walnuts that are commonly eaten by mammals and birds. Southern California black walnut is designated as a California Native Plant Society (CNPS) List 4 (watch list) species.

Western Sycamore

The western sycamore (*Platanus racemosa*) is a deciduous tree in the honeysuckle family that occurs in open areas or along stream banks in valleys and woodlands throughout California. On the site, this species occurs within La Tuna Canyon Wash and in limited numbers in Drainage 4. This is a rapidly growing tree that can live well over 200 hundred years. It can grow to 100 feet tall and exhibits a spreading form with an open, generally rounded crown. Its height lends itself to nesting opportunities for birds; however, its fruit provides only a minor food source. The leaves are 4.7 to 10 inches long and wide with three to five lobes about half the length of the leaf. The leaves are light green and hairy on the upper surface. Its bark is generally smooth and mottled with gray, white, and tan colors.

4.8 Special Status Wildlife Species

Special-Status Species Observed in the Study Area

4.8.1 Ashy Rufous-Crowned Sparrow (*Aimophila ruficeps canescens*)

The ashy rufous-crowned sparrow, which is a CDFG Species of Special Concern, is a year-round resident of southern California.[51] It is frequently found in coastal sage scrub, open chaparral, and in other dry habitats. Like other sparrows, it primarily eats seeds and insects. Ashy rufous-crowned sparrows were identified north and south of Interstate 210 with a total of five sightings. Exhibit 4 shows the location of these birds.

4.8.2 Yellow-Breasted Chat (*Icteria virens*)

The yellow-breasted chat, which is a CDFG Species of Special Concern, is a migratory songbird that breeds in riparian habitats in southern California. This species exhibits habitat requirements similar to least Bell's vireo. Suitable habitat typically consists of multi-layered riparian scrub or willow woodland corridors along flowing streams. Protocol surveys for least Bell's vireo within La Tuna Canyon Wash and in Drainage 4 did not detecte this distinctive and very vocal species. This species was detected in Drainage 14, an area proposed for preservation, during general surveys. Exhibit 4 shows the single location detected for this species.

[51] CDFG has recently proposed removing Species of Special Concern Designation from this species because CDFG has determined that this species is more common and widespread than previously thought. Since the Fish and Game Commission has not yet voted on the proposed change in status, its current designation as a Species of Special Concern is recognized. However, when considering potential impacts, the lack of threat and its widespread and common distribution are also recognized and considered.

4.8.3 Yellow Warbler (*Dendroica petechia*)

The yellow warbler, which is a CDFG Species of Special Concern, is a migratory songbird that breeds in riparian habitats in southern California. This species exhibits habitat requirements similar to the yellow-breasted chat and least Bell's vireo. Suitable habitat typically consists of multi-layered riparian scrub or willow woodland corridors along flowing streams. Protocol surveys detected a single individual of this distinctive species on the Duke Property. Exhibit 4 shows the single location detected for this individual bird.

4.8.4 Vaux's Swift (*Chaetura vauxi*)

Vaux's swift, which is a CDFG Species of Special Concern, is a migratory songbird that breeds in old-growth forests in the Sierra Nevada and from northern California to Washington. This species feeds on insects on the wing, typically over lakes, rivers, or riparian areas. A few Vaux's swifts were observed foraging over La Tuna Canyon Wash with white-throated swifts on April 29, 2002 (which is during the migration period for this species). This species was not observed during subsequent surveys. The birds observed were undoubtedly migrating individuals moving through the area on their way to breeding areas further to the north and, therefore, these sightings were not mapped.

Species for Which Potentially Suitable Habitat Occurs But Were Not Observed in the Study Area

4.8.5 Coastal California Gnatcatcher (*Polioptila californica californica*)

The federally-listed threatened coastal California gnatcatcher occurs in many areas of cismontane southern California from Ventura County to San Diego County. These birds are not common in the vicinity of the Study Area, but have been identified in the western end of the Verdugo Hills.

GLA conducted surveys for the coastal California gnatcatcher according to the guidelines issued by the USFWS.[52] The surveys were conducted between April 29 and June 5, 2002 and covered all areas of coastal sage scrub, coastal sage scrub-chaparral ecotone, and areas of chaparral adjacent to coastal sage scrub. No coastal California gnatcatchers were observed in the Study Area. A letter report dated July 14, 2002 documenting the findings of the surveys was submitted to USFWS and is attached as Appendix E.

4.8.6 Least Bell's Vireo (*Vireo belli pusillus*)

Least Bell's vireo is a State- and federally-listed migratory songbird that breeds in riparian habitats in southern California. Suitable habitat typically consists of multi-layered riparian scrub or willow woodland corridors along flowing streams. GLA conducted protocol surveys for least

[52] U.S. Fish and Wildlife Service. 1997. Coastal California Gnatcather (*Polioptila californica californica*). Presence/Absence Survey Guidelines, February 28, 1997.

Bell's vireo in La Tuna Canyon Wash and Drainage 4 according to USFWS guidelines.[53] The surveys were conducted between April 10 and July 31, 2002. Least Bell's vireo was not detected during the surveys and is not likely to occur in the Study Area as the habitat appears marginal, lacking dense understory thickets needed for nesting by this species.

4.8.7 Cooper's Hawk (*Accipiter cooperii*)

The Cooper's hawk is a CDFG Species of Special Concern. Cooper's hawks are found in woodland habitats. They prey primarily on birds but they are known to eat small mammals, reptiles, amphibians, insects and fish. Cooper's hawks were observed during "fly-overs", presumably during foraging trips and likely forage in the Study Area. Nesting or other breeding activities were not observed during the numerous avian surveys, although potential breeding habitat occurs within the riparian habitat associated with La Tuna Canyon Wash and oak woodlands in the Study Area.

4.8.8 Two-Striped Garter Snake (*Thamnophis hammondii*)

The two-striped garter snake is a CDFG Species of Special Concern. This species was not recorded in the CNDDB as occurring in the vicinity of the Study Area; however, at least marginally suitable habitat was noted in La Tuna Canyon Wash during botanical surveys and surveys for the coast range California newt. This species requires year-round or near year-round water with riparian or emergent vegetation. This species was not detected during surveys and is not expected to occur in the Study Area due to lack of detection.

4.8.9 Coast Range California Newt (*Taricha torosa torosa*)

The Coast Range California newt, a CDFG Species of Special Concern, occurs in the Coast Ranges, Transverse Ranges, and Peninsular Ranges from central Mendocino County to San Diego County. It is commonly found in or near seasonal or permanent streams under cover of trees. Adults are sedentary during the dry season and become active after the first fall rains. Breeding occurs in shallow pools and eggs are attached to vegetation or rocks. Breeding adults and aquatic larvae are active during the day and at night. Focused surveys were conducted for this species within LA Tuna Canyon Creek and Drainage 4. This species was not identified in the Study Area. This species was not detected during surveys and is not expected to occur in the Study Area due to lack of detection.

4.8.10 San Diego Coast Horned Lizard (*Phrynosoma coronatum blainvillii*)

The San Diego coast horned lizard is a CDFG Species of Special Concern. This species occurs in areas characterized by loose, fine soils with a high sand fraction, along with native harvester ants (*Pogonomyrmex* spp.). Native harvester ants were identified in the Study Area; however, no horned lizard scat was observed. Although not detected, the San Diego coast horned lizard is expected to occur in the Study Area in low-density scrub with sandy soils.

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[53] U.S. Fish and Wildlife Service. 1999. Least Bell's Vireo Survey Guidelines, April 8, 1999.

4.8.11 Silvery Legless Lizard (*Anniella pulchra pulchra*)

The silvery legless lizard is a CDFG Species of Special Concern. This small secretive species lives and forages in leaf litter and under small debris within sandy washes, scrub habitats and woodlands. Although not detected, it is expected that this species occurs in low numbers in the Study Area within areas of oak woodland with well-developed leaf litter.

4.8.12 Orange-Throated Whiptail (*Cnemidophorus hyperythrus*)

The orange-throated whiptail is a CDFG Species of Special Concern. This species occupies a variety of habitats, including coastal sage scrub, chaparral, and grasslands and is still fairly common throughout its range. It prefers sandy areas such as washes and outcrops with rocks and vegetation. This species was not detected in the Study Area; however, it likely occurs within areas of suitable habitat, which occur in small pockets throughout the Study Area.

4.8.13 San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*)

The San Diego black-tailed jackrabbit is a CDFG Species of Special Concern. This jackrabbit occurs in coastal sage scrub habitats in southern California and is often associated with intermediate canopy stages of shrub habitats and herbaceous edges. The nearest record for this species was in May 2001, when one adult was observed in Big Tujunga Wash, south of Interstate 210. Portions of the Study Area support marginal habitat for this species. However, this distinctive species was not observed in the Study Area and is not expected to occur there based on the lack of detection.

Species Considered to Have Potential for Occurring in the Study Area Due to Range or Other Factors for Which Suitable Habitat was Not Identified

4.8.14 Cactus Wren (*Campylorhynchus brunneicappillus anthonyi*)

The Cactus wren in Southern California is considered to comprise two distinct subspecies (*C.b. sandiegensis* and *C.b. anthonyi).* The coastal cactus wren (*C.b.sandiegenssis*) occurs in coastal Orange and San Diego Counties, extending into Mexico, while the coastal-slope populations in Riverside, San Bernardino, Los Angeles, Ventura, and northern Orange Counties are classified as (*C.b. anthonyi*), the same subspecies that occurs in the deserts of California and Western Arizona. The *sandiegensis* subspecies is considered a CDFG Species of Special Concern, but *anthonyi* is not considered to be rare or sensitive. The cactus wren is usually associated with habitats dominated by prickly-pear or cholla cactus. No suitable habitat for this species occurs in the Study Area and it was not detected there.

4.8.15 Arroyo Southwestern Toad (*Bufo microscaphus californicus*)

The arroyo southwestern toad is federally listed as endangered and a CDFG Species of Special Concern. Habitat for arroyo southwestern toad consists of rocky, open floodplains along larger watercourses such as the nearby Big Tujunga Wash. No suitable habitat occurs in the Study Area.

4.8.16 Mountain Yellow-Legged Frog (*Rana muscosa*)

The mountain yellow-legged frog is proposed by the USFWS as endangered and is a CDFG Species of Special Concern. In Southern California, mountain yellow-legged frogs have been observed in the San Gabriel, San Bernardino, and San Jacinto Mountains, with an additional isolated population on Mt. Palomar in northern San Diego County. In contrast to the mountain yellow-legged frogs in the Sierra Nevada that primarily inhabit lakes and ponds, frogs in southern California most commonly inhabit streams, where they are almost always encountered within a few feet from water. This frog is found at elevations ranging from 1,200 to 7,500 feet. Records for the mountain yellow-legged include Switzer Camp (Arroyo Seco), Honeybee campground (Upper Pacoima Canyon), the mouth of Big Tujunga Canyon north of Sunland, Big Tujunga Canyon from one mile west of Wickiup Campground to Angeles Forest highway bridge, Woodwardia Canyon about three miles south of Big Tujunga Dam, and Mill Creek above Big Tujunga Canyon. All observations occurred between 1930 and 1968. This species was not observed during general and focused wildlife surveys within areas of suitable habitat and is not expected to occur in the Study Area based on the lack of detection as well as the long-term isolation of the Study Area from the San Gabriel Mountains by intervening development.

4.8.17 California Red-Legged Frog (*Rana aurora draytoni*)

Habitat for California red-legged frog consists of deep shaded permanent pools in stream courses. No suitable habitat occurs in the Study Area.

4.8.18 Western Pond Turtle (*Clemmys marmorata*)

The western pond turtle (a.k.a. southwestern pond turtle) is a CDFG Species of Special Concern. This aquatic turtle is associated with permanent or semi-permanent pools. Semi-permanent pools in La Tuna Canyon Wash are typically very small and do not appear capable of supporting this species. Focused surveys were conducted for this species within La Tuna Canyon Wash and Drainage 4. This species was not detected during general and focused wildlife surveys and is not expected to occur in the Study Area.

4.8.19 Santa Ana Speckled Dace (*Rhinicthys osculus*)

The Santa Ana speckled dace is a fish designated as a CDFG Species of Special Concern. This species requires year-round flowing water with low summer water temperatures. The nearest recorded record for this species was Big Tujunga Creek near Vogel Flat Campground. Surveys during 1990-92 did not detect this species, and is believed extirpated from the region. Drainage 4 is an intermittent drainage, only flowing during the rainy season and does not represent suitable habitat. La Tuna Canyon Wash is also intermittent, becoming dry in summer or fall and would not be suitable habitat for this species.

4.8.20 Santa Ana Sucker (*Catostomus santaanae*)

The Santa Ana sucker is federally listed as threatened and is a CDFG Species of Special Concern. This species requires year-round flowing water with low summer water temperatures. The nearest recorded record for this species was Big Tujunga Creek near Vogel Flat Hansen Dam and into Big Tugunga Canyon. Drainage 4 is an intermittent drainage, only flowing during the rainy season and does not represent suitable habitat. La Tuna Canyon Wash is also intermittent, becoming dry in summer or fall and would not be suitable habitat for this species.

4.8.21 Arroyo Chub (*Gila Orcutti*)

The arroyo chub is a fish designated as a CDFG Species of Special Concern. This species requires year-round flowing water with deep pools and muddy substrate. As noted for the Santa Ana speckled dace and the Santa Ana sucker, suitable habitat does not occur onsite and this species could not survive in the Study Area.

4.8.22 Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

Suitable habitat for the southwestern willow flycatcher is not present in the Study Area.

4.8.23 Listed Species of Fairy Shrimp

Habitat for federally listed species of fairy shrimp, including the vernal pool fairy shrimp (*Branchinecta lynchii*), Riverside fairy shrimp (*Streptocephalus woottoni*), and San Diego fairy shrimp (*Branchinecta sandiegonensis*) does not occur in the Study Area.

5.0 IMPACTS

5.1 Criteria for Determining Significance Pursuant to CEQA

Appendix G to the State CEQA Guidelines (1998) states that a project may be deemed to have a significant effect on the environment if the project would:

> *(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
>
> *(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*

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

(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

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

5.2 Project Impacts

Based on the site plan for the proposed project, approximately 304.77 acres of the project site would be disturbed and potentially impact biological resources. The 304.77 acres consist of (1) approximately 211.0 acres affected by grading and not revegetated, (2) approximately 46.43 acres subject to brush clearance, and (3) 47.34 acres that would be subject to partial impacts associated with brush thinning within the fuel modification zone (provided that, as discussed below, the vegetation loss is limited to 50 percent within the brush-thinning zone). An additional 23.32 acres that would be subject to remedial grading impacts, but would be revegetated with native species following remedial grading and would be preserved as natural open space. Impacts associated with project grading and fuel modification were analyzed by FORMA Systems using the biological survey data that was converted to a GIS format.

Table 6 summarizes impacts to each vegetation association. These impacts include all anticipated disturbance to the ground, including mass grading, temporary remedial grading, road construction, fuel modification, and utility easements. Table 6 includes separate calculations for fuel modification activities that result in impacts to native woodland or scrub vegetation associations due to either complete or partial clearing. For example, highly flammable chaparral would be virtually eliminated where it occurs within a brush clearance zone (up to 100 feet from occupiable structures) and would be considered a "full" impact. For brush-thinning zones (between 100 and 200 feet from occupiable structures), thinning to approximately 50-percent cover would be required, which is considered a "partial" impact because the habitat would retain considerable function. For instances where coast live oak woodland would be subject to fuel modification, clearing would be restricted to the understory layer and pruning of the lower branches of some trees. However, no mature trees would be removed and these areas would still retain substantial habitat value. Therefore, impacts to woodland vegetation types within fuel modification/thinning zones are also considered partial impacts. For both scrub and woodland habitats subject to partial clearing, the impacts have been calculated as a 50-percent loss. For example, if 10 acres of mixed chaparral would be subject to thinning/partial clearing, that would be considered a five-acre impact.

In addition to permanent impacts from grading and the fuel modification impacts, there would also be 23.32 acres of habitat affected by remedial grading, but would be revegetated with native habitat once grading is completed.

TABLE 6
PROJECT IMPACTS BY VEGETATION ASSOCIATION

Vegetation Associations Canyon Hills Project Site	Total Acres Onsite	Permanent Grading Impacts	Temporary Grading Impacts (Restored w/ Native Vegetation)	Brush Clearance[54] (Ungraded Areas)	Brush Thinning/ Functional Impact[55] (Ungraded Areas)	Total Acres of Permanent Impact[56]
Mixed Chaparral	699.31	196.94	18.47	41.84	40.8/20.4	259.18
Coastal Sage Scrub	75.41	0.79	0.37	0.50	1.12/0.56	1.85
Deerweed Scrub	8.13	1.03	1.33	0.44	1.1/0.55	2.02
Mulefat Scrub	0.66	0.0	0.0	0.0	0.0	0.0
Chamise Chaparral	51.86	7.12	0.0	3.62	2.72/1.36	12.10
So.Mixed Riparian Forest	24.59	2.23	1.21	0.0	0.81/0.41	2.64
So. Coast Live Oak Woodland	2.60	0.25	0.0	0.0	0.0	0.25
Chamise Chaparral-CSS Ecotone	8.89	1.5	1.79	0.0	0.0	1.50
So. Coast Live Oak Riparian Forest	11.74	0.52	0.15	0.02	0.13/0.07	0.59
Southern Willow Scrub	2.09	0.31	0.0	0.0	0.0	0.31
Disturbed-Ruderal	1.63	0.31	0.0	0.0	0.0	0.31
Subtotal	886.93	211.0	23.32	46.43	47.34/23.67	280.75
Vegetation Associations Duke Property[57]						
Mixed Chaparral	43.4	10.0	not required	not required	not required	10.0
Southern Coast Live Oak Woodland	11.0	0.0	not required	not required	not required	0.0
Southern Coast Live Oak Riparian Forest	1.6	0.0	not required	not required	not required	0.0
Subtotal	56.0	10.0	not required	not required	not required	10.0
Totals	943	221.0	NA	NA	NA	290.75

[54] The Brush Clearance zone is the portion of the fuel modification zone located between zero and 100 feet from occupiable structures.

[55] The Brush Thinning zone is the portion of the fuel modification zone located between 100 and 200 feet from occupiable structures. The "functional impact" is derived by multiplying the acreage of the area subject to brush thinning by 0.5, based on the assumption that a brush thinning zone would exhibit approximately one-half of the function exhibited by undisturbed habitats.

[56] Permanent impacts do not include areas that would be subject to remedial grading, but would be revegetated with native species upon completion of grading.

[57] Evaluation of the Duke Property was conducted, for purposes of evaluating cumulative impacts. The approved 10-unit Duke Development project assumes approximately 10 acres of impact.

5.3 Impacts to Vegetation Associations

5.3.1 Mixed Chaparral

Implementation of the project would result in permanent impacts to 259.18 acres of mixed chaparral, including 196.94 acres associated with grading, 41.84 acres associated with brush clearance, and 20.40 acres associated with brush thinning. Approximately 18.47 acres of mixed chaparral would be subject to remedial grading impacts, but would be revegetated with native speciesupon completion of remedial grading. Mixed chaparral is abundant on the south face of the San Gabriel Mountains, with thousands of acres protected in the Angeles National Forest. The Verdugo Hills also support thousands of acres of chaparral of which mixed chaparral is a major component. Mixed chaparral is not listed as a Rare Natural Community by CDFG. The permanent loss of 259.18 acres of mixed chaparral would be a less-than significant impact. The preservation of approximately 440.13 acres of mixed chaparral in natural open space would further reduce the less-than significant impacts.

Roadway access to the project site through the Duke Property would result in impacts to 5.5 acres of highly disturbed mixed chaparral that exhibits only limited signs of recovery since the fire that occurred there in the late 1990s. Impacts to 5.5 acres would not be significant for the reasons set forth above.

5.3.2 Coastal Sage Scrub

Implementation of the proposed project would result in the loss of 1.85 acres of Venturan coastal sage scrub (CSS), including 0.79 acre associated with grading, 0.50 acre associated with brush clearance, and 0.56 acre associated with brush thinning. Approximately 0.37 acre of coastal sage scrub would be graded, but would be revegetated with native species upon completion of remedial grading. Coastal sage scrub is listed as a Rare Natural Community by CDFG (S.2.1). As discussed previously, protocol surveys during the 2002 breeding season indicated that the coastal California gnatcatcher does not occur in the Study Area. One of the criteria for designating coastal sage scrub as a special-status vegetation association is because regionally it supports a substantial number special-status plants and animals. The coastal sage scrub on the project site supports no special-status plant species and very limited special-status animal species, including ashy-rufous crowned sparrow and presumably the coast horned lizard and orange-throated whiptail lizard. Because only small amounts of coastal sage scrub would be affected by the proposed project and approximately 73.56 acres of CSS would be preserved, the impact would be less than significant.

5.3.3 Deerweed Scrub

Implementation of the proposed project would result in the loss of 2.02 acres of deerweed scrub associated with artificial slopes adjacent to Interstate 210, including 1.03 acres associated with grading, 0.44 acre associated with brush clearance, and 0.55 acre associated with brush thinning. Approximately 1.33 acres of deerweed scrub would be subject to remedial grading, but would be revegetated with native species upon completion of remedial grading. Deerweed is typically associated with areas that have been disturbed by fire or grading. In post-fire areas deerweed is

important because it "fixes" nitrogen, replenishing nitrogen stores that are typically volatilized during fires. Deerweed, however, does not provide significant habitat and loss of 2.02 acres of deerweed from an artificial slope would not be considered significant.

5.3.4 Mule Fat Scrub

Implementation of the proposed project would not result in the loss of any mulefat scrub associated with drainages on the project site.

5.3.5 Chamise Chaparral

Implementation of the proposed project would result in impacts to 12.10 acres of chamise chaparral, including 7.12 acres associated with grading, 3.62 acres associated with brush clearance, and 0.56 acre associated with brush thinning. Like mixed chaparral discussed above, chamise chaparral is abundant throughout the San Gabriel Mountains, with thousands of acres protected in the Angeles National Forest. The Verdugo Mountains also support thousands of acres of chaparral of which chamise chaparral is also a major component. Chamise chaparral is not listed as a Rare Natural Community by CDFG. In fact, chamise chaparral is the most common chaparral association in California.[58] The loss of 12.10 acres of chamise chaparral would be a less-than significant impact. It should also be noted that approximately 39.76 acres of chamise chaparral would be preserved in natural open space.

5.3.6 Southern Mixed Riparian Forest

Implementation of the proposed project would result in the loss of 2.64 acres of southern mixed riparian forest associated with Drainage 4 and La Tuna Canyon Wash. Of the 2.64 acres, 0.68 is subject to regulation by CDFG pursuant to Section 1603 of the California Fish and Game Code. The remaining 1.96 acres was determined to be outside of CDFG jurisdiction pursuant to Section 1603. In addition to permanent impacts, approximately 1.21 acres would be subject to temporary impacts during construction of bridges over La Tuna Canyon Wash, but would be revegetated following completion of bridge construction. This area is beyond the streambed or bank and is not subject to CDFG jurisdiction pursuant to Section 1603. Southern mixed riparian forest is listed as a Rare Natural Community by CDFG. Impacts to the southern mixed riparian forest, including both areas subject to regulation pursuant to Section 1603 and areas outside of Section 1603 jurisdiction, would be significant prior to mitigation.

5.3.7 Southern Coast Live Oak Woodland

Implementation of the proposed project would result in the loss of 0.25 acre of southern coast live oak woodland. Southern coast live oak woodland is not listed as a Rare Natural Community by

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[58] Hanes, Ted L. 1988. California Chaparral. *In*: Barbour, M. and J. Major (eds.). Terrestrial Vegetation of California. California Native Plant Society, Special Publication No. 9, Sacramento.

CDFG. Impacts and associated mitigation for the loss of individual coast live oaks and western sycamores is addressed below.

5.3.8 Chamise Chaparral-Coastal Sage Scrub Ecotone

Implementation of the proposed project would result in permanent impacts to 1.5 acres of chamise chaparral-coastal sage scrub ecotone and temporary impacts to 1.79 acres that would be revegetated following completion of remedial grading. Chamise chaparral-coastal sage scrub ecotone is not listed as a Rare Natural Community by CDFG. As noted above, chamise chaparral is the most common chaparral association in California (as note above). The loss of 1.5 acres of chamise chaparral-coastal sage scrub ecotone would be a less-than significant impact.

5.3.9 Southern Coast Live Oak Riparian Forest

Implementation of the proposed project would result in the loss of 0.59 acre of southern coast live oak riparian forest associated with grading in Drainage 4 and adjacent to La Tuna Canyon Wash. Of the 0.59 acre, 0.04 acre has been determined to be subject to CDFG jurisdiction pursuant to Section 1603 of the California Fish and Game Code, with 0.55 acre not subject to CDFG jurisdiction. In addition, 0.15 acre would be affected during remedial grading, but would be revegetated following completion of grading. This area is beyond the streambed or bank and is not subject to CDFG jurisdiction pursuant to Section 1603. Southern coast live oak riparian forest is listed as a Rare Natural Community by CDFG. Impacts to southern coast live oak riparian forest would be significant prior to mitigation. The impact to individual oak trees within this habitat that are outside the limits of CDFG jurisdiction would also require mitigation pursuant to Section 46.02 of the LAMC.

5.3.10 Southern Willow Scrub

Implementation of the proposed project would result in the loss of 0.31 acre of southern willow scrub associated with the lower reaches of Drainage 4. Of the 0.31 acre, 0.02 acre is subject to CDFG jurisdiction under Section 1603 of the California Fish and Game Code. Southern willow scrub is listed as a Rare Natural Community by CDFG and impacts to southern willow scrub would be significant prior to mitigation.

5.3.11 Disturbed-Ruderal

Implementation of the proposed project would result in impacts to 0.31 acres of Disturbed or Ruderal Areas. These areas exhibit very low habitat function. Impacts to disturbed or ruderal areas would be less than significant.

5.4 Corps and CDFG Jurisdiction

Out of approximately 6.46 acres of Corps jurisdiction at the project site, construction of the proposed project would impact approximately 2.06 acres of Corps jurisdiction, none of which is

jurisdictional wetlands. The loss of 2.06 acres of non-wetland waters of the U.S. would be considered significant prior to mitigation.

Out of approximately 9.12 acres of CDFG jurisdiction at the project site, construction of the proposed project would impact approximately 2.45 acres of CDFG jurisdiction, of which 0.74 acre consists of vegetated riparian habitat. The approximately 2.45 acres of impacted CDFG jurisdiction include all 2.06 acres of Corps jurisdiction. The loss of 1.71 acres of CDFG jurisdictional streambeds and 0.74 acre of associated riparian habitat would be significant prior to mitigation. As noted in Section 4.7.2, CDFG conducted a site visit on March 3, 2003 and subsequently approved the jurisdictional delineation. The impacts addressed in this analysis reflect the results of the field visit. During the site visit, it was determined that areas mapped as southern coast live oak riparian forest and southern mixed riparian forest contained a number of coast live oaks that were rooted on terraces or slopes well above the bed, banks or channel and, as such, their removal would not be regulated pursuant to Section 1603. Specific impacts to CDFG-regulated riparian habitats associated with the project (some of which are also part of Corps jurisdictional acreage) are as follows:

- Southern coast live oak riparian forest – 0.04 acre
- Southern mixed riparian forest – 0.68 acre
- Southern willow scrub – 0.02 acre.

The impacts to Corps and CDFG jurisdictional streambeds and riparian habitats are depicted on Exhibit 7. The jurisdictional streambeds depicted on Exhibit 7 are represented by lines, which are not directly proportional to the acreage of the actual jurisdictional streambed because some of the jurisdictional streambeds are so narrow that an accurately graphic representation at this scale is not possible. Therefore, the actual width of each jurisdictional streambed is depicted by the numbers adjacent to each representative line in Exhibit 7, as depicted in the legend.

With provision of mitigation that ensures no-net-loss of habitat functions for wildlife, impacts to 0.74 acre of riparian habitat and 1.71 acres of unvegetated streambed would not be significant. As noted in Sections 5.3.6, 5.3.9, and 5.3.10, above, under discussions of southern mixed riparian forest, southern coast live oak riparian forest, and southern willow scrub, portions of these habitats were determined to fall outside of CDFG jurisdciton pursuant to Section 1603. Nonertheless, these communities are considered rare by the CDFG and impacts to them would be significant before mitigation. Specifically, construction of the proposed project would result in impacts to 2.8 acres of riparian habitat designated as Rare Natural Communities by CDFG, but which are not subject to CDFG jurisdiction as noted above, including southern mixed riparian forest (1.96 acres), southern coast live oak riparian forest (0.55 acre) and southern willow scrub (0.29 acre). The impacts to non-jurisdictional riparian habitats are depicted on Exhibit 3.

The Duke Access Alternative through the Duke Property would require filling of portions of one unvegetated ephemeral streambed that accounts for approximately 0.04 acre of Corps and CDFG jurisdiction. This impact would be significant before mitigation. However, selection of theDuke Access Alternative would eliminate impacts to Drainages 6, 7, and 8 associated with the

proposed project that total 0.07 acre of unvegetated streambed subject to Corps and CDFG jurisdiction. The proposed mitigation would be sufficient to compensate for impacts associated with Duke Access Alternative given the overall reduction in impacts that would be associated with this alternative.

5.5 Impacts to Special-Status Plants

Three special-status plant species were identified on the project site: ocellated Humboldt lily, Plummer's mariposa lily, and California walnut. Plummer's mariposa lily was not identified within the Development Areas and would not be impacted by project grading nor would there be impacts associated with fuel modification.

5.5.1 Ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*)

Implementation of the proposed project would result in the loss of 78 individuals of the ocellated Humboldt lily out of approximately 134 individuals identified on the project site. This species is a CNPS List 4 plant. Because this species is still common and widespread (it is known to occur in several Southern California counties, commonly found in canyons below 3,000 feet), the impacts to 78 individuals would be less than significant.

5.5.2 California Walnut (*Juglans californica* var. *californica*)

Implementation of the proposed project would result in the loss of one small Southern California black walnut tree with a DBH of less than 5 inches. California black walnut is a CNPS List 4 plant. Loss of a single, small black walnut tree would be a less-than significant impact.

5.6 Native Trees

The proposed project has been designed to avoid native trees and cluster development in a manner that avoids native trees to the maximum extent possible. There are approximately 1,382 native coast live oaks and western sycamores in the Study Area, including approximately 1,249 coast live oaks and 133 western sycamores on the project site.[59] Of those estimated 1,382 trees, 486 trees with DBHs of eight inches or greater were identified within or adjacent to the development footprint on the Canyon Hills project site or within the southwestern portion of the Duke Property. Of these, 232 coast live oaks and 27 western sycamores would be removed or impacted by the proposed project. Table 7 provides a summary of impacts to coast live oaks and western sycamores.

Table 8 summarizes the impacts by species for the Duke Access Alternative. 202 coast live oaks and 24 western sycamores would be impacted by implementation of the Duke Access Alternative. Overall, a total of 226 trees would be impacted in the Study Area with

[59] The total of 1,249 includes 1,247 coast live oaks on theCanyon Hills project site and an additional 2 coast live oaks that were formally evaluated on the Duke Property. Additional oaks occur on the Duke Property that are not considered in the tree totals set forth in this report or in the Tree Report.

implementation of the Duke Access Alternative. As reflected in the comparison between Tables 7 and 8, the Duke Access Alternative would impact 30 less coast live oaks and 3 less western sycamores than would the proposed project. A more detailed analysis of the two alternatives is provided in the tree report.

TABLE 7
TREES SUBJECT TO PERMANENT IMPACTS IN STUDY AREA

Common Name	**Canyon Hills Project Site**		**Duke Property Access Road**		**Total Proposed Impacted**
	Within Project Footprint	Within 20' Disturbance Area	Within Project Footprint	Within 20' Disturbance Area	
Coast Live Oak	211	19	1	1	**232**
Western Sycamore	22	5	0	0	**27**
Total	233	24	1	1	**259**

TABLE 8
DUKE ACCESS ALTERNATIVE TREE IMPACTS

Common Name	**Canyon Hills Project Site**		**Duke Property**		**Total Proposed Impacted**
	Within Grading Limits	Within 20' Wide Disturbance Area	Within Grading Limits	Within 20' Wide Disturbance Area	
Coast Live Oak	179	19	2	2	**202**
Western Sycamore	19	5	0	0	**24**
Total	**198**	**24**	**2**	**2**	**226**

The impact of the proposed project on native trees would not conflict with the City's oak tree regulations set forth in Sections 46.00 et seq. of the LAMC. Section 46.02(c)(1) permits the replacement of an impacted oak tree by at least two oak trees in 15-gallon or larger stock. As set forth in Section 7.3, below, the proposed tree mitigation plan would satisfy that requirement.

However, as discussed in Section 5.1, above, Appendix G to the State CEQA Guidelines provides that a project may have a significant effect on the environment if the project would have a substantial adverse effect on any species identified as a candidate, sensitive or special status species in local plans, policies or regulations. While the City's oak tree regulations do not directly identify oak trees as a "candidate", "sensitive" or "special status" species, the special requirements in the City's oak tree regulations reflect its local status as a species afforded special protection.

In determining the relative significance of the impacted coast live oaks, several factors must be considered. First, as discussed in some detail in the Tree Report, the 232 coast live oaks found in the Study Area that would be impacted by the proposed project are almost exclusively of poor quality, with an average overall health rating of 2.99 (out of a possible 5.0). None of the coast live oaks on the project site have an overall health rating higher than 3.8. The overall health ratings for the impacted coast live oaks range from 1.2 to 3.8. The relatively poor health and low ratings for the impacted oaks is primarily a manifestation of drought, fire and age. Past fires have scarred and distorted trunks and lower scaffold branches on the majority of the trees, causing structural defects and compromised tree health. Many of the oaks are also believed to suffer from heart rot because this defect is common to coast live oaks and many of the oaks have cavities and calluses, which is indirect evidence of the presence of heart rot.

Second, due to the micro-climate in the project vicinity, little coast live oak regeneration has occurred on the project site, skewing the population to older, mature trees that are typically less tolerant of insect pests, fire and disease than are younger, more vigorous trees. The existing oaks are producing a very small number of acorns. As a result, as the existing stands of coast live oaks in the Study Area decline over time, it appears unlikely that new stands will replace them.

Third, as discussed in the Wildlife Movement Study, none of the impacted coast live oaks are located in the vicinity of a regional movement corridor, which minimizes the wildlife habitat value of the impacted trees. Conversely, the preservation of coast live oaks on the western portion of the project site supports the potential regional wildlife corridor between Tujunga Wash and the main body of the Verdugo Mountains south of La Tuna Canyon Road.

Fourth, and more generally, the proposed project would preserve 1,017 (or over 81 percent) of the estimated 1,249 coast live oaks on the project site. It is estimated that less than 18 percent of the coast live oaks on the project site would be subject to removal or substantial damage during grading operations.

Fifth, a substantial portion of the coast live oaks that would be impacted by the proposed project are not accessible due to difficult terrain and dense vegetation. In addition, a significant number of the impacted oaks are not visible from designated scenic highways, other public viewing areas or existing residential communities. The existence of these coast live oaks was only discovered during the extensive and very difficult process of surveying all of the coast live oaks within the Study Area. Therefore, the loss of many of the impacted

trees would not result in a negative aesthetic impact because they do not contribute to the existing visual environment.

Notwithstanding all of these moderating factors, the proposed project would nonetheless impact a substantial number of coast live oaks, which the City has identified as a native plant worthy of special protection. Therefore, on balance, the loss of up to 232 coast live oaks would be considered to have a substantial adverse effect on a species identified as worthy of protection in a local regulation, and would therefore constitute a significant impact prior to mitigation.

The City does not have any regulations protecting the western sycamore, nor is the western sycamore identified as a candidate, sensitive or special-status species in any local or regional plans, policies or regulations, or by CDFG or USFWS. Therefore the loss of up to 27 sycamores in conjunction with the proposed project would not constitute a significant impact. It should be noted, however, that the proposed project would preserve 106 (or almost 80 percent) of the estimated 133 western sycamores on the project site. In addition, as discussed in Section 7.3, below, the proposed tree mitigation plan would replace the impacted western sycamores at a ratio of approximately 6.7:1, which would reduce further the project's adverse, but non-significant, impact on western sycamores.

5.7 Impacts (Including Potential Impacts) to Special-Status Wildlife Species

As noted above in Section 4.9, focused surveys for the California gnatcatcher and least Bell's vireo did not detect these species and implementation of the project would not affect these species. No State- or federally-listed species were identified in the Study Area. Potential impacts to other special-status species are addressed below.

5.7.1 Cooper's Hawk (*Accipiter cooperii*)

Implementation of the project would not result in significant impacts to the Cooper's hawk. The project applicant is proposing to impact a limited amount (3.4 acres) of woodland habitat. However, many hundreds of the native oak trees in areas where a Cooper's hawk(s) was seen perching and foraging will be avoided. In addition, large foraging areas will be preserved. Due to preservation of the potential nesting and perching sites and substantial foraging areas, there would be less than significant impacts to this species.

However, if construction should occur during the breeding season for raptors, there is a potential for impacts to an active nest. The loss of an active nest of any Cooper's hawk, or a common raptor species such as the red-tailed hawk, would be considered a potential violation of California Fish and Game Code 3505.5 and would be considered significant before mitigation. With mitigation, this potential impact would be reduced to less than significant.

5.7.2. Ashy Rufous-Crowned Sparrow (*Aimophila ruficeps canescens*)

The ashy rufous-crowned sparrow was observed in low numbers foraging at four locations in the Study Area. The project applicant is proposing to preserve approximately 652 acres of native habitat (including areas dominated by scrub vegetation). Although some construction will occur in or near areas where this species was observed foraging, sufficient habitat would be preserved on the project site for the small number of birds observed, and, as such, a less-than significant impact would occur.

5.7.3 San Diego Coast Horned Lizard (*Phrynosoma coronatum blainvillii*)

The San Diego coast horned lizard, although not detected during focused surveys, is expected to occur on the site including the proposed development areas. The project applicant is proposing to preserve approximately 652 acres of native habitat (including mostly areas dominated by scrub vegetation). These areas would provide sufficient habitat for the horned lizard on the project site. Potential impacts to this species, from the implementation of the proposed project would result in a less-than significant impact.

5.7.4 Silvery Legless Lizard (*Anniella pulchra pulchra*)

The silvery legless lizard was not detected during focused surveysbut is expected to occur in the Study Area in limited numbers. Any potential impacts would be more than mitigated through preservation of substantial areas of oak woodland and oak riparian forest that will provide sufficient habitat for this species on the project site. Potential impacts to this species associated with implementation of the proposed project would be less than significant.

5.7.6 Orange-Throated Whiptail (*Cnemidophorus hyperythrus*)

The orange-throated whiptail, although not detected during focused surveys, is expected to occur in the Study Area, including the proposed Development Areas. The project applicant is proposing to preserve 652 acres of native habitat (including areas dominated by scrub vegetation). These areas would provide sufficient habitat for the orange-throated whiptail on the project site. Potential impacts to this species associated with implementation of the proposed project would be less than significant.

5.8 Migratory Bird Treaty Act Considerations

Pursuant to the federal Migratory Bird Treaty Act, it is unlawful to "take" (i.e. capture, kill, pursue, or possess) migratory birds or their nests. Removal of vegetation associated with project implementation should not take place during the nesting season for most birds (March 15-August 15). The loss of an active nest of a migratory bird would be significant. With mitigation described in Section 6.1.4, this potential impact would be reduced to a less-than significant level.

5.9 Wildlife Movement

There would be no significant impacts to regional or local wildlife movement associated with the proposed project. As carefully detailed in the Wildlife Movement Study prepared for the project [see Appendix A], neither regional movement nor local movement would be adversely affected by construction of the proposed project. A summary is provided below of the impact analysis set forth in Appendix A for each of the areas and large mammals evaluated.

5.9.1 Missing Link/Tujunga Wash

The project site is located almost two miles south of the Tujunga Wash/Missing Link connection identified by the Missing Links Conferences as Missing Link # 27 [see Exhibit 6]. The proposed development on the project site would not affect this connection is any manner, either directly or indirectly. Animals that successfully traverse this connection and reach the project site could then reach the main body of the Verdugo Mountains south of La Tuna Canyon Road through the Drainage 14 movement path (or the large swath of open space surrounding Drainage 14) and La Tuna Canyon Wash, both of which are located on the project site. Neither Drainage 14, the open space in the western portion of Development Area B, nor La Tuna Canyon Wash would be affected by the proposed project, as those features would be retained in open space. As such, the ability (albeit tenuous) of the Tujunga Wash/Missing Link connection to provide for regional movement would not be affected by the project.

5.9.2 La Tuna Canyon Wash

Construction of Development Area B would not require either placement of fill or installation of culverts within La Tuna Canyon Wash. The proposed project does include the construction of two span bridges over La Tuna Canyon Wash, which, among other things, will permit the continued undisturbed passage of wildlife through this reach of the drainage. Thus, there would be no impact to wildlife movement to this movement path, so that local wildlife movement would be unaffected by construction of the proposed project. To the extent that La Tuna Canyon Wash serves as a segment in the potential Tunjuga Wash-Missing Link-Drainage 14-La Tuna Canyon Wash corridor, such function would also be unaffected by the proposed project.

It is also important to note that there would be no changes to the existing culverts beneath La Tuna Canyon Road that currently connect La Tuna Canyon Wash with the canyons to the south in La Tuna Canyon Park. Construction within Development Area B would in no way restrict the ability of animals to cross La Tuna Canyon Road or move through the existing culverts under La Tuna Canyon Road.

5.9.3 Drainage 14

Drainage 14 would be preserved within the open-space portion of the project site, over 2,000 feet from the edge of the proposed development. There would be no impacts to local wildlife movement along this movement path and the ability of this feature to function as a segment of the potential Tunjuga Wash-Missing Link-Drainage 14-La Tuna Canyon regional corridor would not be affected by construction within the Development Areas.

5.9.4 Drainage 4

Drainage 4 is used only for local movement in between the area of existing development east of the project site and proposed Development Area A. To the extent that regional movement occurs on the project site, it occurs only on the south side of Interstate 210 along Drainage 14 (or the open space area surrounding Drainage 14) and in La Tuna Canyon Wash (or along or across La Tuna Canyon Road). Development of the project site would not affect Drainage 14, La Tuna Canyon Wash or La Tuna Canyon Road. Drainage 4 would be subject to partial grading for roadway construction, slope stabilization and construction of a multi-purpose wetland/water quality basin at the southern end of the drainage, before the drainage reaches the culvert inlet that allows discharge to pass beneath Interstate 210. One bridge would be constructed across Drainage 4 to allow a road crossing necessary for traffic circulation through this part of the project site. The proposed bridge/roadway would be located immediately upstream of the constructed multi-purpose wetland/water quality basin and neither the road crossing nor the constructed wetland basin would affect the ability of coyotes and raccoons (the only other species identified as using this Drainage) to use this local movement path. Instead, the function is retained as a local movement path.

5.9.5 Verdugo Crestline Drive

The western portion of Verdugo Crestline Drive would remain in its current state, while the eastern portion may be paved as part of an emergency access road, generally along the existing alignment. Coyotes and gray foxes, both of which were detected using this local movement path, will easily adapt to this change in the character of Verdugo Crestline Drive. The project design preserves the existing roadway and therefore would not significantly affect the ability of these species to use this portion of the project site. Movement paths in the vicinity of Verdugo Crestline Drive, along the northern edge of the Development Area A and outside the boundaries of the project site, would also be preserved. In addition, to the extent that local movement occurs along or in the vicinity of the transmission line right-of-way owned by Southern California Edison, it would continue to occur in the post-project condition.

5.9.6 Northwest to Southeast Movement

The proposed project would not result in impacts to regional or local movement corridors, including Tujunga Wash, the Missing Link conection, and the four on-site movement corridors (i.e., La Tuna Canyon Wash, Drainage 14, Drainage 4 and Verdugo Crestline Drive). No movement patterns were detected from the northwest to southeast (or southeast to northwest) on either side of Interstate 210 by any of the large mammals discussed in this report, presumably because such movement is severely restricted by the alternating deep canyon and protruding ridgelines that are covered with dense chaparral. As such, construction within either Development Area A or B would not disrupt movement because such movement is very uncommon (if it occurs at all).

Nevertheless, both Development Areas A and B will include movement paths that would allow for local movement by coyotes, bobcats, gray foxes and badgers through the proposed

Development Areas. Exhibit 8 depicts the routes (designated as Corridors A and B) that would be available for local movement.

5.9.7 Duke Property

Wildlife movement on the Duke Property is limited to two areas. The first area is an access road that provides a connection for coyotes between developed areas north of the Duke Property with La Tuna Canyon Road (and potentially, the La Tuna Canyon Road undercrossing of Interstate 210, leading to the main body of the Verdugo Mountains). The access road exhibited sign of coyote, as depicted on Exhibit 5 by the numerous overlapping blue dots that represent locations of coyote scat. A firebreak provides a limited connection between the Duke Property and the project site slightly west of the access road and is also marked by locations of coyote scat. Limited movement to the east by animals that originate on the project site or on the Duke Property is possible; however, such movement is severely restricted by development to the located east of Tujunga Canyon Boulevard. First, animals that exit the Duke Property that move east along La Tuna Canyon Road encounter heavily developed areas that begin at the intersection of Tujunga Canyon Boulevard and La Tuna Canyon Road. Animals that reach this intersection cannot move farther to the east because of heavily developed residential areas. Similarly, animals that reach this intersection cannot move to the north because of heavily developed residential and commercial areas. From the intersection, movement to the south is block by fencing and Interstate 210, so that access to the main body of the Verdugo Mountains is precluded. Development of the proposed project would not affect the limited north-south local movement by animals on the Duke Property, nor would it affect any regional east-west movement through the Duke Property because no such movement occurs under existing conditions.

5.9.8 Mountain Lion

As discussed above, mountain lions do not currently inhabit the Verdugo Mountains. The only potential linkage with an area that supports the mountain lion (i.e., the San Gabriel Mountains) is Tujunga Wash. However, as discussed above, the linkage between Tujunga Wash and the Verdugo Mountains is “tenuous at best” and has been characterized as a “Missing Link”. In any event, the development of the proposed project would not affect this potential linkage in any manner because it is not located on the project site and the proposed Development Areas are located over two miles away.

If a mountain lion or other large mammal moved from the Tujunga Wash environs through the “Missing Link” and reached the project site on the south side of Interstate 210, it would come to preserved open space. From this point, there is an existing movement corridor along Drainage 14 (or the significant open space that surrounds Drainage 14) that connects to La Tuna Canyon Wash. Drainage 14 would not be affected by the proposed development because it is located at least 1,800 feet from proposed development. In addition, La Tuna Canyon Wash will be fully bridged and therefore unaffected by the proposed construction of Development Area B. As such, in the highly unlikely event that a mountain lion gains access to the northwest corner of the project site by any means, it would continue to have unobstructed access to the main body of the Verdugo Mountains across La Tuna Canyon Wash and La Tuna Canyon Road.

5.9.9 Mule Deer

Mule deer were not detected within the proposed Development Areas for the proposed project, and there was no evidence of any kind of mule deer movement through the proposed Development Areas. There is currently very limited use by mule deer of Drainage 14 in the southern portion of the project site, but the proposed development would not affect that limited local movement because Drainage 14 will remain in open space well removed from areas of potential development. Thus, there would be no impact to mule deer movement associated with the proposed project.

5.9.10 Bobcat

GLA detected no evidence of bobcats or their sign in the Study Area, though local residents reported observations of bobcat. Although GLA studies did not identify any movement by bobcats through the site or at access points to the project site or Duke Property, it may be expected that a limited number of bobcats would utilize the same movement path as those used by coyotes.[60] Based on documented home range sizes for bobcats in southern California reported by Lyren (as referenced in footnote 33), it not expected that more than a few bobcats inhabit the entire project site and Duke Property, which cover approximately 1.5 square miles. This conclusion is based on the fact that male bobcats typically exhibit ranges that vary between 0.8 and 2.5 square miles and female ranges averaging about 0.6 miles.

Regardless of the number of bobcats on the site or in adjacent areas, regional movement between Tujunga Wash and the main body of the Verdugo Mountains would not be affected by the project. As noted above, Development Area A is approximately two miles from the Tujunga Wash/Missing Link connection with no direct or indirect impacts to either. Based on the finding of Lyren that bobcats will readily cross streets and move through underpasses, it is expected that bobcats could traverse the Missing Link area between Tujunga Wash and the northwest corner of the project site. If a bobcat reached the project site, it would be able to travel through Drainage 14 (or the significant open space surrounding Drainage 14) and La Tuna Canyon Wash to access the main body of the Verdugo Mountains by crossing La Tuna Canyon Road or through one of the several culverts under La Tuna Canyon Road. Bobcats moving from the main body of the Verdugo Mountains could reach Tujunga Wash by traversing the same path in reverse. In addition, development of the proposed project would retain existing culverts associated with Drainages 4 and 5, which allow potential undercrossing of Interstate 210, although GLA detected no such use and considers it very unlikely due to the extreme length of the culverts.

With respect to local movement, bobcats will continue to be able to use Verdugo Crestline Drive as a likely east-west path through the project site. Unlike larger mammals such as mule deer and mountain lions and, to a lesser degree, coyotes, bobcats could also use the SCE transmission line right-of-way for local east-west travel, at least to the extent that they use it under existing conditions. Drainage 14 (and the rest of the project site west of Development Area B) will be

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[60] Lyren, L.M. 2001. *Movement Patterns of Coyotes and Bobcats Relative to Roads and Underpasses in the Chino Hills of Southern California.* Master Thesis Present to Faculty of California State Polytechnic University, Pomona.

preserved in open space, so that local travel along the western edge of the project site (south of Interstate 210) will be maintained. La Tuna Canyon Wash will be bridged so that movement along this path will be maintained, and there will be no changes to the existing culverts beneath La Tuna Canyon Road that would affect the ability of bobcats to move back and forth across La Tuna Canyon Road. The corridor functions of Drainage 4 will be maintained through creation of a multi-purpose wetland/water quality basin in conjunction with bridging for a roadway over Drainage 4. Finally, as depicted on Exhibit 8, in the post-development condition, movement paths will be available through both Development Areas A and B (designated as Corridors A and B), allowing animals to move from west to east and east to west (although, such movement is likely limited due to the severe topography and dense chaparral that would cause animals to depend on the other corridors described throughout the Wildlife Movement Study). Thus, there would be no significant impacts to local bobcat movement associated the development of the proposed project.

5.9.11 Coyote

GLA detected coyotes and coyote sign throughout the project site, including Verdugo Crestline Drive, Drainage 4, Drainage 14 and La Tuna Canyon Wash. Coyote use of the Duke Property was also common. Coyote regional movement between Tujunga Wash and the main body of the Verdugo Mountains would not be affected by the project. As noted above, Development Area A is approximately two miles from the Tujunga Wash/Missing Link connection with no direct or indirect impacts to either. Based on the finding of Lyren, who found that coyotes will readily cross streets and move through underpasses and GLA's observations of coyote scat within the potential "Missing Link" pathways, it is expected that coyotes could traverse the "Missing Link" between Tujunga Wash and the northwest corner of the project site. If a coyote reached the project site, it would be able to travel through Drainage 14 (or the extensive open space on both sites of Drainage 14) and La Tuna Canyon Wash to access the main body of the Verdugo Mountains from La Tuna Canyon Wash. Once they reach La Tuna Canyon Wash, coyotes can travel within the Wash, crossing La Tuna Canyon Road either through one of many culverts (as discussed above, all four track stations installed for the study exhibited use by coyote) or across La Tuna Canyon Road. Coyotes moving from the main body of the Verdugo Mountains could reach Tujunga Wash by traversing the same path in reverse. In addition, development of the proposed project would retain existing culverts associated with Drainages 4 and 5, which allow potential undercrossing of Interstate 210, although GLA detected no such use and considers it unlikely due to the extreme length of the culverts.

With respect to local movement, coyotes will continue to be able to use Verdugo Crestline Drive as a likely east-west path through the project site. Drainage 14 and the surrounding open space will be preserved in so that local travel through the southwest portion of the project site (south of Interstate 210) will be maintained. La Tuna Canyon Wash will be bridged, so that movement along this path will be maintained, and there will be no changes to the existing culverts beneath La Tuna Canyon Road affecting the ability of coyotes to move back and forth across La Tuna Canyon Road. The corridor functions of Drainage 4 will be maintained through creation of a wetland/water quality basin in conjunction with bridging of the drainage to allow traffic circulation without affecting potential wildlife movement. In addition, east-west movement

paths through Development Areas A and B would be available (although there is no evidence suggesting that coyotes use these areas due to the steep terrain and dense chaparral). Finally, coyotes currently roam freely between portions of the project site, including existing residential areas, roadway undercrossings, and arterials without any apparent restrictions. Therefore, the proposed development of the project site would not, in any event, result in a measurable reduction in the ability of coyotes to move through the project site. Thus, there would be no significant impact to local coyote movement associated the development of the proposed project.

5.9.12 Gray Fox

GLA detected fox usage on the project site mainly along Verdugo Crestline Drive, which will only be minimally impacted by the proposed development. Offsite use within the Wildlife Movement Study Area was concentrated at the "Missing Link" connection on the hillside immediately south of Wentworth Street.

Regional movement of the gray fox would not be precluded, as it is clear, based upon scat observations, that the gray fox can potentially traverse the "Missing Link" area. The analysis provided for the mountain lion, bobcat, and coyote is fully applicable to the gray fox in considering potential impacts to regional movement associated with the project. Based upon the analysis provided above, there would be no impacts to regional movement by the gray fox associated with the project.

Similarly, local movement by the gray fox would not be affected by the project for the reasons set forth above, regarding potential impacts on bobcats and coyote. Like the bobcat, the gray fox exhibits some potential for using the dense chaparral within the SCE transmission line right-of-way for local movement in the existing condition and with the expected improvements (i.e., grading for roads) could use this area in the post project condition. Also, as discussed for coyote and bobcat, the gray fox would also have Corridors A and B (depicted on Exhibit 8) available for use through the Development Areas in the post-project condition.

5.9.13 American Badger

GLA did not observe badgers nor detect sign of badgers, including their distinctive burrows. Badger use of the project site is likely limited, as they prefer open habitats to dense shrublands that dominate most of the project site. However, one local report of a badger observation within the adjacent eastern residential area is likely based on the favorable (though very limited) areas of habitat, consisting of cleared or sparsely vegetated areas that have the potential to attract this species.

Regional movement would not be affected. The analysis provided above for the mountain lion, bobcat, and coyote is fully applicable to the American badger in considering potential impacts to regional movement associated with the project. Based on that analysis, there would be no impacts to regional movement by the American badger associated with the project.

Similarly, local movement by the American badger would not be affected by the project for the reasons set forth above regarding potential impacts on bobcats and coyote. In particular, badgers are

potentially attracted to development areas, possibly due to subsidies associated with high rodent populations along the urban edge. For that reason, badgers already appear to move freely in and out of the existing residential areas to the north and east of proposed Development Area A. Therefore, it is not expected that the proposed development would impact the ability of this species to move locally through the project site.

5.10 Indirect Impacts

For many development projects constructed adjacent to areas of native habitat, indirect impacts are often associated with various phases of the development project, beginning at the time of initial grading and construction, and possibly continuing indefinitely. These impacts may occur as a single event, or can interact cumulatively to adversely affect native wildlife, plants, and their habitats.

Increased recreational and residential use, for example, can contribute to increased indirect impacts to native plants and vegetation communities. Where such impacts occur, they lead to further risk of disturbance resulting from vehicle use and human-caused incidences such as fire. Disturbance tends to drive native communities toward a higher percentage of non-native, weedy species, affecting the plant and animal makeup and distribution within a given area. Non-native plants, as an example, when used in landscaping or in livestock feed can escape and become naturalized, causing degradation of natural communities.

In order to analyze such potential impacts related in the post-development phase, it is necessary to compare the existing condition and the expected post-project condition. In the current condition, the northern portion of the project site is highly inaccessible. Verdugo Crestline Drive provides limited access along the northern boundary of the project site; however, a few limited and very steep trails provide access to very limited portions or the project site where the trails dead-end. Steep topography and dense chaparral essentially preclude further access to essentially all the northern portion of the project site. Existing residential development located to the east of Development Area A provides limited access to Drainage 4; however, steep topography and dense vegetation (including thickets of poison oak) preclude access beyond a few points near the confluence of Drainage 4 and Tributary 4.9.

The southern portion of the project site, between La Tuna Canyon Road and Interstate 210, is less accessible than the the northern portion of the project site as there are currently no roads or trails into this area. In order to reach this portion of the project site, it is necessary to enter from La Tuna Canyon Road, scale a steep slope to La Tuna Canyon Wash and scale the steep slope on the north side of La Tuna Canyon Wash. From La Tuna Canyon Wash, dense coastal sage scrub and chaparral combined with steep topography prevent access.

The uses described below have been identified as potential sources of indirect impact to wildlife associated with development. These potential impacts are in addition to direct habitat loss associated with grading and brush clearing for fuel modification.

1. Loss of wildlife habitat (cover, foraging, breeding sites) from opening up of vegetated areas to equestrian or other use.

One equestrian trail would be constructed within the project site, connecting the proposed equestrian park in the south-central portions of the project site to Development Area B. Creation of the trail would require creation of an eight- to ten-foot swath that would follow the existing contours of the land. Because of the dense chaparral and steep topography, access to surrounding open space from this trail would be precluded. Indirect impacts to wildlife would be less than significant.

One hiking trail would be constructed in Development Area A, providing access to a vista park to be located in the south-central portion of Development Area A. As noted above, the dense chaparral and steep topography would limit access to surrounding open space from this trail. Potential indirect impacts to wildlife would be less than significant.

2. Loss of wildlife habitat from destruction of understory/forest floor vegetation resulting from being run over/torn up by mountain bikes or horses.

As noted above, relative to indirect impacts associated with creation of trails, access by horses, mountain bikes and hikers beyond the trails will be essentially precluded from accessing preserved open space. This would also be the case from the development edge that would trasition into the existing native chaparral habitat at the boundary of the fuel modification zone. Beyond the trails discussed above, the potential for destruction of understory/forest floor vegetation resulting from being run over/torn up by mountain bikes or horses is very low to non-existent. Potential indirect impacts to wildlife would be less than significant.

3. Loss of individuals from being run over or from destruction of aestivation sites (especially important for ground-nesting species).

As noted for points 1 and 2 above, access by horses, mountain bikes and hikers beyond the trails will be essentially precluded from accessing preserved open space. This is also the case from the development edge that would trasition into the existing native chaparral habitat at the boundary of the fuel modification zone. The potential for destruction of ground-nesting species resulting from being run over/torn up by mountain bikes or horses is very low to non-existent. Potential indirect impacts to wildlife would be less than significant.

4. Disturbance to or destruction of unique/sensitive/rare habitat types (e.g., riparian, springs, habitat links, corridors, etc.). Aquatic habitats are especially vulnerable and, seem to be especially attractive to drivers of all types of vehicles who seek out water to ford.

Under the existing conditions, there are no points on the project site where a vehicle can access any of the drainages, including La Tuna Canyon Wash or Drainage 4. In the post-project condition, there would similarly be no vehicular access to impact any drainage on the project site. Therefore, there would be no significant impacts to aquatic resources associated with increased vehicle use or access.

5. Soil compaction/disturbances and erosion resulting in a loss of vegetative productivity.

There would be no potential for soil compaction or increased erosion outside of the area subject to grading and fuel modification. Therefore, there would be no significant imapcts associated with increased soil compaction, erosion, or loss of vegetative productivity.

Finally, within or immediately adjacent to developed areas, wildlife can be disturbed by streetlights and noise, and may be killed by vehicles, cats, dogs, or humans. Domestic cats are particularly skilled predators, taking mammals, reptiles, amphibians, and birds. Generalist animals such as coyotes, opossums, skunks, raccoons, ravens, and starlings can benefit from human settlement, but other less-adaptable species rarely persist in an area after it is developed. Proposed open space areas have sufficient cover and isolation from many of the indirect effects of development to support a suite of wildlife species.

However, the proposed project includes numerous features designed to minimize indirect impacts on native plants and vegetation communities. As noted, most of the project site will be preserved as natural open space and will remain largely inaccessible to the public. The proposed project will also include non-invasive or native landscaping, multi-use trail design, separating and channeling public access into predetermined and suitable trails, restricting access to others, establishing increased control of water flow, drainage and runoff, and providing for regular management, maintenance, and oversight of the open space areas. These features would reduce indirect impacts below a less-than significant level.

6.0 CUMULATIVE IMPACTS

Section 15355 of the CEQA Guidelines defines cumulative impacts to be "…two or more individual effects which, when taken together, are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity. In considering potential cumulative impacts, GLA determined that the appropriate area of analysis should be the Verdugo Mountains because they comprise a distinct area that has been generally cut off from other large tracts of open space/habitat within the region. The only related project proposed for the Verdugo Mountains that could potentially affect biological resources is the Duke Project. Based upon the Draft EIR prepared for the Duke Project,[61] implementation of the Duke Project would affect biological resources; however, that analysis was based on a 41-unit project with an impact area of approximately 40 acres. Subsequently, a smaller 10-unit project was approved with a reduced footprint of approximately 10 acres, which resulted in a substantial reduction in the Duke Project's impact on biological resources. Furthermore, since the Draft EIR for the Duke Project was prepared, much of the Duke Property burned and many of the oak trees were severely damaged and

[61] City of Los Angeles. 1997. Draft Environmental Impact Report for Hillview Estates, EIR No. 89-1163-SUB(ZC/GPA), SCH No. 93021045.

now exhibit very low value, while others were destroyed. Therefore, the approved Duke Project would affect approximately 10 acres of degraded mixed chaparral and a limited number of oaks, most of which are severely damaged.

As discussed above, the loss of approximately 259.18 acres of mixed chaparral with respect to the proposed project would be less than significant. Therefore, the cumulative impact associated with the additional loss of approximately 10 acres of degraded mixed chaparral on the Duke Property would be a less-than significant impact. As discussed above, the loss of up to 232 coast live oaks would constitute a significant impact in the near-term, but with implementation of the mitigation described in Section 7.2, below, would not result in a significant impact over the long-term. The additional loss of a limited number of severely damaged oak trees on the Duke Property would not materially change the extent of that impact, but the cumulative impact of the Duke Project and the proposed project on coast live oaks would nonetheless be significant (prior to mitigation) because the contribution of the proposed project to the impact on these trees would be cumulatively considerable.

7.0 MITIGATION

The proposed project already includes many design features to avoid and/or minimize impacts to biological resources. Clustering development areas as proposed in the project would result in the retention of approximately 66 percent of the open space (582.16 acres) on the project site as natural open space, including all of the current vegetation associations, such as the riparian habitats associated with La Tuna Canyon. The 582.16 acres of natural open space includes 558.84 acres that are not impacted by the proposed project in any manner, either by grading or fuel modification and 23.32 acres affected by temporary grading and restored with native vegetation.

7.1 Corps and CDFG Jurisdiction

Impacts to Corps jurisdiction with respect to the proposed project total 2.06 acre, of which 0.33 acre consists of intermittent drainage course associated with the lower portions of Tributaries 4.1, 4.9, and 4.21 and 1.73 acres consist of ephemeral drainage channel.

Impacts to CDFG jurisdiction, with respect to the proposed project total 2.45 acres. CDFG jurisdiction including all areas of Corps jurisdiction. CDFG jurisdiction includes 0.04 acre of southern coast live oak riparian forest, 0.02 acre of southern willow scrub and 0.68 acre of southern mixed riparian forest. The balance of CDFG jurisdiction that do not support the above-mentioned riparian habitats, consists of ephemeral drainages that support upland chaparral and/or coastal sage scrub on the banks.

Mitigation to compensate for these impacts will consist of two components, including (1) onsite creation/restoration within the onsite water quality basin to be constructed in the lower reach of Drainage 4 totaling approximately 2.5 acres, as described in Section 7.1.1, below, and (2) preservation and enhancement of La Tuna Canyon Wash with enhancement of approximately 2.5

acres that exhibit moderate to high levels of infestation by sticky eupatory (*Ageratina adenophora*) and African umbrella sedge (both are recognized as invasive exotic species) , as described in Section 7.1.2, below . Implementation of the proposed mitigation would result in a compensation ratio of approximately 2.4:1 for impacts to Corps jurisdiction and approximately 2.0:1 for impacts to CDFG jurisdiction. The proposed mitiation would mitigate impacts to Corps and CDFG jurisdiction to a less-than-significant level.

The Duke Access Alternative through the Duke Property would require filling of portions of one unvegetated ephemeral streambed that accounts for approximately 0.04 acre of Corps and CDFG jurisdiction. This impact would be significant before mitigation. However, selection of the Duke Access Alternative would also eliminate impacts to Drainages 6, 7, and 8 associated with the proposed project that total 0.07 acre of unvegetated streambed subject to Corps and CDFG jurisdiction. The proposed mitigation would be sufficient to compensate for impacts associated with the Duke Access Alternative given the overall reduction in impacts that would be associated with this alternative.

7.1.1 Onsite Creation/Restoration

The proposed project includes the creation of a water quality basin in the lower reach of Drainage 4. Creation of this feature will require grading of the canyon bottom and sides, resulting in a basin that covers approximately 2.5 acres. The basin will be planted with a mosaic of wetland/riparian habitats that will provide both biogeochemical (water quality) and habitat functions. The proposed habitats would include southern coast live oak riparian forest at the upper elevations, southern mixed riparian in the middle elevations and wet meadow or emergent marsh in the wettest (lowest) areas.

7.1.2 Enhancement of La Tuna Canyon Wash

The onsite reach of La Tuna Canyon Wash exhibits moderate to heavy infestations by sticky eupatory along with locally dense patches of African umbrella sedge. Sticky eupatory is sprawling understory shrub recognized as an invasive exotic species by the California Exotic Pest Plant Council (CalEPPC) and the California Native Plant Society (CNPS), and is also listed by the U.S. Department of Agriculture as a “Noxious Weed”. The proposed enhancement program would include eradication of sticky eupatory and African umbrella sedge from the onsite reach through a five-year program. The five-year program would also include replanting with native understory species in areas where the dense understory formed by sticky eupatory has been removed. The proposed mitigation and monitoring plan would be subject to approval by the Corps, CDFG, and the Regional Water Quality Control Board.

7.2 Non-Jurisdictional Riparian Habitats

As discussed in Sections5.3.6, 5.3.9, and 5.3.10, above, the project would also impact 2.8 acres of riparian habitat designated as Rare Natural Communities by CDFG, but which are not subject to CDFG jurisdiction, including southern mixed riparian forest (1.96 acres), southern coast love oak

riparian forest (0.55 acre) and southern willow scrub (0.29 acre). Mitigation for these non-jurisdictional impacts would be provided at not less than a 1.0:1 ratio (2.8 acres) through native riparian plantings within onsite detention basins and water quality basins proposed as part of the project. Mitigation for temporary impacts to 1.21 acres of southern mixed riparian forest and 0.15 acre of southern coast live oak riparian forest, identified in Sections 5.3.6 and 5.3.9 above, would occur through revegetation of these areas.

7.3 Native Trees

The applicant proposes to mitigate for the loss of native oak and sycamore trees in as described in in the Tree Report attached as Appendix B. Approximately 1,770 coast live oaks and 181 western sycamores would be planted in the onsite mitigation areas. Table 9 summarizes the location, type, size and number of trees to be incorporated into the mitigation program. The Tree Report (see Appendix B) includes a detailed discussion regarding the methods for calculating the value of the 232 coast live oaks and 27 western sycamores that would be removed or impacted in connection with the project.

TABLE 9
CONCEPTUAL TREE PLANTING PROGRAM

Planting Area	Tree Species	Type	Quantity	Approximate Value Installed
Entry Points	Coast live oak	36” box	6	$3,600.00
		48” box	6	$10,800.00
		60” box	3	$12,000.00
Common Areas	Coast live oak	24” box	170	$38,250.00
		36” box	35	$21,000.00
Road Right-of-Ways	Coast live oak	15 gal	405	$34,425.00
		24” box	110	$24,750.00
Detention Basins	Coast live oak	1 gallon	30	$240.00
		5 gallon	10	$270.00
		15 gallon	20	$1,700.00
	Western sycamore	1 gallon	20	$160.00
		5 gallon	20	$540.00
		15 gallon	50	$4,250.00
Slopes	Coast live oak	1 gallon	75	$600.00
		5 gallon	25	$675.00
Flood Control	Coast live oak	1 gallon	25	$200.00
		5 gallon	15	$405.00
		15 gallon	20	$1,700.00
	Western sycamore	1 gallon	15	$120.00

		5 gallon	15	$405.00
		15 gallon	61	$5,185.00
Fuel Modification Areas	Coast live oak	acorns	100	$600.00
		seedlings	100	$600.00
		1 gallon	100	$800.00
		5 gallon	25	$675.00
		15 gallon	40	$3,400.00
Private Lots	Coast live oak	15 gallon	250	$21,250.00
Equestrian Trail	Coast live oak	acorns	100	$600.00
		seedlings	100	$600.00
Total - all sizes of stock			**1,951**	**$189,800.00**
Total - 15 gallons and larger (minimum sizes required by City)			**1,176 ***	**$182,310.00**

***Includes 1,065 coast live oaks in 15-gallon or larger stock and 111 western sycamores in 15-gallon stock.

As discussed above, prior to mitigation, the proposed impact to as many as 232 coast live oaks would constitute a significant impact, notwithstanding the presence of several moderating factors. The mitigation plan described above would replace the impacted oaks trees at a ratio of more than 7.6 to 1 (1,770) 232). The impacted coast live oaks would be replaced by new coast live oaks in 15-gallon or larger stock at a ratio of almost 4.6 to 1 (1,065) 232). The latter replacement ratio substantially exceeds the minimum replacement ratio of 2 to 1 set forth in Section 46.02(c)(1) of the LAMC.

Over the long-term (i.e., 10 to 20 years), the implementation of the tree-planting program would be sufficient to mitigate the project's impact on coast live oaks to a level of insignificance. Over a period of 10 to 20 years, the growth of the replacement oaks would be sufficient to provide seed production and nesting opportunities in the replacement tree stock to compensate fully for the loss of the mature trees proposed for impact. In addition, the tree-planting program would ensure the long-term survival of the oak stands in the Study Area. As discussed above, there is currently very little oak tree regeneration occurring within the Study Area due to the age and relatively poor health of many of the existing coast live oaks. In the absence of the proposed mitigation program, the number of coast live oaks in the Study Area is expected to decline significantly over time.

However, over the short-term, it is anticipated that, even with the implementation of the tree planting program, the impact on coast live oaks would remain significant. As discussed in the preceding paragraph, this near-term significant impact should be mitigated to a level of insignificance within 10 to 20 years following the completion of the tree planting program.

The mitigation program also includes the planting of 181 western sycamore trees. Since the proposed project would impact up to 27 sycamores, the replacement ratio would be approximately 6.7 to 1. While the western sycamore has not been identified as a candidate,

sensitive or special status species, the replacement planting would be sufficient to mitigate the adverse, but non-significant, impact to western sycamores as part of the proposed project.

7.4 Active Bird Nests

If construction occurs during the nesting season, then prior to construction activities, the project applicant shall have a qualified biologist survey the project site for the presence of any occupied raptor nests. If such a nest is found, it shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. In addition, if grading or clearing of vegetation is scheduled to take place during the nesting season for migratory birds (March 15-August 15), a qualified biologist will survey areas to be graded no more than three days prior to the start of work. If active nests of migratory birds are located, measures to ensure protection of the nesting migratory bird will be determined by the monitoring biologist and will depend on factors such as the bird species and the construction schedule.

8.0 SIGNIFICANCE FOLLOWING MITIGATION

With implementation of the mitigation measures described above, the project would not result in any significant impacts to biological or jurisdictional resources, with the exception of the impact to native coast live oaks, which would be considered significant in the near-term. With implementation of the native tree mitigation program, described above, the long-term impacts to coast live oak would be reduced to a less-than-significant level.

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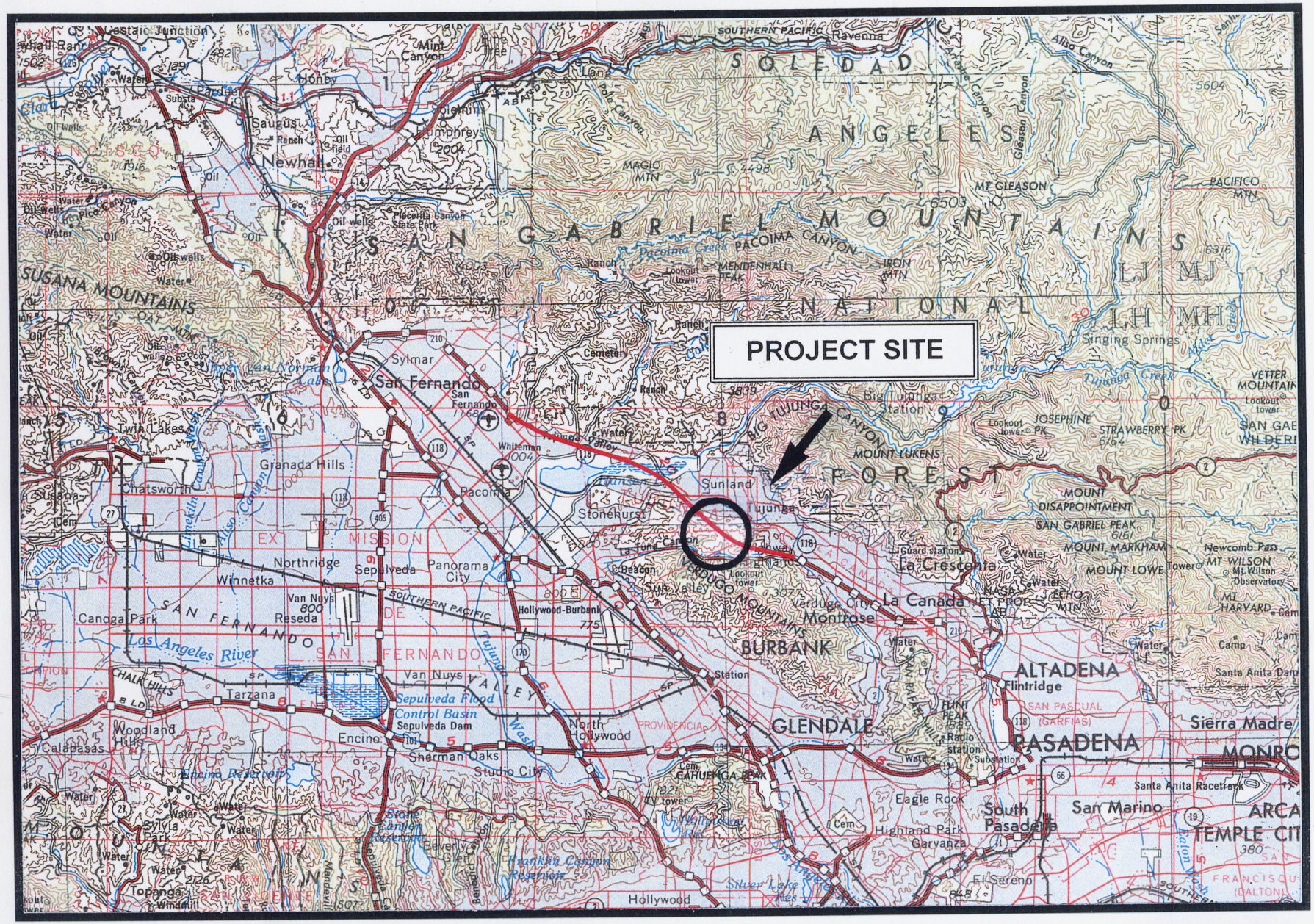


Adapted from USGS Los Angeles Quadrangle

NORTH

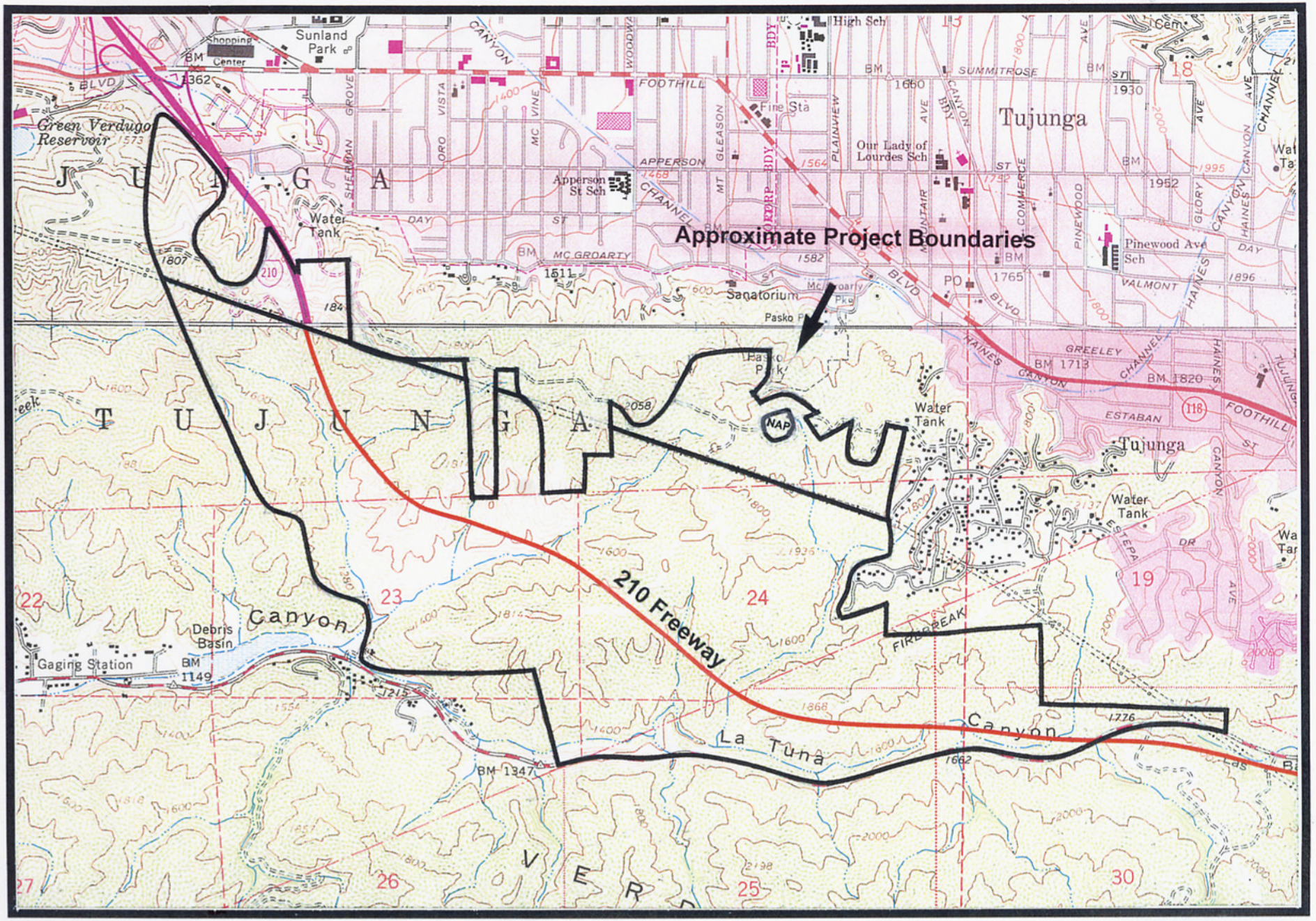
0 2 4 6 MILES

CANYON HILLS

Regional Map

GLENN LUKOS ASSOCIATES

EXHIBIT 1



CANYON HILLS

Vicinity Map

GLENN LUKOS ASSOCIATES

EXHIBIT 2