u> (Nomenclature from Collins 1997)			
Desert slender salamander <i>Batrachoseps aridus</i>	FE, SE	Limestone fractures in desert canyons. Only known population in Santa Rosa Mountains of Riverside County.	Out of known range for species; not expected to occur.
Couch's spadefoot <i>Scaphiopus couchi</i>	CSC, BLM	Temporary desert rainpools that last at least 7 days with water temperatures greater than 15C	Known only from the Colorado River area in California. Not expected to occur.
<u>Reptiles</u> (Nomenclature from Collins 1997)			
Desert tortoise <i>Gopherus agassizii</i>	FT, ST	Mohave and Sonoran desert areas, especially areas of creosote bush scrub.	Out of known range for species; not expected to occur.
Barefoot gecko <i>Coleonyx switaki</i>	ST	Rock outcrops on arid hillsides and canyons in desert scrub vegetation types.	No suitable habitat; not expected to occur.
Colorado desert fringe-toed lizard <i>Uma notata</i>	CSC, BLM	Loose sand of desert dunes, flats, riverbanks, and washes. Prefers scant vegetation.	Suitable habitat present; high potential to occur.
Flat-tailed horned lizard <i>Phrynosoma mcalli</i>	CSC	Dunes and sandy flats of low desert.	Known to occur within survey corridor.
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	CSC	Grasslands, chaparral, sagebrush, desert scrub. Found in sandy and rocky areas.	Suitable habitat present; high potential to occur.
Red diamond rattlesnake <i>Crotalus exsul</i>	CSC	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.	Suitable habitat present; high potential to occur.

**TABLE 3.5.1**  
**SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)**  
 (continued)

Species	Status	Habitat	Occurrence/Comments
<u>Birds</u> (Nomenclature from American Ornithologists' Union)			
Northern harrier (nesting) <i>Circus cyaneus</i>	CSC	Coastal lowland, marshes, grassland, agricultural fields. Migrant and winter resident, rare summer resident.	No suitable habitat; not expected to occur.
Harris' hawk (nesting) <i>Parabuteo unicinctus</i>	CSC	River woods, mesquite, brush, cactus deserts. Casual vagrant.	Reintroduced to region in 1980's with a few nests identified in 1990's only in the lower Colorado River area. Low potential to nest within survey corridor.
Swainson's hawk (nesting) <i>Buteo swainsoni</i>	ST	Plains, range, open hills, sparse trees. Uncommon spring migrant.	Local breeding population now extirpated; not expected to occur.
Golden eagle (nesting and wintering) <i>Aquila chrysaetos</i>	CSC, CFP, BEPA	Require vast foraging areas in grassland, broken chaparral, or sage scrub. Nest in cliffs and boulders. Uncommon resident.	Range maps exclude the Imperial Valley; low potential to occur.
Merlin <i>Falco columbarius</i>	CSC	Rare winter visitor. Grasslands, agricultural fields, occasionally mud flats.	Seldom found in open deserts, low potential to occur within survey corridor.
Peregrine falcon <i>Falco peregrinus anatum</i>	FE, SE, CFP	Open coastal areas, mud flats. Rare inland. Rare fall and winter resident, casual in late spring and early summer.	Moderately suitable habitat present. Not known to nest in Imperial County. Not expected to occur.
Prairie falcon (nesting) <i>Falco mexicanus</i>	CSC	Grassland, agricultural fields, desert scrub. Uncommon winter resident. Rare breeding resident; nests on cliff ledges or in rock crevices.	Observed within survey corridor during winter. No suitable nesting habitat within the survey corridor. Not expected to nest on-site.
Yuma clapper rail <i>Rallus longirostris yumanensis</i>	FE, ST, CFP	Marshland vegetation, dense cattail stands, bulrush, reeds. Resident.	No suitable habitat; not expected to occur.

TABLE 3.5.1  
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)  
(continued)

Species	Status	Habitat	Occurrence/Comments
Laughing gull (nesting colony) <i>Larus atricilla</i>	CSC	Salton Sea.	Not expected to nest within survey corridor.
Elf owl (breeding) <i>Micrathene whitneyi</i>	SE	Desert trees. Very localized populations to the east of the Colorado River.	Out of range from known breeding location; not expected to nest within survey corridor.
Western burrowing owl (burrow sites) <i>Speotyto cunicularia hypugaea</i>	CSC, BLM	Grassland, agricultural land, coastal dunes with rodent burrows. Declining resident.	Observed within survey corridor during winter. High potential to nest within survey corridor.
Long-eared owl (nesting) <i>Asio otis</i>	CSC	Riparian woodland, oak woodland, tamarisk woodland. Rare resident and winter visitor. Localized breeding.	Riparian habitat required by species. Tamarisk scrub within survey corridor not sufficient to support owl population; not expected to occur.
Gila woodpecker <i>Melanerpes uropygialis</i>	SE	Saguaro and willow-cottonwood desert. Date palms, tamarisk. Lower Colorado River and near Brawley.	No suitable desert riparian habitat present; not expected to occur within survey corridor.
California horned lark <i>Eremophila alpestris actia</i>	CSC	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub.	Suitable habitat present; high potential to occur.
Bank swallow <i>Riparia riparia</i>	ST	Steep riverbanks, gravel pits. Nest in colonies.	No suitable habitat; not expected to occur.
Crissal thrasher <i>Toxostoma dorsale</i>	CSC	Dense thickets of shrubs or low trees in desert riparian and desert wash habitats.	Suitable habitat present; high potential to occur.
Le Conte's thrasher <i>Toxostoma lecontei</i>	CSC, BLM	Desert washes, creosote bush scrub. Uncommon resident.	Generally does not overlap with Crissal thrasher range; low potential to occur.
Loggerhead shrike <i>Lanius ludovicianus</i>	CSC	Open foraging areas near scattered bushes and low trees.	Suitable habitat present; high potential to occur.

TABLE 3.5.1  
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)  
(continued)

Species	Status	Habitat	Occurrence/Comments
<u>Mammals</u> (Nomenclature from Jones et al. 1982)			
California leaf-nosed bat <i>Macrotus californicus</i>	CSC, BLM	Low deserts. Caves, mines, buildings. Colonial. Migrational. Mostly near Colorado River in California.	Suitable foraging habitat; no suitable roosting locations. High potential to forage over site.
Pallid bat <i>Antrozous pallidus</i>	CSC, BLM	Arid deserts and grasslands. Shallow caves, crevices, rock outcrops, buildings, tree cavities. Especially near water.	Colonial. Audible echolocation signal. Moderate potential to forage over site; no suitable roosting habitat present.
Spotted bat <i>Euderma maculatum</i>	CSC, BLM	Wide variety of habitats. Caves, crevices, trees.	Audible echolocation signal. Prefers sites with adequate roosting sites. No suitable roosting site; not expected to occur.
Pale big-eared bat <i>Corynorhinus townsendii pallascens</i>	CSC, BLM	Caves, mines, buildings. Found in a variety of habitats, arid and mesic.	Individual or colonial. Extremely sensitive to disturbance.
Pocketed free-tailed bat <i>Nyctinomops femorosacca</i>	CSC	Normally roost in crevice in rocks, slopes, cliffs. Lower elevations in San Diego and Imperial Counties.	Colonial. Leave roosts well after dark. Moderate potential to forage over site; no suitable roosting habitat present.
Southern grasshopper mouse <i>Onychomys torridus Ramona</i>	CSC	Alkali desert scrub & desert scrub preferred. Also succulent shrub, wash, & riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush. Low to moderate shrub cover preferred.	Suitable habitat present; high potential to occur.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	CSC	Coastal sage scrub, chaparral, most desert habitats.	Suitable habitat present; high potential to occur.

**TABLE 3.5.1**  
**SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)**  
 (continued)

Species	Status	Habitat	Occurrence/Comments
American badger <i>Taxidea taxus</i>	*	Grasslands, Sonoran desert scrub.	Suitable habitat present; high potential to occur.

**STATUS CODES**

Listed/Proposed

- FE = Listed as endangered by the federal government
- FT = Listed as threatened by the federal government
- SE = Listed as endangered by the state of California
- ST = Listed as threatened by the state of California

Other

- BEPA = Bald and Golden Eagle Protection Act
- BLM = Bureau of Land Management
- CFP = California fully protected species
- CSC = California Department of Fish and Game species of special concern

\* = Taxa listed with an asterisk fall into one or more of the following categories:

- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

**TABLE 3.5.2**  
**SENSITIVE PLANT SPECIES**  
**OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE**

Species	State/Federal Status	CNPS List	CNPS Code	Comments
<i>Amaranthus watsonii</i> Watson's amaranth	-/-	4	1-1-1	Mojavean desert scrub; Sonoran desert scrub. Suitable habitat present; high potential to occur.
<i>Astragalus crotalariae</i> Salton milk vetch	-/-	4	1-1-2	Sonoran desert scrub/ sandy or gravelly. Suitable habitat present, high potential to occur.
<i>Astragalus insularis</i> var. <i>harwoodii</i> Harwood's milk vetch	-/-	2	2-2-1	Desert dunes. No suitable habitat; not expected to occur.
<i>Astragalus lentiginosus</i> var. <i>borreganus</i> Borrego milk vetch	-/-	4	1-1-1	Mojavean desert scrub, Sonoran desert scrub/sandy. Suitable habitat present; high potential to occur.
<i>Astragalus magdalenae</i> var. <i>peirsonii</i> Peirson's milk-vetch	CE/FT	1B	2-2-2	Desert dunes. No suitable habitat present, not expected to occur.
<i>Bursera microphylla</i> Elephant tree	-/-	2	3-1-1	Sonoran desert scrub/rocky. No suitable soils, not observed during surveys. Not expected to occur.
<i>Calliandra eriophylla</i> Fairyduster	-/-	2	2-1-1	Sonoran desert scrub/sandy. Suitable habitat present; high potential to occur.
<i>Camissonia arenaria</i> Sand evening-primrose	-/-	4	1-1-1	Mojavean desert scrub, Sonoran desert scrub/sandy, rocky. Suitable habitat present; high potential to occur.
<i>Cassia covesii</i> Cove's cassia	-/-	2	2-2-1	Sonoran desert scrub/sandy. Suitable habitat present; high potential to occur.
<i>Castela emoryi</i> Crucifixion thorn	-/-	2	2-1-1	Mojavean and Sonoran desert scrub. Very localized to the west of the study area. Not observed and not expected to occur.
<i>Cereus giganteus</i> Saguaro	-/-	2	3-2-1	Sonoran desert scrub/rocky. Soils not rocky; not observed in study area.
<i>Chaenactis carphoclinia</i> var. <i>peirsonii</i> Peirson's pincushion	-/-	1B	2-1-3	Sonoran desert scrub. Out of known range for species. Low potential to occur.

**TABLE 3.5.2**  
**SENSITIVE PLANT SPECIES**  
**OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE**  
**(continued)**

Species	State/Federal Status	CNPS List	CNPS Code	Comments
<i>Chamaesyce abramsiana</i> Abram's spurge	-/-	2	3-2-1	Mojavean desert scrub, Sonoran desert scrub/sandy. Suitable habitat present; high potential to occur.
<i>Chamaesyce platysperma</i> Flat-seeded spurge	-/-	3	3-2-2	Desert dunes, Sonoran desert scrub/sandy. Possibly endemic to California. Suitable habitat present; high potential to occur.
<i>Colubrina californica</i> Las Animas colubrina	-/-	4	1-1-2	Mojavean desert scrub. Suitable habitat present; moderate potential to occur.
<i>Condalia globosa</i> var. <i>pubescens</i> Spiny abrojo	-/-	4	1-2-1	Sonoran desert scrub. Suitable habitat present but not observed on-site. Low potential to occur.
<i>Coryphanta vivipara</i> var. <i>alversonii</i> Alverson's foxtail cactus	-/-	1B	3-2-2	Mojavean desert scrub, Sonoran desert scrub. Threatened by horticultural collecting. Suitable habitat present but not observed on-site. Low potential to occur.
<i>Croton wigginsii</i> Wiggin's croton	CR/-	2	2-2-1	Desert dunes, Sonoran desert scrub. Moderately suitable habitat present; moderate potential to occur.
<i>Cryptantha costata</i> Ribbed cryptantha	-/-	4	1-1-2	Mojavean and Sonoran desert scrub/sandy. Suitable habitat present; high potential to occur.
<i>Cryptantha holoptera</i> Winged cryptantha	-/-	4	1-1-2	Mojavean and Sonoran desert scrub. Suitable habitat present; high potential to occur.
<i>Cynanchum utahense</i> Utah cynanchum	-/-	4	1-1-1	Mojavean and Sonoran desert scrub/sandy, gravelly. Suitable habitat present; high potential to occur.
<i>Ditaxis adenophora</i> Glandular ditaxis	-/-	2	3-2-1	Mojavean and Sonoran desert scrub/sandy. Suitable habitat present; high potential to occur.

**TABLE 3.5.2**  
**SENSITIVE PLANT SPECIES**  
**OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE**  
**(continued)**

Species	State/Federal Status	CNPS List	CNPS Code	Comments
<i>Eucnide rupestris</i> Rock nettle	-/-	2	3-2-1	Sonoran desert scrub. Known from approximately 3 miles east of study area. Suitable habitat present; high potential to occur.
<i>Helianthus niveus</i> ssp. <i>tephrodes</i> Algodones Dunes sunflower	CE/-	1B	3-2-1	Desert dunes. No suitable habitat present, not expected to occur.
<i>Ipomopsis effusa</i> Baja California ipomopsis	-/-	2	3-3-1	Known from Pinto Wash west of study area. High potential to occur.
<i>Lupinus excubitus</i> var. <i>medius</i> Mountain Springs bush lupine	-/-	1B	2-1-2	Pinyon-juniper woodland, Sonoran desert scrub. Generally occurs in elevations above 1,000 feet. Low potential to occur.
<i>Lycium parishii</i> Parish's desert-thorn	-/-	2	2-1-1	Coastal sage scrub, Sonoran desert scrub. Suitable habitat present; high potential to occur.
<i>Malperia tenuis</i> Brown turbans	-/-	2	3-1-1	Sonoran desert scrub/sandy. Historically observed from the study area. High potential to occur.
<i>Nemacaulis denudata</i> var. <i>gracilis</i> Slender woolly-heads	-/-	2	2-2-1	Sandy soils. High potential to occur.
<i>Opuntia munzii</i> Munz's cholla	-/-	3	3-1-3	Sonoran desert scrub/sandy, gravelly. Suitable habitat present in study area but species only known from Chocolate Mountains. Not expected to occur.
<i>Pholisma sonorae</i> Sand food	-/-	1B	2-2-2	Desert dunes. No suitable habitat present, not expected to occur.
<i>Pilostyles thurberi</i> Thurber's pilostyles	-/-	4	1-1-1	Sonoran desert scrub. Parasitic on <i>Psoralea</i> spp. Host plant present; high potential to occur.
<i>Proboscidia althaeifolia</i> Desert unicorn plant	-/-	4	1-1-1	Sonoran desert scrub. Suitable habitat present; high potential to occur.

NOTE: See Table 3.5.3 for explanation of sensitivity codes.

**TABLE 3.5.3  
SENSITIVITY CODES**

**FEDERAL CANDIDATES AND LISTED PLANTS**

- FE = Federally listed, endangered
- FT = Federally listed, threatened
- FPE = Federally proposed endangered
- FPT = Federally proposed threatened

**STATE LISTED PLANTS**

- CE = State listed, endangered
- CR = State listed, rare
- CT = State listed, threatened

**CALIFORNIA NATIVE PLANT SOCIETY**

**LISTS**

- 1A = Species presumed extinct.
- 1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
- 2 = Species rare, threatened, or endangered in California but which are more common elsewhere. These species are eligible for state listing.
- 3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
- 4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

**R-E-D CODES**

**R (Rarity)**

- 1 = Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time.
- 2 = Occurrence confined to several populations or to 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.

**E (Endangerment)**

- 1 = Not endangered
- 2 = Endangered in a portion of its range
- 3 = Endangered throughout its range

**D (Distribution)**

- 1 = More or less widespread outside California
- 2 = Rare outside California
- 3 = Endemic to California

Army Corps of Engineers (see Figure 3.5.1). A small area in the western part of the southernmost wash was also defined as a jurisdictional wetland based on the vegetation present.

### **3.6 Cultural Resources**

For the proposed project, record searches and field surveys were conducted for a study area 2,150 feet wide centered on the existing SDG&E 230 kV transmission line. A report on the intensive pedestrian cultural resource survey is attached to this EA as confidential Appendix D. The discussion of cultural resources in this EA is based on that report.

The project area is rich in cultural resource sites and is designated by the BLM in the Desert Plan as an Area of Critical Environmental Concern. This designation is related to both environmental and cultural resources. The study area generally parallels and partly contains remnants of ancient Lake Cahuilla, a large, shallow, fresh-water lake. This ancient lake was formed by overflow episodes of the Colorado River into what is now the Salton Basin and Imperial Valley. While freshwater influxes from the Colorado River into the Salton Trough occurred sporadically since Pleistocene times, the relatively dense concentration of archaeological resources in the study area appears to be associated with at least four lacustrine episodes that occurred within the past 2,000 years. These archaeological resources are concentrated on a segment of the ancient shoreline near the 40-foot contour above mean sea level.

Because of the general lack of potable water sources and overall low resource potential in the Yuha desert, permanent human habitation of the West Mesa area must have been dependent on the careful use of reliable water catchment areas and proven travel routes. In such a marginal environment, human population concentrations or settlement nodes would necessarily center on stable sources of water. Thus, the presence of a large, fresh-water source in this arid environment presented prehistoric peoples with a valuable resource, and accounts for the relative abundance of cultural resource sites along what was once the shoreline of Lake Cahuilla.

Site record information from the Southeastern Information Center indicates that 30 recorded sites and 28 isolates are plotted within the study area. The site record forms for these sites were reviewed prior to commencement of the survey fieldwork. The relocation of these sites was considered to be a priority of the current study.

A BLM Class III survey of the defined study area was completed for the proposed project in March 2001. The primary goal of the intensive pedestrian survey was to identify, record, and inventory all cultural resource sites, features, and isolates of prehistoric and historic age within the study area. Twenty-six prehistoric sites and one historic site were identified. This number includes nine previously recorded and relocated sites. All of the