4.3

BIOLOGICAL RESOURCES

4.3.1 Introduction

This section describes the existing biological resources conditions, regulations applicable to biological resources, impacts on biological resources that may result from implementing the General Plan Update, and mitigation measures that would reduce the significance of these impacts. Cumulative impacts are also discussed near the end of this section.

4.3.2 Existing Conditions

The type, extent, and status of biological resources are based on search results of the California Natural Diversity Database (CNDDB 2009), the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI 2009) database from August 2009 (see Table 4.3-2), and a field visit conducted in July 2007 by ICF biologists.

Open Space

The city is located in the foothills of the San Gabriel Mountains, to the west of Pasadena, north of Glendale, and east of La Crescenta. The Angeles National Forest forms its northern boundary. La Cañada Flintridge contains significant open space biological resources that contribute to the community's semi-rural character. Publicly and privately owned open space encompasses approximately 532 acres.

The primary areas of existing public open space are Cherry Canyon in the San Rafael Hills abutting the southern edge of the city (137.2 acres owned by the City); Rockridge Conservation Area (5.38 acres); the Southern California Edison Easement (approximately 110 acres); and an additional 10.09 acres of City-owned property north of the A/B Development Line, which includes Gould Canyon and approximately 5 acres in Hall-Beckley Canyon.

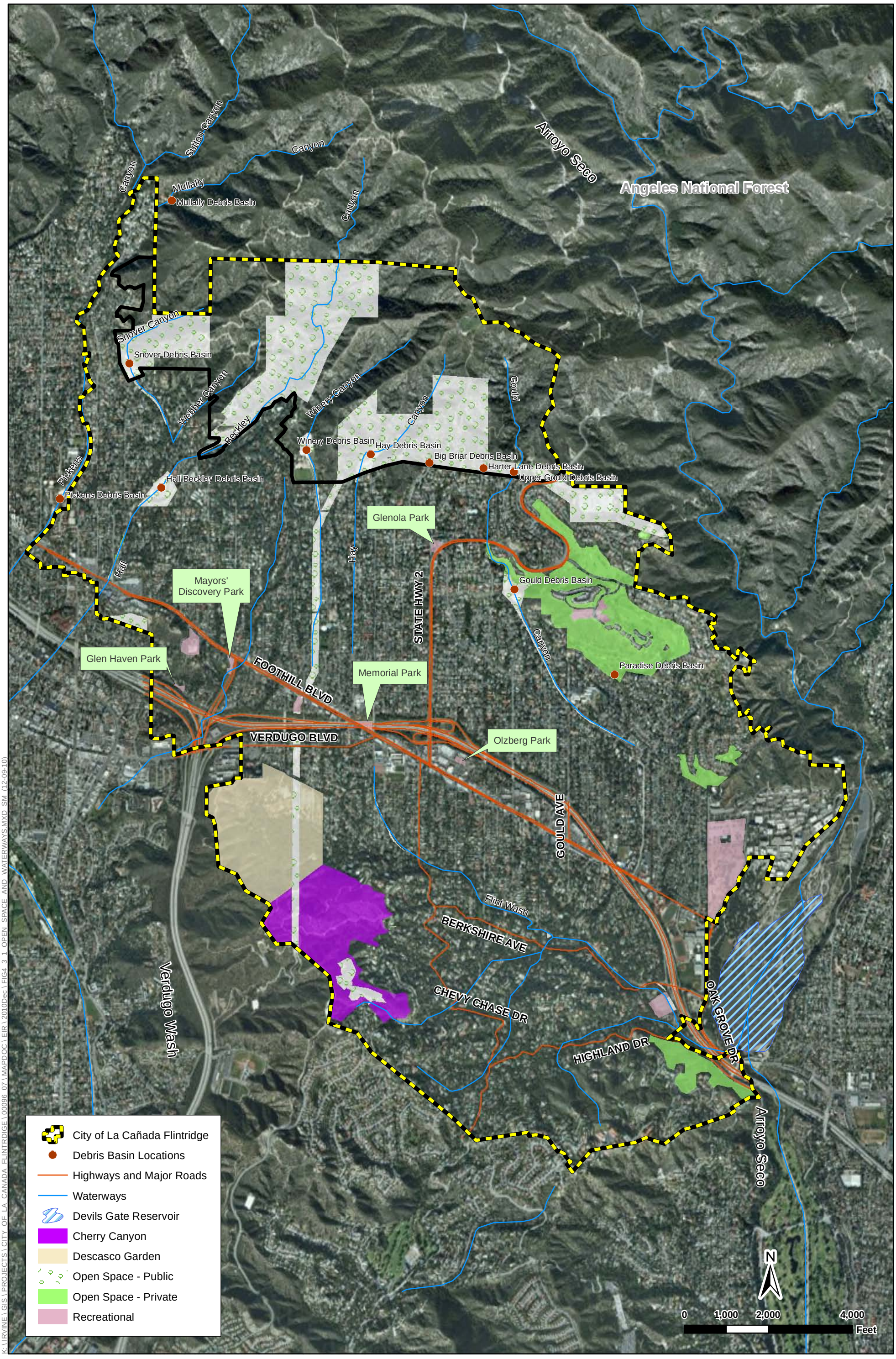
The County of Los Angeles owns approximately 385 acres of open space throughout La Cañada Flintridge, including the 160-acre Descanso Gardens and property for flood control purposes. The federal government owns approximately 45.2 acres of open space north of the A/B Development Line adjacent to the Angeles National Forest. The primary areas of existing private open space are the La Cañada Golf Course (126 acres) and four other parcels of privately owned land totaling approximately 43 acres. Figure 4.3-1 shows the location of these open space areas.

Vegetation Communities

Vegetation communities within the city limits consist of dense and steeply sloped hillside areas of coastal sage scrub-chaparral, oak woodlands within isolated canyons and near the flood control basins, and riparian communities toward the canyon bottoms. Table 4.3-1 summarizes the onsite vegetation communities.

Table 4.3-1. Vegetation Communities

Vegetation Community	Description	Location Within Project Area
Coastal Sage Scrub-Chaparral	Characteristic plant species: ■ California buckwheat (*Eriogonum fasciculatum*) ■ California sagebrush (*Artemisia californica*) ■ white sage (*Salvia apiana*) ■ black sage (*Salvia melifera)* ■ toyon (*Heteromeles arbutifolia*) ■ ceanothus (*Ceanothus* spp.) ■ chamise (*Adenostoma fasciculatum*) ■ laurel sumac (*Malosma laurina*) ■ interior scrub oak (*Quercus berberidifolia*). This community is highly adapted to periodic natural fires. The growing season for this native vegetation spans winter months, as summers locally are characteristically long, hot, and arid. Winters usually short and mild, with considerable moisture.	Cherry Canyon, the San Gabriel Mountains, and the remaining open space hillsides near the city's eastern border
Southern Coast Live Oak Riparian Forest	Dominant species: ■ coast live oak (*Quercus agrifolia*). Understory species: ■ poison oak (*Toxicodendron diversilobum*) ■ California sagebrush ■ Mexican elderberry (*Sambucus mexicana*) ■ coffee berry (*Rhamnus californica*) ■ an herb layer usually composed of ripgut brome (*Bromus diandrus*). Oak woodland is typically located near intermittent stream courses.	Cherry Canyon and the San Gabriel Mountain area along the city's northern border. Unnamed drainages in the San Rafael Hills.



K:\IRVINE\GIS\PROJECTS\CITY OF LA CANADA FLINTRIDGE\00096 07\MAPDOC\EIR\2010Dec\FIG4 3 1 OPEN SPACE AND WATERWAYS.MXD SM (12-09-10)

Source : California Department of Water Resources (2002); ESRI USA Imagery (5/2006; 0.5m)

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Figure 4.3-1
Open Space and Waterways
La Cañada Flintridge General Plan Program EIR

Vegetation Community	Description	Location Within Project Area
Southern Sycamore Alder Riparian Woodland	Dominant Species: ■ California sycamore (*Platanus racemosa*) Understory species: ■ willows (*Salix* spp.) ■ mule fat (*Baccharis salicifolia*)	Hall Beckley Canyon in the San Gabriel Mountains area and Arroyo Seco.
Riparian Scrub	Characteristic species: ■ willows ■ mule fat ■ cottonwoods (*Populus fremontii*) ■ western sycamore (*Platanus racemosa*) ■ varied herb layer Riparian scrub is associated with moist conditions.	Cherry Canyon and in the San Gabriel Mountains area.
Disturbed Nonnative Grassland	This vegetation community is composed almost entirely of annual grasses and other herbaceous species. Characteristic species are ■ brome (*Bromus* spp.) ■ wild oat (*Avena* spp.) ■ filaree (*Erodium* spp.) ■ schismus (*Schismus* spp.) ■ fescue (*Vulpia* spp.) with a variety of wildflowers including ■ California poppy (*Eschscholtzia californica*) ■ phacelia (*Phacelia* spp.) ■ goldfields (*Lasthenia californica*)	The open hillsides near the eastern border of the city as well as Flint Canyon, Gould Canyon Trails and parts of Cross Town and Flint Canyon Trails.

Source: CNDDB 2009 and field visit by ICF biologists

Special Status Species

Special-status species include (1) species listed under federal or state Endangered Species Acts, (2) species listed as Species of Special Concern by the state, (3) species protected under official conservation programs (e.g., Multi-Species Conservation Programs), (4) resources considered sensitive by resource agencies and/or local jurisdictions, (5) species or habitats designated by legislation as requiring protection.

Legal protection for special-status species varies widely, from the relatively comprehensive protection extended to listed threatened/endangered species to no legal status at present. The USFWS, CDFG, local agencies, and special interest groups (such as CNPS) publish watch lists of declining species; these lists often describe the general nature and perceived severity of the decline. In addition, recently published findings and preliminary results of ongoing research provide a basis for consideration of species that are candidates for state and/or federal

listing. Finally, species that are clearly not rare or threatened statewide or regionally, but whose local populations are sparse, rapidly dwindling, or otherwise unstable, may be considered to be of local interest.

The CNDDB (2009) and the CNPSEI (2009) were queried in August 2009 to confirm if any new occurrences had been documented in the area since the original 2007 study conducted for the General Plan Update. Table 4.3-2 provides a list of species that are known to occur, or have a reasonable probability of occurring, in or near the city.

Table 4.3-2. Special Status Species

Scientific Name Common Name	Special Status Category	Preferred Habitat
Special Status Plant Species		
Aster greatae Greata's aster	CNPS: 1B.3	Chaparral, cismontane woodland, mesic canyons
Astragalus brauntonii Braunton's milk-vetch	CNPS 1B.1 FE	Chaparral, coastal scrub, valley and foothill grassland, recent burns or disturbed areas
Atriplex parishii Parish's brittlescale	CNPS 1B.1	Chenopod scrub, playas, and vernal pools.
Atriplex serenana var. *davidsonii* Davidson's saltscale	CNPS: 1B.2	Coastal scrub and alkaline soils
Berberis nevinii Nevin's barberry	CNPS: 1B.1 FE/SE	Chaparral, cismontane woodland, coastal scrub, riparian scrub, steep facing slopes
California macrophyllum Round-leaved filaree	CNPS: 1B.1	Cismontane woodland, valley and foothill grassland
Calochortus clavatus var. *gracilis* Slender mariposa lily	CNPS: 1B.2	Chaparral, coastal shrub, shaded foothill canyons, often on grassy slopes within other habitats
Calochortus palmeri var. *palmeri* Palmer's mariposa lily	CNPS: 1B.2	Meadows and seeps, chaparral, lower montane coniferous forest
Calochortus plummerae Plummer's mariposa lily	CNPS: 1B.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, rocky and sandy sites
Calochortus striatus Alkali mariposa lily	CNPS: 1B.2	Chaparral, chenopod scrub, meadows
Centromadia parryi ssp. *australis* Southern tarplant	CNPS: 1B.1	Marshes and swamp margins, valley and foothill grassland, vernal pools, often in disturbed sites
Chorizanthe parryi var. *fernandina* San Fernando Valley spineflower	CNPS: 1B.1 FC/SE	Coastal scrub, chaparral, dry slopes and flats, chaparral and oak woodlands

Scientific Name Common Name	Special Status Category	Preferred Habitat
Chorizanthe parryi var. *parryi* Parry's spineflower	CNPS: 3	Coastal scrub, chaparral, dry slopes and flats sometimes interface of two vegetation types such as chaparral and oak woodland
Dodecahema leptoceras Slender-horned spineflower	CNPS: 1B.1 FE/SE	Chaparral, coastal scrub, flood deposited terraces and washes
Dudleya multicaulis Many-stemmed dudleya	CNPS: 1B.2	Chaparral, coastal scrub, valley and foothill grassland
Galium grande San Gabriel bedstraw	CNPS: 1B.2	Cismontane woodland, chaparral, open chaparral and low open oak forest on rocky slopes
Helianthus nuttallii ssp. *parishii* Los Angeles sunflower	CNPS: 1A	Marshes and swamps, coastal salt and freshwater
Horkelia cuneata ssp. *puberula* Mesa horkelia	CNPS: 1B.1	Chaparral, cismontane woodland, coastal scrub
Imperata brevifolia California satintail	CNPS: 2.1	Coastal scrub, chaparral, riparian scrub, meadows and seeps
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	CNPS: 1B.2	Chaparral and coastal scrub, dry soils
Linanthus concinnus San Gabriel linanthus	CNPS: 1B.2	Lower montane coniferous forest, dry rocky slopes, canyon oak forest
Linanthus orcuttii Orcutt's linanthus	CNPS: 1B.3	Chaparral, lower montane coniferous forest
Lupinus peirsonii Peirson's lupine	CNPS: 1B.3	Upper montane coniferous forest, decomposed granite slide and talus, slopes and ridges
Malacothamnus davidsonii Davidson's bush mallow	CNPS: 1B.2	Coastal scrub, riparian woodland, chaparral, sandy washes
Navarretia prostrata Prostrate navarretia	CNPS: 1B.1	Coastal scrub, valley and foothill grassland, vernal pools
Phacelia stellaris Brand's phacelia	CNPS: 1B.1 FC	Coastal scrub, open areas
Ribes divaricatum var. *parishii* Parish's gooseberry	CNPS: 1A	Riparian woodland
Scutellaria bolanderi ssp. *austromontana* Southern skullcap	CNPS: 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest, in gravelly soils on streambanks or in mesic sites in oak or pine woodland

Scientific Name Common Name	Special Status Category	Preferred Habitat
Symphyotrichum defoliatum San Bernardino aster	CNPS: 1B.2	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane, coniferous forest, grassland
Thelypteris puberula var. *sonorensis* Sonoran maiden fern	CNPS: 2	Meadows and seeps along streams and seepage areas
Special Status Wildlife Species		
Anniella pulchra pulchra Silvery legless lizard	CDFG: SC	Sandy or loose loamy soils under sparse vegetation
Antrozous pallidus Pallid bat	CDFG: SC	Grassland, shrublands, woodlands and forests, dry habitats
Aspidoscelis hyperythra Orange-throated whiptail	CDFG: SC	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats
Athene cunicularia Burrowing owl	CDFG: SC	Open, dry annual or perennial grasslands, scrublands, characterized by low-growing vegetation
Bufo californicus Arroyo toad	CDFG: SC FE	Semiarid regions near washes or intermittent streams, including valley-foothill and desert riparian areas, areas with sandy banks
Catostomus santaanae Santa Ana sucker	CDFG: SC FT	Endemic to Los Angeles Basin south coastal streams, habitat generalist but prefer sand-rubble boulder bottoms, cool, clear water and algae
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FC/SE	Riparian forest along broad, lower flood bottoms of large river systems
Cypseloides niger Black swift	CDFG: SC	Nests on ledges or shallow caves in steep rock faces and canyons, usually near or behind waterfalls. Has been recorded at Sturtevant Falls in the Angeles National Forest.
Empidonax traillii extimus Southwestern willow flycatcher	FE/SE	Riparian woodlands
Emys (=Clemmys) marmorata pallida Western pond turtle	CDFG: SC	Permanent or nearly permanent bodies of water in many habitat types
Eumpos perotis californicus Western mastiff bat	CDFG: SC	Many open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral
Falco peregrinus anatum American peregrine falcon	SE CDFG: FP	Near wetlands, lakes, rivers, or other water, on cliffs, banks, dunes, mounds and man-made structures

Scientific Name Common Name	Special Status Category	Preferred Habitat
Gila orcuttii Arroyo chub	CDFG: SC	Los Angeles basin coastal streams; slow water stream sections with mud or sand bottoms, feed heavily on aquatic vegetation and associated invertebrates
Lasionycteris noctivagans Silver-haired bat	CDFG: SC	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas
Lasiurus xanthinus Western yellow bat	CDFG: SC	Individuals usually roost in trees, hanging from the underside of a leaf. They are commonly found roosting in the skirt of dead fronds in both native and nonnative palm trees.
Lepus californicus bennettii San Diego black-tailed jackrabbit	CDFG: SC	Intermediate canopy stages of shrub habitats and open shrub, coastal scrub
Neotoma lepida intermedia San Diego desert woodrat	CDFG: SC	Occurs in a variety of habitats, including alluvial fan sage scrub, coastal sage scrub, mule fat scrub, juniper–sagebrush, and scrub oak woodland.
Nyctinomops macrotis Big free-tailed bat	CDFG: SC	Low-lying arid areas, rocky outcrops
Onychomys torridus ramona Southern grasshopper mouse	CDFG: SC	Desert areas, especially scrub habitats with friable soils for digging
Phrynosoma coronatum (blainvillii population) Coast (San Diego) horned lizard	CDFG: SC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate
Polioptila californica californica Coastal California gnatcatcher	CDFG: SC FT	Obligate, permanent resident of coastal scrub, mesas and slopes, arid washes
Rana mucosa Mountain yellow-legged frog	CDFG: SC FE	Federal listing refers to populations in the San Gabriel Mountains; always encountered within a few feet of water
Rhinichthys osculus ssp. 3 Santa Ana speckled dace	CDFG: SC	Headwaters of Santa Ana and San Gabriel Rivers, required permanent flowing streams, and Los Angeles River system
Taricha torosa torosa Coast range newt	CDFG: SC	Coastal drainages from Mendocino to San Diego County
Taxidea taxus American badger	CDFG: SC	Most abundant in drier open stages of most shrub and forest, herbaceous habitats with friable soils
Thamnophis hammondii Two-striped garter snake	CDFG: SC	Highly aquatic, found in or near permanent fresh water, often along streams with rocky beds or riparian growth
Vireo bellii pusillus Least Bell's vireo	FE/SE	Riparian woodlands, summer resident in low riparian in vicinity of water or dry river bottoms

Scientific Name Common Name	Special Status Category	Preferred Habitat
STATUS DEFINITIONS		
USFWS		
FE:	Species designated as endangered under the federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."	
FT:	Species designated as threatened under the Federal Endangered Species Act. Threatened = "species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."	
FC:	Candidate species are plants and animals for which the Service has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act, but for which development of a listing regulation is precluded by other higher priority listing activities	
CDFG		
ST:	Threatened = "a species that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act" (California Endangered Species Act).	
SE:	Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."	
FP:	Fully Protected= species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.	
SC:	Species of Special Concern.	
CNPS		
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere	
2	Plants Rare, Threatened, or Endangered in California But More Common Elsewhere	
3	Plants About Which We Need More Information—A Review List	

Water Resources

The city is located within the southern end of the Arroyo Seco Watershed, which is a subwatershed of the Los Angeles River Watershed. There are multiple drainage canyons that meander down from the San Gabriel Mountains into the city. Going from west to east, there is the Pickens Canyon and Channel, Mullally Canyon, Sutton Canyon, Snover Canyon, Webber Canyon, Hall Canyon Channel and Hall Beckley Canyon, Winery Canyon, Hay Canyon, Gould Canyon, and Flint Wash, all of which are ephemeral drainages. There are several debris basins within the city, which are engineered structures designed to collect sediment and any loose debris eroded from the steep hillside watershed of the San Gabriel Mountains above, and prevent it from damaging downstream properties and channels. Waterways within the city are depicted on Figure 4.3-1.

Within the city, streams flow through several canyons and across the foothills and flatlands into the Arroyo Seco River by way of Flint Wash, a major tributary to the Arroyo Seco. Flint Wash begins near Descanso Gardens and runs along the

toe of the San Rafael Hills, carrying the flow from these canyons and street runoff into the Hahamongna Watershed Park, where it enters just north of Devil's Gate Dam. A portion of Flint Wash is a natural, unlined channel; the remainder consists of a series of lined drainage channels on Los Angeles County Flood Control District easement, draining over 5 square miles of the city.

Wildlife Movement

The Project area is bordered on the north by the Angeles National Forest, on the east by the Arroyo Seco, on the south by the San Rafael Hills, and on the west by Pickens Canyon, which separates the Project area from the city of La Crescenta on the west. The Arroyo Seco provides high quality habitat for wildlife species and north–south movement within the Arroyo. Movement from the Angeles National Forest south to the Arroyo Seco is limited by the Devil Forks Dam, where wildlife movement is restricted to a tunnel near the spillway.

Wildlife movement to the San Rafael Hills is restricted by I-210 and development north and south of I-210, although Winery Canyon is designated Public Open Space connecting public open space areas to the north with Descanso Gardens and Cherry Canyon to the south. However, habitat associated with this feature appears to end at Foothill Boulevard and would provide very limited opportunities for wildlife movement.

Hay Canyon and Winery Canyon also connect to a power line easement corridor that could provide some wildlife movement opportunities in a southward direction. However, there would be a major constraint to wildlife movement at Foothill Boulevard where the power line easement is developed for approximately 350 feet (a parking lot and Foothill Boulevard). Any potential for wildlife movement likely terminates at I-210 unless suitable culverts are present. Due to the narrowness of the power line easement corridor and the major constraints noted above, it provides minimal value as a movement corridor.

Flint Wash, which flows east–west through the southern portion of the Project area, is one of the only east–west corridors within the Project area and may provide valuable connectivity to the Arroyo Seco.

The Project area provides minimal function as a regional wildlife movement corridor due to the development and restrictions mentioned above; however, the north–south trending drainages provide some value to wildlife moving to open spaces within the Project area. Additionally, there would be some function for wildlife movement in the foothills of the Angeles National Forest where it overlaps the Project area, as well as the Arroyo Seco.

Natural areas, riparian corridors, and trees within the city provide habitat to wildlife species and may also function as stop over habitat for migrating birds.

4.3.3 Regulatory Setting

Federal

Federal Endangered Species Act

The federal ESA was enacted in 1973 to provide protection to threatened and endangered species and their associated ecosystems. The federal ESA has four major components: (1) Section 4, which provides for listing species and designating critical habitat; (2) Section 7, which requires federal agencies, in consultation with the USFWS, to ensure that their actions are not likely to jeopardize the continued existence of species or result in the modification or destruction of critical habitat; (3) Section 9, which prohibits the "taking" of listed species; and (4) Section 10, which provides for permitting incidental take of listed species.

Take of a listed species is prohibited except when authorization has been granted through a permit under Sections 4(d), 7, or 10(a) of the federal ESA. Take is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any of these activities without a permit. "Critical habitat" is defined as "the specific areas within the geographic area occupied by a species on which are found those physical and biological features essential to the conservation of the species, and that may require special management considerations or protection; and specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species."

There are 12 federally listed species with potential to occur within the city. Site-specific projects proposed within areas containing suitable habitat for any of these species would be subject to review under the federal ESA.

Fish and Wildlife Coordination Act

This act applies to any federal project where the waters of any stream or other body of water are impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with USFWS and the appropriate state wildlife agency. These agencies prepare reports and recommendations that document project effects on wildlife and identify measures that may be adopted to prevent loss or damage to wildlife resources. The term wildlife includes both animals and plants. Provisions of the Act are implemented through the NEPA and Section 404 permit processes.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was enacted in 1918 (U.S. Government Code (USC), Title 16, Sections 703–711) and implements an international treaty for the conservation and management of bird species that may migrate through more than one country. Enforced in the U.S. by the USFWS, its purpose is to prohibit the kill, purchase, or barter of any migratory bird listed in Title 50, Part 10, of the CFR including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered a take and is potentially punishable by fines and/or imprisonment. In 1972, the MBTA was amended to include protection for migratory birds of prey (raptors). The USFWS maintains a list of migratory birds that are protected by the MBTA.

Seven special-status avian species either occur or have potential to occur within the city (Table 4.3-2). All of these species are protected under the MBTA; any impacts on these species, or their habitats, would be subject to regulation under the MBTA.

Federal Clean Water Act (Sections 401 and 404)

In 1948, Congress first passed the federal Water Pollution Control Act, which was amended in 1972, and became known as the CWA. The act regulates the discharge of pollutants into waters of the U.S. The CWA was designed to restore and maintain the chemical, physical, and biological integrity of waters of the U.S. and gave the EPA the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The EPA has delegated responsibility for implementation of portions of the CWA in California to the SWRCB and the RWQCBs, including water quality control planning and control programs. The CWA also prohibits the discharge of any pollutants from a point source into navigable waters, except as allowed by permits issued under certain sections of the CWA.

Section 401 allows states to certify or deny federal permits or licenses that might result in a discharge to state waters, including wetlands. Section 401 Water Quality Certifications are issued by the RWQCBs for activities requiring a federal permit or license that may result in the discharge of pollutants into waters of the U.S.

Under Section 404, permits need to be obtained from USACE for discharge of dredge or fill material into waters of the U.S. Under the CWA and its implementing regulations, "waters of the U.S." are broadly defined as rivers, creeks, streams, and lakes extending to their headwaters, including adjacent wetlands.

The city has several water bodies within its boundaries, notably various canyon drainages listed under "Water Resources" in the "Existing Conditions" section. Site-specific projects proposed within jurisdictional areas would be subject to permit requirements under CWA Sections 401 and 404.

State

California Endangered Species Act

The CESA prohibits the take of any species the California Fish and Game Commission determined to be threatened or endangered, and is administered by CDFG. CESA provides a process for CDFG to list species as threatened or endangered in response to a citizen petition or by its own initiative (California Fish and Game [CFG] Code Section 2070 et seq.). Section 2080 of the CESA prohibits the take of species listed as threatened or endangered pursuant to the act. Section 2081 allows CDFG to authorize take prohibited under Section 2080 provided that: (1) the taking is incidental to an otherwise lawful activity, (2) the taking will be minimized and fully mitigated, (3) the applicant ensures adequate funding for minimization and mitigation, and (4) the authorization will not jeopardize the continued existence of the listed species. Incidental take of listed species can be approved by CDFG.

There are seven state-listed species that potentially occur within the city that are endangered or threatened. Six of these are also federally listed. Site-specific projects proposed within areas containing suitable habitat for any of these state-listed species would be subject to review under CESA. Potential impacts on species that are both federally and state listed would be addressed under ESA and CESA. When a project complies with ESA, the CDFG can issue a consistency determination that protective measures under ESA are consistent with measures under CESA.

California Fish and Game Code

The CFG Code regulates the take or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the State. It includes the CESA (Sections 2050–2115) and Streambed Alteration Agreement regulations (Sections 1600–1616), as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife. The CFG Code also includes the California Native Plant Protection Act (NPPA) of 1977 (Sections 1900–1913), which directed CDFG to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State."

Section 1602 of the CFG Code requires any person, state, or local governmental agency to provide advance written notification to CDFG prior to initiating any activity that would: (1) divert or obstruct the natural flow of, or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or (2) result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake. The state definition of "lakes, rivers, and streams" includes all rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation. The Lake and Streambed Alteration Program is administered by CDFG, and the CFG Code may regulate riparian and wetland habitats by requiring review and approval of impacts during issuance of a Streambed Alteration Agreement.

As noted above under the discussion of CWA Section 404, the city includes several water bodies and areas of sensitive habitat that would be regulated by the Lake and Streambed Alteration Program. Site-specific projects proposed within CDFG jurisdictional areas would be subject to permit requirements under the Lake and Streambed Alteration Program.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is the California equivalent of the federal CWA and provides for statewide coordination of water quality regulations through the establishment of the California SWRCB and nine separate RWQCBs that oversee water quality on a day-to-day basis at the regional/local level. The Porter-Cologne Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and ground waters) and directs the RWQCBs to develop regional basin plans. Section13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The purpose of the basin plans is to designate beneficial uses of the region's surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives.

The various water bodies within the city are regulated by RWQCB Region 9, and site-specific projects that propose impacts on the water bodies would be subject to regulation by the Region 9 RWQCB.

Local

City of La Cañada Flintridge General Plan

The proposed Project would replace the existing La Cañada Flintridge General Plan. Two elements of the proposed City of La Cañada Flintridge General Plan Update contain goals, objectives, and policies relevant to biological resources: the Open Space and Recreation Element and the Conservation Element.

City of La Cañada Flintridge Municipal Code

Chapter 4.26 of the City Municipal Code is the Preservation, Protection and Removal of Trees Ordinance. The purpose of this chapter is to preserve and protect the trees that are of historic or aesthetic importance, and to preserve and encourage the regeneration of a healthy urban forest that contributes to clean air, soil conservation, shade and windbreak protection, moderation of climatic extremes, aesthetics, enhanced property values, and quality of life.

> For single family residential uses, no native oak, sycamore, deodar cedar, Chinese elm or California pepper tree with a trunk measuring twelve (12) inches or more in diameter (as measured at a point four feet from the ground surface at the natural grade) shall be removed without a tree removal permit issued by the city. Where a tree trunk is divided below four feet above grade, the diameter of all trunks (as measured four feet from the natural grade) shall be added to determine tree diameter.
>
> For uses other than single family residential, no tree shall be removed without a tree removal permit issued by the City and a landscape plan incorporating all the elements of the tree plan as required. The landscape plan shall show all existing protected trees and proposed trees, shrubs and ground covers by their type, size, and location on the property. This landscape plan requirement may be modified or waived by the city manager or designee.
>
> For purposes of processing under the California Environmental Quality Act (CEQA), any affected oak, deodar cedar, sycamore, Chinese elm or California pepper tree which is thirty-six (36) inches or greater in diameter shall be considered mature or scenic, and shall be subject to the environmental review processes related thereto.

4.3.4 Impact Analysis

This section describes the methods used to determine the impacts of the General Plan Update and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Methodology

The impact analysis is a program-level analysis that evaluates development that is reasonably foreseeable if the General Plan Update is adopted and implemented. Although the General Plan Update would not directly cause development, the land use policy contained within the General Plan Update would prescribe the acceptable land uses throughout the city. Implementation of the proposed land use designations could, therefore, indirectly lead to types of development considered acceptable under the General Plan Update. Based on the existing conditions described above, the impact analysis programmatically and qualitatively assesses the potential indirect and cumulative impacts on biological resources from the potential construction of approximately 814 residential units and 1,355, 783 square feet of commercial space within the Project area as well as the implementation of the proposed goals and policies of the General Plan Update.

Thresholds of Significance

For this analysis, an impact pertaining to biological resources was considered significant under CEQA if it would result in any of the following environmental effects, which are based on professional practice and State CEQA Guidelines Appendix G (14 CCR 15000 et seq.). An impact related to biological resources is considered significant if it would:

BIO-1: have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS;

BIO-2: 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 CDFG or USFWS;

BIO-3: have a substantial adverse effect on jurisdictional waters, including federally protected wetlands as defined by CWA Section 404 (including, but not limited to, marshes and vernal pools), through direct removal, filling, hydrological interruption, or other means;

BIO-4: 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;

BIO-5: conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

BIO-6: conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Non-Applicable Thresholds

Threshold BIO-6 would not apply because the Project area does not overlap a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the Project would have no impact related to Threshold BIO-6.

Impacts and Mitigation Measures

Threshold BIO-1: Would the proposed Project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS?

As noted above, most of the city's sensitive biological habitats are within open space areas. While the General Plan Update would not directly propose new development, the accompanying Land Use Plan and associated land use designations would allow future development and redevelopment to occur within the city boundaries. Because the city is already fully developed, development opportunities are limited to targeted areas along Foothill Boulevard and within the DVSP, and very low density single-family in the Hillside Residential land use designation (1 du/10 ac) in the north and in the Estate Residential designation (0.7 du/ac) to the southeast. Other redevelopment would consist of improvements to existing buildings and structures or occasional single-family development in established residential neighborhoods.

Furthermore, policies included with the General Plan Update would seek to protect biological resources and minimize impacts from future development. Such policies include:

OSRE Goal 2: Preserve, protect, and enhance open space areas within and adjacent to the City.

OSRE Objective 2.1: Preserve or enhance open space for preservation of natural resources.

OSRE Policy 2.1.1: All publicly owned open space committed to open space land or utility right-of-way should be preserved and designated Open Space on the Land Use Policy Map.

OSRE Policy 2.1.2: Reasonable efforts should be made to acquire from willing sellers undeveloped properties that contain significant community features and resources, such as natural chaparral and wildlife habitat, watersheds, areas of passive recreation, settings for riding and hiking trails and outdoor education, and other community-wide hillside amenities. Open space areas of particular value include Cherry Canyon, Webber Canyon, Gould Canyon, Winery Canyon, Hall Beckley Canyon, Snover Canyon, Hay Canyon, and their surrounding hillsides.

OSRE Policy 2.1.3: The rural, hillside character of the community should be maintained by regulation and development control, thus preserving the unique setting and significant resources in the San Gabriel Mountains and San Rafael Hills.

OSRE Policy 2.1.4: Privately owned recreational and open space areas designed as an integral part of a land use development will be designated Open Space on the Land Use Policy Map.

OSRE Policy 2.1.5: Preserve and expand non-vehicular access to the Angeles National Forest trails and open lands remaining in the San Rafael Hills and San Gabriel Mountains, in coordination with the federal Angeles Forest Plan. Encourage the dedication of additional lands to public open space, in cooperation with the Santa Monica Mountains Conservancy, Rim of the Valley Corridor Special Resource Study, and other partners and open space conservation efforts.

OSRE Policy 2.1.6: Cooperate regionally with other municipalities and Los Angeles County to preserve natural open space corridors for wildlife.

OSRE Policy 2.1.7: Consider the enhancement of the property currently used for utility transmission lines for use as community gardens or other complementary open space uses, within the constraints of the utility's requirements.

OSRE Policy 2.1.8: Preserve and increase the amount of open space/forest land within the city to provide carbon (CO_2) sinks to help mitigate greenhouse gas emissions.

CNE Objective 1.5: Preserve biological resources, including vegetative communities and wildlife and its habitat, subject to the safety of residents and property.

CNE Policy 1.5.1: Retain publicly owned open space land as such. Make reasonable efforts to acquire from willing sellers large portions of hillside and other properties that contain significant biological resources, such as coastal sage scrub–chaparral, oak woodlands, riparian communities, and wildlife habitat. Open space areas of particular value include Cherry Canyon, Weber Canyon, Gould Canyon, Winery Canyon, Hall-Beckley Canyon, Snover Canyon, Hay Canyon, and their surrounding hillsides.

CNE Policy 1.5.2: Consider conducting evaluations and mapping all vegetation and habitat communities on vacant and undeveloped land that is ½-acre or greater in area property.

CNE Policy 1.5.3: Require development proposals in areas expected to contain important vegetation and wildlife communities to conduct biological assessments and mitigate impacts, as appropriate.

CNE Policy 1.5.4: In areas that are adjacent to sensitive vegetation and/or wildlife communities and/or open spaces, require new development to employ site design techniques that provide buffers between the development and the biological resources and to landscape their sites with vegetation that is consistent with the adjacent resources.

CNE Policy 1.5.5: Preserve and protect the city's urban forest, which contributes to clean air, soil conservation, shade and windbreak protection, moderation of climatic extremes, and reduction of flood hazards and risk of landslides.

CNE Policy 1.5.6: Encourage alternative subdivision design, such as clustering, to preserve sensitive habitat.

CNE GOAL 2: Preserve the remaining natural ridgelines, canyons, streams, springs, urban forest, and other natural resources and attributes which contribute to the aesthetic and scenic qualities of the community.

CNE Objective 2.1: Require new development to be compatible with the natural and existing human-made resources that make the community special.

CNE Policy 2.1.1: Protect natural and aesthetic resources through continued implementation of the Hillside Development Ordinance.

CNE Policy 2.1.2: Maintain prominent landforms within the community in their natural state to the maximum extent feasible, including but not limited to: ridges, knolls, waterways, creeks (either dry or active), canyons, or other unique topographic features or viewscapes. The most significant landforms are identified on Figure CNE-3 in the Conservation Element.

CNE Policy 2.1.3: Protect major hillside viewscapes visible from points within the City from detrimental alteration by the intrusion of highly visible cuts and/or fill slopes, building lines, and/or road surfaces.

CNE Policy 2.1.4: Minimize the visual impact of grading. Irrigate and landscape human-made slopes to prevent erosion and soften the visual appearance of the finished slope.

CNE Policy 2.1.5: Preserve and protect the city's urban forest in order to maintain the community's wooded character and protect the scenic beauty of the area, through continued implementation of the City's Preservation, Protection, and Removal of Trees Ordinance.

CNE Policy 2.1.6: Pursue opportunities to acquire undeveloped land that includes prominent landforms and other natural and scenic resources.

CNE Objective 2.2: Preserve the scenic beauty of viewscapes as seen from public vantage points and designated streets and locations.

CNE Policy 2.2.2: Preserve the unique views of the mountains and foothills as seen from Foothill Boulevard by continuing to implement the development standards and design guidelines in the Hillside Development Ordinance and DVSP.

Many of these policies would seek to preserve open space that supports sensitive biological resources, preserve wildlife corridors, and use design techniques for future development to buffer sensitive habitat. The enactment of these policies through the General Plan Policy Implementation Program would assist in the preservation of sensitive biological habitat and the protection of special-status species. However, future development in areas with natural habitat (namely Hillside Residential and Estate Residential areas) would still have the potential to adversely affect special status species. Such projects would be subject to ESA and CESA consultations, depending on the species' status, as described in "Regulatory Setting."

While conformance with the policies in the General Plan Update related to special-status plant and wildlife species would reduce potential impacts on these sensitive biological resources, there is a potential for impacts to remain significant because some of the applicable policies allow flexibility. Therefore, project-specific mitigation measures would be required as discussed below.

Impact Determination

Impact BIO-1: Potential Impacts on Special Status Species. Future development projects allowed under the General Plan Update would potentially result in impacts on special-status species, if present. For threatened and endangered

species, impacts on individuals or the habitat they occupy would be significant. Mitigation measure MM BIO-1 would reduce this impact to a level less than significant. For non-threatened and non-endangered plant and wildlife species, impacts on individuals or the habitat they occupy would be significant. Mitigation measure MM BIO-2 would help to reduce this impact. Therefore, Impact BIO-1 would be considered less than significant with mitigation incorporated.

Impact BIO-2: Nesting Birds/Raptors. Future development-related impacts on nesting birds/raptors resulting from implementation of development projects allowed under the General Plan Update would be significant. Mitigation measure MM BIO-3 would reduce this impact to a less-than-significant level and, therefore, Impact BIO-2 would be considered less than significant with mitigation incorporated.

Mitigation Measures

MM BIO-1: Habitat Assessment and Focused Surveys for Special-Status Species. The following shall be incorporated into the General Plan Policy Implementation Program or adopted by City ordinance: Prior to the issuance of any grading, building, or other construction permit for undeveloped parcels in the Project area, a habitat assessment shall be conducted for the parcel to determine whether the potential exists for special-status species to occur. If the habitat assessment identifies potentially suitable habitat for threatened and endangered species, focused surveys shall be conducted by a qualified biologist to determine presence or absence. Early consultation with the wildlife agencies (i.e., USFWS, CDFG) shall be undertaken for ESA- and CESA-listed species to ensure avoidance to the greatest extent feasible and appropriate "take" authorization.

If threatened and endangered species are observed/detected, project-specific mitigation measures shall be developed to mitigate impacts on threatened and endangered species to below a level of significance. This shall apply to all projects if there is a potential to disturb habitat, including grading and other ministerial construction permits. Specific measures shall include, as appropriate:

- Provision of a qualified biological monitor on site during all earth-disturbing activities to ensure avoidance of impacts on listed species.
- The use of fencing or flagging to identify sensitive areas that support the listed species and to ensure that the areas are protected from direct and indirect impacts.
- Implementation of noise reduction measures (e.g., noise attenuation structures) within habitats occupied by listed avian species, and noise monitoring during the breeding season.

- Identification and transplantation of listed plant species populations in accordance with best practices.
- Prohibition on construction activities during the breeding seasons for listed species such, as:
  - Arroyo toad: March 15 to July 31
  - Least Bell's vireo: March 15 to September 15
  - Willow flycatcher (all subspecies): March 15 to September 15
  - Coastal California gnatcatcher: February 15 to August 31

If no threatened or endangered species are observed or detected during focused surveys, but potentially suitable habitat for non-threatened and non-endangered plant or wildlife species is present, a site-specific determination shall be made as to whether the potential impacts are significant based on the degree of threat and the size of the population/occupied habitat to be impacted. Focused surveys may be required in order to make a significance determination, depending on the species to be impacted and the size of the project. The measures described above shall be employed as appropriate.

MM BIO-2: Bird Nest Avoidance. The following shall be incorporated into the General Plan Policy Implementation Program or adopted by City ordinance: If construction activities occur between January 15 and August 31, a preconstruction survey (within 7 days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within or adjacent to the area proposed for development in order to avoid the nesting activities of breeding birds/raptors.

If nesting activities within 200 feet of the proposed work area are not detected, construction activities may proceed. If nesting activities are confirmed, construction activities shall be delayed within an appropriate buffer from the active nest until the young birds have fledged and left the nest or until the nest is no longer active as determined by a qualified biologist. The size of the appropriate buffer shall be determined by a qualified biologist based on field conditions.

Residual Impacts

Because sensitive habitat is mainly limited to the undeveloped portions of the Hillside Residential areas, implementation of mitigation measures MM BIO-1 and MM BIO-2 would reduce the potential impacts on sensitive plant and animal species. Impacts related to Impact BIO-1 and BIO-2 would be less than significant with mitigation incorporated.

Threshold BIO-2: Would the proposed Project 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 CDFG or USFWS?

The Project area is intersected by many water courses that support riparian vegetation. The CNDDB (2009) has mapped two sensitive natural communities within the Project area: southern coast live oak riparian forest and southern sycamore alder riparian woodland. Development could occur on or adjacent to these habitats, which could indirectly lead to the removal of riparian habitats and other sensitive natural communities. As noted in the Regulatory Setting, existing regulations such as the ESA and CESA could apply if a future project would have the potential to affect a special-status species (see Threshold BIO-1). However, if unmitigated, impacts on sensitive habitat as an indirect consequence of the General Plan Update's land use policy would be considered significant.

To help protect biological resources within the city, the General Plan Update would implement several self-mitigating policies, which are listed in Threshold 1. The adoption of these policies would assist in the preservation of sensitive biological habitat, including riparian habitat. However, there is a potential for impacts to remain significant because some of the applicable policies allow flexibility. Therefore, project-specific mitigation measures would be required as discussed below.

Impact Determination

Impact BIO-3: Impacts on Riparian and Other Sensitive Habitats. Development projects allowed under the GP Update would potentially result in impacts on riparian habitats or other sensitive natural communities where present. If sensitive natural communities are to be removed during future project implementation, there would be a significant impact. Mitigation measure MM BIO-3 would help to reduce this impact to less than significant. Impact BIO-3 would be considered less than significant with mitigation incorporated.

Mitigation Measures

MM BIO-3: Habitat Assessment/Biology Report. The following shall be incorporated into the General Plan Policy Implementation Program or adopted by City ordinance: Prior to the initiation of future development projects within the Project area that have the potential to adversely affect sensitive habitat including ministerial grading and other construction-related actions, a habitat assessment shall be conducted when warranted in areas undisturbed by prior development to determine whether sensitive natural communities (including riparian vegetation) are present. If the habitat assessment identifies sensitive natural communities, a biological report shall be prepared to address impacts on

sensitive natural communities resulting from the proposed future project. The report shall identify mitigation measures to reduce all significant impacts to below a level of significance. Mitigation measures shall include, but are not limited to the following, as determined appropriate by a qualified biologist in consultation with the wildlife agencies.

- Early consultation with the wildlife agencies (i.e., USFWS, CDFG) for ESA- and CESA-listed species to ensure avoidance to the greatest extent feasible and appropriate "take" authorization.
- Provision of a qualified biological monitor on site during all earth-disturbing activities to ensure avoidance of sensitive habitats.
- The use of fencing or flagging to identify and avoid sensitive areas and to ensure that the areas are protected from direct and indirect impacts.
- Appropriate siting of staging areas within developed or disturbed areas, ensuring such areas are outside of existing sensitive habitats.
- Provision of mitigation at a minimum of a 1:1 ratio to ensure no net loss of sensitive habitat. Consultation with the wildlife agencies or professional best practices may result in higher ratios.

Residual Impacts

Because sensitive habitat is mainly limited to the undeveloped portions of the Hillside Residential area, implementation of mitigation measure MM BIO-3 would further reduce potential impacts on sensitive habitat. Impact BIO-3 would be less than significant with mitigation incorporated.

Threshold BIO-3: Would the proposed Project have a substantial adverse effect on jurisdictional waters, including federally protected wetlands as defined by CWA Section 404 (including, but not limited to, marshes and vernal pools), through direct removal, filling, hydrological interruption, or other means?

There is the potential for jurisdictional waters, including federal wetlands, to be present within the numerous drainage channels that occur within the Project area. Although the city is largely developed and the General Plan Update would attempt to focus development along transportation corridors (i.e., Foothill Boulevard and Verdugo Boulevard), future development in the Hillside Residential and Estate Residential land use designations may result in impacts on jurisdictional waters where such waters are adjacent to or on site.

As noted in the discussion of Threshold BIO-1, policies would be adopted to help prevent significant impacts on wetland and other jurisdictional waters by preserving open space and avoiding sensitive vegetation. Furthermore, future

development would have to comply with the requirements of the CWA Section 404 and CDFG Fish and Game Code Section 1600-1616 (Streambed Alteration Agreement). Mitigation is required to ensure impacts to jurisdictional waters are considered and to trigger consultation with the appropriate jurisdictional agency.

Impact Determination

Impact BIO-4: Impacts on Jurisdictional Waters. Development projects in areas such as the Hillside Residential land use designation and the Estate Residential land use designation, which are designations proposed under the General Plan Update, would potentially result in impacts on jurisdictional waters if present. If jurisdictional waters are to be altered and/or removed during future project implementation, there would be a significant impact. Mitigation measure MM BIO-4 would help to reduce this impact to less than significant. Impact BIO-4 would be considered less than significant with mitigation incorporated.

Mitigation Measures

MM BIO-4: Formal Jurisdictional Delineation. The following shall be incorporated into the General Plan Policy Implementation Program or adopted by City ordinance: If the habitat assessment described in mitigation measure MM BIO-3 identifies potential federal and/or state jurisdictional waters, a formal jurisdictional delineation shall be prepared. This document will map the jurisdictional waters present and overlay it on the grading footprint of the project, thereby allowing a calculation of the total impacts. If jurisdictional waters are to be affected, mitigation is required at a minimum 1:1 ratio, but coordination with USACE (through the Section 404 process) and CDFG (through the Section 1602 Streambed Alteration Agreement process) may determine a higher ratio is required. Mitigation will be achieved through a combination of in-kind creation, restoration, and/or enhancement as determined to be appropriate for each site through consultation with the resource agencies. Mitigation will first be considered on site, then with an approved mitigation bank, and thirdly through offsite mitigation. The appropriate permit applications will be submitted to state and federal regulatory agencies. The permits issued by these agencies will finalize the mitigation requirements.

Residual Impacts

Implementation of mitigation measure MM BIO-4 would help reduce potential impacts on jurisdictional waters. Impact BIO-4 would be less than significant with mitigation incorporated.

Threshold BIO-4: Would the proposed Project 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?

As noted in "Existing Conditions," the Project area provides minimal function as a regional wildlife movement corridor due to development and other similar restrictions. However, the north–south trending drainages provide some value to wildlife moving to open spaces within the Project area. Additionally, there would be some function for wildlife movement in the foothills of the Angeles National Forest where it overlaps the Project area, as well as in the Arroyo Seco. Without mitigation, impacts from development adjacent to these wildlife corridors would have the potential to be significant.

Impact Determination

Impact BIO-5: Interference with Wildlife Movement. Future development projects consistent with the General Plan Update that would overlap Arroyo Seco and the foothills of the San Gabriel Mountains would potentially impact wildlife movement. Impacts on a wildlife corridor may be significant dependent on the magnitude of the impact and whether the corridor would remain viable after project completion.

Mitigation Measures

MM BIO-5: Avoidance and Minimization Measures for Wildlife Use. The following shall be incorporated into the General Plan Policy Implementation Program or adopted by City ordinance: If the habitat assessment described in mitigation measure MM BIO-3 identifies that a specific development project will interfere substantially with wildlife movement or established wildlife corridors, avoidance and minimization measures shall be developed that ensure the continued movement of wildlife through a specific corridor or area. Measures shall be specific to each project and be determined by a qualified biologist during project design; however, the following minimization measures shall be incorporated where appropriate, as determined by a qualified biologist:

- Project design shall be sensitive to wildlife movement and, if a corridor is determined to be located on site, the project shall be designed to avoid segmentation of the corridor and the continued viability of the corridor.
- Street lighting shall be designed such that it does not increase the overall ambient lighting and glare in the natural area. This may be accomplished by designing street lighting with internal baffles to direct the lighting towards the ground and so there is a zero side angle cut off to the horizon.

- Potential noise, motion, and human intrusion impacts shall be minimized by incorporating setbacks, berms, or walls into the project design. Construction-related noise shall be mitigated consistent with the City's Noise Ordinances by limiting construction activities to daytime hours and requiring construction equipment to be equipped with mufflers.
- Plant species acceptable for the project's landscaping must not include any invasive species, as identified by the California Invasive Plant Council (http://www.cal-ipc.org/ip/inventory/index.php).
- When culverts are included in a project design within areas known to be used as wildlife crossings, they shall be placed in locations suitable for use by wildlife and shall be sized and shaped such as to facilitate wildlife movement through the culvert.

Residual Impacts

Implementation of mitigation measure MM BIO-5 would help reduce potential impacts from obstacles to wildlife movement to less than significant. Therefore, Impact BIO-5 would be less than significant with mitigation incorporated.

Threshold BIO-5: Would the proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Chapter 4.26 of the City Municipal Code is the Preservation, Protection and Removal of Trees Ordinance, which states that any affected oak, deodar cedar, sycamore, Chinese elm or California pepper tree that is 36 inches or greater in diameter is to be considered mature or scenic, and is subject to the environmental review processes. It may not be removed (defined as the uprooting, cutting, or severing the main trunk of the tree; cutting or disturbing the root system; grading or trenching within the drip-line; or any act that causes the tree to die within 6 months) or excessively trimmed (defined as the pruning of more than 25% of the live canopy within any 1-year period and for roots the removal of more than an estimated 25% of the live root mass in any 2-year period, or cutting of any root with a diameter of 3 inches or greater). Mitigation is required to demonstrate conformance with the existing ordinance.

Impact Determination

Impact BIO-6: Removal of Mature or Scenic Trees. Specific development projects proposed under the General Plan Update would potentially result in impacts on mature or scenic trees. If mature or scenic trees would be impacted this would be considered significant.

Mitigation Measures

MM BIO-6: Tree Plan. The following shall be incorporated into the General Plan Policy Implementation Program or adopted by City ordinance: Prior to issuance of any building permit for a new structure or expansion of the footprint of an existing structure no matter how small, or for the addition of a second story, grading permit, or permit for demolition, the applicant shall submit a tree plan to the City. The tree plan shall provide the following information and is subject to all provisions listed below:

- The location of all protected trees as defined in Section 4.26.030.A.l of the City Municipal Code. For all projects requiring discretionary City review, tree identification tags that correspond with the submitted plan shall be installed for field verification. For projects on non-residential property, all trees shall be indicated.
- The plan shall show the location, size, and species of all trees to be removed, the reason for removal, and all trees to be retained. Any trees proposed for removal due to poor health or condition shall have the condition of the tree documented in a letter report prepared and signed by an arborist certified by the International Society of Arboriculture (ISA).
- The plan shall show the existing and proposed grades, existing and proposed improvements, and septic tanks and utility lines located within 30 feet of potentially removed trees, retained trees, and trees to be planted.
- During the construction phase, all applicants shall comply with tree protection guidelines as defined in Section 4.26.040 of the City Municipal Code.
- The director of community development shall notify the applicant of the requirement to obtain a tree removal permit for those trees on the tree plan that are intended to be removed and which are subject to the provisions of the City Municipal Code.
- Arborist review of the tree plan may be required per the determination of the director of community development or his/her designee. Said arborist shall be contracted and managed by the City, and all fees incurred shall be the responsibility of the property owner.

Residual Impacts

Implementation of mitigation measure MM BIO-6 would help reduce potential impacts from obstacles to wildlife movement to less than significant. Therefore, Impact BIO-6 would be less than significant with mitigation incorporated.

Cumulative Impacts

The geographic scope for the cumulative biological analysis includes those areas surrounding the city boundaries: the City of Altadena, the City of La Crescenta, and the County of Los Angeles. Past and present development projects have changed the original natural setting to low to very low density, automobile-oriented communities with some natural areas preserved in open space. This past and present development has substantially changed the natural setting. While development has tended to be of low to very low density, overall cumulative impacts from past, present, and reasonably foreseeable future projects have been cumulatively significant.

Although past projects have shaped the existing developed conditions of the city, there are still sensitive biological resources within the city limits. The General Plan Update would not directly propose new development; however, the Land Use Plan and associated land use designations would specify the type of future development and redevelopment allowed to occur within the city boundaries. Because the city is already nearly fully developed, development opportunities are limited to targeted areas along Foothill and Verdugo Boulevards and within the DVSP, and very low density single-family uses in the Hillside Residential designation (1 du/10 ac) in the north and in the Estate Residential designation (0.7 du/ac) to the southeast. Other redevelopment would consist of improvements to existing buildings and structures or occasional single-family development in established residential neighborhoods.

Additional development in the city and adjacent cities would be subject to the federal and state regulations listed in the regulatory section above. As development or redevelopment of land occurs, compliance with these regulations and the environmental and discretionary review process would ensure appropriate mitigation is implemented in consultation with the wildlife agencies and other potentially affected agencies (e.g., USACE).

Because growth projections proposed in the General Plan Update would be modest and would only have limited potential of overlapping natural areas, the Project's incremental contribution to further reducing sensitive biological resources in the entire region is negligible. Implementation of mitigation measures MM BIO-1 through MM BIO-6 would ensure a less-than-significant contribution to a cumulative impact on biological resources. Therefore, while past, present, and reasonably foreseeable future projects have contributed to a significant cumulative impact, the added contribution of the proposed Project would not be cumulatively considerable.

Impact Determination

Because (1) the area is largely developed, (2) only modest growth is proposed in the General Plan Update, (3) the area where development footprints would overlap natural areas is limited, and (4) mitigation measures MM BIO-1 through MM BIO-6 would be implemented, the overall cumulative impact would be less than considerable (i.e., significant).

Mitigation Measures

Implement mitigation measures MM BIO-1 through MM BIO-6.

Residual Impacts

The Project's incremental contribution to cumulative impacts on biological resources from past, present, and reasonable foreseeable projects would be less than significant.

Significant and Unavoidable Adverse Impacts

Adoption and implementation of the GP Update would not result in any significant and unavoidable adverse impacts related to biological resources.