

**PHASE I REPORT FOR  
SAN FRANCISQUITO CANYON  
SIGNIFICANT ECOLOGICAL AREA NO. 19**

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**PHASE I REPORT FOR  
SAN FRANCISQUITO CANYON  
SIGNIFICANT ECOLOGICAL AREA  
(SEA NO. 19)**

This report describes the current biological condition of the San Francisquito Canyon SEA No. 19. It includes descriptions of plant and wildlife communities based upon field surveys and review of other reports from the region. The report also includes information on ownership patterns within the SEA and an evaluation of the original intent of the SEA and current uses. A number of management measures and boundary changes for the SEA are suggested. All of the efforts were designed to provide a framework for preservation of the San Francisquito Canyon SEA No. 19, and to furnish those proposing actions that would affect the SEA with a baseline analysis to guide their individual biological assessments and mitigations.

**I.        INTRODUCTION**

Significant Ecological Area (SEA) No. 19 is located in the Sierra Pelona Mountains in northwestern Los Angeles County (see Exhibit 1, Regional Vicinity Map). SEA No. 19 lies east and northeast of the junction of Interstate 5 and State Highway 126. The site consists of the lower floodplain of San Francisquito Creek and is contiguous with the Santa Clara River Significant Ecological Area (SEA No. 23). The southern boundary of the Angeles National Forest abuts the north edge of the San Francisquito Canyon SEA, and Castaic Lake lies a few miles to the northwest. SEA No. 19 is located on the Newhall and Warm Springs 7.5-minute series USGS quadrangle maps. Aerial photographs and USGS topographic mapping of SEA No. 19 are available at the Los Angeles County Regional Planning Department. Exhibit 2 outlines the SEA boundaries. All maps reflect reconfiguration of the SEA as a result of channelization of part of San Francisquito Creek per of the Santa Clarita General Plan.

San Francisquito Canyon is a northeast to southwest trending drainage that empties into the Santa Clara River. Elevations within the SEA range from approximately 1,100 to 1,400 feet above sea level. It is one of the largest tributaries of the Santa Clara River, entering from the Sierra Pelona Mountains to the north. San Francisquito Creek is fed by several small drainages in the north. There are mandated flows from Drinkwater Reservoir within the National Forest. The canyon is paralleled by Dry Canyon to the east and a series of low hills and small canyons to the west. The entire drainage is directly north of the City of Santa Clarita.

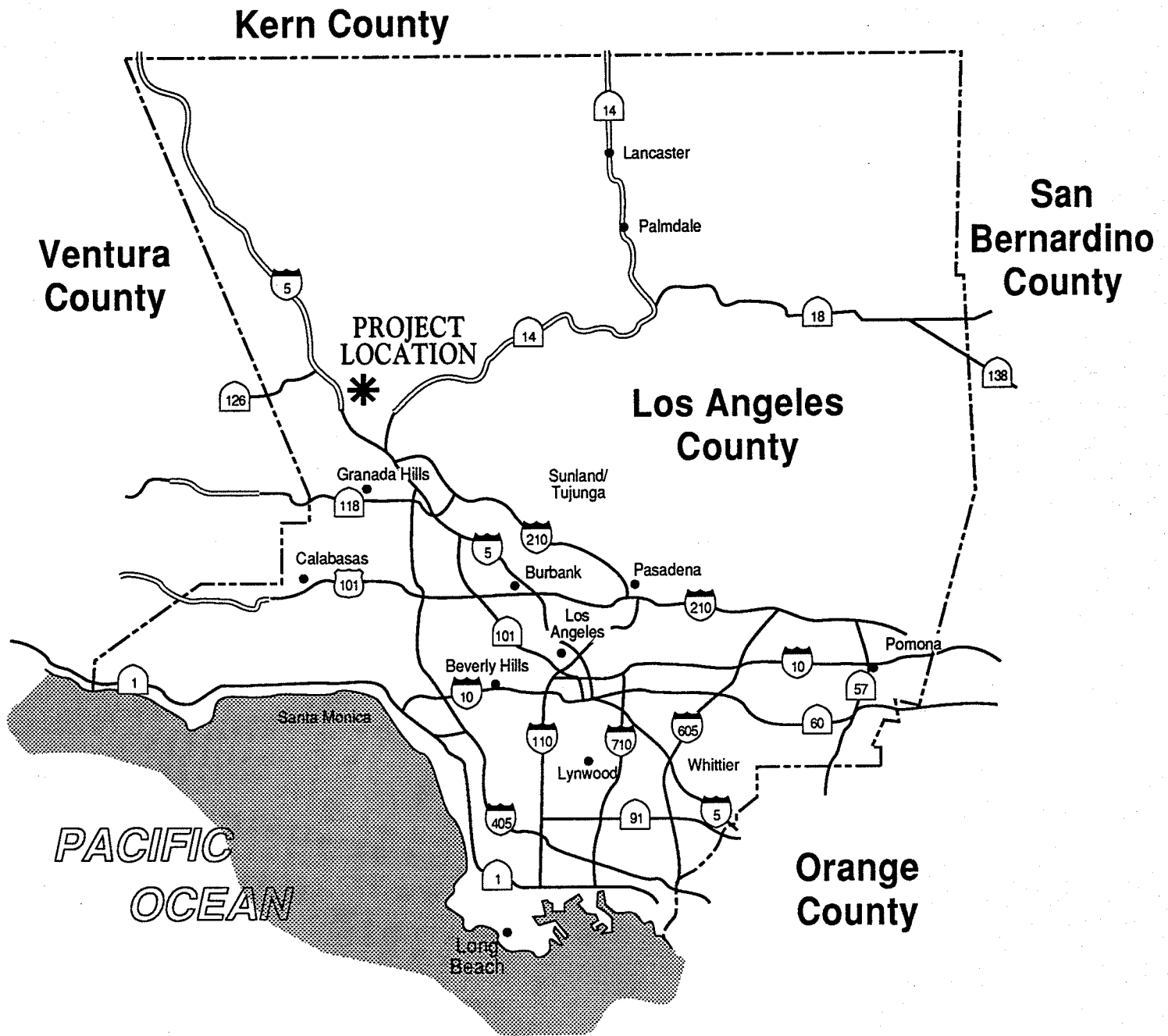
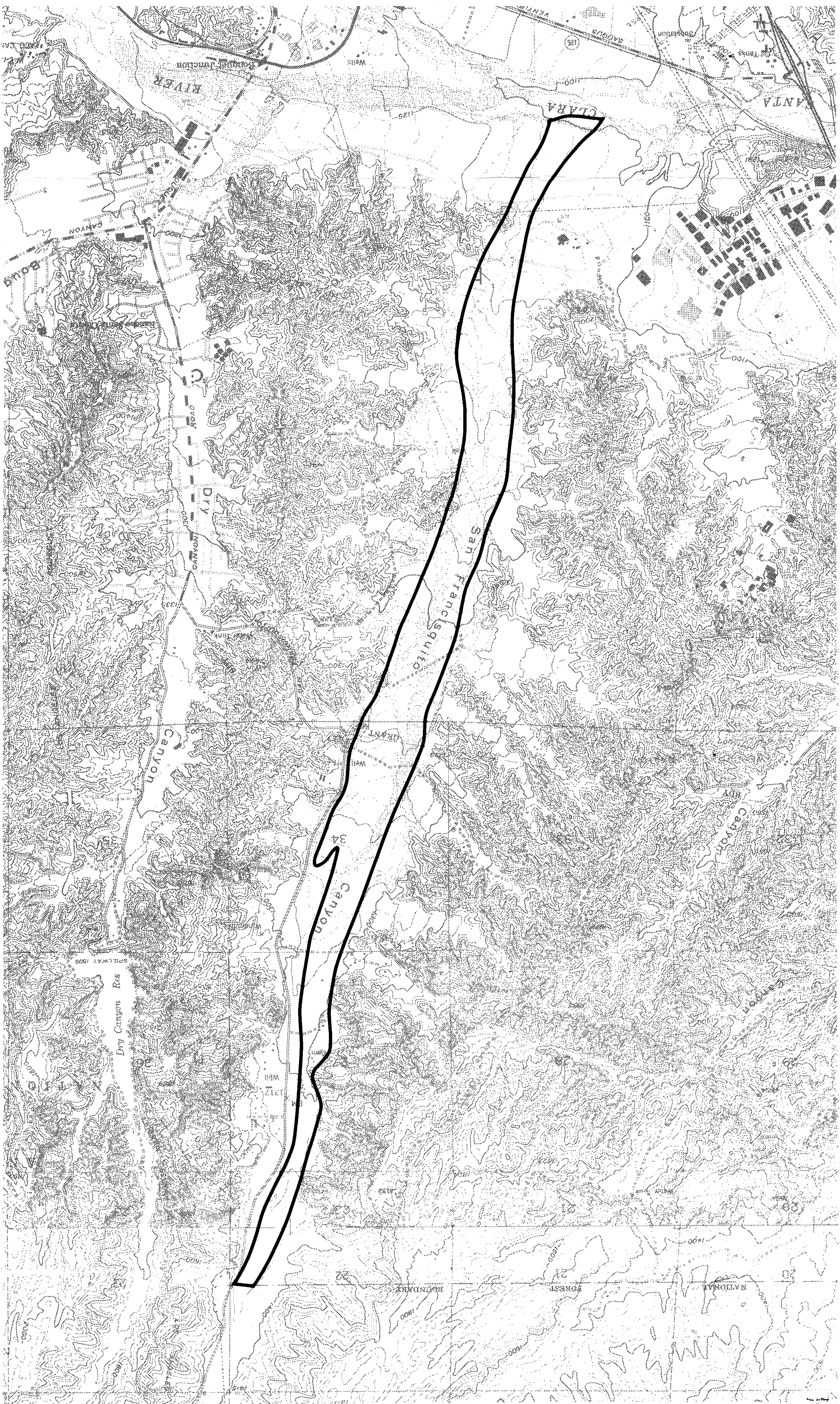
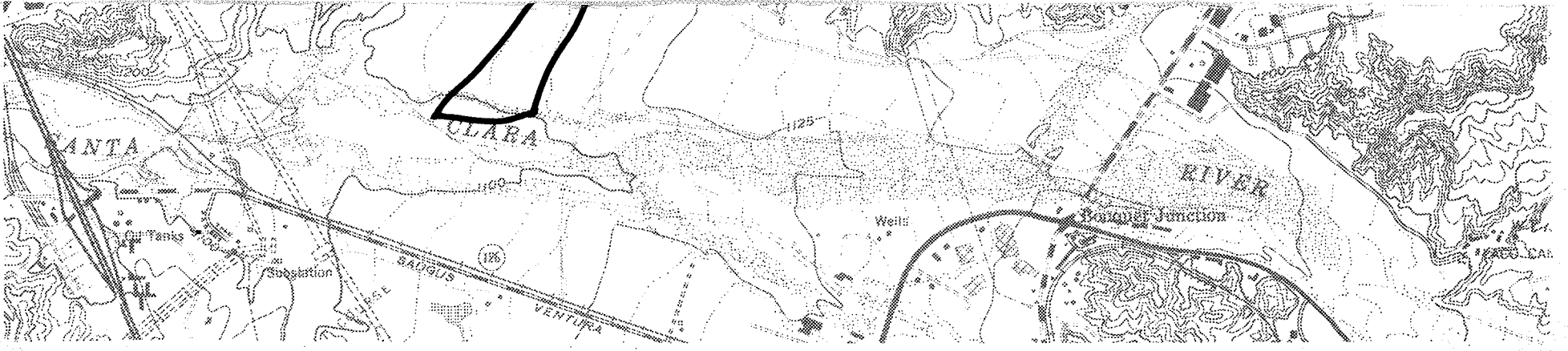


Exhibit **1**

**San Francisquito Canyon SEA No. 19  
Regional Vicinity Map**







LEGEND



Significant Ecological Area



Exhibit **2**  
 San Francisquito  
 Canyon SEA No. 19



The San Francisquito Canyon SEA was designated in light of the need for habitat protection for two resident populations of the unarmored threespine stickleback (Gasterosteus aculeatus williamsoni), a state and federally-listed endangered fish (England and Nelson 1976). According to the U.S. Fish and Wildlife Service (USFWS) listing package for the species, declines in populations are attributed to channelization and alteration of streams that once supported this species. In San Francisquito Canyon, the unarmored threespine stickleback is confined to permanent streams and pools above Baird Canyon and below Drinkwater Reservoir; both sites are upstream of SEA No. 19. The species also exists nearby on the Santa Clara River, where watershed habitat management has proven quite difficult. The Canyon was in relatively pristine condition when it was designated as an SEA by the County of Los Angeles, as indicated by the presence of the stickleback, the classification of the drainage as an active trout fishing stream by the National Forest Service and the California Department of Fish and Game, and the presence of a healthy riparian woodland in a natural streamcourse. The goal of preserving San Francisquito Canyon between the known populations upstream and the Santa Clara River population was to ensure that there would be continued opportunities for periodic movement of fish between the two drainages.

In addition to preserving the main drainage, England and Nelson pointed out the necessity of maintaining the watershed feeding San Francisquito Creek. They indicated that changes in drainage patterns would result in increased runoff, siltation, and water pollution. A buffer zone was proposed for the hillsides along the SEA in that development should be tightly controlled. They emphasized that developments must be judged foremost by their cumulative impacts, and not piecemealed on a project by project basis.

## II. METHODS

The existing biological resources at the San Francisquito Canyon SEA No. 19 are described below based on results of field surveys, supplemented by review of other documentation and regional distribution data. Field surveys were conducted on foot and by vehicle where access was permissible. Where access was not obtained, the SEA was surveyed with binoculars and review of aerial photograph. The literature review consisted of the compilation of relevant biological assessments and biota reports prepared for SEA No. 19 by Tierra Madre (1989a-e), MBA (1990), Hovore (1990), the East Copperhill/Duplex II Environmental Impact Report (1991), and references describing the regional flora and fauna. Plant community designations are derived from Holland (1986): California Natural Diversity Data Base (CNDDB) codes are indicated after the



community name. Plant species names, where not available from Munz (1974), are taken from Raven et al. (1986), Abrams (1923, 1944), and Abrams and Ferris (1951, 1960). References used for wildlife taxonomy include Emmel and Emmel (1973) and Mattoni (1990) for butterflies, Jennings (1983) for amphibians and reptiles, the American Ornithologists' Union (1983 and supplemental) for birds, and Jones et al. (1982) for mammals. General wildlife distributions were determined from the California Wildlife/Habitat Relationships System (CWHRS 1991), Bell (1978), Jennings (1983), Stebbins (1985), Garrett and Dunn (1981), Hall and Kelson (1981), Burt and Grossenheider (1976), Jones et al. (1982), and Ingels (1865).

### **III. OWNERSHIP PATTERNS AND CURRENT USES**

Land ownership patterns were derived from the County Tax Assessor's Roll. Parcel numbers compiled from the Tax Assessor's Roll were forwarded to Quality Mapping Services for compilation of lot lines and lot line data were mapped at a scale of 1-inch equals 1,000 feet. Analysis of the land ownership data for San Francisquito Canyon SEA No. 19 revealed separate holders. With the exception of the Valencia Company and Clougherty Packing, none of these owners holds more than four of the 184 parcels. The names of the current landowners are given in the list of parcel holders (Appendix A). The locations of their holdings are shown on the ownership maps that are on file with the Los Angeles County Planning Department.

The main drainage of San Francisquito Creek is generally intact, although a few unimproved roads cross the northern section of the SEA. Extensive development has occurred in the immediate vicinity of the southern portion of the SEA, including some encroachment into the floodplain. This is especially true near the confluence with the Santa Clara River where the drainage is forced eastward by concrete barriers into a narrow gap crossed by at least two roads, one improved, the other a construction access route. It appears that these roads and grading associated with ongoing developments have severed the connection to the Santa Clara River. The developments in the north are generally limited to equestrian activities and rural residences. These are spread out along the hills surrounding the SEA, and private roads to the homes are cut through the drainage.

Tributaries to San Francisquito Creek were recommended for inclusion as part of the buffer zone in England and Nelson (1976) to protect water quality and minimize erosion, however, extensive discing has occurred in tributary drainages since the England and Nelson report. Discing areas in the tributary drainages are apparently agricultural in nature, although no crops could be discerned during recent field surveys. Independent Environmental Consultants (1991) indicate that these



areas had been planted in winter barley. With only two exceptions, every possible tributary into the main channel has been disced down to the edge of the main drainage. Unmitigated discing of the watershed could increase soil erosion and increase downstream turbidity within San Francisquito Creek during heavy rains. In addition, chemical fertilizer and pesticide application could eventually affect downstream water quality. Residential and commercial development within San Francisquito Canyon and discing of the tributary drainages is inconsistent with the intentions of the SEA designation and the USFWS unarmored threespine stickleback recovery plan.

#### IV. EXISTING BIOLOGICAL RESOURCES

The descriptions of the plant and wildlife communities below are written to give a general overview of the species to be encountered and the distribution of the resources in the SEA, not a comprehensive species account. Complete plant and wildlife species lists, generated from the review of literature and field surveys, are given in the floral/faunal compendia (Appendix B).

##### PLANT COMMUNITIES

###### Riversidean Alluvial Fan Sage Scrub (32720)

This is the most widespread plant community within the San Francisquito Canyon SEA. This vegetation is found in dry washes in a narrow range in Southern California. The CNDDDB recognizes this habitat as sensitive (requiring extensive mitigation) due to loss from development and channelization of drainages and because it may support sensitive plant species. It is dominated by scale-broom (Lepidospartum squamatum) with Spanish bayonet (Yucca whipplei), California buckwheat (Eriogonum fasciculatum), golden aster (Chrysopsis villosa), sand verbena (Abronia spp.), and coyote brush (Baccharis pilularis). Disturbed, sandy areas at the edges of the drainage and along roads that cross the stream support annual burweed (Ambrosia acanthacarpa), dove weed (Eremocarpus setigerus), short-podded mustard (Brassica geniculata), common wild oat (Avena fatua), saw-toothed goldenbush (Hazardia squarrosus), rattlesnake weed (Chamaesyce albomarginata), tree tobacco (Nicotiana glauca), Russian-thistle (Salsola australis), and everlasting (Gnaphalium spp.).

San Francisquito wash, especially the margins, supports some small stands of Great Basin sagebrush (Artemisia tridentata var. parishii) that is found at the edge of its regional distribution in this area.

### **Mulefat Scrub (63310)**

Mulefat scrub is found in a very small area within the SEA near its confluence with the Santa Clara River SEA No. 23 boundary. This plant community typically occurs in sandy washes that are too dry or perturbed by frequent flooding to allow the development of a larger riparian woodland, or too moist to support alluvial scrub vegetation. It is dominated by mulefat (Baccharis salicifolia) with some scrubby sandbar and arroyo willows (Salix hindsiana and S. lasiolepis). Other plants associated with this habitat include coyotebrush, horseweed (Conyza canadensis), desert arrow-weed (Tessaria sericea), five-hooked bassia (Bassia hyssopifolia), and western verbena (Verbena lasiostachys).

Based on England and Nelson's (1976) description of the vegetation in San Francisquito Canyon as "good riparian woodland habitat", this plant community was probably once more common within the San Francisquito Wash, but encroachment down to the edge of the drainage, direct removal, and the alteration of water flows have contributed to its limited occurrence within the SEA.

### **Southern Cottonwood-Willow Riparian Woodland (61330)**

This plant community requires very moist conditions with substantial groundwater for most of the year. It is usually concentrated in canyon bottoms and drainages where at least seasonal water flows occur. The dominant plant in these patches is Fremont cottonwood (Populus fremontii) with some California sycamore (Platanus racemosa) and an understory of sandbar willow, arroyo willow, and red willow (Salix laevigata). Smaller understory plants include giant creek nettle (Urtica holosericea), mugwort (Artemisia douglasiana), poison-oak (Toxicodendron diversilobum), mulefat, spiny clotbur (Xanthium spinosum), beardless wild rye (Elymus triticoides), and rabbit's-foot grass (Polypogon monspeliensis).

This habitat was also once more widely distributed through the SEA but now only occurs as scattered patches. According to England and Nelson (1976), the SEA was in a pristine condition when it was first designated, that indicates that this plant community was probably well-developed. Apparently, recent grading and upstream drainage alteration have decreased the amount of available water and the patches of this habitat that remain are stressed (showing signs of leaf dropping and dead branches). Besides its own intrinsic value, this plant community serves as important habitat for raptors, migrating songbirds, and other wildlife. It is recognized by the CNDDDB by a sensitive habitat due to loss from development, channelization, and agriculture.

### **Venturan Coastal Sage Scrub (32700)**

This plant community is found in the San Francisquito Canyon SEA No. 19 at the edges of the main wash, between the floodplain and the beginning of upland chaparral. The Venturan coastal sage scrub intergrades with chaparral, becoming more dominant on drier slopes. It is one of two types of coastal sage scrub in this region, this being the more mesic expression, influenced to some degree by marine air. The most dominant plant species is coastal sagebrush (Artemisia californica). Other species typical of this community at San Francisquito include California buckwheat, black and white sage (Salvia mellifera and S. apiana), and Spanish bayonet. Between these shrubby species, there are a number of small annuals and grasses, including ripgut brome (Bromus diandrus), red brome (Bromus rubens), soft chess (Bromus mollis), giant wild rye (Elymus condensatus), common wild oat, fescue (Festuca megalura), tocalote (Centaurea melitensis), red-stemmed filaree (Erodium cicutarium), and black mustard (Brassica nigra). During the spring, several other species may be evident that were not detected during the surveys for this report, including common fiddleneck (Amsinckia intermedia), several lupines (Lupinus spp.), cudweed aster (Corethrogyne filaginifolia), San Joaquin matchweed (Gutierrezia bracteata), and popcorn flower (Cryptantha spp.).

Venturan coastal sage scrub is located sporadically around the SEA. Because it grows in the interface of alluvial and chaparral vegetation and intergrades with chaparral, it may be an intermediate successional stage between disturbed vegetation and the taller, less diverse chaparral community. This community is considered sensitive by the CNDDDB.

### **Chamise Chaparral (37200)**

This plant community occurs on the more xeric slopes above San Francisquito Creek. It was once included in the buffer zone but this buffer was deleted in later versions of the SEA map (after England and Nelson 1976). The dominant plant is chamise (Adenostoma fasciculatum) that occurs almost to the exclusion of other plant species. Intermixed with the chamise are several other large shrub species, including toyon (Heteromeles arbutifolia), elderberry (Sambucus mexicana), buck brush (Ceanothus cuneatus), scrub oak (Quercus turbinella ssp. californica), and redberry (Rhamnus crocea). Due to the density and height of the plants in this community, there is little understory vegetation. Species in the understory may include wishbone bush (Mirabilis californica), cudweed aster, San Joaquin matchweed, coast range melic (Melica imperfecta), and needlegrass (Stipa spp.).

Due to the height of the vegetation, density of the canopy, and low species diversity, it is believed that chamise may be a climax community (not to be replaced by another community unless there is some disturbance). This is the predominant plant community on the upland slopes away from the main drainage of San Francisquito Canyon. Although it is not currently included in the SEA boundaries, it is described here because it may be important to preserve these areas to ensure the continued (or restored) quality of water flows into the Santa Clara River. This plant community is still abundant in the state and is not considered sensitive.

#### **Disturbed, Agricultural, Developed**

This is not a plant community recognized by Holland (1986), but it is included in this discussion because these areas are defined on the plant community map (Plant Communities maps are available at the Los Angeles County Regional Planning Department). Based on review of the aerial photograph, most of the area surrounding the San Francisquito SEA No. 19 falls into this category. Most development is taking place in or adjacent to the southern portion of the SEA, where there has already been substantial commercial and residential construction. This development and alteration of stream flow by a concrete barrier have effectively narrowed the drainage into a small gap between graded areas disrupted at its narrowest point by a road. There is also considerable development in Dry Canyon to the east that may have indirect effects on the diversity of wildlife in the SEA. In addition to direct removal of native habitat, areas around the residences are often planted with non-native, invasive plant species that can thrive to the exclusion of native species in disturbed areas.

In addition to the residential and commercial development, there is extensive discing within the tributary canyons to the San Francisquito Creek drainage. These areas have been planted with winter barley in the past. When the fields lay fallow, several non-native weedy species are likely to grow, including Russian thistle, short-podded mustard, red-stemmed filaree, and various grasses. None of these species were visible at the time of the survey because the areas had been recently disced.

#### **WILDLIFE**

The numbers and kinds of wildlife species potentially occurring in the San Francisquito Canyon SEA No. 19 is expected to be moderate. The intensity of development adjacent to the SEA and the limited vegetation structure is not conducive to supporting a high diversity of animals. If the

riparian woodlands were still intact as originally believed and adjacent habitats were intact, wildlife species would be more common. The following discussion is based on field surveys and on the results of previous reports from the SEA (Tierra Madre 1989a-e; Hovore 1990; Copperhill/Duplex II EIR 1991; MBA 1990). Few animal species were observed in the SEA during the field surveys due to the hot weather and the time of year (late summer).

### **Amphibians and Reptiles**

The dry habitats and patchiness of riparian woodland is unlikely to support a large number of amphibian species. Those expected to occur within the drainage include western toad (Bufo boreas), western spadefoot toad (Scaphiopus hammondi), Pacific slender salamander (Batrachoseps pacificus), and black-bellied salamander (Batrachoseps nigriventris). Other amphibian species would require reliable seasonal water flows or ponding that does not occur in the SEA.

Reptile species are expected to be more common than amphibians in San Francisquito Canyon SEA No. 19 because reptiles are much more tolerant of xeric conditions found in the scrub habitats that predominate. Common reptile species should include western whiptail (Cnemidophorus tigris), western fence lizard (Sceloporus occidentalis), western skink (Eumeces skiltonianus), side-blotched lizard (Uta stansburiana), southern alligator lizard (Gerrhonotus multicarinatus), gopher snake (Pituophis melanoleucus), coachwhip (Masticophis flagellum), racer (Masticophis lateralis), common kingsnake (Lampropeltis getulus), western patch-nosed snake (Salvadora hexalepis), ringneck snake (Diadophis punctatus), and western rattlesnake (Crotalus viridis).

### **Birds**

The lack of extensive woodland habitat indicates that bird species diversity will be lower than expected if the SEA was undisturbed. Scrub habitats usually do not support a high diversity of bird species, even during spring and fall migration when birds numbers are highest. It is possible that the location of the SEA between two well-developed riparian woodlands (the Santa Clara River and upper San Francisquito Canyon) will result in higher species diversity than predicted here due to movement of transient birds between the two intact riparian woodlands.

The common bird species associated with scrub habitats in the SEA (Riversidean alluvial fan sage scrub, Venturan coastal sage scrub, and chaparral) include California quail (Callipepla californica),

mourning dove (Zenaid macroura), greater roadrunner (Geococcyx californianus), common poorwill (Phalaenoptilus nuttallii), Anna's hummingbird (Calypte anna), northern flicker (Colaptes auratus), American crow (Corvus brachyhyrachos), common raven (Corvus corax), bushtit (Psaltriparus minimus), Bewick's wren (Thryomanes bewickii), wrentit (Chamaea fasciata), northern mockingbird (Mimus polyglottos), California thrasher (Toxostoma redivivum), California and rufous-sided towhees (Pipilo crissalis and P. erythroptthalmus), rufous-crowned sparrow (Aimophila ruficeps), and house finch (Carpodacus mexicanus). Birds that may be encountered less often but could be expected in the SEA include turkey vulture (Cathartes auratus), red-tailed hawk (Buteo jamaicensis), American kestrel (Falco sparverius), lesser nighthawk (Chordeiles acutipennis), white-throated swift (Aeronautes saxatalis), horned lark (Eremophila alpestris), loggerhead shrike (Lanius ludovicianus), lark sparrow (Chondestes grammacus), sage sparrow (Amphispiza belli), and lesser goldfinch (Carduelis psaltria).

The species listed above will be augmented during certain times of the year by migrating birds and those that may use the site only in winter. Migrant species that may be encountered include Vaux's swift (Chaetura vauxi), rufous and Allen's hummingbirds (Selasphorus rufus and S. sasin), red-breasted sapsucker (Sphyrapicus ruber), western wood-peewee (Contopus sordidulus), Pacific-slope flycatcher (Empidonax difficilis), tree swallow (Tachycineta bicolor), violet-green swallow (Tachycineta thalassina), barn swallow (Hirundo rustica), solitary vireo (Vireo solitarius), warbling vireo (Vireo gilvus), Nashville warbler (Vermivora ruficapilla), black-throated gray warbler (Dendroica nigrescens), Wilson's warbler (Wilsonia pusillus), Townsend's warbler (Dendroica townsendi), and western tanager (Piranga ludoviciana).

Birds that would be found on the site during the winter but are generally absent during the nesting season include sharp-shinned hawk (Accipiter striatus), Cooper's hawk (Accipiter cooperii), prairie falcon (Falco mexicanus), band-tailed pigeon (Columba fasciata), Say's phoebe (Sayornis saya), ruby-crowned kinglet (Regulus calendula), blue-gray gnatcatcher (Polioptila caerulea), hermit thrush (Catharus guttatus), cedar waxwing (Bombycilla cedrorum), orange-crowned warbler (Vermivora celata), yellow-rumped warbler (Dendroica coronata), Lincoln's sparrow (Melospiza lincolni), golden-crowned sparrow (Zonotrichia atricapilla), white-crowned sparrow (Zonotrichia leucophrys), dark-eyed junco (Junco hyemalis), and American goldfinch (Carduelis tristis).

## **Mammals**

The mammal species expected to occur in the San Francisquito Canyon SEA No. 19 will be those typical of scrub habitats elsewhere in the region. In spite of development in the southern end of the SEA and rural residences upstream, the mammal fauna is expected to be reasonably intact but lacking in species reliant upon woodland habitat. Expected species include brush rabbit (Sylvilagus bachmani), desert cottontail (Sylvilagus audubonii), black-tailed jackrabbit (Lepus californicus), California ground squirrel (Spermophilus beecheyi), Botta's pocket gopher (Thomomys bottae), little pocket mouse (Perognathus longimembris), California pocket mouse (Perognathus californicus), Pacific kangaroo rat (Dipodomys agilis), western harvest mouse (Rheithrodontomys megalotis), California mouse (Peromyscus californicus), deer mouse (Peromyscus maniculatis), desert woodrat (Neotoma lepida), dusky-footed woodrat (Neotoma fuscipes), coyote (Canis latrans), gray fox (Urocyon cinereoargenteus), raccoon (Procyon lotor), striped skunk (Mephitis mephitis), bobcat (Felis rufus), and mule deer (Odocoileus hemionus). There are also several bat species that are identified in the faunal compendium (Appendix A) that may occur in the SEA primarily during foraging bouts from other areas. There does not appear to be suitable bat roosting structure in SEA No. 19.

The position of the SEA between the National Forest and open space to the south, east, and west indicates that there may be some wildlife movement from San Francisquito Canyon into the Santa Clara River. Medium- to large-sized mammals are expected to benefit most from this relationship. It is possible that mountain lions (Felis concolor) could occur in the SEA while moving through their home ranges or into the Santa Clara River to access the Santa Susana or San Gabriel Mountains. The mountain lion is a large predator and serves as an indicator of the health of an ecosystem -- if mountain lions are present, it is assumed that there are large areas of undisturbed habitat to support it and its prey. As habitat connections are eliminated, there is the possibility that mammal species diversity could decrease not only in the SEA but in the areas that serve as sources for mammal populations.

## **SENSITIVE SPECIES**

This section describes the plant and wildlife species present or potentially occurring in San Francisquito Canyon SEA No. 19 that have been afforded special recognition by federal, state, and local resources conservation agencies due to declining or limited population sizes. The potential



for sensitive plant and animal species occurring in the SEA was first determined through review of the CNDDDB data for the Newhall and Warm Springs Mountain U.S.G.S. quads. This was supplemented by review of the following sources:

- **Plants** -- USFWS (1990), CDFG (1990), CNDDDB (1991), CNPS (1988)
- **Wildlife** -- California Wildlife/Habitat Relationships System (CWHRS 1991), USFWS (1990), CDFG (1990), CNDDDB (1991), Williams (1986), Remsen (1978).

While not all of these species have been observed in the SEA, there is the potential for them to occur due to recent regional sightings and suitable habitat within the SEA. The potential for their occurrence in the SEA is estimated based on field surveys and review of other documentation for the SEA.

### Sensitive Plant Species

The **slender-horned spineflower** (*Dodecahema leptoceras*) is a federal and state-listed endangered species. It is found in sandy soils associated with Riversidean alluvial fan sage scrub vegetation similar to that that occurs in the SEA. It is most likely to occur on alluvial benches above the main water flows. The plant has been recorded in the area (near Newhall), nine miles south of the SEA (Tierra Madre 1989). It was not found by Independent Environmental Consultants (1991) in surveys of a small section of the southern portion of SEA No. 19. Suitable habitat for the slender-horned spineflower exists in the SEA, particularly in the broad alluvial bench in the upper reaches near the National Forest boundary. Directed surveys in all suitable habitat should be completed in the appropriate season for all projects that may affect the hydrology of San Francisquito Creek.

**Peirson's morning-glory** (*Calystegia peirsonii*) is a federal Category 2 candidate for listing as endangered or threatened, that means that information available to USFWS indicates that proposing to list the species is possibly appropriate, but substantial data on biological vulnerability and threats are not currently known. It is a perennial herb that grows as a vine on the ground or on other plants. It is found in scrub habitats, especially on the desert side of the San Gabriel Mountains. This species was originally thought to be very rare and was only known from a few collections prior to 1970, but it is now believed to be quite common in coastal sage scrub throughout the Newhall-Mint Canyon region (Independent Environmental Consultants 1991). The CNDDDB (1991) lists several records for the Peirson's morning-glory from San Francisquito

Canyon, especially in the upper reaches outside of the SEA boundary. It is quite likely that Peirson's morning-glory will occur in the SEA, although no directed surveys have been performed. Future projects in the SEA should include directed surveys for Peirson's morning-glory in the appropriate season.

**Nevin's barberry** (*Mahonia nevinii*) is a federal Category 1 candidate for listing that indicates that the USFWS has on file substantial information on biological vulnerability and threats to support a proposal for listing. It is a stiff, woody shrub that occurs in chaparral and coastal sage scrub habitats below 2,000 feet elevation. It has been found in the Warm Springs Mountain and Newhall quad (CNDDDB 1991), and specifically in San Francisquito Canyon. Most of the habitat for this species lies outside of the immediate drainage within the deleted buffer zone. Surveys conducted to date have not located Nevin's barberry in the SEA. There is suitable habitat for this species, however, and future development proposals should include directed surveys for Nevin's barberry.

#### **Sensitive Wildlife Species**

The **San Emigdio blue** (*Plebulina emigdionis*) is a federal Category 2 candidate. This butterfly is known to occur in several locations along the desert side of the Transverse Ranges where its host plant, the four-winged saltbush (*Atriplex canescens*), is found. There are two records from the vicinity of the SEA: from Bouquet Canyon immediately east, and Mint Canyon still farther east (Tierra Madre 1989). The scarcity of the San Emigdio blue is surprising given the extensive range of the four-winged saltbush. Some entomologists believe that the range of the butterfly is limited by the occurrence of a symbiotic ant that tends the caterpillar (Garth and Tilden 1986). In spite of the presence of the host plant in the SEA, the butterfly or its larvae were not observed during directed surveys completed by Tierra Madre (1989). There is the possibility that the species was missed, and future butterfly surveys at the SEA should concentrate on locating this butterfly.

The **unarmored threespine stickleback** (*Gasterosteus aculeatus williamsoni*) is a federal and state-listed endangered species. The historic range of the species included all of the major drainages of the San Gabriel Mountains, including the Los Angeles and San Gabriel Rivers, and the Santa Ana River. It is now restricted to San Francisquito Canyon and the Santa Clara River drainage. Its decline is attributable to the channelization of watersheds for flood control and development and disruption of drainages by urbanization.

The stickleback requires clean, flowing perennial streams and ponds surrounded by natural vegetation, and it is susceptible to pollution caused by agriculture and urban development. Shoreline and hillside vegetation is important for preventing siltation from runoff during wet seasons that would smother brooding areas. To help preserve populations in San Francisquito Canyon, there is a legally mandated release of water from Drinkwater Reservoir to maintain perennial ponds. In the Santa Clara River, the fish is limited to permanent streams and pools from the mouth of San Francisquito Canyon downstream to the Ventura-Los Angeles County line, and from Lang to Arrastre Canyon.

To maintain genetic variability, intermittent streams connecting perennial watercourses are necessary for migration between populations. This connection between San Francisquito Canyon and the Santa Clara River was the main reason for establishing SEA No. 19. Current development activities near the junction of San Francisquito Creek and the Santa Clara River have adversely affected the corridor for the stickleback. Adjacent development has constricted the corridor width. In addition, the amount of vegetative cover in the stream has been reduced which will hinder fish movement within the stream course. Changes in streamflows and turbidity in San Francisquito Canyon and its tributaries could also adversely affect downstream populations of the stickleback in the Santa Clara River due to their intolerance to turbidity.

The **Santa Ana sucker** (Catostomus santaanae) is a CDFG Species of Special Concern. As the name implies, the first specimens of this fish were collected in the Santa Ana River. It is found in small, shouldow streams with currents that run from swift to sluggish. They are most abundant where waters are cool (less than 22 degrees Centigrade) and unpolluted, although they can withstand turbidity. They are also associated with bottom materials of boulders, rubble, and sand where there are growths of filamentous algae. They feed on algae and detritus that they scrape from rock surfaces, and will rarely take aquatic insect larvae. Spawning runs from early April to early July, peaking in late May and early June.

The Santa Ana sucker is threatened by riverbed channelization and poor watershed management. It is often found in areas where the unarmored threespine stickleback has found refuge, such as in areas of San Francisquito Canyon that still support the stickleback. The Santa Ana Sucker also occurs in the Santa Clara drainage and connections described for the stickleback may also be important for the Santa Ana sucker. Its current status in the SEA is questionable in light of the adverse effects from discing of tributaries and development as described for the stickleback.

The **San Diego horned lizard** (Phrynosoma coronatum blainvillei) is a USFWS Category 2 Candidate and a CDFG Species of Special Concern. It was formerly common throughout Southern California west of the deserts, but has declined dramatically as suitable habitat has been destroyed by development and as a result of over-collecting for the pet trade (McGurty 1980). The horned lizard is found in open, sandy areas and washes within chaparral and coastal sage scrub habitat. It is associated with areas where its preferred prey, harvester ants of the genus Pogonomyrmex, can be obtained and is often located by first identifying harvester ant colonies.

Observations of San Diego horned lizards are scattered throughout the study area (CNDDDB 1991). Fecal pellets that may belong to this species were observed in the SEA by Tierra Madre (1989), although it is possible that either subspecies (P. c. blainvillei or P. c. frontale) could occur. Suitable habitat for the San Diego horned lizard was found throughout the SEA. Directed surveys for the species should be completed during spring for subsequent proposed developments in San Francisquito Canyon.

The **arroyo toad** (Bufo microscaphus californicus), a subspecies of the southwestern toad, is a federal Category 1 candidate subspecies for listing as threatened or endangered. This species is also a CDFG Species of Special Concern. The arroyo toad is being considered for species status as Bufo californicus (John Wright pers. comm.). A petition is being prepared to emergency list this subspecies as an endangered species (Samuel Sweet pers. comm.).

The arroyo toad occurs sporadically in the region in gently sloping washes, streams, and arroyos, especially those with sandy banks supporting willows, cottonwoods, or sycamores (Stebbins 1985), and in alluvial habitat at the mouths of canyons (Stewart 1990). Habitat loss has probably been the greatest factor contributing to the extensive reduction of arroyo toad populations in the region. Other factors may include water pollution and the introduction of the bullfrog (Rana catesbeiana) and non-native game fishes (Jennings 1990). The arroyo toad may be present in the perennial water areas upstream in San Francisquito Canyon. A focused spring survey, conducted between April and June, is needed to determine if this species is present.

The **western spadefoot toad** (Scaphiopus hammondi), a CDFG Species of Special Concern, historically occurred in vernal pools throughout lowland Southern California. Today, nearly all of the recorded western spadefoot toad population locations in the region have been converted to agricultural, residential, or commercial developments (per records review at the LACM, 1990).

Only a few populations are known to persist in isolated, widely scattered areas. Other populations of this species occur in the relatively undeveloped northern half of California.

The western spadefoot toad may use the riparian areas upstream of the SEA as breeding habitat, and may be present in the SEA in coastal sage scrub. Focused spring surveys as part of future development proposals should be conducted between January and May to determine if the western spadefoot toad is present on the site.

The **Cooper's hawk** (Accipiter cooperi) is a CDFG Species of Special Concern. This hawk was once fairly common in Southern California, but numbers have declined dramatically in recent years. It now breeds in only a few areas in the mountains and a few desert oases, and is seen elsewhere as a transient in migration. This decline is a result of the loss of suitable nesting habitat to development. The Cooper's hawk is a woodland species that nests in riparian woodlands. It feeds on small birds, reptiles, and mammals.

There are nesting records for Cooper's hawk from the Santa Clara River, and it is expected to occur in the San Francisquito Canyon SEA No. 19 during the winter and migration. There is no suitable nesting habitat for the Cooper's hawk in the SEA.

The **black-shouldered kite** (Elanus caeruleus) is a Fully Protected species in California; a designation given prior to enactment of the state endangered species act. Populations had declined to very low levels early in the century but have risen in the last fifteen years. Numbers have leveled off recently and there have been several fluctuations in populations since the mid-70's, along with a possible geographic range expansion to the north and east. The variability in population sizes indicates that the kite numbers have not returned to normal since the decline last century.

The black-shouldered kite, is a raptor, feeds on rodents and large insects that it hunts for by hovering over suitable habitat. It forages over open grassland and may be seen hunting over freeway dividers. It nests in trees in a variety of habitats, but winter roosts (of up to one hundred birds) usually occur in trees rooted in marshlands.

There is one record of a pair nesting nearby on the Santa Clara River at Piru (about 8 miles to the west), but the kite may also occur in the SEA. There is no suitable nesting habitat for the kite but it may forage over the open fields during winter.

The **burrowing owl** (*Athene cunicularia*) is a CDFG Species of Special Concern. Formerly common throughout California, its decline was noticeable as early as the 1940's and its last strongholds may be federal wildlife refuges. The decline is attributable to conversion of grasslands and pasturelands to agriculture and the destruction of ground squirrel colonies by plowing and poisoning.

The burrowing owl is unique because it lives in the abandoned burrows of ground squirrels. They modify the burrows to suit their needs by digging and littering the area with paper or manure shreds. It is also one of the few diurnal owls, often visible in the day perched on fenceposts or at the entrance to burrows. They are limited by the lack of suitable dirt embankments with ground squirrel activity that are not regularly disturbed by vehicles or road maintenance crews.

Although no records for the San Francisquito Canyon SEA No. 19 were found, it is possible that the burrowing owl occurs in the area. It should be readily detected by regular bird surveys in appropriate habitat, and directed surveys for this species are recommended.

The **willow flycatcher** (*Empidonax traillii*) is a state-listed endangered species. It was once common throughout California, but has undergone a drastic decline in population in recent years. As with many riparian species, the loss of habitat has been a contributing factor to the species' decline. However, there is also evidence that nest parasitism by brown-headed cowbirds is a major factor. The willow flycatcher nests in willow riparian habitat, often in canyons or floodplains. It forages for insects that it catches in a "sally" from a perch or gleans from leaf surfaces.

Although suitable habitat may occur in the vicinity of the San Francisquito Canyon SEA No. 19, it has not been recorded and the species' occurrence is unlikely except as a migrant. Its decline is among the most serious of any bird in the region and it is unlikely to be found nesting outside of a few large, undisturbed riparian areas.

The **least Bell's vireo** (*Vireo bellii pusillus*) is a USFWS and CDFG endangered species. It was once common in riparian drainages from the Central Valley south, but is now extirpated north of the Transverse Ranges. The vireo is limited to a few riparian areas from Los Angeles to San Diego County. The decline is attributable to loss of riparian habitat to development and the effects of cowbird nest parasitism. Recovery efforts are concentrating on eradication of the cowbird. The least Bell's vireo nests in broad willow riparian habitat with a dense understory of young willows, wild rose, or other plants. It is usually found where riparian areas are bordered

by another native plant community, such as coastal sage scrub. They nest low in the willows. The conspicuous nature of their nests makes them especially susceptible to nest parasitism and predation.

There are several recent reports from the Santa Clara River, including 11 singing males (presumed nesting) in the Santa Clara River near Piru eight miles west of the SEA (1980) and one singing male in San Francisquito Canyon. It is likely that the observation in San Francisquito Canyon was from the upper part of the drainage where there is substantial willow growth. There is no suitable habitat for the least Bell's vireo in the SEA.

The **yellow warbler** (*Dendroica petechia*) is a CDFG Species of Special Concern. It was once common to locally abundant summer resident throughout California. Current populations are much reduced due to habitat destruction and cowbird nest parasitism. It is still found in the foothills of the Transverse Ranges of Ventura County, but most birds are spring transients. The yellow warbler nests in willow, cottonwood, and alder riparian areas and forages for insects found on the foliage. The species was seen in 1977 in the Santa Clara River near Piru but it probably occurs throughout regional drainages in appropriate habitat. Several nesting pairs were observed in the upper portions of San Francisquito Canyon within the National Forest outside of the SEA boundary in 1990 (MBA 1990).

There is no suitable nesting habitat for the yellow warbler in the San Francisquito Canyon SEA No. 19. The bird may occur as a transient as it moves to other riparian areas upstream or elsewhere in the region.

The **yellow-breasted chat** (*Icteria virens*) is a CDFG Species of Special Concern. It was formerly a common nester in much of the riparian habitat throughout California, but numbers have declined as a result of habitat destruction and cowbird nest parasitism, especially in Southern California. It is now a rare and local breeder, absent from much of its former range. The chat is the largest North American warbler. It nests in dense riparian thickets and brushy areas in the vicinity of lowland watercourses where it feeds on insects. It is rather inconspicuous except when it is vocalizing.

Recent sightings in the SEA area include one record from the Santa Clara River near Piru in 1979. There is no suitable nesting habitat for the chat in the SEA, but it may occur upstream in the well-developed riparian woodlands and rarely in the SEA as a transient.



The greater mastiff bat (Eumops perotis californicus) is a federal Category 2 Candidate and a CDFG Species of Special Concern. Its range extends from Butte County south through the Southern California coastal mountains and portions of the southeastern desert region. They favor rugged, rocky areas at low elevations in the coastal basins where there are suitable crevices for roosting. The mastiff bat has very specific roosting structure needs, such as crevices that open downward and are at least 5 cm wide and 30 cm deep (Burt and Grossenheider 1976). They must be high as well, as the bat needs two to three meters of drop space to launch itself into flight.

The San Francisquito Canyon SEA No. 19 lies within the historic range of this species and it is likely to occur. There are no suitable roost sites within the SEA, so any greater mastiff bats found will most likely be foraging from other areas nearby.

Townsend's big-eared bat (Plecotus townsendii) is a CDFG Species of Special Concern. One subspecies (P. t. townsendii) is also a USFWS Category 2 Candidate. This species is found throughout California, but the subspecies P. t. townsendii is found in the humid north and central portions of the state and is not likely to occur in the SEA. The subspecies P. t. pallescens is likely to be found in the area. It is found in a number habitats from deserts and grasslands to conifer woodlands. Roosting sites include limestone caves, mine tunnels, buildings, and other man-made structures.

Unfortunately, the Townsend's big-eared bat is particularly susceptible to encroachment and may abandon a site after a single visit by humans. Recent records for P. t. pallescens reveal that the bat has abandoned many former roost sites and that its status is uncertain. The high level of human activity in the SEA may have extirpated the species from the area. Directed surveys by a qualified chiropterist should be performed to determine the species' status in the SEA.

## V. DEVELOPMENT PRESSURE ANALYSIS

The San Francisquito SEA No.19 is divided into 184 parcels held by 116 different owners. This indicates that there is a high probability that the remaining resources will be fragmented by numerous small developments throughout the area. Large developments are presently limited to the downstream sections of the SEA where housing tracts and industrial complexes have narrowed the drainage. At the time of the surveys, extensive grading for new housing developments was being performed on the hills on both sides of the SEA. Given the recent history of approved

history of approved developments in the area, it is likely that more developments will be proposed for the San Francisquito Canyon area.

In addition to these developments, there will most certainly be infrastructure improvements. It is likely that several roads will be placed across the streambed to access new developments on the west side of the canyon. The Independent Environmental Consultants report (1990) indicates that one 4-lane and one 6-lane bridge would be constructed across the drainage to access a 135.4 acre development. Unless they are supported by pilings, these roads will further disrupt the natural drainage. Stream channelization projects to protect developments that may lie close to the floodplain could adversely affect the stream hydrology and are cited as one of the main threats to the unarmored threespine stickleback and slender-horned spineflower. For example, the Independent Environmental Consultants (1990) report describes a plan to channelize the eastern side of the drainage to protect the proposed 135.4 acre development. A concrete diversion wall has already been constructed between the main channel and commercial development southwest of the SEA. Structures that alter the streamflows to the detriment of the vegetation and fish populations are likely to occur as development pressure increases.

While the northern portion of the SEA has seen little in the way of large developments, the number of rural residences currently in place is likely to increase if all of the individually held parcels are developed. It is possible that such residences will rely on local groundwater for their supply. This will further lower the water table and add to the diminishment of riparian habitat in the SEA, especially taller woodlands. The depletion of the groundwater in conjunction with extensive discing in the tributaries to San Francisquito Creek will increase the probability that sufficient streamflows will be diminished, and continue to decrease the likelihood that sticklebacks will move between the Santa Clara River and San Francisquito Canyon populations.

**VI. RECOMMENDATIONS FOR FUTURE MANAGEMENT OF THE SAN FRANCISQUITO CANYON SEA NO. 19**

**ORIGINAL INTENT OF SEA DESIGNATION AND CURRENT USES**

The main purpose for establishing the San Francisquito Canyon SEA No. 19 was to preserve habitat for two populations of unarmored threespine stickleback. This was believed possible because the creek had "a good riparian woodland community" and the watershed supplying the creek was undisturbed. The health of the drainage was evidenced by the presence of trout

populations in addition to the stickleback. Also, it was believed that by preserving the drainage between populations of sticklebacks in upper San Francisquito Canyon and the Santa Clara River, increased runoff during heavy rains could be slowed, thus minimizing siltation downstream. Lastly, a connection between the two disjunct populations would provide a migration route to promote genetic interchange.

The connection described above has been severely disrupted by development at the southern end of the SEA. Further, there is little left of the riparian woodland described by England and Nelson (1976). What remains are small patches of Fremont cottonwood and mulefat scrub separated by disturbed areas and alluvial scrub habitat. Surface water flows required by the unarmored threespine stickleback through the lower portion of San Francisquito Creek have been interrupted. Exposed soils in the disced tributary canyons to San Francisquito Creek are likely to be eroded during winter rains and result in increased turbidity in the creek and in the Santa Clara River.

Buffer zone management and siltation management practices for the tributary drainages to the San Francisquito SEA are critical to the preservation and recovery of the stickleback populations. Approved development projects and unmitigated discing in tributary drainages is inconsistent with preserving clean and free-flowing water in San Francisquito Creek.

In the original SEA description for San Francisquito Canyon SEA No. 19, England and Nelson (1976) defined compatible uses as very low intensity recreational activities (such as day hikes) and fishing according to CDFG and USDA Forest Service rules. However, the pools below Drinkwater Reservoir and above Baird Canyon where stickleback populations occur should be restricted to regulated scientific study (these latter areas are outside of the SEA but are subject to restrictions in use compatible with USDA Forest Service guidelines). The Los Angeles County General Plan (1988) defined compatible use to include of England and Nelson's (1976) recommendations. In addition, the General Plan states that compatible uses may also include low density residential development, minor commercial uses serving local residents, public and semi-public uses essential to the maintenance of public health and safety, agricultural uses, and natural resources extraction (gas, oil, etc.). The General Plan recognizes that measures necessary to preserve and enhance SEAs will vary depending on the nature of the resource values present and the degree of threat implied by potentially incompatible development. Current uses within the SEA have reverted to some off-road vehicle use, road cuts to access property from improved roads to rural residences, grading, discing, and equestrian trails.

## **SUGGESTIONS FOR BOUNDARY ADJUSTMENTS**

Adjustments were made to the original boundaries of the San Francisquito Canyon SEA as a result of updates to the Santa Clarita General Plan. The changes occur at the junction of San Francisquito Creek and the Santa Clara River and are the result of construction of a channelization barrier to the east of recent commercial developments at the west side of the mouth of San Francisquito Creek. The effect of the channelization was to direct stream flows to the east into the Santa Clara River. As long as stream flows are not more rapid as a result of the alteration and natural streambed and vegetation characteristics are maintained, the boundary changes should not affect the function of the SEA.

The most significant changes to the current San Francisquito Canyon SEA No. 19 boundary should be the reestablishment of the buffer zone. Although these areas have been severely degraded, there is the possibility that they could be rehabilitated (see mitigation measures below). The original description of the SEA (England and Nelson 1986) emphasized the importance of these buffers for maintaining the water quality within San Francisquito Creek. Without the buffers, it is likely that any runoff into San Francisquito Creek will be heavily silted and may carry pollutants into the Santa Clara River. Ideally, if the buffers are reestablished and restored, the vegetation will decrease the rate of runoff and allow clearer flows even during heavy rainfall periods.

The rest of the SEA boundaries are adequate, provided the buffer zones are reestablished. The only problem with the existing boundary is that there has been heavy development pressure affecting the lower portion of the SEA. These ongoing developments are an example of the piecemeal effect that may result from the large number of parcel owners. More care should be given to preserving the remaining resources in the current boundaries.

## **COMPATIBLE MANAGEMENT MEASURES**

The following section describes potential measures that may avoid, minimize, or compensate for impacts to biological resources within the San Francisquito Canyon SEA No. 19. These measures are designed to enhance the quality of the existing SEA and ensure that future actions within the SEA do not significantly diminish the quality of the biological resources. These measures are not intended to be comprehensive, but provide a general approach that addresses the immediate needs of the SEA.

As the San Francisquito Canyon SEA has been severely disturbed near its terminus at the Santa Clara River, the original intent of the SEA designation to preserve connections between the populations of unarmored threespine stickleback in these two drainages has been compromised. Therefore, subsequent project approvals in and adjacent to this SEA are intended to restore the original drainage (vegetation, flow patterns, buffers) lost to grading, particularly at the southern end of the drainage.

### **Measures to Protect/Enhance Surface Hydrology**

The following recommendations combine management practices for water quality enhancement of urban runoff with measures for controlling increased runoff quantity due to development that may adversely affect the unarmored threespine stickleback. In addition, water quality control measures are proposed to establish baseline water quality conditions, to evaluate the effectiveness of certain management components, and to evaluate the overall effect of urban runoff from future development on the water quality of San Francisquito Creek and the Santa Clara River. The goal of the following measures is to reduce hydrology impacts associated with future development adjacent to the SEA and in tributary canyons that would affect downstream populations of the unarmored threespine stickleback. Specifically, the measures would result in:

- controlling increased peak flows and volumes into San Francisquito Creek
- minimizing nuisance flows into San Francisquito Creek
- minimizing the velocity of flow into San Francisquito Creek
- protecting stormwater, nuisance flow, and groundwater quality
- minimizing erosion and sedimentation
- minimizing the flow of trash and debris into San Francisquito Creek

### **Water Quantity Control Measures**

1. Prior to the issuance of any grading permits, the following drainage studies should be submitted to and approved by the Public Works Department:
  - a. A drainage study of the project including diversion and offsite areas that drain onto or through the development.
  - b. When applicable, a drainage study that provides evidence that proposed drainage patterns will not overload existing storm drains.
  - c. Detailed drainage studies indicating how the tract map grading, in conjunction with the drainage conveyance systems including applicable swales, channels, street flows, catch basins, storm drains, and flood water retarding, will allow building

pads to be safe from inundation from rainfall runoff that may be expected from all storms up to and including the theoretical 100-year flood.

- d. Storm drain systems will be designed to locate discharge points to San Francisquito Canyon to minimize the disturbance of hillside terrain due to construction and to minimize any changes in natural streambank erosion trends. Consideration will be given also to geology, slope stability, proximity to important vegetation, and land uses (both development and open space).
2. Prior to issuance of any grading permits, the applicant will design and receive approval by the Regional Planning Director for measures to reduce the velocity of stormwater runoff into the San Francisquito Canyon. The program will include aesthetic alternatives for energy dissipation. Desirable criteria will include intended function, size and scale, compatibility with surroundings, and proximity to important vegetation.
  3. Prior to issuance of any grading permits, the applicant will design and receive approval by the Director of the Department of Public Works, for a program to mitigate increases in stormwater peak flow rates and volumes and nuisance flows into San Francisquito Creek that will include the following:
    - a. Detention basins for the purpose of reducing quantity of post-development peak flows.
    - b. Designs for efficient landscaping practices in order to reduce the amount of effective impervious surfaces.
    - c. Alternatives for controlling nuisance flow from development into San Francisquito Creek such as alternative designs for transporting nuisance flows to the channel thalweg or infiltration of nuisance flow in conjunction with detention basin construction or water quality enhancement of nuisance flows in conjunction with basins.

#### **Water Quality Control Measures**

4. Prior to issuance of any grading permits, the applicant will design and receive approval by the Director of the Department of Public Works for the following measures to mitigate stormwater runoff quality into San Francisquito Creek:
  - a. Where deemed necessary by the Los Angeles County Department of Public Works, a program should be designed that will include a detention basin program to mitigate water quality impacts. The detention basin facility will be constructed by the applicant, and should be ultimately dedicated to one, or a combination of, the following:
    1. Community Facilities District
    2. Homeowners Association
    3. Los Angeles County
    4. Other organizations formed for the purpose of managing and maintaining the detention facilities.

Prior to the issuance of any certificates of occupancy, improvements will be constructed in a manner meeting the approval of the Director of the Regional Planning Department.

- b. A program for monitoring baseline water quality, and the effectiveness of the detention basin facilities will be developed. At a minimum, two water quality sampling locations will be designated. Prior to the outset of any San Francisquito Creek monitoring program, the list of constituents will be reviewed and approved by the Regional Water Quality Control Board. The water quality monitoring program reports will be submitted to the Regional Water Quality Control Board and the Regional Planning Department.
  - c. The applicant will make provisions for feasible, community-specified water quality protection programs (e.g., car washes that drain directly into the sewer system, oil disposal centers, permeable "paving", and efficient landscaping practices) to provide opportunities to diminish common threats to local water quality prior to contaminated runoff reaching storm water outlets.
5. Prior to issuance of any grading permits, the applicant will design the following improvements and provide necessary dedications in a manner meeting the approval of the Director of Regional Planning.
- a. All provisions for onsite surface drainage.
  - b. All necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff.
  - c. Where determined necessary by the Director of Regional Planning, the associated easements should be dedicated to the appropriate agency of the County of Los Angeles.

#### **Erosion And Sedimentation Control Measures**

6. Prior to issuance of any grading permits, the applicant will submit to the Director of the Building and Safety Department for review and approval, an erosion control program that indicates that proper control of siltation, sedimentation, and other pollutants will be implemented as required in the Los Angeles County Grading Code.
- a. During construction, siltation basins will be employed for use in reducing potential sedimentation. A siltation basin plan will be reviewed and approved by the Director of the Building and Safety Department or Director of the Department of Public Works.
  - b. Filter fences, trash racks, or other devices will be provided at storm water outlets, as needed, to prevent trash and debris from entering the detention basin facility and San Francisquito Creek. The specifications and location of these devices should be included in the management plans.



### **Measures to Avoid Direct Impacts to the Unarmored Threespine Stickleback**

Protection and restoration of suitable habitat for the unarmored threespine stickleback and protection of habitat suitable for the recovery of the stickleback require avoidance of construction during breeding and migration periods, avoiding disturbance of areas that would remove watershed vegetation, minimizing excavation that would result in changes in the stream flow or increase siltation, and preventing activities that would contribute pollutants to the water of San Francisquito Creek and the Santa Clara River.

### **Measure to Minimize Development Pressures Within the SEA**

In cases where one owner holds several parcels within the SEA, development density transfers may be a viable option. Parcels that are zoned for low densities may be allowed higher densities of development, if such higher densities would not affect the movement of sticklebacks between the Santa Clara River and San Francisquito Canyon SEA drainages, in exchange for donation of more sensitive parcels to the County or resource conservation agency. A suitable ratio for such an exchange would be 2:1 -- one parcel of higher density development for two preserved parcels in mitigation. Such density transfers would likely be subject to review by County supervisors.

### **Measures to Provide for Long-term Preservation of SEA No. 19**

One of the options for mitigation of impacts to biological resources from development is offsite preservation of habitat. The regional loss of open space, that is often identified as an unavoidable adverse impact for large developments, has few other options if the project is to proceed as planned. There are many opportunities to use the San Francisquito SEA as a mitigation bank for projects elsewhere in the County. Offsite mitigation efforts that could be performed in the SEA include revegetation, restoration, land purchase, and preservation. In addition to the main channel area, restoration activities could be directed at the numerous tributaries that have been disced in the lower portion of the SEA in order to reduce siltation and turbidity during high water flows that are detrimental to stickleback survival. Streambed alteration to create opportunities for the stickleback may also be a mitigation option, but such streambed changes would require some permitting, whether state or federal.

### **Measures to Provide for Riparian Restoration**

Specific steps to restore the quality of the San Francisquito SEA No. 19 should also be implemented on a project by project basis, especially in light of the current grading and development affecting the SEA. Typical measures that could be included in mitigation for any future developments within the SEA include: (1) contribution to a restoration program; (2) creation (restoration) of buffer areas that were deleted from the SEA to minimize siltation and turbidity during times of high water flows, including revegetation of hillsides and restoration of natural drainage patterns that have been disrupted by discing; (3) conscientious grading practices that restore natural slopes, avoid filling canyon bottoms, and minimize erosion; (5) landscaping with native, regionally-occurring plant species that are not invasive into riparian habitat; (6) limitation of human activity within San Francisquito Creek, such as off-road vehicles, that may alter the streambed; and (7) contribution to any or all of the measures described above.

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**APPENDIX A**

**LIST OF PARCEL OWNERS WITHIN  
THE SAN FRANCISQUITO CANYON  
SIGNIFICANT ECOLOGICAL AREA NO. 19**



1-1 3244-022-002 WARREN J. HALL 17546 TUSCAN DR. GRANADA HILLS, CA 91344

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2-1 3244-022-007 RICHARD A. ANDERSON 30230 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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3-1 3244-022-013 JOYCE D. ULLMAN 1618 N. LAS PALMDAS HOLLYWOOD, CA 90028

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4-1 3244-022-021 CLOUGHERTY PACKING CO. 3049 E. VERNON AVE. LOS ANGELES, CA 90058

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5-1 3244-022-022 DAVID C. BAILEY 927 SHELLY ST. ALTA DENA, CA 91001

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6-1 3244-022-024 LAND PARCEL LIQUIDATION 16260 VENTURA BLVD. #15 ENCINO, CA 91436

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7-1 3244-022-026 DARRELL J. KRUSE 30111 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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8-1 3244-022-027 PAUL G. HARRIS JR. P.O. BOX 800217 SANTA CLARITA, CA 91321

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9-1 3244-022-029 CASTAIC 196 20229 E. CENTURY PARK #2610 LOS ANGELES, CA 90067

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9-2 3244-022-030 CASTAIC 196 20229 E. CENTURY PARK #2610 LOS ANGELES, CA 90067

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6-2 3244-022-031 LAND PARCEL LIQUIDATION 16260 VENTURA BLVD. #15 ENCINO, CA 91436

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10-1 3244-022-273 CITY OF LOS ANGELES DEPT. OF WATER & POWER P.O. BOX 111, TERM ANX LOS ANGELES, CA 90012

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11-1 3244-022-300 U.S. GOVERNMENT c/o: GNRL SVCS. ADM. 300 N. LOS ANGELES ST. LOS ANGELES, CA 90012

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11-2 3244-022-301 U.S. GOVERNMENT c/o: GNRL SVCS. ADM. 300 N. LOS ANGELES ST. LOS ANGELES, CA 90012

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4-2 3244-025-020 CLOUGHERTY PACKING CO. 3049 E. VERNON AVE. LOS ANGELES, CA 90058

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12-1 3244-025-025 LEONARDO M. LOPEZ 6937 BLUE BELL AVE. N. HOLLYWOOD, CA 91605

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13-1 3244-025-028 CHARLES W. MILTENBERGER 29208 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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14-1 3244-025-029 MICHAEL R. FULLER 29904 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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15-1 3244-025-031 JOSEPH D. CLOUGHERTY 661 LANDOR LANE PASADENA, CA 91106

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16-1 3244-025-035 ADRIAN E. WANJON 27516 VILNA CANYON COUNTRY, CA 91351

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17-1 3244-025-036 STEVEN H. KRET 29230 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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18-1 3244-025-038 BRUCE T. CATLIN 29354 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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19-1 3244-025-039 CHARLES N. SPITERI 29314 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

30-1 3244-025-040 ROBERT A. SPUNT 29272 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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26-1 3244-025-045 SYRUS L KEATLEY 29515 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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22-1 3244-025-046 HAGOP BASTEGHIAN 841 N. LA BREA LOS ANGELES, CA 90038

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23-1 3244-025-047 GEORGE W. ULLMAN JR. 1618 N. LAS PALMAS HOLLYWOOD, CA 90028

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24-1 3244-025-048 STEWART LOWRY 29764 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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25-1 3244-025-049 STEVEN G. ULLMAN 1618 N. LAS PALMAS HOLLYWOOD, CA 90028

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26-1 3244-025-051 ABEL GONZALEZ 13351 GLADSTONE AVE. SYLMAR, CA 91342

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26-2 3244-025-052 ABEL GONZALEZ 13351 GLADSTONE AVE. SYLMAR, CA 91342

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27-1 3244-025-053 SUSANA J. PENA 29415 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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28-1 3244-025-054 JEROME J. JACOBI 18862 PACIFIC COAST HWY. MALIBU, CA 90265

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20-2 3244-025-055 ROBERT A. SPUNT 27611 BOUQUET CNYN. RD. SAUGUS, CA 91350

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29-1 3244-025-056 LINDA M. CULLEN 29163 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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30-1 3244-025-057 STANLEY L. WALK 24410 SHAVELAND DR. NEWHALL, CA 91321

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10-2 3244-025-271 CITY OF LOS ANGELES DEPT. OF WATER & POWER P.O. BOX 111, TERM ANNEX  
LOS ANGELES, CA 90012

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31-1 3244-029-001 DAVID F. SMITH 21169 ALAMINOS DR. SAUGUS, CA 91350

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8-2 3244-029-002 PAUL HARRIS 29157 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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32-1 3244-029-003 COUNTY OF LOS ANGELES CMSRV FREDERICK A. ABBOTT CNSEE 3131 CAMINO  
GRACIOS #A THOUSAND OAKS, CA 91360

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33-1 3244-029-006 BETH BURNAM 520 BROADWAY #100 SANTA MONICA, CA 90401

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34-1 3244-029-008 TERENCE W. HUGHES 4633 ARCOLA AVENUE TOLUCA LAKE, CA 91602

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12-2 3244-029-009 LEONARDO M. LOPEZ 2800 S. VERMONT ST. LOS ANGELES, CA 90007

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35-1 3244-029-010 JAMES H. GILMARTIN 20611 SOLEDAD CNYN. RD. CANYON COUNTRY, CA 91351

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35-2 3244-029-011 JAMES H. GILMARTIN 20611 SOLEDAD CNYN. RD. CANYON COUNTRY, CA 91351

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36-1 3244-029-012 GARY MASON 28008 CONCORD AVE. CASTAIC, CA 91384

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37-1 3244-029-013 ANTHONY J. PERRI 1335 W. 139TH ST. #130 GARDENA, CA 90247

34-2 3244-029-014 TERENCE W. HUGHES 4633 ARCOLA AVE. TOLUCA LAKE, CA 91602

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38-1 3244-029-015 PAUL A. SILVERI 19603 W. BRUCES PL CANYON COUNTRY, CA 91351

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39-1 3244-029-016 ROGER W. BOREN 29208 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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39-2 3244-029-017 ROGER W. BOREN 23105 SHAWNEE CT. SAUGUS, CA 91350

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40-1 3244-030-001 CHARLES PRICE c/o: VIOLA M. LAZARUS EXEC BOX 368 FORRESTON, ILL

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4-3 3244-030-002 CLOUGHERTY PACKING CO. 3049 E. VERNON AVE. VERNON, CA 90058

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4-4 3244-030-003 CLOUGHERTY PACKING CO. 3049 E. VERNON AVE. VERNON, CA 90058

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41-1 3244-030-004 ROBERT A. PORTMAN 14401 SYLVAN ST. #100 VAN NUYS, CA 91401

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42-1 3244-030-005 GEORGIA M. FROST 897 CRAGMONT AVE. BERKELEY, CA 94708

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4-5 3244-030-006 CLOUGHERTY PACKING CO. 3049 E. VERNON AVE. VERNON, CA 90058

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43-1 3244-030-009 JOHN W. CULBRETH 8820 ENCINO AVE. NORTHRIDGE, CA 91325

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44-1 3244-030-011 LAWRENCE E. SCHINHARL 13397 HERRICK AVE. SYLMAR, CA 91342

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44-2 3244-030-012 LAWRENCE E. SCHINHARL P.O. BOX 1271 SAN FERNANDO, CA 91342

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44-3 3244-030-013 LAWRENCE E. SCHINHARL P.O. BOX 1271 SAN FERNANDO, CA 91342

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45-1 3244-030-014 RAMONA M. WORDEN 3213 W. JULIE DR. PHOENIX, AZ 85027

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46-1 3244-030-015 DANIEL A. KENDALL 28668 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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46-2 3244-030-016 DANIEL A. KENDALL 28668 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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47-1 3244-030-018 ROSS R. FRITZ 28636 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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47-2 3244-030-019 ROSS R. FRITZ 28636 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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48-1 3244-030-020 CLINTON L REED 13802 MONTERO SYLMAR, CA 91342

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49-1 3244-030-021 CLIFTON C. BOYER 28440 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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50-1 3244-030-023 ERNEST V. NAQUIN 28680 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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51-1 3244-030-024 ELIZABETH J. FARINELLA 28710 SAN FRANCISQUITO CNYN. SAUGUS, CA 91350

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52-1 2810-001-006 NEWHALL LAND & FARMING CO. ATTN: DAVID LINDEN 23823 VALENCIA  
BLVD. VALENCIA, CA 91355

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52-2 2810-001-010 NEWHALL LAND & FARMING CO. ATTN: DAVID LINDEN 23823 VALENCIA  
BLVD. VALENCIA, CA 91355

53-1 2810-001-270 METROPOLITAN WATER DIST. P.O. BOX 54153 TERM ANX LOS ANGELES,  
CA 90049

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54-1 2810-002-014 VALENCIA COMPANY ATTN: ED TONEY 23823 VALENCIA BLVD. VALENCIA,  
CA 91355

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54-2 2810-002-032 VALENCIA COMPANY ATTN: ED TONEY 23823 VALENCIA BLVD. VALENCIA,  
CA 91355

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54-3 2810-002-033 VALENCIA COMPANY ATTN: ED TONEY 23823 VALENCIA BLVD. VALENCIA,  
CA 91355

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53-2 2810-002-272 METROPOLITAN WATER DIST. P.O. BOX 54153 TERM ANX LOS ANGELES,  
CA 90049

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54-4 2811-001-020 VALENCIA COMPANY ATTN: SHIRLEY DWYER 23823 VALENCIA BLVD. .  
VALENCIA, CA 91355

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54-5 2811-001-057,63 VALENCIA COMPANY ATTN: ED TONEY 23823 VALENCIA BLVD.  
VALENCIA, CA 91355

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52-3 2811-001-059-62 NEWHALL LAND & FARMING CO. ATTN: DAVID LINDEN 23823 VALENCIA  
BLVD. VALENCIA, CA 91355

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55-1 2811-001-065 ABBOTT VALENCIA VENTURES P.O. BOX 117519 BURLINGAME, CA 94011

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56-1 2811-027-001 RYKINS 16742 N. STAGG ST. #110 VAN NUYS, CA 91406

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57-1 2811-027-005-7 C.G.G.W. DEVELOPMENT ATTN: ALEC B. & ANNA WISNER 24811 W.  
AVENUE ROCKEFELLER VALENCIA, CA 91355

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58-1 2811-027-010 THE LEE COMPANY 2 PETTIPAUGH RD. WESTBROOK, CT 06498-0424

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59-1 2811-027-011 CONTINENTAL COMM. BUSINESS PLAZA L.P. ATTN: DANIEL GLUCK 23293  
VENTURA BLVD. WOODLAND HILLS, CA 91364

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59-2 2811-027-012 CONTINENTAL COMM. BUSINESS PLAZA L.P. ATTN: DANIEL GLUCK 23293  
VENTURA BLVD. WOODLAND HILLS, CA 91364

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60-1 2811-027-017-19 COOKE MEDIA GROUP INC. ATTN: JAMES LACHER P.O. BOX 4200  
WOODLAND HILLS, CA 91364

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54-6 2811-027-022-24 VALENCIA COMPANY ATTN: ED TONEY 23823 VALENCIA BLVD.  
VALENCIA, CA 91355

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61-1 2811-027-025 YOUNG GENERATION VIDEO 1934 14TH STREET SANTA MONICA, CA 90404

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62-1 2811-027-026 CRANE R.R. INVESTMENT CORP. 3217 CARTER AVENUE MARINA DEL REY,  
CA 90292

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63-1 2811-027-028 RESNICK NO ADDRESS LISTED

64-1	2811-027-029	DEL WEST DESIGNS	9440 IRONDALE AVE.	CHATSWORTH, CA 91311
65-1	2811-027-030	KENNETH LARSEN	23901 STAGG ST.	WEST HILLS, CA 91304
66-1	2811-027-031	TIMOTHY MOLLEMA	27811 AVENUE HOPKINS 34	VALENCIA, CA 91355
67-1	2811-027-032	LINCOLN INDUSTRIAL CNTR. II	LINCOLN PROPERTY CO.	30 EXECUTIVE PARK #100 IRVINE, CA 92714
59-2	2811-027-033-36	CONTINENTAL COMM. BUSINESS	PLAZA L.P. ATTN: DANIEL GLUCK	23293 VENTURA BLVD. WOODLAND HILLS, CA 91364
54-7	2811-032-001-32,55,56	VALENCIA COMPANY	ATTN: ED TONEY	23823 VALENCIA BLVD. VALENCIA, CA 91355
55-2	2866-018-014	ABBOTT VALENCIA VENTURES I	812 S. DATE AVE. #A	ALHAMBRA, CA 91803
55-3	2866-018-015	ABBOTT VALENCIA VENTURES I	812 S. DATE AVE. #A	ALHAMBRA, CA 91803
68-1	2866-018-049	WILLIAM I. STEIN	11767 BELLAGIO ROAD	LOS ANGELES, CA 90049
69-1	2866-018-050	BRUCE BURROWS	22145 AVENUE STANFORD	VALENCIA, CA 91355
70-1	2866-018-051	GUNTER STOLL	24808 ANZA DRIVE	VALENCIA, CA 91355
71-1	2866-018-060	KATELL PROPERTIES INC.	1411 W. 190TH STREET #450	LOS ANGELES, CA 90248
72-1	2866-018-061	JACK C. SCOTT	24807 TIBBETTS AVE.	VALENCIA, CA 91355
73-1	2866-018-062	STAN KRASNOFF	23655 MALIBU COLONY DR.	MALIBU, CA 90265
74-1	2866-018-063	TIBBITS BUSINESS PARK	1810 FAIR OAKS AVE. #300	S. PASADENA, CA 91030
74-2	2866-018-064	TIBBITS BUSINESS PARK	1810 FAIR OAKS AVE. #300	S. PASADENA, CA 91030
75-1	2866-018-076	J.F. ASSOCIATES	24910 AVE. TIBBETTS	VALENCIA, CA 91355
76-1	2866-018-078	McSHIRLEY GUSTIN DEV.	5314 LA CRESCENTA AVE.	LA CRESCENTA, CA 91214
77-1	2866-018-077	DAVID STUEVE	24854 AVE. TIBBETTS	VALENCIA, CA 91355
78-1	2866-018-079	JAMES WITTMER	5826 COLUMBUS AVE.	VAN NUYS, CA 91411
79-1	2866-018-082	HOME FASHIONS INC.	26780 N. AVENUE MENTRY	VALENCIA, CA 91355
80-1	2866-018-095	DART INVESTMENT CORP.	c/o: OGARA CO.	834 KENMORE CIRCLE NEWBURY PARK, CA 91320

80-2	2866-018-096	DART INVESTMENT CORP.	c/o: OGARA CO.	834 KENMORE CIRCLE NEWBURY PARK, CA 91320
81-1	2866-018-102	RODGER F. DUNSTAN	1441 W. HAVEN RD.	SAN MARINO, CA 91108
82-1	2866-018-103	RICHARD A. MONSTEIN	24940 AVE. TIBBITTS	VALENCIA, CA 91355
83-1	2866-018-104	GERTRUDE K. LEVILOFF	10490 WILSHIRE BLVD. #1706	LOS ANGELES, CA 90024
84-1	2866-018-105	NOGRADI INVESTORS LTD.	DAUM JOHNSTOWN AMERICAN	6338 VARIEL AVE. WOODLAND HILLS, CA 91367
85-1	2866-018-110,111 #100	SAMMIS P.C.A. PARTNERS	THE SAMMIS COMPANY	17922 FITCH AVE. IRVINE, CA 92714
86-1	2866-018-112	MING TA SUPPLY U.S.A.	27756 AVE. MENTRY	SANTA CLARITA, CA 91355
11-3	3244-020-302	U.S. GOVERNMENT	c/o: GENERAL SVCS. ADM.	300 N. LOS ANGELES ST. LOS ANGELES, CA 90012
	3244-022-002	WARREN J. HALL	17546 TUSCAN DR.	GRANADA HILLS, CA 91344
	3244-022-007	RICHARD A. ANDERSON	30230 SAN FRANCISQUITO CNYN.	SAUGUS, CA 91350
	3244-022-013	JOYCE D. ULLMAN	1618 N. LAS PALMAS	HOLLYWOOD, CA 90028
	3244-022-021	CLOUGHERTY PACKING CO.	3049 E. VERNON AVE.	LOS ANGELES, CA 90058
	3244-022-022	DAVID C. BAILEY	927 SHELLY ST.	ALTA DENA, CA 91001
87-1	3244-022-020	NO INFORMATION	AVAILABLE OF COUNTY	ASSESSOR'S TAX ROLL
88-1	3244-083-001	FRED DEOLIVIERA	23551 SUMMIT DR.	CALABASAS, CA 91302
89-1	3244-083-002	DAVID L. MUTSCHLER	848 W. HUNTINGTON DR. #8	ARCADIA, CA 91006
90-1	3244-083-003	DOUGLAS D. BERNARDS	610 FLEX STREET	SAN FERNANDO, CA 91340
90-2	3244-083-004	DOUGLAS D. BERNARDS	610 ILEX STREET	SAN FERNANDO, CA 91340
90-3	3244-083-005	DOUGLAS D. BERNARDS	610 ILEX STREET	SAN FERNANDO, CA 91340
91-1	3244-083-006	LARRY C. SMITH	27730 CONESTOGA DR.	ROLLING HILLS EST, CA 90274
92-1	3244-083-007	HENREY E. DAVIS	25836 QUILLA ROAD	VALENCIA, CA 91355
93-1	3244-083-008	EDWARD PRONO	1324 6TH STREET	MANHATTAN BEACH, CA 90266
94-1	3244-083-009	ROBERT F. DENTON JR.	116 S. IRENA AVE. #B	REDONDO BEACH, CA 90277

95-1 3244-083-010 DAVID J. FRESQUEZ 36850 TURBINE WAY SAUGUS, CA 91350

7-2 3244-083-011 DARRELL J. KRUSE 30111 SAN FRANCISQUITO CNYN. SAUGUS, CA 91351

Q.M.S. 91-277-1A 6356 VAN NUYS BLVD. #207 VAN NUYS, CA 91401

MICHAEL BRANDMAN & ASSOCIATES 606 S. OLIVE STREET #600 LOS ANGELES, CA 90014

95-1 2866-018-002 BULAICH, NICK 10201 WYSTONE AVENUE,  
NORTHRIDGE, CA 91324

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96-1 2866-018-003 EWA ENTERPRISES 997 BENEDICT CANYON, BEVERLY  
HILLS, CA 94201

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97-1 2866-018-004 GREENLAND, ALLEN AND VERA 24950 WEST AVENUE  
KEARNY, VALENCIA CA 91355

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98-1 2866-018-005 KEARNY AVENUE INDUSTRIAL SIMPSON, F. DEAN  
24007 VENTURA BOULEVARD # 102, CALABASSAS, CA 91302

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99-1 2866-018-006 MCGARRY, THOMAS 268 18TH STREET, SANTA  
MONICA, CA 90402

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100-1 2866-018-008 REBEL, RAMON NO ADDRESS

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101-1 2866-018-011 VALENCIA ANZA VENTURE 17337 VENTURA  
BOULEVARD # 310 ENCINO, CA 91316

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102-1 2866-018-020 BULLARD, EUGENE, H. 12154 STONE GATE WAY,  
NORTHRIDGE, CA 91321

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102-2 2866-018-021 BULLARD, EUGENE, H. 12154 STONE GATE WAY,  
NORTHRIDGE, CA 91321

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103-1 2866-018-022 LA PETITE ACADEMY, P.O. BOX 26610, KANSAS CITY,  
MO

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103-2 2866-018-023 LA PETITE ACADEMY, P.O. BOX 266010, KANSAS CITY,  
MO

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104-1 2866-018-024 PLAZA DE FLORES, INC., 22714 KESWICK STREET,  
WEST HILLS, CA 91304

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104-2 2866-018-025 PLAZA DE FLORES, INC., 22714 KESWICK STREET,  
WEST HILLS, CA 91304

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105-1 2866-018-026 HAMBY, BILL L. 27204 AVENUE SCOTT, VALENCIA CA  
91355

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106-1 2866-018-032 FLEISHER, W. AND A., P.O. BOX 7117, VAN NUYS, CA

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107-1 1866-018-033 WALDON PARTNERSHIP, P.O. BOX 7117 VAN NUYS, CA

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108-1 2866-018-034 SANTA CLARITA REAL ESTATE PARTNERS

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104-3 2866-018-057 PLAZA DE FLORES, INC., 22714 KESWICK STREET,  
WEST HILLS, CA 91304



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109-1 2866-018-058 HALE, JAMES AND SHERRIE, 24950 ANZA DRIVE,  
VALENCIA, CA 91355

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110-1 2866-018-059 FEINSTEIN, JAMES R. AND GAYLE M., 15008 DELANO  
STREET, VAN NUYS, CA 91411

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110-2 2866-018-065 FEINSTEIN, JAMES R. AND GAYLE M., 15008 DELANO  
STREET, VAN NUYS, CA 91411

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55-4 2866-018-066 ABBOTT VALENCIA VENTURES, 812 DATE AVENUE # A,  
ALHAMBRA, CA 91803

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55-5 2866-018-067 ABBOTT VALENCIA VENTURES, 812 DATE AVENUE # A,  
ALHAMBRA, CA 91803

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55-6 2866-018-068 ABBOTT VALENCIA VENTURES, 812 DATE AVENUE # A,  
ALHAMBRA, CA 91803

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55-7 2866-018-069 ABBOTT VALENCIA VENTURES, 812 DATE AVENUE # A,  
ALHAMBRA, CA 91803

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111-1 2866-018-070 ALBOR PROPERTIES, 2601 OCEAN PARK BOULEVARD  
# 204 SANTA MONICA, CA 90405

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111-2 2866-018-071 ALBOR PROPERTIES, 2601 OCEAN PARK BOULEVARD  
# 204 SANTA MONICA, CA 90405

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112-1 2866-018-092 MASTEY, HENRI 25413 RYE CANYON ROAD, VALENCIA  
CA 91355

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113-1 2866-018-097 CHILDS, ROCKY AND SHARON, 24849 ANZA DRIVE,  
VALENCIA, CA 91355

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113-2 2866-018-098 CHILDS, ROCKY AND SHARON, 24849 ANZA DRIVE,  
VALENCIA, CA 91355

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114-1 2866-018-106 ROBINSON, JEFFREY 3435 CARIBETH STREET,  
ENCINO CA 91436

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114-2 2866-018-107 ROBINSON, JEFFREY 3435 CARIBETH STREET,  
ENCINO CA 91436

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115-1 2866-018-108 ELKIND, LEON 3947 LANDMARK STREET, CULVER  
CITY, CA 90232

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116-1 2866-018-113 CRANE, PATRICK 3217 CARTER AVENUE, MARINA DEL  
REY, CA 90292

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**116-2 2866-018-114 CRANE, PATRICK 3217 CARTER AVENUE, MARINA DEL REY, CA 90292**

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**54-8 2811-001-063 VALENCIA CO. C/O ED TONEY 23023 VALENCIA BOULEVARD, VALENCIA CA 91355**

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**4-6 2810-001-001 CLOUGHERTY PACKING CO. 3049 E. VERNON STREET, LOS ANGELES CA 90058**

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**4-7 2810-001-002 CLOUGHERTY PACKING CO. 3049 E. VERNON STREET, LOS ANGELES CA 90058**

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**\* No information was available on the County tax assessors roll for the following parcels:**

**2811-027-002  
2811-027-008  
2811-027-009  
2811-027-013  
2811-027-014  
2811-027-015  
2811-027-016**

**APPENDIX B**

**FLORAL AND FAUNAL COMPENDIA  
FOR THE SAN FRANCISQUITO CANYON  
SIGNIFICANT ECOLOGICAL AREA NO. 19**

## **INTRODUCTION TO FLORAL AND FAUNAL SURVEY**

Floral components encountered during the survey were recorded in terms of relative abundance and host habitat type. Expected site use by wildlife is derived from survey information combined with documented habitat preferences of regional wildlife species that, whether or not recorded during the survey, are considered likely to include the project area within their range.

Habitat designations used in this report are according to the classification system of Holland (1986). Floral taxonomy used in this report follows that of Roberts (1989), Raven et al. (1986), and Beauchamp (1986). Common plant names, where not available from Roberts or Beauchamp, are taken from Munz (1984) and Abrams (1923). Vertebrates identified in the field by sight, calls, tracks, scat, or other signs are cited according to the nomenclature of Jennings (1983) for amphibians and reptiles, AOU (1983, 1985, 1987, 1989) for birds, and Jones et al. (1982) for mammals.

# FLORAL COMPENDIUM<sup>1</sup>

## LEGEND

### HABITAT<sup>2</sup>

- RAFS - Riversdean Alluvial Fan Sage Scrub
- SCWR - Southern Cottonwood-Willow Riparian Woodland
- VCSS - Ventura Coastal Sage Scrub
- CC - Chamise Chaparral
- DIST - Disturbed

### ABUNDANCE<sup>3</sup>

- a - abundant--ubiquitous throughout the noted community; occurs in high numbers or in large, pure stands
- c - common--a dominant species in the noted community; occurs in relatively high numbers
- f - frequent--occurs in moderate numbers, but not a dominant element of the noted community
- o - occasional--occurs sporadically in the noted community; generally not an obvious or conspicuous component
- i - infrequent--occurs rarely, or only in a small portion of the noted community; often not apparent unless searched for

### STATUS

- \* Non-native

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<sup>1</sup> This is not intended as an exhaustive listing of the vegetation occurring on the site; some annual herbs or very uncommon species may not have been detected by the field survey.

<sup>2</sup> Indicates habitat type (plant community) in which species most commonly occurs; species may occur in limited numbers or restricted localities in other communities.

<sup>3</sup> This is simply a gross indication of relative frequency of occurrence on the site. Quantitative sampling methods were not employed to arrive at these determinations.

**VASCULAR PLANTS**

**LYCOPODIAE**

**SELAGINELLACEAE - SPIKE-MOSS FAMILY**

**RAFS SCWR VCSS CC DIST**

Selaginella bigelovii  
Bigelow's spike-moss

s u - - -

**ANGIOSPERMAE (DICOTYLEDONES)**

**AMARANTHACEAE - AMARANTH FAMILY**

\* Amaranthus albus  
tumbleweed

u o f o c

**ANACARDIACEAE - SUMAC FAMILY**

Malosma laurina  
laurel sumac

- - f o -

Rhus trilobata  
squaw bush

- - f o -

Toxicodendron diversilobum  
poison-oak

o f o o -

**ASTERACEAE - SUNFLOWER FAMILY**

Ambrosia acanthicarpa  
annual burweed

o i i i o

Ambrosia psilostachya  
western ragweed

o o i - i

Artemisia californica  
coastal sagebrush

- - c o -

Artemisia douglasiana  
California mugwort

u f - - -

Artemisia tridentata  
Great Basin sagebrush

u - - - -

Baccharis salicifolia  
mulefat

f c - - -

\* Centaurea melitensis  
tocalote

f u f f c

Chrysothamnus nauseosus  
rabbitbrush

f - u - -

Cirsium occidentale  
cobweb thistle

- - u - f

**ASTERACEAE - SUNFLOWER FAMILY**

(continued)

	<u>RAFS</u>	<u>SCWR</u>	<u>VCSS</u>	<u>CC</u>	<u>DIST</u>
* <u>Conyza canadensis</u> horseweed	o	i	i	i	f
<u>Corethrogyne filaginifolia</u> cudweed aster	o	o	o	o	o
<u>Encelia virginensis</u> var <u>actoni</u> bush sunflower	o	-	o	o	-
<u>Filago californica</u> California fluffweed	i	-	i	i	-
<u>Gnaphalium microcephalum</u> white everlasting	-	-	o	-	-
<u>Haplopappus linerifolius</u> showy goldenbush	o	-	-	i	-
<u>Heterotheca grandiflora</u> telegraph weed	i	i	i	i	o
<u>Lepidospartum squamatum</u> scale-broom	c	-	i	i	o
<u>Senecio douglasii</u> shrubby butterweed	f	i	o	o	i
<u>Stephanomeria virgata</u> twiggy wrethplant	-	-	-	-	o
<u>Tetradymia comosa</u> hairy horsebrush	o	-	i	i	-

**BORAGINACEAE - BORAGE FAMILY**

<u>Amsinckia intermedia</u> common fiddleneck	f	i	f	f	f
<u>Cryptantha</u> sp. forget-me-not	o	-	o	o	i

**BRASSICACEAE - MUSTARD FAMILY**

* <u>Brassica geniculata</u> short-podded mustard	o	o	o	o	f
<u>Descurainia pinnata</u> western tansy-mustard	o	o	o	o	f
* <u>Sisymbrium altissimum</u> tumbling-mustard	o	o	o	o	o

**CACTACEAE - CACTUS FAMILY**

<u>Opuntia basilaris</u> var <u>ramosa</u> beavertail cactus	o	-	o	i	-
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**CAPRIFOLIACEAE - HONEYSUCKLE FAMILY****RAFS SCWR VCSS CC DIST**Sambucus mexicana  
Mexican elderberry

- - o s -

**CHENOPODIACEAE - GOOSEFOOT FAMILY**Atriplex canescens  
four-winged saltbush

o - - i o

\* Chenopodium album  
lamb's-quarters

i i i i o

\* Salsola australis  
Russian-thistle

i - i o c

**CONVOLVULACEAE - MORNING-GLORY FAMILY**Cuscuta californica  
California dodder

o - o o -

**EUPHORBIACEAE - SPURGE FAMILY**Eremocarpus setigerus  
doveweed

- - - - f

Ricinus communis  
castor-bean

i o - - o

**FABACEAE - PEA FAMILY**Lotus scoparius  
deerweed

o - c f o

Lupinus hirsutissimus  
stinging lupine

o - o o -

**GERANIACEAE - GERANIUM FAMILY**\* Erodium cicutarium  
red-stemmed filaree

f - f f c

**HYDROPHYLLACEAE - WATERLEAF FAMILY**Eriodictyon crassifolium  
thick-leaved yerba santa

f - o o -



**LAMIACEAE - MINT FAMILY****RAFS SCWR VCSS CC DIST**

* <u>Marrubium vulgare</u> horehound	o	o	o	s	f
<u>Salvia apiana</u> white sage	-	-	i	i	-
<u>Salvia columbariae</u> chia	o	i	o	o	-
<u>Salvia mellifera</u> black sage	-	-	f	i	-

**LOASACEAE - STICK-LEAF FAMILY**

<u>Mentzelia laevicaulis</u> giant blazing star	o	i	-	-	-
<u>Mentzelia sp.</u> blazing star	o	i	-	-	-

**MALVACEAE - MALLOW FAMILY**

<u>Malacothamnus fasciculatus</u> mesa bushmallow	o	-	o	o	-
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**ONAGRACEAE - EVENING-PRIMROSE FAMILY**

<u>Camissonia californica</u> false mustard	o	i	o	o	i
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**POLYGONACEAE - BUCKWHEAT FAMILY**

<u>Eriogonum fasciculatum</u> California buckwheat	f	-	f	f	-
* <u>Rumex crispus</u> curly dock	i	i	-	-	i
<u>Rumex hymenosepalus</u> wild rhubarb	i	i	-	-	i

**ROSACEAE - ROSE FAMILY**

<u>Adenostoma fasciculatum</u> chamise	-	-	o	c	-
<u>Heteromeles arbutifolia</u> toyon	-	-	f	i	-

**RUBIACEAE - MADDER FAMILY**

**RAFS SCWR VCSS CC DIST**

Galium angustifolium  
narrow-leaved bedstraw

i - o o -

**SALICACEAE - WILLOW FAMILY**

Populus fremontii  
Fremont's cottonwood

- f - - -

Salix laevigata  
red willow

- f - - -

**SOLANACEAE - NIGHTSHADE FAMILY**

Datura meteloides  
jimsonweed

- - f o f

\* Nicotiana glauca  
tree tobacco

o f o s o

**VISCAACEAE - MISTLETOE FAMILY**

Phoradendron tomentosum  
big-leaved mistletoe

- i - - -

**ANGIOSPERMAE (MONOCOTYLEDONES)**

**AGAVACEAE - AGAVE FAMILY**

Yucca whipplei  
Spanish bayonet

c - f f -

**POACEAE - GRASS FAMILY**

Arundo donax  
giant reed

u f - - -

\* Avena barbata  
slender oat

f f f f c

\* Bromus diandrus  
ripgut grass

f f f f c

\* Bromus rubens  
foxtail chess

f f c f c

\* Bromus tectorum  
cheat grass

i i f i c

Elymus condensatus  
giant wild rye

s s o s -

**POACEAE - GRASS FAMILY (continued)**

	<u>RAFS</u>	<u>SCWR</u>	<u>VCSS</u>	<u>CC</u>	<u>DIST</u>
* <u>Gastridium ventricosum</u> nit grass	i	i	-	-	-
<u>Festuca megalura</u> fescue	i	i	o	i	i
* <u>Oryzopsis miliacea</u> millet ricegrass	o	u	o	s	-
* <u>Schismus barbatus</u> Mediterranean schismus	f	o	o	o	o
<u>Stipa coronata</u> giant needlegrass	s	-	o	s	-

# FAUNAL COMPENDIUM<sup>1</sup>

## LEGEND

### ABUNDANCE<sup>2</sup>

- c - common--observed or expected throughout the site in relatively high numbers
- f - fairly common--observed or expected in moderate numbers over most of the site
- u - uncommon--observed or expected in low numbers over a portion or all of the site
- o - occasional--observed or expected only sporadically on the site
- s - scarce--observed or expected rarely on the site

### STATUS

- + Presence noted by direct sighting, call identification or observation of tracks, scat or other signs.

\* Non-native

### SEASONALITY (Birds Only)<sup>3</sup>

- R - resident or found in vicinity year round
- S - present in summer only
- W - present in winter only
- V - visitor from nearby areas
- T - transient

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<sup>1</sup> List includes species observed or expected to occur on or in the immediate vicinity of the site.

<sup>2</sup> This is simply a gross indication of relative frequency of occurrence on the site; quantitative sampling methods were not employed to arrive at these determinations.

<sup>3</sup> This is simply a gross indication of relative frequency of occurrence on the site; quantitative sampling methods were not employed to arrive at these determinations.

## INVERTEBRATES

### BUTTERFLIES AND SKIPPERS

#### PAPILIONIDAE - SWALLOWTAILS AND PARNASSIANS

Papilio rutulus rutulus

western tiger swallowtail

larval food plant(s): principally Platanus racemosa (Platanaceae), but also Salix spp. and Populus spp. (Salicaceae)

#### PIERIDAE - WHITES, SULFURS MARBLES AND ORANGETIPS

Pieris protodice

common white

larval food plant(s): Lepidium fremontii (Brassicaceae) in deserts; many other Brassicaceae also used (Cleome spp., Brassica spp., Sisymbrium spp. etc.)

\* Pieris rapae

cabbage butterfly, cabbage white

larval food plant(s): many Brassicaceae, native and introduced

Colias eurytheme

alfalfa butterfly

larval food plant(s): the non-native Medicago sativa; Lotus scoparius, Trifolium spp. and possibly Astragalus spp. (all Fabaceae)

Colias alexandra harfordii

Harford's sulfur

larval food plant(s): Astragalus spp. (Fabaceae)

Zerene (Colias) eurydice

California dogface

larval food plant(s): Amorpha californica (Fabaceae)

Anthocharis cethura cethura

desert orangetip, Felders' orangetip

larval food plant(s): Streptanthella longirostris, Descurainea spp. and probably other Brassicaceae

Anthocharis sara sara

Sara orangetip

larval food plant(s): Arabis spp., Barbarea vulgaris, Brassica kaber, Descurainea spp. and Sisymbrium officinale (all Brassicaceae)

## DANAIDAE - MILKWEED BUTTERFLIES

### Danaus plexippus

monarch

larval food plant(s): Asclepias spp. (Asclepiadaceae)

### Danaus gilippus strigosus

striated queen

larval food plant(s): Sarcostemma spp., and at least rarely, certain Asclepias spp. (Asclepiadaceae)

## NYMPHALIDAE - BRUSH-FOOTED BUTTERFLIES

### Euphydryas chalcedona chalcedona

chalcedon checkerspot

larval food plant(s): most commonly Mimulus aurantiacus and Scrophularia californica (both Scrophulariaceae), but a variety of other hosts are also used (mainly Scrophulariaceae)

### Melitaea (Chlosyne) gabbii gabbii

Gabb's checkerspot

larval food plant(s): Corethrogyne filaginifolia, Heterotheca grandiflora; Hazardia squarrosa reported (all Asteraceae)

### Nymphalis antiopa antiopa

mourning cloak

larval food plant(s): Salix spp. and Populus spp. (both Salicaceae); Ulmus spp. (Ulmaceae)

### Vanessa (Cynthia) cardui

painted lady

larval food plant(s): Malva spp. (Malvaceae), Cirsium spp. (Asteraceae), Urtica spp. (Urticaceae), Lupinus spp. (Fabaceae), Cryptantha spp. and Amsinckia spp. (Boraginaceae) and many others

### Vanessa (Cynthia) carye anabella

west coast lady

larval food plant(s): Malva spp., Sidalcea spp. (Malvaceae), and Urtica holosericea (Urticaceae); Sphaeralcea ambigua (Malvaceae) in desert areas

### Precis coenia

buckeye

larval food plant(s): Plantago erecta and P. lanceolata (Plantaginaceae); Mimulus spp. and Antirrhinum spp. (Scrophulariaceae)

### Limenitis lorquini lorquini

Lorquin's admiral

larval food plant(s): Salix spp. (Salicaceae); also Prunus virginiana var demissa (Rosaceae) in the Tehachapi Mts.

Adelpha bredowii californica

California sister

larval food plant(s): Quercus chrysolepis (Fagaceae); possibly other Quercus spp.

**LYCAENIDAE - METALMARKS, HAIRSTREAKS, COPPERS AND BLUES**

**RIODININAE - METALMARKS**

Apodemia mormo virgulti

Behr's metalmark

larval food plant(s): probably Eriogonum fasciculatum ssp. fasciculatum and ssp. polifolium (Polygonaceae)

**THECLINAE - HAIRSTREAKS**

Strymon melinus pudica

common hairstreak

larval food plant(s): quite varied; includes Malva spp. and Hibiscus spp. (Malvaceae), Humulus (Moraceae), Amorpha spp. and Phaseolus spp. (Fabaceae), Nolina spp. (Agavaceae), Polygonum spp. and Eriogonum spp. (Polygonaceae)

Satyrium sylvinum sylvinum

sylvan hairstreak

larval food plant(s): Salix spp. (Salicaceae)

Satyrium saepium saepium

hedge-row hairstreak

larval food plant(s): Ceanothus cuneatus and probably other Ceanothus spp. (Rhamnaceae)

Callophrys (Incisalia) augustus iroides

western elfin

larval food plant(s): most extensively Cuscuta spp. (Cuscutaceae); also on Ceanothus spp. (Rhamnaceae), Chlorogalum pomeridanum (Liliaceae), and Arbutus menziesii (Ericaceae)

Callophrys dumetorum dumetorum

bramble hairstreak

larval food plant(s): Lotus scoparius (Fabaceae) and Eriogonum fasciculatum ssp. fasciculatum, polifolium and foliolosum

**LYCAENINAE - COPPERS**

Lycaena gorgon

gorgon copper

larval food plant(s): Eriogonum elongatum (Polygonaceae) in southern California

Lycaena xanthoides xanthoides

great copper

larval food plant(s): Rumex spp. (Polygonaceae)

Lycaena helloides

purplish copper

larval food plant(s): Rumex spp. (Polygonaceae)

**PLEBEJINAE - BLUES**

Leptotes marina

marina blue

larval food plant(s): in urban areas, Plumbago spp. (Plumbaginaceae); elsewhere, many Fabaceae including Medicago spp., Lathyrus spp., and Astragalus spp., and at least in the San Gabriel Mts., Amorpha californica (all Fabaceae)

Brephidium exilis

pigmy blue

larval food plant(s): Chenopodium spp., Atriplex spp. (Chenopodiaceae)

Plebejus acmon acmon

acmon blue

larval food plant(s): Astragalus spp. and Lotus spp., especially Lotus scoparius (Fabaceae); Eriogonum spp. also used extensively (Polygonaceae)

Plebejus lupini monticola

lupine blue

larval food plant(s): Eriogonum spp. (not lupine); principally Eriogonum fasciculatum varieties; E. umbellatum in eastern Mojave Desert (Polygonaceae)

Plebejus emigdionis

San Emigdio blue

larval food plant(s): Atriplex canescens (Chenopodiaceae)

Euphilotes (Philotes) bernardino bernardino

Bernardino blue

larval food plant(s): Eriogonum fasciculatum ssp. fasciculatum, polifolium and foliolosum (Polygonaceae)

Glaucopsyche lygdamus australis

southern blue

larval food plant(s): Lotus scoparius (Fabaceae)

Celastrina argiolus echo

echo blue

larval food plant(s): Ceanothus spp. (Rhamnaceae), Cornus spp. (Cornaceae), Spiraea (Rosaceae) and possibly various Fabaceae



## HESPERIIDAE - SKIPPERS

### Lerodea eufala

eufala skipper

larval food plant(s): unidentified grasses (Poaceae)

### Ochlodes sylvanoides sylvanoides

woodland skipper

larval food plant(s): unidentified grasses (Poaceae)

### Ochlodes agricola agricola

rural skipper

larval food plant(s): grasses (Poaceae)

### Atalopetes campestris

field skipper

larval food plant(s): grasses (Poaceae)

### Hylephila phyleus

fiery skipper

larval food plant(s): bermuda grass, Cynodon dactylon (Poaceae)

### Heliopetes ericetorum

large white skipper

larval food plant(s): various Malvaceae, especially Malacothamnus fasciculatus

### Erynnis zarucco funeralis

funereal duskywing

larval food plant(s): Lotus scoparius, Olneya tesota and Sesbania exaltata (all Fabaceae); Nemophila membranacea (Hydrophyllaceae) use documented in western Colorado Desert

**TERRESTRIAL VERTEBRATES**

**AMPHIBIANS**

**SALAMANDRIDAE - NEWTS**

**Abundance**

Taricha torosa o  
California newt

**PLETHODONTIDAE - LUNGLESS SALAMANDERS**

Aneides lugubris o  
arboreal salamander

Batrachoseps nigriventris f  
black-bellied slender salamander

Batrachoseps pacificus c  
Pacific slender salamander

Ensatina eschscholtzi o  
ensatina

**PELOBATIDAE - SPADEFOOT TOADS**

Scaphiopus hammondi o  
western spadefoot

**BUFONIDAE - TRUE TOADS**

Bufo boreas f  
western toad

**HYLIDAE - TREEFROGS**

Hyla cadaverina u  
California treefrog

Hyla regilla f  
Pacific treefrog

**REPTILES**

**EMYDIDAE - BOX AND WATER TURTLES**

Clemmys marmorata s  
western pond turtle

**IGUANIDAE - IGUANID LIZARDS**

Abundance

Phrynosoma coronatum  
coast horned lizard  
Sceloporus occidentalis  
western fence lizard  
Uta stansburiana  
side-blotched lizard

o  
f  
c

**SCINCIDAE - SKINKS**

Eumeces skiltonianus  
western skink

u

**TEIIDAE - WHIPTAIL LIZARDS**

Cnemidophorus tigris  
western whiptail

f

**ANGUIDAE - ALLIGATOR LIZARDS**

Gerrhonotus multicarinatus  
southern alligator lizard

o

**ANNIELLIDAE - CALIFORNIA LEGLESS LIZARDS**

Anniella pulchra  
California legless lizard

s

**LEPTOTYPHLOPIDAE - SLENDER BLIND SNAKES**

Leptotyphlops humilis  
western blind snake

s

**BOIDAE - BOAS**

Lichanura trivirgata  
rosy boa

s

**COLUBRIDAE - COLUBRID SNAKES**Abundance

<u>Coluber constrictor</u> racer	u
<u>Diadophis punctatus</u> ringneck snake	o
<u>Hypsiglena torquata</u> night snake	u
<u>Lampropeltis getulus</u> common kingsnake	f
<u>Lampropeltis zonata</u> California mountain kingsnake	o
<u>Masticophis flagellum</u> coachwhip	f
<u>Masticophis lateralis</u> striped racer	f
<u>Pituophis melanoleucus</u> gopher snake	c
<u>Rhinocheilus lecontei</u> long-nosed snake	s
<u>Salvadora hexalepis</u> western patch-nosed snake	s
<u>Tantilla planiceps</u> western black-headed snake	o
<u>Thamnophis hammondi</u> two-striped garter snake	u
<u>Trimorphodon biscutatus</u> lyre snake	o

**VIPERIDAE - VIPERS**

<u>Crotalus viridis</u> western rattlesnake	f
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**BIRDS****ARDEIDAE - HERONS**

<u>Ardea herodias</u> great blue heron	o,R
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**CATHARTIDAE - NEW WORLD VULTURES**

<u>Cathartes aura</u> turkey vulture	f,R
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**ACCIPTRIDAE - HAWKS**Abundance

Elanus caeruleus  
black-shouldered kite  
Circus cyaneus  
northern harrier  
Accipiter striatus  
sharp-shinned hawk  
Accipiter cooperii  
Cooper's hawk  
Buteo lineatus  
red-shouldered hawk  
Buteo jamaicensis  
red-tailed hawk  
Aquila chrysaetos  
golden eagle

u,R  
u,W  
f,W  
u,R/f,W  
f,R  
c,R  
s,R

**FALCONIDAE - FALCONS**

Falco sparverius  
American kestrel  
Falco mexicanus  
prairie falcon

f,R  
s,W

**PHASIANIDAE - PHEASANTS & QUAILS**

Callipepla californica  
California quail

c,R

**CHARADRIIDAE - PLOVERS**

Charadrius vociferus  
killdeer  
Tringa melanoleuca  
greater yellowlegs

u,R  
o,T

**COLUMBIDAE - PIGEONS & DOVES**

\* Columba livia  
rock dove  
Columba fasciata  
band-tailed pigeon  
Zenaida macroura  
mourning dove

c,R  
o,W  
c,R

**CUCULIDAE - CUCKOOS & ROADRUNNERS**Abundance

Geococcyx californianus  
greater roadrunner

u,R

**TYTONIDAE - BARN OWLS**

Tyto alba  
barn owl

u,R

**STRIGIDAE - TRUE OWLS**

Otus kennicottii  
western screech-owl

o,R

Bubo virginianus  
great horned owl

f,R

**CAPRIMULGIDAE - GOATSUCKERS**

Chordeiles acutipennis  
lesser nighthawk

u,S

Phalaenoptilus nuttallii  
common poorwill

u,S

**APODIDAE - SWIFTS**

Chaetura vauxi  
Vaux's swift

c,T

Aeronautes saxatalis  
white-throated swift

f,R

**TROCHILIDAE - HUMMINGBIRDS**

Archilochus alexandri  
black-chinned hummingbird

u,S

Calypte anna  
Anna's hummingbird

c,R

Calypte costae  
Costa's hummingbird

u,S/T

Selasphorus rufus  
rufous hummingbird

f,T

Selasphorus sasin  
Allen's hummingbird

o,T

**ALCEDINIDAE - KINGFISHERS**Abundance

Ceryle alcyon o,V  
belted kingfisher

**PICIDAE - WOODPECKERS**

Melanerpes formicivorus f,R  
acorn woodpecker

Sphyrapicus ruber u,W/T  
red-breasted sapsucker

Picoides nuttallii f,R  
Nuttall's woodpecker

Picoides pubescens u,R  
downy woodpecker

Colaptes auratus f,R  
northern flicker

**TYRANNIDAE - TYRANT FLYCATCHERS**

Contopus borealis u,T  
olive-sided flycatcher

Contopus sordidulus c,T  
western wood-pewee

Empidonax traillii f,T  
willow flycatcher

Empidonax hammondii u,T  
Hammond's flycatcher

Empidonax oberholseri s,T  
dusky flycatcher

Empidonax wrightii s,T  
gray flycatcher

Empidonax difficilis c,T  
Pacific-slope flycatcher

Sayornis nigricans u,R  
black phoebe

Sayornis saya u,W  
Say's phoebe

Myiarchus cinerascens f,S  
ash-throated flycatcher

Tyrannus verticalis f,S  
western kingbird

**ALAUDIDAE - LARKS**

Eremophila alpestris u,R  
horned lark

**HIRUNDINIDAE - SWALLOWS****Abundance**

<u>Tachycineta bicolor</u> tree swallow	c,T
<u>Tachycineta thalassina</u> violet-green swallow	c,T
<u>Stelgidopteryx serripennis</u> northern rough-winged swallow	f,S
<u>Hirundo pyrrhonota</u> cliff swallow	c,S
<u>Hirundo rustica</u> barn swallow	c,T

**CORVIDAE - JAYS & CROWS**

<u>Aphelocoma coerulescens</u> scrub jay	f,R
<u>Corvus brachyrhynchos</u> American crow	f,R
<u>Corvus corax</u> common raven	f,R

**AEGITHALIDAE - BUSHTITS**

<u>Psaltriparus minimus</u> bushtit	c,R
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**SITTIDAE - NUTHATCHES**

<u>Sitta carolinensis</u> white-breasted nuthatch	u,V
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**CERTHIIDAE - CREEPERS**

<u>Certhia americana</u> brown creeper	o,W
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**TROGLODYTIDAE - WRENS**

<u>Salpinctes obsoletus</u> rock wren	u,R
<u>Catherpes mexicanus</u> canyon wren	u,R
<u>Thryomanes bewickii</u> Bewick's wren	f,R



**TROGLODYTIDAE - WRENS (continued)**

Abundance

Troglodytes aedon  
house wren

f,R

**MUSCICAPIDAE - KINGLETS, GNATCATCHERS, THRUSHES & BABBLERS**

Regulus satrapa  
golden-crowned kinglet

s,W

Regulus calendula  
ruby-crowned kinglet

c,W

Polioptila caerulea  
blue-gray gnatcatcher

f,W

Sialia mexicana  
western bluebird

f,R

Catharus ustulatus  
Swainson's thrush

u,S

Catharus guttatus  
hermit thrush

c,W

Turdus migratorius  
American robin

c,W

Chamaea fasciata  
wrentit

f,R

**MIMIDAE - THRASHERS**

Mimus polyglottos  
northern mockingbird

u,R

Toxostoma redivivum  
California thrasher

f,R

**MOTACILLIDAE - PIPITS**

Anthus rufescens  
American pipit

c,W

**BOMBYCILLIDAE - WAXWINGS**

Bombycilla cedrorum  
cedar waxwing

u,W

**PTILOGONATIDAE - SILKY-FLYCATCHERS**

Phainopepla nitens  
phainopepla

f,S

**LANIIDAE - SHRIKES**AbundanceLanius ludovicianus  
loggerhead shrike

u,R

**STURNIDAE - STARLINGS**\* Sturnus vulgaris  
European starling

c,R

**VIREONIDAE - VIREOS**Vireo solitarius  
solitary vireo

o,T

Vireo gilvus  
warbling vireo

u,T

**EMBERIZIDAE - WOOD WARBLERS, TANAGERS, BUNTINGS & BLACKBIRDS**Vermivora celata  
orange-crowned warbler

f,T/u,R

Vermivora ruficapilla  
Nashville warbler

u,T

Dendroica petechia  
yellow warbler

f,T

Dendroica coronata  
yellow-rumped warbler

c,W

Dendroica nigrescens  
black-throated gray warbler

f,T

Dendroica townsendi  
Townsend's warbler

u,T

Dendroica occidentalis  
hermit warbler

u,T

Oporornis tolmiei  
MacGillivray's warbler

u,T

Geothlypis trichas  
common yellowthroat

f,R

Wilsonia pusilla  
Wilson's warbler

c,T

Icteria virens  
yellow-breasted chat

s,T

Piranga ludoviciana  
western tanager

c,T

Pheucticus melanocephalus  
black-headed grosbeak

c,S

Guiraca caerulea  
blue grosbeak

u,S

**EMBERIZIDAE - WOOD WARBLERS, TANAGERS, BUNTINGS  
& BLACKBIRDS (continued)**

Abundance

<u>Passerina amoena</u> lazuli bunting	f,T
<u>Pipilo erythrophthalmus</u> rufous-sided towhee	c,R
<u>Pipilo crissalis</u> California towhee	f,R
<u>Spizella passerina</u> chipping sparrow	u,T
<u>Pooecetes gramineus</u> vesper sparrow	s,W
<u>Chondestes grammacus</u> lark sparrow	f,R
<u>Passerculus sandwichensis</u> savannah sparrow	f,W
<u>Passerella iliaca</u> fox sparrow	u,W
<u>Melospiza melodia</u> song sparrow	c,R
<u>Melospiza lincolni</u> Lincoln's sparrow	u,W
<u>Zonotrichia atricapilla</u> golden-crowned sparrow	u,W
<u>Zonotrichia leucophrys</u> white-crowned sparrow	c,W
<u>Junco hyemalis</u> dark-eyed junco	c,W
<u>Agelaius phoeniceus</u> red-winged blackbird	c,W
<u>Sturnella neglecta</u> western meadowlark	f,R
<u>Euphagus cyanocephalus</u> Brewer's blackbird	c,R
<u>Molothrus ater</u> brown-headed cowbird	c,R
<u>Icterus cucullatus</u> hooded oriole	u,V
<u>Icterus galbula</u> northern oriole	f,S

**FRINGILLIDAE - FINCHES**

<u>Carpodacus purpureus</u> purple finch	u,W
<u>Carpodacus mexicanus</u> house finch	c,R

**FRINGILLIDAE - FINCHES (continued)**

Abundance

<u>Carduelis psaltria</u> lesser goldfinch	f,R
<u>Carduelis lawrencei</u> Lawrence's goldfinch	u,S
<u>Carduelis tristis</u> American goldfinch	c,W

**PASSERIDAE - OLD WORLD SPARROWS**

* <u>Passer domesticus</u> house sparrow	c,R
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**MAMMALS**

**DIDELPHIDAE - NEW WORLD OPOSSUMS**

* <u>Didelphis virginiana</u> Virginia opossum	c
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**SORICIDAE - SHREWS**

<u>Sorex ornatus</u> ornate shrew	o
<u>Notiosorex crawfordi</u> desert shrew	s

**TALPIDAE - MOLES**

<u>Scapanus latimanus</u> broad-footed mole	u
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**PHYLLOSTOMIDAE - LEAF-NOSED BATS<sup>1</sup>**

<u>Macrotus californicus</u> California leaf-nosed bat	
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<sup>1</sup> The site is within the range of a number of bat species in several families, but it is unlikely that all are present. As their distribution varies according to season, and as the precise habitat requirements of each species are not well known, it is difficult to determine which species are present on the property.

**VESPERTILIONIDAE - EVENING BATS<sup>1</sup>**

Abundance

- Myotis lucifugus  
little brown myotis
- Myotis yumanensis  
Yuma myotis
- Myotis evotis  
long-eared myotis

**VESPERTILIONIDAE - EVENING BATS (continued)**

- Myotis thysanodes  
fringed myotis
- Myotis volans  
long-legged myotis
- Myotis californicus  
California myotis
- Myotis leibii  
small-footed myotis
- Pipistrellus hesperus  
western pipistrelle
- Eptesicus fuscus  
big brown bat
- Lasiurus borealis  
red bat
- Lasiurus cinereus  
hoary bat
- Plecotus townsendii  
Townsend's big-eared bat
- Antrozous pallidus  
pallid bat

**MOLOSSIDAE - FREE-TAILED BATS<sup>1</sup>**

- Tadarida brasiliensis  
Brazilian free-tailed bat
- Tadarida femorosacca  
pocketed free-tailed bat
- Eumops perotis  
western mastiff bat

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<sup>1</sup> The site is within the range of a number of bat species in several families, but it is unlikely that all are present. As their distribution varies according to season, and as the precise habitat requirements of each species are not well known, it is difficult to determine which species are present on the property.

**LEPORIDAE - HARES & RABBITS****Abundance**

<u>Sylvilagus bachmani</u> brush rabbit	f
<u>Sylvilagus audubonii</u> desert cottontail	u
<u>Lepus californicus</u> black-tailed jackrabbit	u

**SCIURIDAE - SQUIRRELS**

<u>Spermophilus beecheyi</u> California ground squirrel	c
* <u>Sciurus niger</u> fox squirrel	o
<u>Sciurus griseus</u> western gray squirrel	u

**GEOMYIDAE - POCKET GOPHERS**

<u>Thomomys bottae</u> Botta's pocket gopher	c
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**HETEROMYIDAE - POCKET MICE & KANGAROO RATS**

<u>Perognathus longimembris</u> little pocket mouse	s
<u>Perognathus californicus</u> California pocket mouse	u
<u>Dipodomys agilis</u> agile kangaroo rat	u

**CRICETIDAE - NEW WORLD RATS & MICE**

<u>Reithrodontomys megalotis</u> western harvest mouse	f
<u>Peromyscus californicus</u> California mouse	f
<u>Peromyscus maniculatus</u> deer mouse	c
<u>Peromyscus crinitus</u> canyon mouse	o
<u>Peromyscus boylii</u> brush mouse	u
<u>Onychomys torridus</u> southern grasshopper mouse	s

**CRICETIDAE - NEW WORLD RATS & MICE (continued)**Abundance

<u>Neotoma lepida</u> desert woodrat	u
<u>Neotoma fuscipes</u> dusky-footed woodrat	f
<u>Microtus californicus</u> California vole	o

**MURIDAE - OLD WORLD RATS & MICE**

* <u>Rattus rattus</u> black rat	o
* <u>Rattus norvegicus</u> Norway rat	o
* <u>Mus musculus</u> house mouse	o

**CANIDAE - WOLVES & FOXES**

<u>Canis latrans</u> coyote	c
* <u>Canis familiaris</u> domestic dog	f
* <u>Vulpes vulpes</u> red fox	u
<u>Urocyon cinereoargenteus</u> gray fox	u

**PROCYONIDAE - RACCOONS**

<u>Bassariscus astutus</u> ringtail	s
<u>Procyon lotor</u> raccoon	c

**MUSTELIDAE - WEASELS, SKUNKS & OTTERS**

<u>Mustela frenata</u> long-tailed weasel	o
<u>Taxidea taxus</u> badger	s
<u>Spilogale gracilis</u> western spotted skunk	f
<u>Mephitis mephitis</u> striped skunk	c

**FELIDAE - CATS**

Abundance

- \* Felis catus  
domestic cat
- Felis concolor  
mountain lion
- Felis rufus  
bobcat

o  
s  
u

**CERVIDAE - DEERS**

- Odocoileus hemionus  
mule deer

f