EXECUTIVE SUMMARY

This section identifies major plant and animal resources within the City's Planning Area and assesses the potential impacts of the proposed General Plan on biological resources with the understanding that certain resources, especially wildlife, are transitory and may potentially be present in a wide variety of areas regardless of previous records of observation. The City's Planning Area consists of its incorporated boundaries and adopted Sphere of Influence (SOI). The County's Planning Area consists of unincorporated land within the One Valley One Vision (OVOV) Planning Area boundaries that is located outside the City's boundaries and the adopted SOI. The City and the County Planning Areas together comprise the OVOV Planning Area.

A substantial portion of the area within the City has been developed. Species within the remaining natural areas are adapted to the Mediterranean climate of the region, in that they thrive in the cool, wet winters, and dry, hot summers typical of the area.

Within the City boundaries, these areas include

- the Santa Clara River through the City; and
- portions of San Francisquito Canyon, Sand Canyon, Whitney Canyon, and Placerita Canyon.

The major natural features of the City's adopted SOI include

- the Liebre Mountains south of the National Forest boundary, including Cruzan Mesa and portions of Tick Canyon, Mint Canyon, Bouquet Canyon and San Francisquito Canyon; and
- the San Gabriel Mountains north of the National Forest boundary, including portions of Sand Canyon and Soledad Canyon.

In addition to biological resources within the City and the adopted SOI, the OVOV Planning Area encompasses portions of the northeastern Santa Susanna Mountains, including the Newhall Ranch High Country and Lyon and Towsley Canyons; the eastern reaches of the Santa Clara River, the southwestern Sierra Pelona Mountains; Castaic Lake and nearby upland habitats in Tapia and Charlie Canyons; Vasquez Rocks, and portions of the two units of the Angeles National Forest within the northwestern San Gabriel and western Sierra Pelona Mountains.

Potentially significant impacts associated with the City's proposed General Plan are those relating to special-status species, sensitive natural communities, federally protected wetlands, and wildlife movement and nursery sites. The proposed General Plan objectives, goals, and policies address avoidance and minimization of impacts on habitats, provisions for the acquisition of habitats in cooperation with conservation groups, provisions for no net loss of jurisdictional wetlands within the planning area, and provisions for the identification and protection of at least one designated wildlife corridor linking the two units of the Angeles National Forest through the Valley.

The proposed General Plan goals, objectives, and policies do not provide a mechanism for the compensation of lost habitats when avoidance or minimization of impacts is considered to be infeasible; nor do they mitigate for the direct mortality of individuals of listed, proposed, or candidate species. In conjunction with the proposed General Plan goals, objectives, and policies, mitigation measures **MM 3.7-1** through **3.7-3** would reduce these potential impacts. **MM 3.7-1** requires preparation of biological site survey reports prepared by a qualified biological consultant for proposed projects. **MM 3.7-2** addresses direct mortality of special-status species through construction activities. **MM 3.7-3** addresses impacts on sensitive habitats from implementation of the proposed General Plan through land acquisition.

Although the loss of sensitive habitats may be compensated for through land acquisition, the loss of special-status species and wildlife movement opportunities would remain significant. Special-status species are dependent on a variety of habitat types, not all of which are necessarily sensitive, such as annual grassland and various common scrub and chaparral types. Consequently, the conversion of all types of currently undeveloped wildlife habitat to residential, commercial, and industrial uses permitted under the proposed General Plan would result in impacts on special-status species that would remain significant at the plan level.

Impacts on wildlife movement opportunities would also be significant and unmitigable because of the loss of connectivity for wildlife movement through the OVOV Planning Area; this connectivity, would not be recoverable once the area has been developed.

EXISTING CONDITIONS

Vegetation

Major plant and terrestrial communities identified within the City and SOI include coastal and desert scrub, and chaparral vegetation types. Other vegetation types in the Planning Area include bigcone spruce-canyon oak forest, coast live oak woodland, coast live oak riparian forest, juniper woodland, pinyon-juniper woodland, southern sycamore-alder woodland, southern cottonwood-willow riparian woodland and forest, southern willow scrub, freshwater marsh, vernal pools, alluvial fan sage scrub, and native and annual grassland.¹

Wildlife

Wildlife within the City's Planning Area is extremely diverse with particular abundance in undeveloped high quality habitats. Some wildlife species are entirely dependent upon a single vegetative community; however, the majority of the natural areas within the City's Planning Area support a mosaic of vegetation constituting a continuum of functional ecosystems.² The river channels, canyon bottoms, and open upland areas of the City's Planning Area provide movement and foraging opportunities for a large suite of resident and migratory species. These species form part of a network of open space within the greater OVOV Planning Area connecting the two units of the nearby Angeles National Forest, which in turn provide larger blocks of uninterrupted habitat for many of the same species.

Amphibian populations are generally restricted in semi-arid and arid habitats but may be particularly abundant and relatively diverse within moister woodland areas, along montane canyon bottoms, in riparian areas, and within surface water features. The overall riparian systems of the Santa Clarita Valley support abundant populations of Pacific chorus frog (*Pseudacris regilla*), California chorus frog (*P. cadaverina*), California toad (*Bufo boreas halophilus*), western spadefoot (*Spea hammondii*), bullfrog (*Rana catesbeiana*), and African clawed frog (*Xenopus laevis*) (the latter two species are non-native). In San Francisquito Canyon, California red-legged frog (*Rana aurora draytonii*) and arroyo toad (*Bufo californicus*). Arboreal salamander (*Aneides lugubris*), painted ensatina (*Ensatina eschscholtzii picta*), and garden slender salamander (*Batrachoseps major*) also are present.

Open scrub, chaparral and alluvial fan habitats support diverse reptile populations, and the overall reptile fauna of the Valley encompasses numerous lizard and snake species, including desert night lizard (*Xantusia vigilis vigilis*), side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), western skink (*Eumeces skiltonianus*), San Diego alligator lizard (*Elgaria multicarinata webbii*), coastal whiptail (*Cnemidophorus tigris stejnegeri*), coast horned lizard (*Phrynosoma coronatum*), silvery legless lizard (*Anniella pulchra pulchra*), and San Diego banded gecko (*Coleonyx variegatus abbotti*), western blind snake (*Leptotyphlops humilis*), red coachwhip (*Masticophis flagellum piceus*), California striped racer (*Masticophis lateralis lateralis*), coast patchnose snake (*Salvadora hexalepis virgultea*), rosy boa (*Charina*)

¹ PCR Services Corp. 2000.

² PCR Services Corp. 2000.

trivirgata), San Diego gopher snake (*Pituophis catenifer annectens*), western glossy snake (*Arizona occidentalis*), California kingsnake (*Lampropeltis getula californiae*), California mountain kingsnake (*L. zonata*), longnose snake (*Rhinocheilus lecontei*), California night snake (*Hypsiglena torquata nuchalata*), lyre snake (*Trimorphodon biscutatus*), western blackhead snake (*Tantilla planiceps*), two-striped garter snake (*Thamnophis hammondii*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), and southern Pacific rattlesnake (*Crotalus oreganus helleri*). Although not reported within the Planning Area, south coast garter snake (*Thamnophis sirtalis* ssp.) is known nearby in Ventura County and may be present in the western portion of the OVOV Planning Area.

The scrubland, woodland, riparian, and grassland habitats in the Valley provide excellent foraging and cover habitat for year-round resident, seasonal resident, and migrating song birds. In addition, habitats in the City's Planning Area provide many year-round water sources, abundant raptor foraging, perching, and nesting habitat. The combination of these resources as well as the mosaic of many community types provides for an unusually high diversity of bird species. Coastal scrub and chaparral host a suite of birds typical of such sites at lower elevations over most of the coastal slopes of Southern California. The most productive sites for resident coastal scrub and chaparral birds are around riparian and freshwater systems, which also attract large numbers of migrants during spring and fall. Vernal pools attract moderate numbers of migrating waders and waterfowl, and provide important winter foraging areas for resident and migratory birds of prey.

Coastal sage and chaparral birds resident or breeding within the City's Planning Area include southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Amphispiza belli belli*), black-chinned sparrow (*Spizella atrogularis*), lark sparrow (*Chondestes grammacus*), lazuli bunting (*Passerina amoena*), coastal California gnatcatcher (*Polioptila californica californica*), California quail (*Callipepla californica*), greater roadrunner (*Geococcyx californianus*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), California thrasher (*Toxostoma redivivum*), phainopepla (*Phainopepla nitens*), northern mockingbird (*Mimus polyglottos*), and Anna's (*Calypte anna*), Costa's (*C. costae*), and blackchinned hummingbirds (*Archilochus alexandri*). Oak woodlands and riparian areas support many more species; notable species include summer tanager (*Piranga rubra*), Bullock's oriole (*Icterus bullockii*), blackheaded grosbeak (*Pheucticus melanocephalus*), western scrub jay (*Aphelocoma coerulescens*) band-tailed pigeon (*Patagioenas fasciata*), western wood-pewee (*Contopus sordidulus*), several swallow species, willow flycatcher (*Empidonax traillii*), and least Bell's vireo (*Vireo bellii arizonae*). Species associated with ruderal sites and grasslands include western meadowlark (*Sturnella neglecta*), California horned lark (*Eremophila alpestris actia*), and savannah (*Passerculus sandwichensis*) and grasshopper sparrows (*Ammodramus savannarum*). Birds of prey (including common migrants) observed within the valley include red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), Swainson's hawk (*Buteo swainsoni*), merlin (*Falco columbarius*), American kestrel (*Falco sparverius*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), prairie falcon (*Falco mexicanus*), and golden eagle (*Aquila chrysaetos*). Many of these, as well as common raven (*Corvus corax*), nest in cliffs within the Valley. Resident owl species include barn owl (*Tyto alba*), great horned owl (*Bubo virginianus*), long-eared owl (*Asio otus*), and California spotted owl (*Strix occidentalis occidentalis*).

Native mammal diversity within the Valley is considerable. This includes bats (at least seven species), rodents (at least four species of deer mice (*Peromyscus* spp.), two species of woodrat (*Neotoma* spp.), California ground squirrel (*Spermophilus beecheyi*), and western gray squirrel (*Sciurus griseus*)), two types of rabbits (desert cottontail and brush rabbit (*Sylvilagus audobonii and S. bachmani*)) and one hare (black-tailed jackrabbit (*Lepus californicus bennettii*)), broad-footed mole (*Scapanus latimanus*), long-tailed weasel (*Mustela frenata*), American badger (*Taxidea taxus*), western spotted skunk (*Spilogale gracilis*), striped skunk (*Mephitis mephitis*), northern raccoon (*Procyon lotor*), common gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), cougar (*Puma concolor*), mule deer (*Odocoileus hemionus*), and American black bear (*Ursus americanus*).

Sensitive Biological Resources

Sensitive biological resources are those habitats or species that have been recognized by federal, state, and/or local agencies as being Endangered, Threatened, Rare, or in decline throughout all or part of their historical distribution.

Sensitive terrestrial communities reported to the California Natural Diversity Database (CNDDB) in the City's Planning Area include southern California threespine stickleback stream, Riversidian alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern riparian forest, southern riparian scrub, southern sycamore alder riparian woodland, southern willow scrub, California walnut woodland, valley oak woodland, and mainland cherry forest. Although not included in the CNDDB, vernal pools have been identified within the SOI on Cruzan Mesa, and within Vasquez Canyon, Plum Canyon, and on Fair Oaks Ranch, all of which are located within the unincorporated portion of the County. These are highly significant sensitive resources (**Figure 3.7-1, Sensitive Biological Resources**).

Query results of the CNDDB and California Native Plant Society (CNPS) Inventory for the USGS 7.5-minute quadrangles within which the OVOV Planning Area is located,³ as well as biological reports prepared for projects within the City's Planning Area indicate at least 65 sensitive plant and animal taxa occur within the region. These are identified in **Tables 3.7-1**, **Special-Status Wildlife Species Known to Occur in the City's Planning Area**, and **3.7-2**, **Special-Status Plant Species Known to Occur in the City's Planning Area**, and **3.7-2**, **Special-Status Plant Species Known to Occur in the Region**. Among these are 13 federal and state-listed Candidate, Threatened, Rare and Endangered species. These include Nevin's barberry (*Berberis nevinii*), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), slender-horned spineflower (*Dodecahema leptoceras*), Moran's navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), Santa Ana sucker (*Catostomus santaanae*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), arroyo toad (*Bufo californicus*), Sw ainson's hawk (*Buteo swainsoni*), southwestern willow flycatcher (*Empidonax traillii extimus*), California condor (*Gymnogyps californianus*), coastal California gnatcatcher (*Polioptila californica californica*), and least Bell's vireo (*Vireo bellii pusillus*).

Other sensitive species known to occur within the City's Planning Area include 13 plant, 1 fish, 1 amphibian, 7 reptile, 18 bird, and 12 mammal species. The California Department of Fish and Game (CDFG) identifies all listed sensitive species and their habitats on its Web site (www.dfg.ca.gov).

Common Name	Species	Federal	State
Fish			
Santa Ana sucker	Catostomus santaanae	FT, FSS	SSC
Unarmored threespine stickleback	Gasterosteus aculeatus williamsonii	FE, FSS	SE, SFP
Arroyo chub	Gila orcuttii	FSS	SSC
Amphibians			
Arroyo toad	Bufo californicus	FE	SSC
Western spadefoot	Spea hammondii	BLMS	SSC

 Table 3.7-1

 Special-Status Wildlife Species Known to Occur in the City's Planning Area

³ The following USGS quads were referenced: Agua Dulce, Mint Canyon, San Fernando, Newhall, Val Verde, Santa Susana, Oat Mountain, Ritter Ridge, Lake Hughes, Green Valley, Sleepy Valley, Burnt Peak, Liebre Mountain, Whitaker Peak, Warm Springs Mountain, Black Mountain, Cobblestone Mountain, La Liebre Ranch, Neenach School, Frazier Mountain, Lebec

Common Name	Species	Federal	State
Reptiles			
Silvery legless lizard	Anniella pulchra pulchra	FSS	SSC
Coastal western whiptail	Cnemidophorus tigris stejnegeri	-	CDFG Special Animals List
San Bernardino ring-neck snake	Diadophis punctatus modoestus	FSS	-
California mountain kingsnake	Lampropeltis zonata pulchra	FSS	SSC
Coast horned lizard	Phrynosoma coronatum	BLMS, FSS	SSC
Coast patch-nosed snake	Salvadora hexalepis virgultea	-	SSC
Two-striped garter snake	Thamnophis hammondii	FSS, BLMS	SSC
Birds			
Cooper's hawk	Accipiter cooperi	_	CDFG Watch List
Sharp-shinned hawk	Accipiter striatus	_	SSC
Southern California rufous-crowned sparrow	Aimophila ruficeps canescens	-	SSC
Grasshopper sparrow	Ammodramus savannarum	-	CDFG Special Animals List
Bell's sage sparrow	Amphispiza belli belli	BCC	SSC
Long-eared owl	Asio otus	-	SSC
Burrowing owl	Athene cunicularia	BCC, BLMS	SSC
Golden eagle	Aquila chrysaetos	BCC, BLMS	SSC, SFP, CDF
Ferruginous hawk	Buteo regalis	BCC, BLMS	CDFG Watch List
Swainson's hawk	Buteo swainsoni	FSS, BCC	ST
Northern harrier	Circus cyaneus	_	SSC
Yellow warbler	Dendroica petechia brewsteri	-	SSC
White-tailed kite	Elanus leucurus	_	SFP
Southwestern willow flycatcher	Empidonax traillii extimus	FE, FSS	SE
California horned lark	Eremophila alpestris actia	_	SSC
Prairie falcon	Falco mexicanus	BCC	SSC
California condor	Gymnogyps californianus	FE	SE, SFP, CDF
Yellow-breasted chat	Icteria virens	_	SSC
Loggerhead shrike	Lanius ludovicianus	BCC	SSC
Coastal California gnatcatcher	Polioptila californica californica	FT	SSC

Common Name	Species	6 Federal	State
Le Conte's thrasher	Toxostoma lecont	ei BCC, BLMS	SSC
Least Bell's vireo	Vireo bellii pusilli	us FE, BCC	SE
Gray vireo	Vireo vicinior	_	CDFG Special Animals List
Lawrence's goldfinch	Carduelis lawrece	ri BCC	-
Mammals			
Pallid bat	Antrozous pallidi	is FSS, BLMS	SSC
Ringtail cat	Bassariscus astut	us –	SFP
Spotted bat	Euderma maculat	um BLMS	SSC
Hoary bat	Lasiurus cinerius – CDFG Special Animals		CDFG Special Animals List
Western mastiff bat	Eumops perotis californicus	BLMS	SSC
San Diego black-tailed jackrabbit	Lepus californicu bennettii	s –	SSC
Fringed myotis	Myotis thysanode	es BLMS	-
Yuma myotis	Myotis yumaensi	s BLMS	-
Lodgepole chipmunk	Neotamias specios speciosus	sus –	CDFG Special Animals List
San Diego desert woodrat	Neotoma lepida intermedia	-	SSC
Southern grasshopper mouse	Onychomys torri Ramona	dus –	SSC
American badger	Taxidea taxus	-	SSC
Status abbreviations <u>Federal</u> FE: Federally listed as Endangered FT: Federally listed as Threatened FC: Federal candidate species (former catego BLMS: Bureau of Land Management Sensity FSS: USDA Forest Service Sensitive BCC: Fish and Wildlife Service Birds of Con Source: PCR Services Corp., Significan Natural Diversity Database, October 2008.	ry 1 candidates) ive Species servation Concern t Ecological Area Upda	<u>State</u> SE: State-listed as Endangered ST: State-listed as Threatened CDF: California Department of SFP: CDFG Fully Protected SSC: CDFG Species of Special (ate Study, November 2000; C	Forestry and Fire Protection Sensitive Concern alifornia Department of Fish and Game



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FIGURE **3.7-1**

Sensitive Biological Resources

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A un and a size and a si			
A			
Arenaria macraaenia var. kuschei	-	_	1B.1
Berberis nevinii	FE	SE	1B.1
California macrophylla	-	_	1B.1
Chorizanthe parryi var. fernandina	FC	SE	1B.1
Dodecahema leptoceras	FE	SE	1B.1
Galium grande	-	_	1B.2
Lepechinia rossii	-	_	1B.2
Malacothamnus davidsonii	-	-	1B.2
Navarretia fossalis	FT	_	1B.1
Navarretia peninsularis	-	_	1B.2
Opuntia basilaris var. brachyclada	-	_	1B.2
Pseudognaphalium leucocephalum	-	_	2.2
Senecio aphanactis	-	_	2.2
Stylocline masonii	-	_	1B.1
Symphyotrichum greatae	-	_	1B.3
Calochortus clavatus var. gracilis	-	_	1B.2
Calochortus plummerae	-	-	1B.2
Orcuttia californica	FE	SE	1B.1
<u>CNPS lists</u> 1A:Plants presumed extinct in California 1B: Plants Rare, Threatened, or Endangered in California and elsewhere 2: Plants Rare, Threatened, or Endangered in California. but more	 <u>CNPS threat rank extensions:</u> 0.1:Seriously Threatened in California (high degree/immediacy of threat) 0.2:Fairly Threatened in California (modera degree/immediacy of threat) 0.3:Not very Threatened in California (lo degree/immediacy of threats or no curre 		ornia (high ia (moderate ifornia (low r no current
	Arenaria macradenia var. kuschei Berberis nevinii California macrophylla Chorizanthe parryi var. fernandina Dodecahema leptoceras Galium grande Lepechinia rossii Malacothamnus davidsonii Navarretia fossalis Navarretia peninsularis Opuntia basilaris var. brachyclada Pseudognaphalium leucocephalum Senecio aphanactis Stylocline masonii Symphyotrichum greatae Calochortus clavatus var. gracilis Calochortus plummerae Orcuttia californica <u>CNPS lists</u> 1A:Plants presumed extinct in California 1B: Plants Rare, Threatened, or Endangered in California and elsewhere 2: Plants Rare, Threatened, or Endangered in California, but more common elsewhere	Arenaria macradenia var. kuschei–Berberis neviniiFECalifornia macrophylla–Chorizanthe parryi var. fernandinaFCDodecahema leptocerasFEGalium grande–Lepechinia rossii–Malacothamnus davidsonii–Navarretia fossalisFTNavarretia peninsularis–Opuntia basilaris var. brachyclada–Pseudognaphalium leucocephalum–Stylocline masonii–Stylocline masonii–Calochortus clavatus var. gracilis–Calochortus plummerae–Orcuttia californicaFECNPS lists1:Seriously Threatend degree/immediacy18: Plants Rare, Threatened, or Endangered in California and elsewhereO:Sito very Threatend degree/immediacy2: Plants Rare, Threatened, or Endangered in California, but more common elsewhereO:Sito very Threatend degree/immediacy2: Plants Rare, Threatened, or Endangered in California, but more common elsewhereO:Sito very Threatend degree/immediacy2: Plants Rare, Threatened, or Endangered in California, but more common elsewhereO:Sito very Threatend degree/immediacy2: Plants Rare, Threatened, or Endangered in California, but more common elsewhereO:Sito very Threatend degree/immediacy2: Plants Rare, Threatened, or Endangered in California, but moreO:Sito very Threatend degree/immediacyConstructionD:Sito very Threatend degree/immediacyDistrictionD:Sito very Threatend degree/immediacy	Arenaria macradenia var. kuschei – – Berberis nevinii FE SE California macrophylla – – Chorizanthe parryi var. fernandina FC SE Dodecahema leptoceras FE SE Galium grande – – Lepechinia rossii – – Malacothamnus davidsonii – – Navarretia fossalis FT – Navarretia peninsularis – – Opuntia basilaris var. brachyclada – – Pseudognaphalium leucocephalum – – Stylocline masonii – – Symphyotrichum greatae – – Calochortus clavatus var. gracilis – – Calochortus clavatus var. gracilis – – Calochortus plummerae – – Orcuttia californica FE SE CNPS lists – – 1A: Plants Rare, Threatened, or – 1:Seriously Threatened in Californi degree/immediacy of threat) 0.2:Fairly Threatened in California – 1:Seriously Threatene

 Table 3.7-2

 Special-Status Plant Species Known to Occur in the Region

Source: PCR Services Corp., Significant Ecological Area Update Study, November 2000; CDFG, California Natural Diversity Database, November 2002; CDFG, Special Vascular Plants, Bryophytes, and Lichens List, February 2008; California Department of Fish and Game Natural Diversity Database, August, 2007

Important habitats and biological resource areas within the OVOV Planning Area include the following:

- Canyon areas, including Whitney, Wiley, Towsley, Rice, San Francisquito, and all other canyons which provide important habitat (water, food, shelter, and movement corridors), biological resources, and add to the viewshed of the Santa Clarita Valley;
- Land between SR-14 and Sand Canyon Road providing critical habitat for the arroyo toad;
- State-listed Endangered and Threatened plant and wildlife species associated with riparian woodlands in the Santa Clara River;
- Open water habitats within the Santa Clara River;
- Habitat for State and federally Endangered and Threatened plant and wildlife species found in chaparral and coastal scrub habitat;
- Habitat and associated biological resources in the Significant Ecological Areas designated by the County of Los Angeles within the City and SOI. Currently these include (1) the Santa Clara River (as described below) and San Francisquito Canyon (see Figure 3.7-2, Current and Proposed Significant Ecological Areas);
- Habitat for federally listed Endangered, Threatened, or Rare plant, animal species associated with the riparian woodlands in the Santa Clara River;
- Oak, sycamore, cottonwood, and willow trees located within the City of Santa Clarita and along the Santa Clara River.

Significant Ecological Areas

Significant Ecological Areas (SEAs) are biologically important areas that are designated by the County of Los Angeles as having valuable plant or animal communities. SEAs can be either upland or aquatic habitat, and are offered certain protections by this designation. The County of Los Angeles is currently in the process of updating the SEA designations and policies and expanding these designations in the OVOV Planning Area. (**Figure 3.7-2**).

SEA designation was originally based on eight criteria set forth in the Los Angeles County Significant Ecological Area Study⁴. These criteria are as follows:

- 1. The habitat of state and federally listed Endangered, Rare, or Threatened plants and animals.
- 2. Biotic communities, vegetative associations, and habitats of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis.

⁴ England and Nelson Environmental Consultants. 1976. Los Angeles County Significant Ecological Area Study. Prepared for Los Angeles County Department of Regional Planning.







Current and Proposed Significant Ecological Areas

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- 3. Biotic communities, vegetative associations, and habitats of plant and animal species that are either one of kind, or are restricted in distribution in Los Angeles County.
- 4. Habitat that serves, at some point in the life cycle of a species or group of species, as a concentrated breeding, feeding, resting, or migrating grounds, and is limited in availability.
- 5. Biotic resources that are of scientific interest because they either are at an extreme in the physical or geographic range of a population or community, or they represent an unusual variation in a population or community.
- 6. Areas important as game habitat or fisheries resources.
- 7. Areas that would preserve relatively undisturbed examples of natural biotic communities in Los Angeles County.
- 8. Special areas, not meeting the above criteria, but that have some notable biological feature (such as a wildlife corridor) can also be designated as SEAs.

San Francisquito Canyon (SEA 19)

San Francisquito Canyon, located within the City's SOI, drains a portion of the southern Leibre Mountains north of the City, between Haskell and Charlie Canyons. San Francisquito Canyon possesses two populations of unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). This species was formerly found in the Los Angeles, San Gabriel, and Santa Ana Rivers, but is now restricted to the Santa Clara River and San Francisquito Canyon. For this reason, the stickleback has been placed on both the state and federal Endangered Species lists. In San Francisquito Canyon, it is confined to permanent streams and pools below Drinkwater Reservoir, and above Baird Canyon. The lower population is dependent on legally mandated water release from Drinkwater Reservoir.

The watershed that supplies San Francisquito Canyon is relatively undisturbed. The hillsides support a dense cover of coastal sage scrub and chaparral. The San Francisquito streamcourse is mostly natural and it maintains a good riparian woodland community. The health of this drainage is evident by the fact that, in addition to supporting the unarmored threespine stickleback, the creek has been classified as an active trout fishing stream by the National Forest Service and the CDFG. The primary concern for the survival of the unarmored threespine stickleback is the maintenance of its habitat. The fish requires clean, free-flowing perennial streams and ponds surrounded by natural vegetation. Intermittent areas where surface water connects perennial streams are also important during the wet season. The natural vegetation along the intermittent portion of the stream slows heavy runoff during the rainy season, decreases destruction and siltation of habitat in downstream areas, and provides habitat for migration between populations.

3.7 Biological Resources

Santa Clara River (SEA 23)

Soledad Canyon and the Santa Clara River span the east-west extent of the City and SOI. This area possesses several populations of unarmored threespine stickleback. In the Santa Clara River, the unarmored threespine stickleback is limited to permanent streams and pools from the mouth of San Francisquito Canyon west to the Ventura–Los Angeles County line, and from near Lang Station east to Arrastre Canyon.

The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its remaining habitat has been relatively undisturbed. The Santa Clara River is unique in being the only major river draining the San Gabriel Mountains that has not been channelized. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The broad wash association is unlike that found in steeper mountain canyons, and is exceedingly scarce in the Los Angeles basin. The trees serve as habitat for many raptorial bird species. The red-shouldered hawk is restricted to woodland communities, and the species is becoming increasingly uncommon in southern California due to habitat destruction.

The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. The species requires clean, free-flowing, perennial streams and ponds surrounded by native vegetation. Intermittent areas connecting perennial streams are also important during the wet season when surface water is present. The natural vegetation and stream course slow heavy runoff during the rainy season, decrease destruction and siltation of habitat in downstream areas, and provide habitat for stickleback migration between populations.

Proposed SEAs

Cruzan Mesa Vernal Pools (SEA 6)

The Cruzan Mesa Vernal Pools Proposed SEA includes mesas, canyons and interior slopes, with Plum Canyon creek running east-west through the southern portion of the overall Proposed SEA. The extent of the Proposed SEA encompasses the watershed supporting both of these regionally unique vernal pools, including the immediate watershed surrounding both systems and the intervening corridor. Plum Canyon forms the major drainage running east-west through the southern portion of the Proposed SEA, draining west toward Bouquet Canyon. Uplands within the Proposed SEA are comprised of slopes and canyons supporting coastal sage scrub or scrub-chaparral vegetation. The Cruzan Mesa vernal pool complex lies within an elevated, topographically enclosed basin atop an eroded foothill between Mint and Bouquet canyons. The Plum Canyon vernal pool, situated in a landslide depression on a hillside

terrace, is smaller than the Cruzan Mesa pools, but possesses the same essential floral and faunal vernal pool characteristics as the larger system, and the two areas together form an ecologically functional unit.

The seasonally wet vernal pools and surrounding open coastal sage scrub and chaparral slopes support a wide variety of migrant and resident birds and other native sage scrub vertebrate species. The steep cliffs which surround Cruzan Mesa, especially along the southeast and north margins, provide protected sites for perching, roosting and nesting by a variety of birds of prey.

The Proposed SEA supports several important regional biological values. These values include

- vernal pools, found nowhere else in Los Angeles County, and their coastal sage scrub watershed serving as a hydrological filter;
- populations of sensitive plant species unique to seasonal pools on heavy clay soils, several of which occupy the northernmost point in their species' overall ranges;
- seasonal surface water, providing breeding sites for sensitive animal species, including western spadefoot and Riverside fairy shrimp, and essential foraging and wintering sites for migrating birds otherwise uncommon in the southern Liebre Mountains; and
- steep cliffs surrounding the mesa tops and their crevices and cavities providing roosting and nesting sites in the otherwise brush-covered hillsides.

These pools are also three of only four known such pools in this portion of Southern California (the other known vernal pool is within the Santa Clara River Proposed SEA, discussed below). The sensitive resources they support are unique locally and regionally, and biologists consider these to be among the most sensitive habitat types in Southern California.

The Proposed SEA encompasses formations of coastal sage scrub, vernal pool and non-native grassland. The vernal pool margins support limited densities of native grasses, but these do not form separate communities and are considered part of the vernal pool floral matrix. Agency-listed sensitive plant species occurring within both of the Proposed SEA pool systems include California Orcutt grass and spreading navarretia, along with other vernal pool endemics such as hairgrass (*Deschampsia danthonioides*), woolly-marbles (*Psilocarphus tenellus* var. *tenellus*), waterwort (*Elatine californica*), broad-toothed monkeyflower (*Mimulus latidens*) and water-starwort (*Callitriche marginata*).

Coastal sage scrub is present throughout the slopes and ridges of most of the Proposed SEA, in places intermixed with chaparral elements. To some extent, the mosaic of coastal sage and chaparral reflects the fire history of any given portion of the site, with scrub formations generally occurring on sites which have more recently burned.

Dominant species on most slopes within the Proposed SEA are California sagebrush (Artemisia californica), woolly blue-curls (Trichostema lanatum), chaparral yucca (Yucca whipplei), black sage, Acton encelia (Encelia actoni), white sage (Salvia apiana), and chamise. A variety of less dominant associated species are also present including lance-leaved live-forever (Dudleya lanceolata), common tarplant (Deinandra fasciculata), California buckwheat, beavertail cactus (Opuntia basilaris), turkish rugging (Chorizanthe staticoides), and Peirson's morning-glory (Calystegia peirsonii). Disced or cleared areas have regrown with a dense cover of oats and bromes, California poppy (Eschscholzia californica), fiddleneck (Amsinckia menziesii), several species of lupines (Lupinus spp.), popcorn flower (Cryptantha and Plagiobothrys spp.), comb-bur (Pectocarya spp) and other disturbance-favored native annuals. Lessfrequently disturbed portions of the upper watershed basin support dense stands of chamise – California scrub oak chaparral, with verba santa (Eriodictyon californica) abundant along dirt roads and other disturbed areas. In the lower portions of canyons and along Plum Canyon creek, where ground-water levels permit, giant rye grass (Leymus condensatus), Mexican elderberry, scapellote (Acourtia microcephala), redberry (Rhamnus spp.), toyon (Heteromeles arbutifolia), holly-leaved cherry (Prunus ilicifolia), Fremont cottonwood (Populus fremontii), western sycamore (Platanus racemosa), and arroyo willow (Salix lasiolepis) are present.

Non-native ruderal formations occur over most of the Mesa around the vernal pools, where coastal sage scrub has been disturbed or removed, in small strips and patches throughout the Proposed SEA primarily along disturbed dirt road edges and where grading or other substrate disturbances have not regrown to native species.

Mainland cherry forest is not well developed within the Proposed SEA but inter-mingles with chaparral. It can be found in a single narrow patch on a slope in the southwest portion of the Proposed SEA.

Analysis of invertebrates on any particular site usually is limited by a lack of specific data, but the fact that the Proposed SEA contains only two primary natural habitat types insures that there is sufficient acreage to support healthy populations of whatever invertebrate species are present, probably several hundred terrestrial species. The vernal pools, when ponded, form aquatic habitats for a moderately diverse fauna of freshwater arthropods and other invertebrates, including native fairy shrimp, aquatic flies, diving beetles, water scavengers, ostracods, and snails. The only insect order presently known to have a vernal pool endemic within the Proposed SEA is Coleoptera, with one vernal pool ground beetle species thus far having been found.

Amphibians generally are relatively common in coastal sage scrub habitats with persistent surface hydrology during the breeding season, and the Proposed SEA supports abundant populations of Pacific

chorus frog, western toad, and western spadefoot toad. At least two species of salamander also may be present within more mesic portions of the surrounding canyons and chaparral.

Reptile populations in the Proposed SEA would include numerous lizard species, including San Diego banded gecko, yucca night lizard, side-blotched lizard, western fence lizard, western skink, San Diego alligator lizard, coastal western whiptail, San Diego horned lizard, and silvery legless lizard. A robust snake fauna also would be expected within the Proposed SEA, including western blind snake, coachwhip ("red racer"), chaparral whipsnake, coastal patch-nosed snake, California rosy boa, San Diego gopher snake, California kingsnake, California mountain kingsnake, night snake, and southern Pacific rattlesnake.

Bird diversity within the Proposed SEA is related to habitat opportunities for year-round residents, seasonal residents, migrating raptors and song birds. Open coastal sage scrub hosts a suite of birds typical of such sites at lower elevations over most of the coastal slopes of Southern California. The most productive sites for resident coastal sage scrub and chaparral birds are around riparian and freshwater systems, which also attract large numbers of migrants during Spring and Fall. The vernal pools attract moderate numbers of migrating waders and waterfowl, and provide important winter foraging areas for resident and migratory birds of prey. Coastal sage and chaparral birds resident or breeding within the Proposed SEA include ashy rufous-crowned sparrow, Bell's sparrow, black-chinned sparrow, lark sparrow, California thrasher, spotted towhee, California towhee, phainopepla, northern mockingbird, lazuli bunting, and several species of hummingbird, with additional species (western meadowlark, California horned lark, and perhaps also savannah and grasshopper sparrows) nesting and foraging in the grassland and ruderal habitats surrounding the vernal pools. Birds of prey observed around the vernal pools include red-tailed hawk, northern harrier, white-tailed kite, prairie falcon, and golden eagle. Barn owl, great horned owl, and common raven all nest in the cliffs surrounding Cruzan Mesa.

The vernal pools situated within this Proposed SEA serve as isolated, high resource quality habitat linkage sites for migratory waterfowl. The vernal pools teem with arthropod and amphibian activity, and so provide essential feeding grounds for long-distance migrants, as well as for resident species of reptiles, birds and mammals. The ponds do not lie within any identified terrestrial movement routes for wildlife, but may serve as important seasonal watering sites for species moving through and across the Plum Canyon divide between Mint and Bouquet canyons. The Plum Canyon stream channel undoubtedly serves as a movement pathway for more mobile species of terrestrial mammals, but it no longer links any larger habitat areas directly, due to land conversion in Mint and Bouquet Canyon.

Sensitive species include, but are not limited to, spreading navarretia, California Orcutt grass, Vernal pool fairy shrimp, San Diego fairy shrimp, Riverside fairy shrimp, golden eagle, California gnatcatcher, San Diego black-tailed jackrabbit, San Diego desert woodrat, and southern grasshopper mouse

Piru Creek (SEA 15)

The Piru Creek Proposed SEA includes a wide variety topographic features and habitat types. The orientation and extent of the Proposed SEA encompasses the surface and subsurface hydrology of the Santa Felicia watershed, from its headwaters, tributaries, and basin to the point at which it exits Los Angeles County jurisdiction. The northern portion of the Proposed SEA is within the Angeles National Forest. Capturing the watershed tributaries, the eastern boundary follows a predominant ridgeline; the western boundary is the county border, and the southern boundary captures two other small tributaries that feed the Santa Felicia, to encompass the entire watershed that ultimately drains into Lake Piru in Ventura County.

Plant communities within the Proposed SEA include coast live oak woodland, coast live oak riparian forest, chaparral, coastal sage scrub, coastal sage scrub, chaparral, non-native and native grasslands, alluvial fan sage scrub, and sycamore-willow riparian woodland.

Wildlife within the Proposed SEA is extremely diverse and abundant, commensurate with extensive acreages of natural open space and great diversity of habitat types, within the stream channels and on the surrounding uplands. These ecosystems support a wide variety of wildlife species, within the Proposed SEA boundaries and as a part of the regional ecosystem.

Analysis of invertebrates on any given site generally is limited by a lack of specific data, but the size of the Proposed SEA and diversity of habitats present are considered sufficient to support healthy populations of a very large number of invertebrate species. The riparian formations and aquatic habitats within the Proposed SEA support diverse faunas of arthropods, which may include native fairy shrimp, craneflies, blackflies and other aquatic dipterans, stoneflies, caddisflies, and dobsonflies, water boatmen, giant water bugs, ground beetles, diving beetles, and tiger beetles. Terrestrial insects abound around riparian corridors and in scrub habitats, and are particularly abundant in oak-dominated habitats.

Amphibians are abundant and relatively diverse within moister woodland areas, along montane canyon bottoms, in riparian areas, and within surface water features of the Proposed SEA. The overall riparian systems of the Proposed SEA provide habitat for a number of frog and toad populations, which may include populations of Pacific and California chorus frogs, western toad, and western spadefoot toad as well as the California red-legged frog and arroyo toad. Open scrub, chaparral and alluvial fan habitats support diverse reptile populations, and the overall reptile fauna of the Proposed SEA would encompass numerous lizard species as well as a robust snake fauna.

Bird diversity within the Proposed SEA is related to habitat opportunities for year-round residents, seasonal residents, migrating raptors, and song birds. Coastal sage scrub and chaparral host a suite of birds typical of such sites at lower elevations over most of the coastal slopes of Southern California. The most productive sites for resident coastal sage scrub and chaparral birds are around riparian and freshwater systems, which also attract large numbers of migrants during Spring and Fall. Oak woodlands and riparian areas generally support many more species; notable species include the summer tanager, Bullock's oriole, black-headed grosbeak, band-tailed pigeon, western wood pewee, several swallow species, western yellow-billed cuckoo, willow flycatcher, and least Bell's vireo.

Native mammal diversity within the Proposed SEA is considerable. These include bats, rodents, squirrel, rabbits, mole, weasel, badger, skunks, raccoon, gray fox, bobcat, coyote, and mule deer. Black bear may also occur within the Proposed SEA boundaries, at least occasionally, but the San Gabriel Mountains population was introduced for game use, and this species is not native within the Proposed SEA.

Historically, riparian corridors have served as linkages between the Pacific coastline, coast ranges, interior ranges, the high desert and southern Sierras (via the Tehachapi range). Animals move through the Piru Creek watershed along and within the riparian systems between Piru Lake in Ventura County and the San Gabriel Mountain range and beyond. The tributary drainages in this Proposed SEA remain fully intact and open.

The Piru Creek Proposed SEA supports several habitat types considered sensitive by resource agencies, namely the CDFG because of their scarcity and support of a number of state and federally listed endangered, threatened, and rare vascular plants, as well as sensitive bird and reptile species. These communities include coast live oak, coast live oak riparian forest, alluvial fan sage scrub, and native grassland. These communities or closely related designations are considered highest-inventory priority communities by the CDFG, indicating that they are declining in acreage throughout their range due to land use changes.

Sensitive species in the proposed Proposed SEA include, but are not limited to, the California condor, red-legged frog and arroyo toad.

3.7 Biological Resources

Santa Clara River

This proposed SEA encompasses all of the existing Santa Clara River, San Francisquito Canyon, and Kentucky Springs SEAs, described above. The eastern portion of the Proposed SEA surrounds the Kentucky Springs and Aliso Canyon watersheds, portions of which are within the Angeles National Forest. It follows the river channel downstream through the Acton basin, taking in Arrastre Creek, Mill Canyon and other side drainages and significant rock outcroppings, then stays within the channel to Agua Dulce Canyon, at which point the northern boundary loops around that watershed and includes Vasquez Rocks County Natural Area, while the southern boundary encompasses the lower portion of Bear Canyon and undeveloped portions of Oak Spring Canyon adjacent to the river channel. The southern boundary leaves the river channel at the confluence with Sand Canyon and extends broadly to the south, to include all of the remaining natural areas of the Sand Canyon watershed, along with the major ridgeline, earthquake escarpment, grassland, and canyon habitat features and watersheds of Elsmere, Whitney, Placerita and Bear Canyons.

From Sand Canyon west the Proposed SEA boundary remains close to the margins of the floodplain to the confluence with San Francisquito Canyon, wherein the northern boundary extends northward upstream on that drainage to the headwaters of San Francisquito Creek on the Angeles National Forest, then returns to the river channel and proceeds west to the confluence with Castaic Creek. From here, it extends north around the lower portion of Castaic Creek, embracing the riparian habitat areas around and above the confluence, with the boundaries of the Proposed SEA following the Santa Clara River channel to the Ventura County line. The biological and ecological functionality of the Proposed SEA is integrally linked to the river basin for its entire length, so the biogeographic limits of the Proposed SEA would extend downstream through Ventura County to its mouth at the Pacific Ocean, and encompass the significant tributary drainages (Piru Creek, Sespe Creek, Santa Paula Creek, Wheeler Creek, etc.).

The Kentucky Springs and Aliso Canyon watershed zones originate on National Forest land, in semi-arid chaparral and desert scrub habitat, but the drainages themselves support different formations of desert and interior riparian habitat, ranging from seasonal Great Basin sagebrush wash in Kentucky Springs to dense, mature, willow-cottonwood-sycamore woodlands over permanent streams in Aliso Canyon. The surrounding uplands in the basins support pinyon-juniper woodlands, chamise, mountain mahogany, and manzanita dominated chaparral formations, buckwheat scrub, and ruderal lands. Alluvial terraces within both drainages have been rather extensively cultivated for orchard crops or dryland agriculture, and in more recent years, rural and urban-type residential developments have encroached on the watersheds. Portions of the Aliso Canyon riparian woodlands have been encroached upon by rural development, but the upper portion of the drainage possesses excellent xeric cottonwood-sycamore

riparian woodland. The alluvial plain formed along the southern margin of the river basin below these canyons supports intact, high diversity xeric alluvial fan sage scrub.

Downstream of the Acton basin the Proposed SEA encompasses the Arrastre Creek drainage, which is the type locality for the federally and state endangered unarmored three-spined stickleback fish, and also loops around the high, rounded rocky butte-like outcroppings on the north side of the river. These features, while only a minor part of the watershed of the river, provide important nesting, roosting, and sheltering habitat values for bats, birds of prey, and other sensitive species foraging along the river corridor. Agua Dulce Canyon has a permanent stream and supports high quality riparian habitat formations from the confluence with the river to the intersection with the Antelope Valley Freeway; from that point north the riparian areas are fragmented, improving and maturing significantly where the creeks pass through Vasquez Rocks County Natural Area.

The alluvial terraces along the river channel as it enters the eastern portion of the Santa Clarita Valley support alluvial fan sage scrub, Great Basin sagebrush scrub, coast live oak woodland, and coastal sage scrub habitats. The alluvial fans of Oak Springs Canyon and Sand Canyon are important recharge grounds for the river aquifer; surface flows from both canyons presently entering the Santa Clara River basin through natural, unconfined channels. Recognizing the importance of this drainage, the Proposed SEA boundaries have been drawn to encompass the entire Sand Canyon-Bear Canyon watershed, most of which is within the National Forest. The major habitat linkage zones and watersheds between the river basin and the National Forest, and the protected areas of the county (Placerita Canyon Natural Area) have also been included within the Proposed SEA boundary. These canyons form a natural movement zone for wildlife moving across and through the western end of the San Gabriel range to the Santa Susana range and the Santa Clara River basin, and together encompass a spectrum of significant and unique habitat, vegetation and wildlife resources.

The segment of the Santa Clara River passing through the City of Santa Clarita is a dry channel except during seasonal runoff flows. Regardless of this condition, it supports relatively intact stands of alluvial sage scrub formations, riparian woodland, and southern riparian scrub. The dry zones are essential to the continued genetic isolation of the unarmored three-spined stickleback population in the upper reaches of the river.

San Francisquito Creek supports dense and mature southern riparian scrub and riparian woodland formations, along with small areas of freshwater marsh, providing essential wintering areas and resident habitat for waterfowl, wading birds, marshland birds, and a variety of other vertebrate species. After San

Francisquito Creek passes from County land into the National Forest, the channel flows become less seasonal, and riparian resources expand and diversify.

Relatively vast areas of willow-cottonwood forest and southern riparian scrub occur west of San Francisquito Creek and within the junction zone of Castaic Creek and the Santa Clara River, supporting numerous sensitive species and providing multi-layered riparian habitat for a wide diversity of wildlife species, particularly birds of prey and riparian-obligate songbirds.

The Santa Clara River channel and its alluvial terraces and tributary creeks together form the single most important and natural value wildlife movement zone through Los Angeles County. Mobile species can enter the river basin anywhere along its length (outside of developed areas) and proceed in either direction without having to pass through narrow culverts or blind channels, with continuous vegetative cover and only short stretches of dry substrates. The overall drainage course provides a continuum of aquatic and terrestrial movement opportunities, shelter, forage, and resident habitat from the mouth of the river at Ventura to the Antelope Valley. The drainage course connects to both districts of the Angeles National Forest, and links together two large public resource preserves (Vasquez Rocks and Placerita County Natural Areas).

Plant communities within the Proposed SEA include bigcone spruce-canyon oak forest, coast live oak woodland, coast live oak riparian forest, chaparral, coastal sage scrub, coastal sage scrub-chaparral mixed scrub, non-native and native grasslands, alluvial fan sage scrub, southern cottonwood-willow riparian woodland and forest, southern sycamore-alder woodland, southern willow scrub, vernal pool, pinyon-juniper woodland, juniper woodland, freshwater marsh, and disturbed. Transitional zones (ecotones) between these communities often contain unusual species compositions.

Vernal pool systems are extremely rare in Los Angeles County and there are only two verified vernal pools currently recognized within the area; Cruzan Mesa and Plum Canyon. However, there is at least one small seasonal pond with typical vernal pool characteristics within the so-called Golden Valley Ranch portion of the upper Placerita-Sand Canyon watershed break. This small pool is surrounded by coastal sage scrub, with a band of native needlegrass and melic grass on its fringes, and supports Riverside fairy shrimp and western spadefoot toad. It is considered a vernal pool by virtue of its habitat values and species unique to this type of seasonal formation.

Chaparral occupies most of the basin slopes along the Santa Clara River and on interior ridges and slopes within the watersheds and drainages west of Acton. Chaparral also occurs on some of the higher elevations of the eastern watershed portions of the Proposed SEA, where the shrubs frequently are interspersed as understory formations within oak and conifer woodlands.

Coastal sage scrub and coastal sage scrub-chaparral mixed scrub are formations which typically occur on south or west-facing slopes within the western portion of the Proposed SEA. Some sites may be artifacts of fire frequency or occurrence, while other areas appear to be stable scrub communities. Excellent examples of coastal sage scrub occur in upper Placerita Canyon watershed and on the ridgeline to the north, along the Santa Clara River just east of Sand Canyon, and in San Francisquito Canyon.

Alluvial fan sage scrub, sometimes also known as floodplain sage scrub, generally consists of a mixture of shrubs which colonize and persist within infrequently scoured and flooded terrain such as floodplains, alluvial plains, or along seasonal streams. The dominant shrub in most washes is scalebroom (*Lepidospartum squamatum*), but Great Basin sage brush, rabbitbrush (*Chrysothamnus nauseosus*), and chaparral yucca are also usually present in the habitat type, and may be dominant depending upon substrates and subsurface hydrology. This vegetation type is common throughout the alluvial plains and washes in the Proposed SEA, forming particularly high diversity stands along the southern margin of the river at Acton, on uplands east of the Sand Canyon confluence, along the dry reaches of the river in Santa Clarita, and in lower San Francisquito Canyon. Extensive stands of Great Basin sagebrush-dominated alluvial scrub occur around Acton and in the Kentucky Springs portion of the Proposed SEA.

There are representatives of native grasslands scattered within the Proposed SEA, most notably patches of different needlegrass species (*Nassella* spp.) and coast range melic (*Melica imperfecta*) on clay soils in Placerita Canyon, on slope wetlands and around oak on the ridge north of Placerita Canyon, and on less-disturbed xeric slopes in the eastern portion of the Proposed SEA. Seeps in chaparral often support homogeneous stands of giant wildrye; other native grasses occur sporadically within most natural habitats along the Santa Clara basin. Non-native grasslands and other ruderal formations are the dominant understory on most disturbed substrates, particularly grazed areas.

Ruderal vegetation typically found within the Proposed SEA includes non-native and native grasses and "weedy" herbaceous species, including doveweed (*Croton setigerus*), mustards (*Brassica, Hirschfeldia*, and *Sisymbrium* spp.), wire lettuce (*Stephanomeria* spp.), sow thistle (*Sonchus* spp.), telegraph weed (*Heterotheca grandiflora*), Russian thistle (*Salsola tragus*), dock (*Rumex* spp.), yellow star thistle, Australian saltbush (*Atriplex semibaccata*), and cocklebur (*Xanthium* spp.). Disturbed areas occur throughout the Proposed SEA on fallow agricultural sites, disked fields, abandoned pastures, residential development, paved road margins, fire breaks, dirt access roads, trails, and other similarly disturbed areas.

Analysis of invertebrates on any given site generally is limited by a lack of specific data, but the size of the Proposed SEA and diversity of habitats present are considered sufficient to support healthy populations of a very large number of invertebrate species, probably in excess of 2,500 species. The riparian formations, wetlands, and aquatic habitats within the Proposed SEA support diverse faunas of arthropods, including native fairy shrimp, craneflies, blackflies and other aquatic dipterans, stoneflies, caddisflies, and dobsonflies, water boatmen, giant water bugs, ground beetles, diving beetles, and tiger beetles. Terrestrial insects abound around riparian corridors and in scrub habitats, and are particularly abundant in oak-dominated habitats. Insect orders very well-represented taxonomically, and with some habitat specialization within the Santa Clara River Proposed SEA include Orthoptera, Neuroptera, Coleoptera, Diptera, Hymenoptera and Lepidoptera.

Amphibians are abundant and relatively diverse within moister woodland areas, along montane canyon bottoms, in riparian areas, and within surface water features of the Proposed SEA. The overall riparian systems of the Santa Clara River basin support abundant populations of Pacific and California chorus frogs, western toad, western spadefoot toad, bullfrog, and African clawed frog (the latter two species are non-native), and in San Francisquito Canyon, California red-legged frog and arroyo toad. Arboreal, painted, and garden slender salamanders also are present within mesic habitats in the Proposed SEA.

Open scrub, chaparral and alluvial fan habitats support diverse reptile populations, and the overall reptile fauna of the Proposed SEA would encompass numerous lizard species, along with southwestern pond turtle in Agua Dulce and Bear Canyons. Yucca night lizard, side-blotched lizard, western fence lizard, western skink, San Diego alligator lizard, coastal western whiptail, San Diego horned lizard, desert horned lizard, silvery legless lizard and San Diego desert banded gecko all would be expected within the Proposed SEA.

The Proposed SEA also supports a robust snake fauna, including western blind snake, coachwhip ("red racer"), chaparral whipsnake, coastal patch-nosed snake, California rosy boa, San Diego gopher snake, glossy snake, California kingsnake, mountain kingsnake, long-nosed snake, night snake, California lyre snake, California black-headed snake, two-striped garter snake, San Bernardino ring-necked snake, and southern Pacific rattlesnake.

Bird diversity within the Proposed SEA is related to habitat opportunities for year-round residents, seasonal residents, migrating raptors, and song birds. Coastal sage scrub and chaparral host a suite of birds typical of such sites at lower elevations over most of the coastal slopes of Southern California. The most productive sites for resident coastal sage scrub and chaparral birds are around riparian and freshwater systems, which also attract large numbers of migrants during Spring and Fall. Coastal sage

and chaparral birds resident or breeding within the Proposed SEA includes Southern California (ashy) rufous-crowned sparrow, Bell's sparrow, black-chinned sparrow, lark sparrow, lazuli bunting, California gnatcatcher, California quail, greater roadrunner, spotted towhee, California towhee, California thrasher, phainopepla, northern mockingbird, and Anna's, Costa's, and black-chinned hummingbirds. Oak woodlands and riparian areas support many more species; notable species include the summer tanager, Bullock's oriole, black-headed grosbeak, band-tailed pigeon, western wood pewee, several swallow species, western yellow-billed cuckoo, willow flycatcher, and least Bell's vireo. Species associated with ruderal sites and grasslands include western meadowlark, California horned lark, and savannah and grasshopper sparrows. Birds of prey (including common migrants) observed within the Proposed SEA include red-shouldered hawk, red-tailed hawk, Cooper's hawk, sharp-shinned hawk, Swainson's hawk, merlin, American kestrel, northern harrier, white-tailed kite, prairie falcon, and golden eagle. Resident owl species within the Proposed SEA boundaries include barn owl, great horned owl, long eared owl, and California spotted owl.

Native mammal diversity within the Proposed SEA is considerable. These include bats (at least seven species), rodents (at least four species of deer mice, two species of woodrat, Beechey ground squirrel, western gray squirrel, and more), two types of rabbits and one hare, broad-handed mole, long-tailed weasel, American badger, spotted and striped skunks, raccoon, gray fox, bobcat, coyote, mountain lion, and mule deer. Black bear also occur within the Proposed SEA boundaries, at least occasionally, but the San Gabriel Mountains population was introduced for game use, and this species is not native within the Proposed SEA.

Historically (and prehistorically) the riparian corridor along the Santa Clara River has served as the primary east-west linkage between the Pacific coastline, coast ranges, interior ranges, high desert and southern Sierra (via the Tehachapi range). Animals moving through the Santa Clara drainage had unobstructed passage along the river and within the riparian systems between the coastal lowlands of Ventura and the Mojave Desert, with tributary routes extending south into the San Gabriel range, northward via Castaic, Bouquet and San Francisquito tributaries over the Transverse range and into the San Joaquin Valley, west into the central coast ranges, or east through the Tehachapis and into the southern Sierra Nevada. The present configuration of the tributary drainages has impinged upon connectivity from the Santa Clarita Valley to the north, but the Santa Clara River remains relatively intact and open. The Proposed SEA embraces the river corridor and the linkage zones considered essential to insuring connectivity and resource values within the historic movement zones for all of the wildlife species present within the Los Angeles County portion of the Santa Clara River.

3.7 Biological Resources

Sensitive species include, but are not limited to, Nevin's barberry, spreading navarretia, slender-horned spineflower, California Orcutt grass, Riverside fairy shrimp, unarmored threespine stickleback, Santa Ana sucker, arroyo toad, California red-legged frog, southwestern pond turtle, California horned lizard, San Diego mountain king snake, two-striped garter snake, California condor, Swainson's hawk, white-tailed kite, California gnatcatcher, least Bell's vireo, and ringtail (*Bassariscus astutus*).

Santa Susana Mountains/Simi Hills

The proposed Santa Susana Mountains/Simi Hills Proposed SEA includes a variety of topographic features, encompassing all of the existing Santa Susana Mountains and Lyons Canoyn SEAs. The northern portion of the Proposed SEA encompasses Oat Mountain and much of the Santa Susana Mountains from the Los Angeles County line east to Interstate 5. Portions of many of the canyons associated with the Santa Susana Mountains and Oat Mountain are also included such as Salt Canyon, Potrero Canyon, Pico Canyon, Towsley Canyon, El Toro Canyon, Sulphur Canyon, Devil Canyon, Ybarra Canyon, Browns Canyon, Bee Canyon, and Mormon Canyon. Several blue-line streams occur within these canyons and support many natural springs. The north slopes of the Santa Susana Mountains are within the Santa Clara River watershed which drains the Los Padres National Forest to the north, the Angeles National Forest to the northeast and east, and the Santa Susana Mountains to the south and southeast. The remainder of the Proposed SEA is within the Los Angeles River watershed. The majority of the land in the Proposed SEA is natural open space with very sparse disturbances in the form of ranches, oil wells, and unimproved access roads. The Proposed SEA consists of east-west and northwest trending primary ridges and north-south trending secondary ridges. The peak of Oat Mountain represents the highest point in the Proposed SEA at 3,747 feet above mean sea level (msl). The open space within the Proposed SEA supports a variety of communities but is dominated by chaparral, oak woodlands, coastal sage scrub, bigcone spruce-canyon oak woodland, and grasslands. The creeks and canyons support riparian scrub and woodland communities. At its southern end, the Proposed SEA includes the eastern portion of the Simi Hills including the east-facing slopes descending from Chatsworth Peak. Chatsworth Reservoir forms a portion of the south boundary and is currently dry except for a small detention basin north of the reservoir.

Chaparral is the dominant plant community within the Proposed SEA and covers many of the steep slopes and hillsides in the upper elevations. Coastal sage scrub is found at the lower elevations within the Proposed SEA on drier south-facing slopes, but can also be found on the north-facing slopes and canyon of the Santa Susana Mountains. Alluvial scrub intergrades with sage scrub communities and riparian communities and, therefore, occurs adjacent to these communities at the northern end of the Proposed

SEA in Salt Canyon. Small patches of native grassland can be found scattered throughout the Proposed SEA mostly in openings in coastal sage scrub and mixed with non-native grasslands.

Coast live oak woodlands occupy areas within the canyons and drainages of the Proposed SEA. Valley oak woodland is located in small pockets in the eastern portion of the Proposed SEA. Mainland cherry forest can be found in canyons in the northern portion of the study area. This community can also be found in association with alluvial scrub in the northwestern portion of the study area as it approaches the Santa Clara River.

Southern willow scrub occurs in segments along portions of the intermittent drainages within the Proposed SEA. Southern cottonwood-willow riparian forest occupies much of the Santa Clara River adjacent to the northern boundary of the Proposed SEA and also occurs within the larger, intermittent and perennial drainages within the Proposed SEA.

Several disturbed areas occur scattered throughout the Proposed SEA and take the form of residential developments, highways, fire breaks, dirt access roads, trails, transmission poles, and other similarly disturbed areas.

The analysis of invertebrates is difficult due to the lack of data, although limited studies have been conducted. The Proposed SEA is believed to support healthy populations of a diverse assortment of countless invertebrate species. Amphibian populations are generally restricted in semi-arid and arid habitats but may be particularly abundant where riparian areas occur. The Proposed SEA is likely to support a variety of amphibians in abundance within wetland areas along the major canyon bottoms and the moister oak woodland areas. Many essential reptilian habitat characteristics such as open habitats that allow free movement and high visibility and small mammal burrows for cover and escape from predators and extreme weather are present within the Proposed SEA. These characteristics as well as the variety of habitat types present are likely to support a wide variety of reptilian species.

The scrubland, woodland, riparian, and grassland habitats in the Proposed SEA provide foraging and cover habitat for year-round residents, seasonal residents, and migrating song birds. In addition, the Proposed SEA encompasses many year-round water sources, abundant raptor foraging, perching, and nesting habitat. The combination of these resources as well as the mosaic of many community types provides for an unusually high diversity of bird species. Several of these species may use this Proposed SEA as their only consistent occurrence in the southeastern portion of the county.

Not unlike other taxonomic groups, mammal populations within the Proposed SEA are diverse and reflective of the diversity of habitat types. Unlike many other inland hills within the Los Angeles Basin,

this Proposed SEA is large enough to support relatively stabile large mammal populations despite the urban surroundings.

The Santa Susana Mountains/Simi Hills Proposed SEA includes several important linkages for wildlife movement. The Simi Hills and Santa Susana Mountains provide a vast open space corridor to foster wildlife movement between the Santa Monica Mountains to the south, San Gabriel Mountains to the east, and Los Padres National Forest to the north. Dense, natural habitat associated with the majority of the study area provides excellent opportunities for concealment and water sources while the grasslands provide an abundance of prey.

Sensitive species include, but are not limited to, Nevin's barberry, Braunton's milk vetch, slender-horned spineflower, arroyo toad, California red-legged frog, California condor, Swainson's hawk, white-tailed kite, and southwestern willow flycatcher.

Valley Oaks Savannah

This Proposed SEA would not differ from the existing Valley Oak Savannah (SEA 64). Please refer to that description above, for a discussion of resources associated with this Proposed SEA.

Habitat Connectivity

Habitat connectivity is an umbrella term referring to all of the factors relating to integration of habitats within an ecosystem. Wildlife corridors and habitat linkages are features that promote habitat connectivity. Wildlife corridors are typically discrete linear features within a landscape that are constrained by development or other non-habitat areas. Habitat linkages are networks of corridors and larger natural open space areas that encompass an adequate diversity and acreage of useable habitats to provide long-term resilience of ecosystems against the detrimental effects of habitat fragmentation. The fragmentation of open-space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open-space areas, various studies have concluded that many wildlife and plant species would not likely persist over time in fragmented or isolated habitat areas because they prohibit the movement of new individuals and genetic information among areas where they may be periodically displaced by natural or human-caused disturbances such as disease, fire, flood, etc.⁵

 ⁵ Robert H. MacArthur & Edward O. Wilson. 1967. *The Theory of Island Biogeography*. Princeton University Press.
 Michael E. Soule, ed. 1987. *Viable populations for conservation*. Cambridge University Press.

Habitat linkages mitigate the effects of this fragmentation by (1) allowing plant and animal species to disperse between remaining habitat areas, thereby permitting at-risk populations to maintain sustainable levels of genetic variability; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) causing population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

South Coast Missing Linkages is an inter-agency effort to identify and conserve the highest priority linkages in the South Coast Ecoregion. Partners in the effort include South Coast Wildlands, National Park Service, US Forest Service, California State Parks, The Wildlands Conservancy, The Resources Agency, California State Parks Foundation, The Nature Conservancy, Santa Monica Mountains Conservancy, Resources Legacy Foundation, Conservation Biology Institute, San Diego State University Field Stations Program, Environment Now, Mountain Lion Foundation, and the Zoological Society of San Diego's Conservation and Research for Endangered Species, among others. The South Coast Missing Linkages project has developed a comprehensive plan for a regional network that would maintain and restore critical habitat linkages between existing open space reserves⁶. The OVOV Planning Area contains portions of 3 linkages identified in the Missing Linkages project: the Santa Monica-Sierra Madre Connection, the Sierra Madre-Castaic Connection, and the San Gabriel-Castaic Connection.

The Santa Clara River Enhancement and Management Plan Study (SCREMP) identified several key movement corridors within the City's Planning Area. These corridors are generally located in undisturbed canyon and riverine stream habitat areas. The preservation of these areas is essential for maintaining the wildlife diversity within the City's Planning Area.

The Santa Monica Mountains Conservancy (SMMC) and the Mountain Recreation and Conservation Authority have also identified wildlife corridors in the Santa Clarita Valley. These corridors include Elsmere Canyon, Towsley Canyon, Weldon/Bee Canyon, crossings along SR-14 near Whitney Canyon and crossings between Canyon Country and Sulphur Springs.

Elsmere Canyon is an integral part of the Rim of the Valley Trail Corridor and Wildlife Corridor, linking the Santa Clarita Woodlands, Whitney, and Placerita Canyons. The Rim of the Valley Trail Corridor traverses the Santa Monica, Santa Susana, and San Gabriel Mountains. The Rim of the Valley Trail system is described in **Section 3.16**, **Parks and Recreation**.

⁶ South Coast Wildlands. 2008. South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion. Produced in cooperation with partners in the South Coast Missing Linkages Initiative. Available online at http://www.scwildlands.org.

As mitigation to a major transportation project, the San Gabriel/Santa Susana Wildlife Corridor and Open Space Acquisition Project identified key wildlife linkage corridors within the mountainous areas that lay along the high occupancy vehicle lanes along SR-14 between Newhall Avenue and Sand Canyon Road. The corridors include the Whitney Canyon Movement Route and the highway underpass known as the Los Pinetos undercrossing. These corridors link significant coastal scrub, oak woodland, and riparian woodland and scrub habitats. To date, the City has set aside significant funding to purchase and preserve more than 1,000 acres of corridor lands.

REGULATORY FRAMEWORK

Federal Statutes

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (16 US Code 703-712) makes it unlawful to "take" (kill, harm, harass, etc.) any migratory bird listed in Title 50, Code of Federal Regulations, including their nests, eggs, or products. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many other species.

Federal Endangered Species Act of 1973

Section 3 of the federal Endangered Species Act (ESA) defines an Endangered species as any species or subspecies "in danger of extinction throughout all or a significant portion of its range." A Threatened species is defined as any species or subspecies of fish, wildlife, or plants "likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Threatened or Endangered species and their critical habitat are designated through publication of a final rule in the Federal Register. Designated Endangered and Threatened animal species are fully protected from "take" unless an applicant has an incidental take permit issued by the USFWS under Section 10 or incidental take statement issued under Section 7 of the ESA. A take is defined as the killing, capturing, or harassing of a species. Proposed Endangered or Threatened species or their critical habitat are those for which a proposed regulation, but no final rule, has been published in the Federal Register.

Clean Water Act Section 404, Jurisdictional Waters

The US Army Corps of Engineers (USACE), pursuant to Section 404 of the Clean Water Act regulates discharges into "waters of the United States." While the streams on within the area meet the definition of "waters of the US," they do not meet the criteria for federal jurisdiction set by the US Supreme Court, in that they are not navigable and are not tributary to any navigable waters. In addition, these streams have

no connection to interstate commerce outside of the specific uses precluded by the Supreme Court regarding the Migratory Bird amendment. While verification of the lack of jurisdiction should be ascertained with the USACE, there is not federal authority under the Clean Water Act.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA establishes that it is state policy to conserve, protect, restore, and enhance Endangered species and their habitats. Under state law, plant and animal species may be formally designated as Rare, Threatened, or Endangered through official listing by the California Fish and Game Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

On private property, Endangered plants may also be protected by the Native Plant Protection Act (NPPA) of 1977. Threatened plants are protected by CESA, and Rare plants are protected by the NPPA. However, CESA authorizes that "Private entities may take plant species listed as Endangered or Threatened under the ESA and CESA through a Federal incidental take permit issued pursuant to Section 10 of the ESA, if the CDFG certifies that the incidental take statement or incidental take permit is consistent with CESA."⁷ In addition, the California Environmental Quality Act (CEQA)⁸ requires disclosure of any potential impacts on listed species and alternatives or mitigation that would reduce those impacts.

California Environmental Quality Act – Treatment of Listed Plant and Animal Species

ESA and CESA protect only those species formally listed as Threatened or Endangered (or Rare in the case of the state list). Section 15380 of the *State CEQA Guidelines* independently defines "Endangered" species of plants or animals as those whose survival and reproduction in the wild are in immediate jeopardy and "Rare" species as those who are in such low numbers that they could become Endangered if their environment worsens. Therefore, a project normally will have a significant effect on the environment if it will substantially affect a Rare or Endangered species of animal or plant or the habitat of

⁷ California Endangered Species Act, 14 CCR 670.5

⁸ Public Resources Code, Sections 21000 et seq.

3.7 Biological Resources

the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

State of California – Section 1602 of the California Fish and Game Code

Streambeds and other drainages that occur within the planning area are subject to regulation by the CDFG. The CDFG considers most drainages to be "streambeds" unless it can be demonstrated otherwise. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel with banks and supports fish or other aquatic life. This includes watercourses having a surface or sub-surface flow that supports, or has supported, riparian vegetation. CDFG jurisdiction typically extends to the edge of the riparian canopy, and therefore, usually encompasses a larger area than Corps jurisdiction.

State of California – Porter Cologne Act

The State Water Quality Control Board has ruled after the US Supreme Court decisions to reduce the federal jurisdiction over Waters of the US, that the state would require that a Waste Discharge Report be required for any discharge of waste, including fill, into "waters of the state," other than those projects requiring a federal Section 404 permit and the state's Section 401 Certification of the federal permit, under the authority of the Porter Cologne Act. This essentially extends the state's assumption of the NPDES program, by modifying the definition of waste. The Regional Water Quality Control Board is responsible for issuing Waste Discharge Permits.

State of California – Sections 3503, 3503.5, and 3800 of the California Fish and Game Code

These sections of the Fish and Game Code prohibit the destruction of bird nests and eggs (Section 3503), and the take of birds of prey (Section 3503.5) and nongame birds (Section 3800). Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Such a take would also violate federal law protecting migratory birds.

Incidental Take Permits (i.e., Management Agreements) are required from the CDFG for projects that may result in the incidental take of species listed by the State of California as Endangered, Threatened, or candidate species. The permits require that impacts to protected species be minimized to the extent possible and mitigated to a level of insignificance.

Local

Tree Ordinances

The City of Santa Clarita's Oak Tree Preservation ordinance (Section 17.17.090 C of the Unified Development Code) requires the preservation of all healthy oak trees, including scrub oaks, within the City, unless compelling reasons justify the cutting, pruning, encroachment, and/or removal of such trees. Additionally, the Ordinance states that no person shall cut, prune, remove, relocate, endanger, damage, or encroach into the protected zone of any oak on any public or private property within the City except in accordance with the conditions of a valid oak tree permit issued by the City. This generally applies to trees that are 6 inches or more in circumference (2 inches in diameter).

Within the unincorporated area of Los Angeles County, and therefore within the City's SOI, Los Angeles County implements an Oak Tree Ordinance that applies to all unincorporated areas of Los Angeles County, and requires that a person shall not cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak tree genus without first obtaining a permit. This applies generally to trees that are 25 inches or more in circumference (8 inches in diameter) on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree unless an oak tree permit is first obtained. "Damage," includes any act causing or tending to cause injury to the root system or other parts of a tree, including, but not limited to, burning, application of toxic substances, operation of equipment or machinery, or by paving, changing the natural grade, trenching or excavating within the protected zone of an oak tree. Walnut, sycamore, and Joshua trees are also regulated by ordinance in Los Angeles County.

Open Space Acquisition Plan

The City of Santa Clarita 2002 Open Space Acquisition Plan (OSAP) represents the City's ongoing efforts to preserve and protect open space in the Santa Clarita Valley. Through the creation of a systematic and objective mechanism for evaluating open space, this plan will:

- Assist in the creation of a "green belt" surrounding the City of Santa Clarita to improve and expand wildlife habitat and corridors.
- Provide a framework for the City to evaluate, acquire, and maintain the most beneficial parcels within and surrounding the City of Santa Clarita for preservation as open space.

In July 2007, City of Santa Clarita property owners voted in favor of establishing an Open Space Preservation District. A special assessment paid by City property owners will allow the City to purchase land that could otherwise be developed. The Open Space Preservation District assists the City in preserving natural lands, retaining wildlife corridors, and completing the City's greenbelt buffer.

THRESHOLDS OF SIGNIFICANCE

Methodology

This biological resources impacts analysis is conducted at a programmatic level rather than a project level, and therefore is primarily qualitative. Subsequent discretionary permits issued under the City's proposed General Plan will be required to comply with the goals objectives and policies of the plan and may require additional coordination with resource agencies (USFWS, CDFG, USACE, etc.) on a project-by-project basis to determine specific mitigation requirements for impacts to resources under their purview.

Direct impacts of a proposed project on biological resources can take several forms, but typically involve the loss, modification, or disturbance of natural habitat (i.e., plant communities or other naturally occurring areas) which in turn, directly affects plant and wildlife species dependent on that habitat.

State CEQA Guidelines

In order to assist in determining whether a project will have a significant effect on the environment, the *State CEQA Guidelines*, Appendix G identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. A project could have a significant impact on biological resources if it would

- 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 CDFG or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS;
- 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;
- 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;

- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation plan, or other approved local, regional, or State Habitat Conservation plan.

City CEQA Guidelines

The *City of Santa Clarita Local CEQA Guidelines* (Resolution 05-38) adopted on April 26, 2005, also serve as the basis for identifying thresholds to determine the significance of the environmental effects of a project on this resource area and have been included for analysis. With regard to the thresholds of significance, a project could have a potentially significant impact on biological resources if it would result in any of the following:

- c. Removal of any heritage oak tree, as defined in Unified Development Code 17.17.090, removal of more that five (5) oak trees for a project on a site that has an existing single-family residence, or the removal of more that three (3) oak trees, proposed as part of any other project.
- d. Disturbance of, or encroachment into, any river, river tributary, riparian habitat, stream or similar waterway identified on a United States Geological Survey map as a "blue-line" watercourse, or any waterway otherwise identified as a significant resource by the City of Santa Clarita.
- e. Disturbance of any habitat known or suspected to contain a plant or animal species listed as Endangered on such Federal and/or State lists.
- g. Disturbance to any Significant Ecological Area (SEA) as identified by the City of Santa Clarita

An evaluation of whether an impact on biological resources would be "substantial," and, therefore, a significant impact, must consider both the resource itself and the significance threshold criteria being evaluated. For example, because most plant and animal species are dependent on native habitats to satisfy various life cycle requirements, a habitat-based approach that addresses the overall biological value of a particular vegetation community or habitat area is appropriate when determining whether or not alteration of that habitat will substantially affect special-status species, sensitive habitats, wetlands, or movement corridors. The relative biological value of a particular habitat area—its functions and values— can be determined by such factors as disturbance history, biological diversity, its importance to particular plant and wildlife species, its uniqueness or sensitivity status, the surrounding environment and the presence or absence of special-status resources.

However, direct impacts to specific plant and wildlife resources (e.g., active nests and individual plants and animals) are also evaluated and discussed when impacts to these resources, in and of themselves, could be considered significant or conflict with local, state, and federal statutes or regulations. The significance of direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon the species is both on the project site and from a regional perspective and the species' sensitivity status according to resource agencies. These factors are evaluated based on the results of biological surveys and studies, results of literature and database reviews, discussions with biological experts, and established and recognized ecological and biodiversity theory and assumptions.

For the purposes of this impact analysis, "special-status species" refers to the following:

- Officially listed by California or the Federal Government as Endangered, Threatened, or Rare;
- A candidate for state or federal listing as Endangered, Threatened, or Rare;
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the *State CEQA Guidelines*; these taxa may indicate "none" under listing status, but note that all CNPS List 1 and 2 and some List 3 plants may fall under Section 15380 of *State CEQA Guidelines*.
- A Bureau of Land Management, US Fish and Wildlife Service, or US Forest Service Sensitive Species;
- Taxa listed in the CNPS Inventory of Rare and Endangered plants of California;
- Taxa considered by the CDFG to be a Species of Special Concern (SSC);
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring;
- Population(s) in California that may be peripheral to the major portion of a taxon's range but are Threatened with extirpation in California;
- Taxa closely associated with a habitat that is declining in California at a significant rate (e.g., wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, etc.); and
- Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO).

IMPACT ANALYSIS

This impact analysis section evaluates the potential effects of the proposed General Plan goals, objectives, and policies on biological resources within the City's Planning Area using the *State CEQA Guidelines* threshold of significance and the City's CEQA guidelines.

Impact 3.7-1: There will be a potentially significant impact, either directly or through habitat modifications, on species identified as candidate, sensitive, or specialstatus in local or regional plans, policies, or regulations or by the CDFG or USFWS

The proposed General Plan would limit development in designated SEAs by citing and designing development to account for and be highly compatible with resources in the SEAs (**Goal CO 3, Objective CO 3.1, Policy 3.2.4**). Specific development standards shall be identified to limit the types of land use, density, building location and size, roadways and other infrastructure, landscape, drainage, and other elements to assure the protection of the critical and important plant and animal habitats of each SEA. In general, the principle shall be to minimize the intrusion and impacts of development in these areas with sufficient setbacks, or buffers, to adequately protect the resources.

At least 65 special-status species have been reported from the City's Planning Area, and all natural or semi-natural habitat types within the City's Planning Area may potentially support one or more of these species. Each habitat type within the City and its adopted SOI will be impacted to at least some degree by implementation of the proposed General Plan, and therefore, implementation of the proposed General Plan may result in the potential direct mortality of individuals of candidate, sensitive, or special-status species or loss of habitat occupied by such species. Implementation of the General Plan may therefore have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the CDFG or USFWS. This impact is considered to be significant at the General Plan level. The proposed goals, objectives, and policies focus primarily on avoidance and minimization of impacts on habitats, as embodied in, and also provide for the acquisition of habitats in cooperation with conservation groups, as stated in **Goal CO 10** Preservation of open space to meet the community's multiple objectives for resource preservation.

The concentration of development in previously disturbed areas to promote infill development and prevent sprawl and habitat loss, and the requirements that natural areas be adequately buffered from development, and that natural site elements be preserved (**Policies CO 3.1.1, 3.1.2**, and **3.1.6**) will act to discourage sprawling development patterns, thereby reducing human encroachment into special-status species habitats. Proper documentation of biological resources disclosure of the potential impacts of development (**Policy CO 3.1.3**) and public education on the biological attributes of the Valley (**Objective CO 3.7, Policies CO 3.7.1** and **CO 3.7.2**) will encourage informed decision making and project planning. Protection of wetlands and woodlands, state- and federal-listed species habitats, and habitats within SEAs and along the Santa Clara River and its tributaries (**Objective CO 3.2, Policies CO 3.2.1, 3.2.2, 3.2.3**,

Objective CO 3.3, and **Policy CO 3.3.1**) will also help to preserve habitats required by a large suite of special status species.

Coordination with the US Forest Service on discretionary development projects in the National Forest land, adoption of its principles for forest management, maintenance of the rural character of areas on the Land Use Map, adjacent to the National Forest, and cooperation with the Forest Service in future planning efforts (**Objective CO 3.4, Policies CO 3.4.1, 3.4.2, 3.4.3**, and **3.4.4**); as well as maintenance of a circum-Valley greenbelt, preservation of the Santa Clara River and major tributaries, acquisition of natural open space through dedication and acquisition for the preservation of habitat linkages and areas with threatened or endangered flora, fostering of partnerships with conservation groups and regulatory agencies, securing funding for open-space management and protection (**Goal CO 10, Objectives CO 10.1, Policies CO 10.1.1, 10.1.2, 10.1.3, 10.1.11, 10.1.12, 10.1.14**), will encourage the preservation of core habitats and populations within larger expanses of natural open space and riparian networks at the periphery of development within the Santa Clarita Valley.

Minimization of edge effects such as encouraging reduction of light trespass, urban runoff, and unauthorized off-road vehicle use (**Objective CO 3.6**, **Policies CO 3.6.1**, **3.6.2**, and **3.6.3**) will encourage the viability of open space directly adjacent to the developed environment, which often may abut special-status species habitats such as the Santa Clara River. Likewise, maintenance and enhancement of the urban forest in the Santa Clarita Valley; planting and maintaining trees on public lands and incorporating measures to ensure that roots have access to oxygen at tree maturity such as use of porous concrete; where appropriate promote planning of trees that are native or climatically appropriate to the surrounding environment; and protecting heritage trees pursuant to the zoning ordinance (**Objective CO 3.5, Policies CO 3.5.1, 3.5.2**, and **3.5.3**) will help provide additional habitat value for numerous bird species, including special-status species such as Lawrence's goldfinch and Cooper's hawk, dependant on tree-based resources for shelter and foraging opportunities.

Proposed General Plan Goal, Objectives, and Policies

- Goal CO 3: Conservation of biological resources and ecosystems, including sensitive habitats and species.
 - **Objective CO 3.1:** In review of development plans and projects, encourage conservation of existing natural areas and restoration of damaged natural vegetation to provide for habitat and biodiversity.

- **Policy CO 3.1.1:** On the Land Use Map and through the development review process, concentrate development into previously developed or urban areas to promote infill development and prevent sprawl and habitat loss, to the extent feasible.
- **Policy CO 3.1.2:** Avoid designating or approving new development that will adversely impact wetlands, floodplains, threatened or endangered species and habitat, and water bodies supporting fish or recreational uses, and establish an adequate buffer area as deemed appropriate through site specific review.
- Policy CO 3.1.3:On previously undeveloped sites ("greenfields"), identify
biological resources and incorporate habitat preservation
measures into the site plan, where appropriate. (This policy will
generally not apply to urban infill sites, except as otherwise
determined by the reviewing agency).
- **Policy CO 3.1.6:** On development sites, preserve and enhance natural site elements including existing water bodies, soil conditions, ecosystems, trees, vegetation and habitat, to the extent feasible.
- **Objective CO 3.2:** Identify and protect areas which have exceptional biological resource value due to a specific type of vegetation, habitat, ecosystem, or location.
 - **Policy CO 3.2.1:** Protect wetlands from development impacts, with the goal of achieving no net loss (or functional reduction) of jurisdictional wetlands within the planning area.
 - Policy CO 3.2.2:Ensure that development is located and designed to protect oak,
and other significant indigenous woodlands.
 - Policy CO 3.2.3:Ensure protection of any endangered or threatened species or
habitat, in conformance with State and federal laws.
 - Policy CO 3.2.4:Protect biological resources in the designated SignificantEcological Areas (SEAs) through the siting and design of
development which is highly compatible with the SEA

resources. Specific development standards shall be identified to control the types of land use, density, building location and size, roadways and other infrastructure, landscape, drainage, and other elements to assure the protection of the critical and important plant and animal habitats of each SEA. In general, the principle shall be to minimize the intrusion and impacts of development in these areas with sufficient controls to adequately protect the resources.

- **Objective CO 3.3:** Protect significant wildlife corridors from encroachment by development that would hinder or obstruct wildlife movement.
 - Policy CO 3.3.1:Protect the banks and adjacent riparian habitat along the SantaClara River and its tributaries, to provide wildlife corridors.
- **Objective CO 3.4:**Ensure that development in the Santa Clarita Valley does not adversely
impact habitat within the adjacent National Forest lands.
 - Policy CO 3.4.1:Coordinate with the United States Forest Service on
discretionary development projects that may have impacts on
the National Forest.
 - **Policy CO 3.4.2:** Consider principles of forest management in land use decisions for projects adjacent to the National Forest, including limiting the use of invasive species, discouraging off-road vehicle use, maintaining fuel modification zones and fire access roads, and other measures as appropriate, in accordance with the goals set forth in the Angeles National Forest Land Management Plan.
 - **Policy CO 3.4.3:** On the Land Use Map, maintain low density rural residential and open space uses adjacent to forest land, and protect the urban-forest interface area from overdevelopment.
 - Policy CO 3.4.4:Participate as a stakeholder in planning efforts by the UnitedStates Forest Service for land uses within the National Forest,
providing input as appropriate.

- **Objective CO 3.5:** Maintain, enhance, and manage the urban forest throughout developed portions of the Santa Clarita Valley to provide habitat, reduce energy consumption, and create a more livable environment.
 - Policy CO 3.5.1:Continue to plant and maintain trees on public lands and within
the public right-of-way to provide shade and walkable streets,
incorporating measures to ensure that roots have access to
oxygen at tree maturity, such as use of porous concrete.
 - **Policy CO 3.5.2:** Where appropriate, promote planting of trees that are native or climactically appropriate to the surrounding environment, emphasizing oaks, sycamores, maple, walnut, and other native species in order to enhance habitat, and discouraging the use of introduced species such as eucalyptus, pepper trees, and palms except as ornamental landscape features.
 - Policy CO 3.5.3:Pursuant to the requirements of the zoning ordinance, protect
heritage oak trees that, due to their size and condition, are
deemed to have exceptional value to the community.
- **Objective CO 3.6:** Minimize impacts of human activity and the built environment on natural plant and wildlife communities.
 - **Policy CO 3.6.1:** Minimize light trespass, sky-glow, glare, and other adverse impacts on the nocturnal ecosystem by limiting exterior lighting to the level needed for safety and comfort; reduce unnecessary lighting for landscaping and architectural purposes, and encourage reduction of lighting levels during non-business nighttime hours.
 - **Policy CO 3.6.2:** Reduce impervious surfaces and provide more natural vegetation to enhance microclimates and provide habitat. In implementing this policy, consider the following design concepts:
 - a. Consideration of reduced parking requirements, where supported by a parking study and/or through shared use of parking areas;

- b. Increased use of vegetated areas around parking lot perimeters; such areas should be designed as bioswales or as otherwise determined appropriate to allow surface water infiltration;
- Use of connected open space areas as drainage infiltration areas in lieu of curbed landscape islands, minimizing the separation of natural and landscaped areas into isolated "islands";
- d. Breaking up large expanses of paving with natural landscaped areas planted with shade trees to reduce the heat island effect, along with shrubs and groundcover to provide diverse vegetation for habitat.
- **Policy CO 3.6.3:** Restrict use of unauthorized off-road vehicles within sensitive habitat areas through signage, fencing, or other means as appropriate.
- **Objective CO 3.7:** Provide public access to and education about natural habitats and ecosystems.
 - Policy CO 3.7.1:Support the public education programs offered at the Placerita
Canyon Nature Center and Ed Davis Park (Sonia Thompson
Nature Center).
 - Policy CO 3.7.2:Seek opportunities for partnerships with schools, non-profit
organizations, and volunteers, to increase public access to and
information about natural areas.
- **Goal CO 10:** Preservation of open space to meet the community's multiple objectives for resource preservation.
 - **Objective CO 10.1:** Identify areas throughout the Santa Clarita Valley which should be preserved as open space in order to conserve significant resources for long-term community benefit.
 - Policy CO 10.1.1:Provide and protect a natural greenbelt buffer area surrounding
the entire Santa Clarita Valley, which includes the Angeles
National Forest, Santa Susana, San Gabriel, and Sierra Pelona
Mountains, as a regional recreational, ecological, and aesthetic
resource.

Policy CO 10.1.2:	The Santa Clara River corridor and its major tributaries shall be
	preserved as open space to accommodate storm water flows and
	protect critical plant and animal species, as follows:

- a. Uses and improvements within the corridor shall be limited to those that benefit the community's use of the river in its natural state.
- b. Development on properties adjacent to, but outside of the defined primary river corridor shall be:
 - i. Located and designed to protect the river's water quality, plants, and animal habitats by controlling the type and density of uses, drainage runoff (water treatment) and other relevant elements; and
 - ii. Designed to maximize the full range of river amenities, including views and recreational access, while minimizing adverse impacts to the river.
- **Policy CO 10.1.3:** Through dedications and acquisitions, obtain open space needed to preserve and protect wildlife corridors and habitat, which may include land within SEA's, wetlands, woodlands, water bodies, and areas with threatened or endangered flora and fauna.
- **Policy CO 10.1.11:** Partner with conservation agencies and other entities to acquire and maintain open space, combining funding and other resources for joint-use projects, where appropriate.
- **Policy CO 10.1.12:** Identify, pursue, and ensure adequate funding sources to maintain open space areas.
- **Policy CO 10.1.14:** Protect open space from human activity that may harm or degrade natural areas, including but not limited to off road motorized vehicles, vandalism, campfires, overuse, pets, noise, excessive lighting, dumping, or other similar activities.

Effectiveness of the Proposed General Plan Goal, Objectives, and Policies

The proposed goals, objectives, and policies do not provide a mechanism for the compensation of lost habitats when avoidance or minimization of impacts is considered to be infeasible, nor do they mitigate for the direct mortality of individuals of listed, proposed, or candidate species. Implementation of the proposed General Plan goals, objectives, and policies and, mitigation measures **MM 3.7-1** through **3.7-3** are proposed to reduce these impacts. **MM 3.7-1** requires preparation of biological site survey reports prepared by a qualified biological consultant for proposed projects. **MM 3.7-2** addresses direct mortality of special-status species through construction activities. **MM 3.7-3** addresses impacts on sensitive habitats from implementation of the proposed General Plan through land acquisition.

Although the loss of sensitive habitats may be compensated for through land acquisition, the loss of special-status species would remain significant since special-status species are dependant on a variety of habitat types, not all of which are necessarily sensitive, such as annual grassland and various common scrub and chaparral types. Consequently, the conversion of all types of currently undeveloped wildlife habitat to Residential, Commercial and Industrial uses permitted under the General Plan would result in impacts on special-status species that would remain significant at the plan level.

Plan to Plan Analysis

Both the proposed General Plan and the existing General Plan contain goals and policies that address the loss of habitat. Development allowed in both the existing and proposed General Plans would result in similar significant impacts to special status species at the plan level.

Impact 3.7-2:There will be a potentially significant impact on riparian habitats or other
sensitive natural communities identified in local or regional plans, policies, or
regulations or by the CDFG or USFWS.

Sensitive terrestrial communities reported to the CNDDB and known to be present in the City's Planning Area include southern California threespine stickleback stream, Riversidian alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern riparian forest, southern riparian scrub, southern sycamore alder riparian woodland, southern willow scrub, California walnut woodland, valley oak woodland, mainland cherry forest, and vernal pools.

The proposed General Plan would preserve the Santa Clara River corridor and its major tributaries as open space to accommodate storm water flows and protect critical plant and animal species (riparian

vegetation, fish, etc.). Uses and improvements within the river and its major tributaries would be sited and designed to protect the river's water quality, plants, and animal habitats, controlling the type and density of uses, drainage runoff (water treatment), and other relevant elements.

The proposed General Plan would require that development is located and designed to protect oak, and that biological resources in the designated SEAs are protected through the siting and design of development to account for and be highly compatible with these resources. Specific development standards shall be identified to control the types of land use, density, building location and size, roadways and other infrastructure, landscape, drainage, and other elements to assure the protection of the critical and important plant and animal habitats of each SEA. In general, the principle shall be to minimize the intrusion and impacts of development in these areas with sufficient setbacks, or buffers, to adequately protect the resources.

Nevertheless, recreational access and necessary infrastructural improvements (bridges, storm drains, etc.) within and immediately adjacent to riverine habitats will be allowed under the General Plan, and Urban Residential, Commercial, and Industrial land uses adjacent to the Santa Clara River SEA may potentially impact riparian habitat and other sensitive natural communities. Implementation of the General Plan may therefore have a substantial adverse effect on riparian habitat and other sensitive natural communities identified in local or regional plans, policies, or regulations or by the CDFG, USACE, or USFWS. This impact would be considered significant at the General Plan level.

The proposed goals, objectives, and policies of the General Plan focus primarily on avoidance and minimization of impacts to habitats, as embodied in **Goal CO 3** (Conservation of biological resources and ecosystems, including sensitive habitats and species), and also provide for the acquisition of habitats in cooperation with conservation groups, as stated in **Goal CO 10** (Preservation of open space to meet the community's multiple objectives for resource preservation). Objectives proposed to facilitate the meeting of these goals include **Objectives CO 3.1, 3.2, 3.3, 3.4, 3.6**, and **10.1**.

The concentration of development in previously disturbed areas to promote infill development and prevent sprawl and habitat loss, and the requirements that natural areas be adequately buffered from development, and that natural site elements be preserved (**Policies CO 3.1.1, 3.1.2**, and **3.1.6**) will act to discourage sprawling development patterns, thereby reducing human encroachment into sensitive habitats. Proper documentation of biological resources and disclosure of the potential impacts of development (**Policy CO 3.1.3**) and public education on the biological attributes of the Valley (**Objective CO 3.7, Policies CO 3.7.1** and **CO 3.7.2**) will encourage informed decision making and project planning. Protection of sensitive wetland and woodland habitats, state and federal-listed species habitats, and

3.7 Biological Resources

habitats within SEAs and along the Santa Clara River and its tributaries (**Policies CO 3.2.1, 3.2.2, 3.2.3**, and **3.2.4**, **3.3.1**) will also help to preserve those habitats within the Planning Area. Restoration of habitats, use of native species in landscaping plans, proper implementation of protective measures during construction, limit the use of turf-grass on development and promote use of native or adapted plantings to promote biodiversity and natural habitat, promote the use of pervious landscapes and integration of design features that promote tree health (**Policies CO 3.1.4, 3.1.7, 3.1.9**, and **3.1.11**) will encourage relatively high ecological function of semi-natural habitats otherwise potentially degraded by development.

Coordination with the US Forest Service on discretionary development projects in Forest Land, adoption of its principles for forest management, maintenance of the rural character of areas on the Land Use Map adjacent to the National Forest, and cooperation with the Forest Service in future planning efforts (**Policies CO 3.4.1, 3.4.2, 3.4.3**, and **3.4.4**); as well as maintenance of a circum-Valley greenbelt, preservation of the Santa Clara River and major tributaries, acquisition and dedication of natural open space for the preservation of habitat linkages and areas where threatened or endangered flora exists, fostering of partnerships with conservation groups and regulatory agencies, securing funding for open-space management and protection (**Policies CO 10.1.1, 10.1.2, 10.1.3, 10.1.11, 10.1.12, 10.1.14**), will encourage the preservation of core habitats within larger expanses of natural open space and riparian networks at the periphery of development.

Management of a healthy urban forest in the Santa Clarita Valley and minimization of edge effects such as light trespass, urban runoff, unauthorized off-road vehicle use, invasive species; planting and maintaining trees on public lands and incorporating measures to ensure that roots have access to oxygen at tree maturity such as use of porous concrete; where appropriate promote planning of trees that are native or climatically appropriate to the surrounding environment; and protecting heritage trees pursuant to the zoning ordinance (**Objective CO 3.5, Policies CO 3.5.1, CO 3.5.2, CO 3.5.3, CO 3.6.1, 3.6.2, 3.6.3, 3.6.4, 3.6.5**) will encourage the viability of open space directly adjacent to the developed environment, which often may abut special-status species habitats such as the Santa Clara River.

Proposed General Plan Goal, Objectives, and Policies

Policy CO 3.1.4: For new development on sites with degraded habitat, include habitat restoration measures as part of the project development plan, where appropriate.

- **Policy CO 3.1.7:** Limit the use of turf-grass on development sites and promote the use of native or adapted plantings to promote biodiversity and natural habitat.
- **Policy CO 3.1.9:** During construction, ensure preservation of habitat and trees designated to be protected through use of fencing and other means as appropriate, so as to prevent damage by grading, soil compaction, pollution, erosion or other adverse construction impacts.
- Policy CO 3.1.11: Promote use of pervious materials or porous concrete on sidewalks to allow for planted area infiltration, allow oxygen to reach tree roots (preventing sidewalk lift-up from roots seeking oxygen), and mitigate tree-sidewalk conflicts, in order to maintain a healthy mature urban forest.
- **Policy CO 3.6.4:** Provide public information and support with demonstration sites at City facilities on gardening and landscaping techniques to reduce spread of invasive species and pollution from pesticides and fertilizers that threaten natural ecosystems.
- **Policy CO 3.6.5:** Ensure revegetation of graded areas and slopes adjacent to natural open space areas with native plants (consistent with fire prevention requirements).

Effectiveness of the Proposed General Plan Goal, Objectives, and Policies

The goals, objectives, and policies do not provide a mechanism for the compensation of lost habitats when avoidance or minimization of impacts is considered to be infeasible. In conjunction with the proposed General Plan policies, **Mitigation Measures 3.7-1** through **3.7-3** are proposed to reduce impacts to riparian and other sensitive habitats to a level that is less than significant at the plan level.

Plan to Plan Analysis

Both the proposed General Plan and the existing General Plan do not contain goals and policies that address the compensation for lost habitats when avoidance is considered infeasible. However, the proposed General Plan proposed mitigation measures that would reduce impacts to less than significant.

Impact 3.7-3:There will be a potentially significant impact 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

The proposed plan would preserve as open space the Santa Clara River corridor and its major tributaries to accommodate storm water flows and protect critical plant and animal species (riparian vegetation, fish, etc.), and development on properties adjacent to, but outside of the defined primary river corridor, shall be located and designed to protect the river's water quality, plants, and animal habitats, controlling the type and density of uses, drainage runoff (water treatment), and other relevant elements. Nevertheless, federally protected wetlands outside of the primary river corridor may potentially be impacted by development. Implementation of the plan may therefore 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. This impact would be significant at the plan level.

The proposed policies focus primarily on avoidance and minimization of impacts to habitats, as embodied in **Goal CO 3** (Conservation of biological resources and ecosystems, including sensitive habitats and species). Objectives proposed to facilitate the meeting of these goals include **Objectives 3.1**, **3.2**, and **3.6**.

The concentration of development in previously disturbed areas to promote infill development and prevent sprawl and habitat loss, and the requirements that natural areas be adequately buffered from development, and that natural site elements be preserved (**Policies CO 3.1.1**, **3.1.2**, and **3.1.6**) will act to discourage sprawling development patterns, thereby reducing human encroachment into undeveloped wetland areas. Proper documentation of biological resources and disclosure of the potential impacts of development (**Policy CO 3.1.3**) and public education on the biological attributes of the Valley (**Objective CO 3.7**, **Policies CO 3.7.1**, and **CO 3.7.2**) will encourage recognition of wetland values during project planning and review and informed decision making. Protection of sensitive wetland and woodland habitats, state- and federally listed species habitats, and habitats within SEAs and along the Santa Clara River and its tributaries (**Policies CO 3.2.1**, **3.2.2**, **3.2.3**, and **3.2.4**, **3.3.1**) will also help to protect wetland habitats within the Planning Area. Promotion of the use of site appropriate native species in landscaping plans and prohibit the use of invasive or noxious plant species, proper implementation of protective measures during construction, and integration of design features that discourage excessive runoff from developed areas (**Policies CO 3.1.5**, **3.1.7**, **3.1.9**, and **3.1.11**) will encourage relatively equivalent function of mitigation habitats.

Minimization of edge effects such as urban runoff, unauthorized off-road vehicle use, and invasive species (**Policies CO 3.6.2, 3.6.3, 3.6.4, 3.6.5**) will encourage the viability of natural and created wetland areas directly adjacent to the developed environment.

The proposed plan policies will directly or indirectly address the adverse effect of development on federally protected wetlands.

Proposed General Plan Goal, Objectives, and Policies

Policy CO 3.1.5:Promote the use of site-appropriate native or adapted plant
materials, and prohibit use of invasive or noxious plant species
in landscape designs.

Effectiveness of the Proposed General Plan Goal, Objectives, and Policies

In combination with requirements for Section 404 permitting, the proposed policies will reduce impacts resulting from implementation of the plan to a level that is less than significant at the plan level. Thus, no significant impacts to jurisdictional wetlands are anticipated and no mitigation is proposed.

Plan to Plan Analysis

Both the proposed General Plan and the existing General Plan contain goals and policies that address the loss of wetland habitat. Development allowed in both the existing and proposed General Plans would be subject to the requirements for Section 404 permitting, reducing impacts to less than significant.

Impact 3.7-4:There will be a potentially significant impact on the movement of native
resident or migratory fish or wildlife species, established native resident or
migratory wildlife corridors, or native wildlife nursery sites

The City's proposed General Plan would preserve as a regional recreational, ecological, and aesthetic resource, the natural buffer area surrounding the entire Valley, including areas within the Angeles National Forest and Santa Susanna, San Gabriel, Liebre/Pelona, and Del Sur Mountains. The plan would also preserve as open space the Santa Clara River corridor and its major tributaries to protect critical plant and animal species. Development within designated SEAs would be sited and designed with sufficient setbacks, or buffers, to adequately protect the resources therein.

Despite these protections, the San Gabriel–Castaic Connection,⁹ linking the two units of the Angeles National Forest would be impacted by development allowed under the City's proposed General Plan. This impact would be potentially significant, as the linkage is the only connection between these two core habitat areas and provides for the exchange of individuals and genetic information between populations in the Castaic and San Gabriel Mountains that may otherwise become isolated if the linkage is severed. Implementation of the General Plan may therefore interfere substantially with the movement of native resident or migratory fish and wildlife species and with established native resident or migratory wildlife corridors, and may impede the use of native wildlife nursery sites. This impact is significant at the plan level. **Figure 3.16-2, in Section 3.16 (Parks and Recreation)**, shows the San Gabriel–Castaic Connection in relation to the City's Planning Area.

The proposed goals, objectives, and policies provide for the acquisition of habitats in cooperation with conservation groups, and provide for the identification and protection of at least one designated wildlife corridor linking the two units of the Angeles National Forest through the Valley. Objectives proposed to facilitate the meeting of these goals include **Objectives 3.1, 3.2, 3.3, 3.4, 3.6**, and **10.1**.

The concentration of development in previously disturbed areas to promote infill development and prevent sprawl and habitat loss, and the requirements that natural areas be adequately buffered from development, and that natural site elements be preserved (**Policies CO 3.1.1**, **3.1.2**, and **3.1.6**) will act to discourage sprawling development patterns, thereby encouraging the continued value of the natural areas within and around the Valley to function as conduits for genetic exchange and individual movement. Proper documentation of biological resources disclosure of the potential impacts of development (**Policy CO 3.1.3**) and public education on the biological attributes of the Valley (**Objective CO 3.7**, **Policies CO 3.7.1** and **CO 3.7.2**) will encourage project planning that accommodates species movement requirements as well as informed decision making.

Protection of sensitive wetland and woodland habitats, state- and federally listed species habitats, and habitats within SEAs and along the Santa Clara River and its tributaries (**Policies CO 3.2.1, 3.2.2, 3.2.3**, and **3.2.4**, **3.3.1**) will also help to preserve linkage functions within those communities for aquatic and riparian-obligate species. Restoration of habitats, use of native species in landscaping plans, and the promotion of a high ratio of open space use to developed area (**Policies CO 3.1.4, 3.1.5, 3.1.7**, and **3.1.10**) will encourage the use of semi-natural habitats by human-tolerant native species adjacent to development.

⁹ Penrod, K, C Cabañero, P Beir, C Luke, W Spencer, and E Rubin. 2004. South Coast Missing Linkages Project: A Linkage Design for the San Gabriel – Castaic Connection. South Coast Wildlands, Idyllwild, CA. Available online at http://www.scwildlands.org.

Extension of the Rim of the Valley trail system, protection of one or more arms of the San Gabriel–Castaic Connection, maintenance of the Santa Clarita Woodlands Park, and encouragement of connectivity between open space area in site design (**Policy CO 3.3.2, 3.3.3, 3.3.4**, and **3.3.5**); as well as maintenance of a circum-Valley greenbelt, preservation of the Santa Clara River and major tributaries, acquisition of natural open space through dedications and acquisitions for the preservation of habitat linkages and areas with threatened pr endangered flora, maintenance of canyons and ridgelines as open space, fostering of partnerships with conservation groups and regulatory agencies, securing funding for open-space management and protection (**Policies CO 10.1.1, 10.1.2, 10.1.3, 10.1.5, 10.1.11, 10.1.12, 10.1.14**), will encourage the preservation of core habitats within larger expanses of natural open space and riparian networks at the periphery of development.

Minimization of edge effects such as encouraging reductions of light trespass, urban runoff, unauthorized off-road vehicle use, invasive species (**Policies CO 3.6.1, 3.6.2, 3.6.3, 3.6.5**) will encourage the viability of open space directly adjacent to the developed environment, which often may abut special-status species habitats such as the Santa Clara River.

The City's proposed General Plan policies will directly or indirectly address the adverse effects of development on the movement of native resident or migratory fish and wildlife species, native resident or migratory wildlife corridors, and native wildlife nursery sites.

Proposed General Plan Goal, Objectives, and Policies

Policy CO 3.1.10:	To the extent feasible, encourage the use of open space to
	promote biodiversity.
Policy CO 3.3.2:	Cooperate with other responsible agencies to protect, enhance,
	and extend the Rim of the Valley trail system through Elsmere
	and Whitney Canyons, and other areas as appropriate, to
	provide both recreational trails and wildlife corridors linking the
	Santa Susana and San Gabriel Mountains.
Policy CO 3.3.3:	Identify and protect one or more designated wildlife corridors
	linking the Los Padres and Angeles National Forests through the
	Santa Clarita Valley (the San Gabriel-Castaic connection).
Policy CO 3.3.4:	Support the maintenance of Santa Clarita Woodlands Park, a
	critical component of a cross-mountain range wildlife habitat

corridor linking the Santa Monica Mountains to the Angeles and Los Padres National Forests.

- Policy CO 3.3.5:Encourage connection of natural open space areas in site design,
to allow for wildlife movement.
- Policy CO 10.1.5:Maintain open space corridors along canyons and ridgelines as a
way of delineating and defining communities and
neighborhoods, providing residents with access to natural areas,
and preserving scenic beauty.

Effectiveness of the Proposed General Plan Goal, Objectives, and Policies

The proposed goals, objectives, and policies do not provide for the compensation of lost wildlife movement opportunities or nursery sites when avoidance or minimization of impacts is considered to be infeasible. Loss of connectivity between the two units of the Angeles National Forest could not be compensated for since the intervening habitats would be the only ones which could provide the necessary avenues of exchange. Therefore, this potential loss could not be adequately mitigated, and the impact of development would remain significant in the event that avoidance of impacts to habitat linkages arising from said development is considered infeasible.

Plan to Plan Analysis

Both the proposed General Plan and the existing General Plan contain goals and policies that address the movement of wildlife. Nonetheless, impacts to said open space corridors with development allowed by both Plans would result in significant impacts. Impacts to movement corridors under both plans would be similar.

Impact 3.7-5:There will be a potentially significant conflict with local policies or ordinancesprotecting biological resources, such as a tree preservation policy or ordinance

The City's proposed General Plan would protect oak and other significant indigenous woodlands and would protect biological resources in the designated SEAs through the siting and design of development to account for and be highly compatible with these resources. Additionally, the proposed General Plan does not incorporate any changes to the City of Santa Clarita's Oak Tree Preservation ordinance or to the Los Angeles County Oak Tree Ordinance. These ordinances are applied on a project-specific basis regardless of underlying land-use regulations. Furthermore, the proposed General Plan incorporates a

new set of policies for the protection of biological resources to which new developments would be required to conform. Therefore, the City's proposed General Plan would not conflict with the implementation of local protective policies and ordinances.

Plan to Plan Analysis

Both the proposed General Plan and the existing General Plan contain goals and policies that address the preservation of oak trees. Impacts to oak trees under both plans would be similar.

Impact 3.7-6:There will be a potentially significant conflict with the provisions of an
adopted Habitat Conservation plan, Natural Community Conservation plan, or
other approved local, regional, or State Habitat Conservation plan

The City's Planning Area contains areas designated or proposed as critical habitat for unarmored threespine stickleback, arroyo toad, California red-legged frog, and coastal California gnatcatcher. Specific development projects would be subject to consultation with the USFWS if impacts on any of these species were to result from project implementation. However, the City's Planning Area does not contain any areas falling within the purview of an adopted Habitat Conservation Plan, Natural Community Conservation plan, or other approved local, regional, or State Habitat Conservation Plan. Implementation of the City's proposed General Plan would therefore not conflict with the provisions of such a conservation plan.

Plan to Plan Analysis

The City's Planning Area does not contain any areas that contain an adopted Habitat Conservation Plan, Natural Community Conservation plan, or other approved local, regional, or State Habitat Conservation Plan. Consequently, there would be no impacts under the existing or proposed Plans.

Impact 3.7-7:There will be a potentially significant impact to habitats known or suspected
to contain plant and animal species listed as endangered on such Federal
and/or State lists.

Impacts to habitats known or suspected to contain plant and animal species listed as Endangered on such federal and/or state lists are discussed under **Impact 3.7-1**. Please refer to that section for a discussion of impacts and relevant goals, objectives, and policies.

Proposed General Plan Goal, Objectives, and Policies

For a listing of goals, objectives, and policies proposed to address impacts to habitats known or suspected to contain plant and animal species listed as Endangered on such federal and/or state lists, please refer to those listed under **Impact 3.7-1**.

Effectiveness of the Proposed General Plan Goal, Objectives, and Policies

The proposed goals, objectives, and policies do not provide a mechanism for the compensation of lost habitats when avoidance or minimization of impacts is considered to be infeasible, nor do they mitigate for the direct mortality of individuals of listed, proposed, or candidate species. Implementation of the proposed General Plan goals, objectives, and policies and, mitigation measures **MM 3.7-1 through 3.7-3** are proposed to reduce these impacts. **MM 3.7-1** requires preparation of biological site survey reports prepared by a qualified biological consultant for proposed projects. **MM 3.7-2** addresses direct mortality of special-status species through construction activities. **MM 3.7-3** addresses impacts on sensitive habitats from implementation of the proposed General Plan through land acquisition.

Although the loss of sensitive habitats may be compensated for through land acquisition, the loss of special-status species would remain significant since special-status species are dependant on a variety of habitat types, not all of which are necessarily sensitive, such as annual grassland and various common scrub and chaparral types. Consequently, the conversion of all types of currently undeveloped wildlife habitat to Residential, Commercial and Industrial uses permitted under the General Plan would result in impacts on special-status species that would remain significant at the plan level.

Plan to Plan Analysis

Both the proposed General Plan and the existing General Plan contain goals and policies that address the loss of special-status species. Development allowed in both the existing and proposed General Plans would result in similar significant impacts to special status species at the plan level.

Impact 3.7-8: There will be a potentially significant impact resulting from disturbance of, or encroachment into, rivers, river tributaries, riparian habitats, streams or similar waterways identified on United States Geological Survey maps as a "blue-line" watercourse, or other waterways otherwise identified as significant resources by the City of Santa Clarita. Impacts resulting from disturbance of, or encroachment into, rivers, river tributaries, riparian habitats, streams or similar waterways identified on United States Geological Survey maps as a "blue-line" watercourse, or other waterways otherwise identified as significant resources by the City of Santa Clarita are discussed under **Impact 3.7-2** and **3.7-3**. Please refer to these sections for a discussion of impacts and relevant goals, objectives and policies.

Proposed General Plan Goal, Objectives, and Policies

For a listing of goals, objectives and policies proposed to address impacts resulting from disturbance of, or encroachment into, rivers, river tributaries, riparian habitats, streams or similar waterways identified on United States Geological Survey maps as a blue-line watercourse, or other waterways otherwise identified as significant resources by the City of Santa Clarita, please refer to those listed under **Impacts 3.7-2 and 3.7-3**.

Effectiveness of the Proposed General Plan Goal, Objectives, and Policies

The goals, objectives, and policies do not provide a mechanism for the compensation of lost habitats when avoidance or minimization of impacts is considered to be infeasible. In conjunction with the proposed General Plan policies, **Mitigation Measures 3.7-1** through **3.7-3** are proposed to reduce impacts resulting from disturbance of, or encroachment into, rivers, river tributaries, riparian habitats, streams or similar waterways identified on United States Geological Survey maps as a blue-line watercourse, or other waterways otherwise identified as significant resources by the City of Santa Clarita to a level that is less than significant at the plan level.

Plan to Plan Analysis

Both the proposed General Plan and the existing General Plan do not contain goals and policies that address the compensation for lost habitats when avoidance is considered infeasible. However, the proposed General Plan proposed mitigation measures that would reduce impacts to less than significant.

Impact 3.7-9:There will be a potentially significant impact resulting from disturbance to
Significant Ecological Areas (SEAs) as identified by the City of Santa Clarita.

The City's proposed General Plan would protect biological resources in the designated SEAs through the siting and design of development to account for and be highly compatible with these resources. Furthermore, the proposed General Plan incorporates a new set of policies for the protection of biological resources to which new developments would be required to conform. Therefore, the City's proposed

General Plan would not result in impacts through disturbance to SEAs as identified by the City of Santa Clarita.

Plan to Plan Analysis

Both the proposed General Plan and the existing General Plan contain goals and policies that address the impacts to SEAs. Although, as noted above, the proposed General Plan proposes a new set of policies for the protection of biological resources which is more protective in nature when compared the existing General Plan.

MITIGATION FRAMEWORK

Implementation of the following mitigation measures would reduce biological impacts related to direct mortality of special-status species and on sensitive habitats to a less than significant level.

- MM 3.7-1 When required, biological site survey reports shall include an analysis of the potential for a proposed project to result in direct mortality of individuals of listed, proposed, or candidate species, losses of habitats occupied by such species, and losses of opportunity for habitat connectivity.
 - g. Reports must be prepared by qualified biological consultants.
 - h. Reports must include specific information regarding site location, on-site and surrounding biological resources, observed and detected species, site photographs, vegetation map, literature sources, timing of surveys, project footprint, anticipated project impacts, proposed mitigation measures, and additional recommended surveys.
- **MM 3.7-2** If special-status species may potentially be subject to direct loss through implementation of construction activities, mitigation measures proposed as part of biological site survey reports shall include a requirement for preconstruction special-status species surveys, followed by measures to ensure avoidance, relocation or safe escape of special-status species from construction activity, whichever action is the most appropriate. If special-status species are found to be brooding, denning, nesting, etc. on site during the preconstruction survey, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate off-site habitat areas.

MM 3.7-3 Impacts on sensitive habitats resulting from implementation of the General Plan shall be compensated for through the acquisition of lands described in Policies CO 10.1.3, CO 10.1.11 and CO 10.1.12. Said acquisition shall prioritize habitat types that are particularly at risk in the region. At risk habitats include but are not limited to waterways, wetlands and vernal pools; alluvial scrub; native grasslands; savannas, woodlands and forests; holly-leaf cherry and Great basin sagebrush associations; and rocklands.

SIGNIFICANCE OF IMPACT WITH MITIGATION FRAMEWORK

Potentially significant impacts associated with the City's proposed General Plan are those relating to:

- special-status species,
- sensitive natural communities,
- federally protected wetlands, and
- wildlife movement and nursery sites.

The proposed General Plan objectives, goals, and policies address:

- avoidance and minimization of impacts on habitats,
- provisions for the acquisition of habitats in cooperation with conservation groups,
- provisions for no net loss of jurisdictional wetlands within the planning area, and
- provisions for the identification and protection of at least one designated wildlife corridor linking the two units of the Angeles National Forest through the Valley.

The proposed goals, objectives, and policies do not:

- provide a mechanism for the compensation of lost habitats when avoidance or minimization of impacts is considered to be infeasible
- mitigate for the direct mortality of individuals of listed, proposed, or candidate species
- provide for the compensation of lost wildlife movement opportunities or nursery sites when avoidance or minimization of impacts is considered to be infeasible

In combination with the requirements for Section 404 permitting, the proposed policies would reduce impacts on federally protected wetlands resulting from implementation of the General Plan to a level that is less than significant.

In conjunction with the proposed General Plan policies, the proposed mitigation measures would reduce impacts related to direct mortality of special-status species and on sensitive habitats to a level that is less than significant at the plan level. Impacts on special-status species would remain significant due to the amount of wildlife habitat loss that would be allowed under the General Plan, which would not necessarily be compensated for due to the non-sensitive nature of many of the habitats utilized by special-status species (i.e., annual grassland and various scrub and chaparral types). Additionally, impacts on wildlife movement opportunities could not be compensated for, given the distribution of land use designations which would potentially sever the linkage connecting the two units of the Angeles National Forest.