

# VINCENT N. SCHEIDT

## Biological Consultant

3158 Occidental Street • San Diego, CA • 92122-3205 • 858-457-3873 • 858-457-1650 fax • email: vince@san.rr.com

# Summary Biology Report

**From:** Vince Scheidt, Certified Biological Consultant   
Shannon M. Allen, Consulting Biologist 

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**RE: Biological Resources, Project Impacts, and Mitigation - TPM 20835RPL<sup>2</sup>, Gopher Canyon Road**

Per your recent request, we have completed a biology field study of the 16.88-acre Tran Minor Residential Subdivision project, TPM 20835RPL<sup>2</sup>, located in the Gopher Canyon Road area of unincorporated northern San Diego County. The purpose of this survey (conducted on 24 September 2003, 17 October 2003, and 11 August 2004) was to identify the site's flora and fauna (Table 1), the onsite habitat-types, potential project impacts (Table 2), and mitigation if required. As a result this study, we are able to summarize the following biological issues as they relate to site development as proposed:

### Habitats

1. Non-native Grassland (Holland Code #42200) – 15.25 acres  
The vast majority of the property formerly supported an active citrus and avocado grove. This area was maintained and presumably harvested for several decades before it was allowed to go fallow in recent years. Shortly prior to the fieldwork for this report, the site was mechanically cleared of most dead trees. The majority of the vegetation now qualifies as Non-native Grassland (NNG). All that remains from the prior grove that formerly covered nearly 100% of the property is a small, mostly fallow orchard located in the northeastern corner of the site. Currently, this area also qualifies as NNG. Indicators in the NNG habitat include Ripgut Brome (*Bromus diandrus*), Perennial Mustard (*Brassica geniculata*), and other Eurasian forbs and grasses. A few scattered stump resprouts of species such as Laurel Sumac (*Malosma laurina*) were detected along with occasional small isolated specimens of Mule Fat (*Baccharis glutinosa*), willow (*Salix*), small Coast Live Oaks (*Quercus agrifolia*), and others. These are common in fallow groves. The habitat value of the NNG on the TPM 20835RPL<sup>2</sup> site is currently moderate to low.
2. Orchards and Vineyards (Holland Code #18100) – offsite  
Active Orchards and Vineyards habitat is found offsite on adjoining parcels to the east and west. This habitat is indicated by mature grove trees with occasional annual orchard weeds in the understory.
3. Urban/Developed (Holland Code #12000) – 1.01 acres  
Gopher Canyon Road, located north of the site and portions of Valley of the Kings Road, located near the northwestern property edge are paved. These features supports Urban/Developed habitat. The only plants associated with this habitat-type are roadside weeds such as Telegraph Weed (*Heterotheca grandiflora*) and others. This habitat-type is of no biological resource value.

4. Southern Willow Scrub (Holland Code #63320) – 0.62 acre  
Southern Willow Scrub (SWS) vegetation is found in a broken strip along the northern edge of the property within the right-of-way of Gopher Canyon Road. This habitat is indicated by small Black and Arroyo Willows (*Salix gooddingii*, *S. lasiolepis*) along with White Watercress (*Rorippa nasturtium-aquaticum*), Bulrush (*Scirpus*), and various other hydrophytes. This habitat-type qualifies as a federal, state, and county (RPO) wetland (see below). Three small patches supporting willows are also located in the northern-central portion of the property. These are isolated in this location and of limited habitat value. The main swale along Gopher Canyon Road supports high-value wetland habitat.
  
5. Diegan Coastal Sage Scrub (Holland Code #32500) - offsite  
Diegan Coastal Sage Scrub (CSS) vegetation is found south of the property on the abutting hillside. Indicators in this habitat include California Sagebrush (*Artemisia californica*), Flat-top Buckwheat (*Eriogonum fasciculatum*), Laurel Sumac (*Malosma laurina*), and other soft-woody shrubs. CSS is a high-interest habitat-type, of significant biological resource value.

## Wetland Survey

The drainage feature paralleling Gopher Canyon Road qualifies as supporting jurisdictional wetlands. The County's Resource Protection Ordinance (RPO), the California Department of Fish and Game (CDFG) code, and the U.S. Army Corps of Engineers per the Clean Water Act each define wetlands in a similar manner. In order to qualify an area as an RPO or CDFG wetland, the land must support one or more of three criteria; wetlands vegetation, wetlands hydrology, or hydric soil-types. In order to qualify an area as an ACoE wetland, the land must support all three criteria as defined under the Unified Federal Method for Wetland Delineation.

The drainage along Gopher Canyon Road clearly supports all three criteria, qualifying it as a federal, state, and county wetland. This feature is mapped as the limits of the Southern Willow Scrub along Gopher Canyon Road on the attached 100'-scale Vegetation Exhibit. Any measurable impacts to this feature would require regulatory agency consultation and permitting.

The three small willow patches on the slopes above the drainage do not appear to meet any of the requisite criteria that would define these areas as wetlands. Although they support hydrophytes (isolated willows), the predominance of the vegetation in and around these patches is upland weedy forbs. It is likely that these specimens were established in this area during the agricultural period, when runoff was likely from excessive avocado tree irrigation. For these reasons, we would not qualify these slope areas as jurisdictional wetlands.

## Flora and Fauna

Fifty-nine species of vascular plants and eighteen species of animals were detected during the field survey of the property. These are listed in Table 1. This list represents a characteristic flora and fauna associated with mostly disturbed habitats in this part of San Diego County. All of the species detected are common to this area. Because most of the site had been cleared prior to the survey, much of the fauna had been displaced by a lack of surface and aerial cover.

## Sensitive Species

Although no sensitive plants were detected, three sensitive animals were detected during the field surveys. These are Red-shouldered Hawk, Black-shouldered Kite, and Bewick's Wren:

### **Red-shouldered Hawk / *Buteo lineatus***

**Listing:** "Blue List" (1986)

"Sensitive Bird" (County of San Diego, 1996)

State status: "Fully Protected" (CDFG Code Sections 3511, 4700, 5050 & 5515)

Federal status: Protected Raptor (16 U.S.C. 668-668d, 54 Stat. 250), as amended

**Distribution:** Southeastern Canada and the eastern US to California and Mexico.

**Habitat(s):** Roost and nest in a variety of woodland habitats. Eucalyptus woodlands, oak groves, open riparian forests, related broken wooded areas.

**Status onsite:** Single specimen observed soaring over the site on several occasions during the field surveys. Probably nest in the immediate vicinity, but not onsite.

**Comments:** Population numbers of this species in Southern California seem to have changed little over the last century, although other areas within the species' range have experienced significant population declines.

### **Black-shouldered Kite / *Elanus leucurus***

**Listing:** "Fully Protected Raptor" (CDFG, 1999)

"Sensitive Bird" (County of San Diego, 1996)

State status: "Fully Protected" (CDFG Code Sections 3511, 4700, 5050 & 5515)

Federal status: Protected Raptor (16 U.S.C. 668-668d, 54 Stat. 250), as amended

**Distribution:** Black-shouldered Kites breed primarily along the coastal lowland, and the species occurs over a broad area of the western U.S. through Mexico and into South America.

**Habitat(s):** Roost and nest in a variety of woodland habitats. Mainly riparian woodlands, oak groves, related habitats.

**Status onsite:** Single specimen observed perched offsite on a Eucalyptus tree to the south of the property during the initial field survey. Probably forages onsite on occasion due to the openness of the habitat.

**Comments:** Population numbers in San Diego County appear to have increased since the 1950's, and this species is not currently considered threatened or endangered.

### **Bewick's Wren / *Thryomanes bewickii***

**Listing:** "Blue List" (Tate, 1986)

**Distribution:** Western and central North America from Canada to Mexico.

**Habitat(s):** Occupies a wide variety of habitats in San Diego County from the coast into the desert.

**Status onsite:** Two specimens were observed – both in association with denser areas of vegetation in the drainage along Gopher Canyon Road. This songbird is relatively common, and ample nesting habitat is available in the vicinity.

**Comments:** Numbers of this species appear to be relatively stable in San Diego County, although the species is on the decline in other parts of the country.

Because all of the above are wide-ranging birds, mapping of observed locations is not provided on the attached Vegetation Exhibit. All specimens are anticipated to move onsite and offsite with regularity.

In addition to the above, various other wide-ranging or cryptic species might be anticipated to occur on the TPM 20835RPL<sup>2</sup> site. No critical or highly sensitive populations of any species would be anticipated, however, given the nature of the historical (agriculture) and current (cleared) uses of the land. Sensitive species known from the vicinity, along with an assessment of the probability of occurrence onsite, are presented in Table 3.

Three high interest sensitive species are known from the general vicinity of this property: Arroyo Toad (*Bufo microscaphus californicus*), Least Bell's Vireo (*Vireo bellii pusillus*), and Southwestern Willow Flycatcher (*Empidonax trailii extimus*). Each of these is a federally-listed Endangered Species, with Least Bell's Vireo also listed as a California Endangered Species. None of these are known to occur in the immediate vicinity of the TPM 20835RPL<sup>2</sup> site. The nearest known breeding populations of these species are found several miles to the west in the San Luis Rey River floodway, so the probability of any of them occurring on the subject site is considered very low, given the nature of the onsite habitats and distance from known breeding areas.

#### Spring Rare Plant Evaluation

Certain rare plants are known to occur in the vicinity of this property. These are mostly associated with specific habitat-types (such as vernal pools or native grassland), or they are found in association with specific soil types (such as gabbros, auld clays, ultramafics, etc.) that are not found on this property. No State or Federally-listed Species are anticipated. Sensitive plants known from the site's vicinity are presented in Table 3.

#### Stephen's Kangaroo Rat Habitat Evaluation

Stephen's Kangaroo Rat (*Dipodomys stephensi*) is a State and Federally-listed Threatened Species, subject to protection under both the Federal and State Endangered Species Acts (CESA, FESA). *D. stephensi* occurs in open habitats dominated by low forbs such as Red-stem Stork's-bill (*Erodium cicutarium*) with scattered, low, perennial shrubs, including Flat-top Buckwheat (*Eriogonum fasciculatum*), California Sagebrush (*Artemisia californica*), and others. Ideal habitat is characterized by the presence of friable, loamy soils where the rats can construct underground burrows, and extensive open areas between shrubs for foraging, breeding, etc. Apparently not tolerated is the presence of dense brush or a heavy thatch of annual weedy grasses. Also not tolerated is the presence of nearby development, as this species suffers extirpation in the presence of feral pets and other "edge effects". Moore-Craig (1984), working at the San Jacinto Wildlife Area, reported that successful trapping sites for SKR had an average of 9.1% vegetative cover. Prior to clearing, the TPM 20835RPL<sup>2</sup> site had an average cover of at least 60%, many times more dense than is tolerated by SKR. Also, the site's steep slopes probably would have precluded occupancy by this very rare species based on known occurrences and habitat requirements. No signs of *Dipodomys* (tail drags, scats, burrows, dust "baths" etc.) were detected during the field surveys. The nearest known localities for Stephen's Kangaroo Rat are on the Fallbrook Naval Weapons Facility, many miles to the northwest. Based on these factors, the probability for *Dipodomys stephensi* to occur on this property is considered low.

## Project Impacts and Mitigation Requirements

The subdivision and subsequent development of this property is subject to review under the California Environmental Quality Act (CEQA) and the County's Resource Protection Ordinance (RPO). This means that the County requires that project-related impacts to native habitat and species be "less than significant", as defined by CEQA, and consistent with the requirements of the RPO. This usually requires the adoption of mitigation measures intended to reduce "significant" impacts to a level that is "less than significant". Project-related impacts, as we have identified them, are presented in Table 2.

Future development of the TPM 20835RPL<sup>2</sup> site would result in the following impacts:

- #1. A potential loss of 13.68 acres of Non-native Grassland
- #2. A potential loss of 0.09 acre of Southern Willow Scrub
- #3. A potential loss of 1.01 acres of Urban/Developed Habitat

Impacts #1 and #2 above are considered potentially "significant", as defined by CEQA and the RPO. Current County policy requires mitigation for project impacts to these habitat-types. Impact #3 above is considered "less than significant", as defined by CEQA and the RPO. No mitigation for this impact is required.

At this time, in order to reduce all project impacts (see Table 2) to "less than significant", as defined by CEQA, and satisfy the County policy of requiring mitigation for impacts to sensitive habitats, the following mitigation measures are recommended:

1. Provide offsite mitigation at a ½-to-1 ratio for all impacts to Non-native Grassland vegetation. This means that no less than 6.84 acre-credits (13.68 acres X ½) of NNG or higher value habitat must be secured offsite in a County-approved location. The subject site historically supported CSS, as indicated by the undisturbed habitat on adjoining and nearby properties. If left alone in the future, the site would convert back to CSS, as evidenced by occasional CSS species (Flat-top Buckwheat, California Sagebrush, Laurel Sumac, others) found scattered across portions of the site. For this reason, in the professional opinion of the investigator, the conservation of this vegetation-type (CSS) would constitute suitable mitigation for impacts to the old grove NNG.
2. Provide onsite mitigation at a 3-to-1 ratio for all impacts to Southern Willow Scrub vegetation onsite. This means that no less than 0.27 acre-credits (0.09 acres X 3) of Southern Willow Scrub must be conserved in a dedicated Biological Open Space Easement. The current project design could protect up to approximately 0.53 acres of Southern Willow Scrub. This is in excess of the 0.27 acres needed to offset project impacts. The configuration of this easement is shown on the Project Tentative Parcel Map and Vegetation Exhibit.
3. In order to minimize impacts to the onsite wetland areas, it is recommended that a Biological Open Space Easement include a minimum 25-foot wetland buffer from the outer edge of the canopy. Fencing or signage indicating that this area is a biological preserve is also recommended. The dedication of this easement should be made a Specific Condition of Project Approval.
4. In order to prevent encroachment into the Biological Open Space Easement, it is recommended

that a second, "Limited Building Zone" easement be adopted. This will provide a minimum 100' fire clearing setback from the edge of the Biological Open Space Easement to ensure that fire clearing does not encroach into the sensitive area.

The current project does not propose any improvements to Gopher Canyon Road. Should any future improvements be required, they should utilize the northern portion of the road easement, as improvements on the south side could result in additional wetland impacts.

Thanks for the opportunity to provide this summary biological study and project impact analysis. Please contact us if you have any questions.

**Table 1. Flora and Fauna Detected - TPM 20835RPL<sup>2</sup>**

| <u>Scientific Name</u>                | <u>Common Name</u>  |
|---------------------------------------|---------------------|
| <u>Plants</u>                         |                     |
| <i>Amaranthus albus</i> *             | White Tumbleweed    |
| <i>Anagallis arvensis</i> *           | Scarlet Pimpernel   |
| <i>Avena fatua</i> *                  | Wild Oat            |
| <i>Baccharis glutinosa</i>            | Mule Fat            |
| <i>Baccharis pilularis</i>            | Coyote Brush        |
| <i>Brachypodium distachyon</i> *      | Purple False-brome  |
| <i>Brassica geniculata</i> *          | Perennial Mustard   |
| <i>Bromus diandrus</i> *              | Ripgut Brome        |
| <i>Bromus mollis</i> *                | Soft Brome          |
| <i>Bromus rubens</i> *                | Foxtail Brome       |
| <i>Carduus tenuiflorus</i> *          | Italian Thistle     |
| <i>Chamaesyce maculata</i> *          | Spotted Spurge      |
| <i>Chenopodium murale</i> *           | Goosefoot           |
| <i>Cirsium vulgare</i> *              | Bull Thistle        |
| <i>Citrus sinensis</i> *              | Orange              |
| <i>Conyza bonariensis</i> *           | Horseweed           |
| <i>Conyza canadensis</i> *            | Common Horseweed    |
| <i>Cynodon dactylon</i> *             | Bermuda Grass       |
| <i>Cyperus</i> sp *                   | Sedge               |
| <i>Datura meteloides</i>              | Jimsonweed          |
| <i>Distichlis spicata</i>             | Desert Salt Grass   |
| <i>Epilobium</i> sp.                  | Fireweed            |
| <i>Eremocarpus setigerus</i>          | Dove Weed           |
| <i>Eriogonum fasciculatum</i>         | Flat-top Buckwheat  |
| <i>Erodium</i> sp. *                  | Stork's-bill        |
| <i>Festuca megalura</i> *             | Foxtail Fescue      |
| <i>Foeniculum vulgare</i> *           | Wild Anise          |
| <i>Gastridium ventricosum</i> *       | Nitgrass            |
| <i>Haplopappus</i> sp.                | Goldenbush          |
| <i>Heteromeles arbutifolia</i>        | Toyon               |
| <i>Heterotheca grandiflora</i> *      | Telegraph Weed      |
| <i>Lactuca serriola</i> *             | Wild Lettuce        |
| <i>Lolium multiflorum</i> *           | Italian Ryegrass    |
| <i>Lotus purshianus</i>               | Spanish Clover      |
| <i>Lotus scoparius</i>                | Deerweed            |
| <i>Malosma laurina</i>                | Laurel Sumac        |
| <i>Nicotiana glauca</i> *             | Tree Tobacco        |
| <i>Persea americana</i> *             | Avocado             |
| <i>Picris echioides</i> *             | Bristly Ox-tongue   |
| <i>Polypogon monspeliensis</i> *      | Rabbitfoot Grass    |
| <i>Quercus agrifolia</i>              | Coast Live Oak      |
| <i>Raphanus sativus</i> *             | Wild Radish         |
| <i>Rorippa nasturtium-aquaticum</i> * | Watercress          |
| <i>Rumex crispus</i> *                | Curly Dock          |
| <i>Salix gooddingii</i>               | Southwestern Willow |

**Table 1. Flora and Fauna Detected - TPM 20835RPL<sup>2</sup>, (continued)**

| <u>Scientific Name</u>            | <u>Common Name</u>           |
|-----------------------------------|------------------------------|
| <u>Plants (cont)</u>              |                              |
| <i>Salix lasiolepis</i>           | Arroyo Willow                |
| <i>Salsola pestifer</i> *         | Russian Thistle              |
| <i>Schinus molle</i> *            | Peruvian Peppertree          |
| <i>Schinus terebinthifolius</i> * | Brazilian Peppertree         |
| <i>Scirpus</i> sp.                | Bulrush                      |
| <i>Solanum americanum</i>         | White Nightshade             |
| <i>Sonchus asper</i> *            | Sow Thistle                  |
| <i>Sonchus oleraceus</i> *        | Sow Thistle                  |
| <i>Stipa</i> sp.                  | Stipa                        |
| <i>Tamarix</i> sp. *              | Salt Cedar                   |
| <i>Toxicodendron diversilobum</i> | Poison Oak                   |
| <i>Typha latifolia</i>            | Cattails                     |
| <i>Washingtonia robusta</i> *     | Mexican Fan Palm             |
| <i>Xanthium strumarium</i> *      | Cocklebur                    |
| <u>Birds</u>                      |                              |
| <i>Archilochus anna</i>           | Anna's Hummingbird           |
| <i>Buteo jamaicensis</i>          | Red-tailed Hawk              |
| <b><i>Buteo lineatus</i></b>      | <b>Red-shouldered Hawk</b>   |
| <i>Chamaea fasciata</i>           | Wrentit                      |
| <i>Corvus brachyrhynchos</i>      | American Crow                |
| <b><i>Elanus leucurus</i></b>     | <b>Black-shouldered Kite</b> |
| <i>Falco sparverius</i>           | American Kestrel             |
| <i>Mimus polyglottos</i>          | Mockingbird                  |
| <i>Pipilo crissalis</i>           | California Towhee            |
| <b><i>Thryomanes bewickii</i></b> | <b>Bewick's Wren</b>         |
| <i>Troglodytes aedon</i>          | House Wren                   |
| <u>Mammals</u>                    |                              |
| <i>Canis latrans</i>              | Coyote                       |
| <i>Spermophilus beecheyi</i>      | California Ground Squirrel   |
| <i>Sylvilagus audubonii</i>       | Desert Cottontail            |
| <i>Thomomys bottae</i>            | Valley Pocket Gopher         |
| <u>Reptiles</u>                   |                              |
| <i>Sceloporus occidentalis</i>    | Western Fence Lizard         |
| <i>Uta stansburiana</i>           | Side-blotched Lizard         |
| <u>Butterflies</u>                |                              |
| <i>Pontia protodice</i>           | Common White                 |

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Total = Fifty-nine plants, eleven birds, four mammals, two reptiles, and one butterfly

**BOLD** = sensitive species    \* = non-native taxon

**Table 2. Impact/Mitigation Analysis - TPM 20835RPL<sup>2</sup>**

| <u>Biological Resource</u> | <u>Onsite Acres<br/>(Pre-development)</u> | <u>Acres Preserved<sup>1</sup><br/>(Post-development)</u> | <u>Acres Impacted<br/>(Post-development)</u> | <u>Mitigation<br/>Required</u>                     |
|----------------------------|---|---|--|--|
| Non-native Grassland       | 15.25 acres                               | 1.57 acre <sup>2</sup>                                    | 13.68 acres                                  | 6.84 acres<br>(@ ½-to-1)<br><i>offsite</i>         |
| Orchards and Vineyards     | offsite                                   | n/a   | none   | none   |
| Urban/<br>Developed        | 1.01 acres                                | none  | 1.01 acres                                   | none   |
| Southern Willow Scrub      | 0.62 acre                                 | 0.53 acre   | 0.09 acre                                    | 0.27 acre<br>(@ 3-to-1)<br><i>0.26 acre excess</i> |
| Diegan Coastal Sage Scrub  | none                                      | n/a   | none   | none   |
| <b>Totals</b>              | <b>16.88 acres</b>                        | <b>2.10 acres</b>   | <b>14.78 acres</b>                           |  |

<sup>1</sup> - Assuming that mitigation occurs onsite via the dedication of a biological open space easement

<sup>2</sup> - Impact neutral

**Table 3. Sensitive Species Known from the Vicinity – TPM 20835RPL<sup>2</sup>**

| Scientific Name                         | Common Name                       | Federally Endangered | Federally Threatened | State Endangered | State Threatened | State Rare | Coastal Sage Scrub | Mixed Chaparral | Grassland | Riparian | Oak Woodland | Chamise Chaparral | Mixed Conifer | Closed Cone Forest | Pinon-Juniper | Freshwater Marsh | Desert Scrub | Desert Wash | Salt or Alkali Marsh | Vernal Pools | Montane Meadow | Coastal or Desert Dune Lakes and Bays | Probability of Occurrence |                |                |
|---|-----------------------------------|----------------------|----------------------|------------------|------------------|------------|--------------------|-----------------|-----------|----------|--------------|-------------------|---------------|--------------------|---------------|------------------|--------------|-------------|----------------------|--------------|----------------|---------------------------------------|---------------------------|----------------|----------------|
| <i>Anniella pulchra pulchra</i>         | Silvery legless lizard            |                      |                      |                  |                  |            | X                  | X               | X         |          |              |                   |               |                    |               |                  |              |             |                      |              |                | X                                     | M <sup>3</sup>            |                |                |
| <i>Antrozous pallidus</i>               | Pallid bat                        |                      |                      |                  |                  |            | X                  | X               | X         | X        | X            | X                 | X             | X                  | X             | X                | X            | X           |                      |              |                | X                                     | M <sup>2</sup>            |                |                |
| <i>Aquila chrysaetos</i>                | Golden eagle                      |                      |                      |                  |                  |            | X                  | X               | X         |          | X            | X                 | X             | X                  | X             |                  |              |             |                      |              |                |                                       |                           | M <sup>2</sup> |                |
| <i>Arctostaphylos rainbowensis</i>      | Rainbow Manzanita                 |                      |                      |                  |                  |            |                    | X               |           |          |              |                   |               |                    |               |                  |              |             |                      |              |                |                                       |                           | L <sup>2</sup> |                |
| <i>Brodiaea orcuttii</i>                | Orcutt's Brodiaea                 |                      |                      |                  |                  |            | X                  |                 | X         | X        |              |                   |               |                    |               |                  |              |             |                      |              |                |                                       |                           | L <sup>1</sup> |                |
| <i>Bufo microscaphus californicus</i>   | Arroyo toad                       | X                    |                      |                  |                  |            | X                  | X               | X         | X        | X            | X                 |               |                    |               |                  |              |             |                      |              |                | X                                     |                           | L <sup>3</sup> |                |
| <i>Cathartes aura</i>                   | Turkey vulture                    |                      |                      |                  |                  |            | X                  | X               | X         | X        | X            | X                 | X             | X                  |               |                  |              |             |                      |              |                |                                       |                           |                | M <sup>2</sup> |
| <i>Coleonyx variegatus abboti</i>       | San Diego banded gecko            |                      |                      |                  |                  |            | X                  | X               |           |          | X            |                   |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>3</sup> |
| <i>Cnemidophorus hyperythrus</i>        | Orange-throated whiptail          |                      |                      |                  |                  |            | X                  | X               | X         | X        |              | X                 |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | M <sup>2</sup> |
| <i>Dipodomys stephensi</i>              | Stephen's kangaroo rat            | X                    |                      |                  | X                |            | X                  | X               |           |          |              |                   |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>3</sup> |
| <i>Eumops perotis californicus</i>      | Greater western mastiff bat       |                      |                      |                  |                  |            | X                  | X               | X         | X        | X            | X                 | X             | X                  | X             | X                | X            | X           | X                    | X            | X              | X                                     | X                         |                | M <sup>2</sup> |
| <i>Empidonax trailii extimus</i>        | Southwestern willow flycatcher    | X                    |                      |                  |                  |            |                    |                 |           | X        |              |                   |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>3</sup> |
| <i>Harpagonella palmeri</i>             | Palmer's Harpagonella             |                      |                      |                  |                  |            | X                  |                 | X         |          |              |                   |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>1</sup> |
| <i>Lanius ludovicianus</i>              | Loggerhead shrike                 |                      |                      |                  |                  |            | X                  | X               | X         | X        |              |                   |               |                    |               |                  | X            | X           |                      |              |                |                                       |                           |                | M <sup>2</sup> |
| <i>Lepus californicus bennettii</i>     | San Diego black-tailed jackrabbit |                      |                      |                  |                  |            | X                  | X               | X         |          | X            | X                 | X             | X                  |               |                  |              |             |                      |              |                |                                       |                           |                | M <sup>2</sup> |
| <i>Myotis yumanensis</i>                | Yuma myotis                       |                      |                      |                  |                  |            | X                  | X               | X         | X        | X            | X                 | X             | X                  | X             | X                | X            | X           | X                    | X            | X              | X                                     | X                         |                | M <sup>2</sup> |
| <i>Nyctinomops macrotis</i>             | Big free-tailed bat               |                      |                      |                  |                  |            | X                  | X               | X         | X        | X            | X                 | X             | X                  | X             | X                | X            | X           | X                    | X            | X              | X                                     | X                         |                | M <sup>2</sup> |
| <i>Nyctinomops femorosaccus</i>         | Pocketed free-tailed bat          |                      |                      |                  |                  |            | X                  | X               | X         | X        | X            | X                 | X             | X                  | X             | X                | X            | X           | X                    | X            | X              | X                                     | X                         |                | M <sup>2</sup> |
| <i>Odocoileus hemionus</i>              | Southern mule deer                |                      |                      |                  |                  |            | X                  | X               | X         | X        | X            | X                 | X             | X                  | X             | X                | X            | X           |                      |              |                | X                                     |                           |                | L <sup>3</sup> |
| <i>Onychomys torridus ramona</i>        | Southern grasshopper mouse        |                      |                      |                  |                  |            | X                  | X               | X         |          | X            |                   |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>3</sup> |
| <i>Phrynosoma coronatum blainvillei</i> | San Diego horned lizard           |                      |                      |                  |                  |            | X                  | X               | X         | X        |              | X                 | X             |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>3</sup> |
| <i>Polygala cornuta fishiae</i>         | Fish's milkwort                   |                      |                      |                  |                  |            |                    | X               |           | X        | X            | X                 |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>2</sup> |
| <i>Vireo bellii pusillus</i>            | Least Bell's vireo                | X                    |                      | X                |                  |            |                    |                 |           | X        |              |                   |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>3</sup> |
| <i>Taxidea taxus</i>                    | American badger                   |                      |                      |                  |                  |            | X                  | X               | X         |          | X            | X                 | X             |                    | X             |                  | X            | X           |                      |              |                | X                                     |                           |                | L <sup>3</sup> |
| <i>Tetracoccus dioicus</i>              | Parry's Tetracoccus               |                      |                      |                  |                  |            |                    | X               |           |          |              | X                 |               |                    |               |                  |              |             |                      |              |                |                                       |                           |                | L <sup>2</sup> |

**Probability of Occurrence Codes:**

**L - Low Probability, plants;**

L<sup>1</sup> - onsite habitat unsuitable (inappropriate soil type, cover, etc.)

L<sup>2</sup> - distinctive perennial that would not have been missed if present onsite

**L - Low Probability, animals;**

L<sup>3</sup> - no significant habitat (roosting sites, breeding sites, inadequate cover, excessive edge effects, etc.)

**M - Moderate Probability, plants;**

M<sup>1</sup> - habitat potentially suitable, but poorly known

**M - Moderate Probability, animals;**

M<sup>2</sup> - wide ranging, therefore could occur onsite on at least an occasional basis

M<sup>3</sup> - habitat generally suitable, but cryptic and/or poorly known

**H - High Probability, plants;**

H<sup>1</sup> - habitat clearly suitable, but seasonal or ephemeral in occurrence

**H - High Probability, animals;**

H<sup>2</sup> - habitat clearly suitable, but cryptic;

**O - Observed; see text for detailed discussion**