

## 3.3 Biological Resources

The information contained in this section is based partly on Working Paper 3: Open Space and the Natural Environment; Access to Recreation and Active, Healthy Lifestyles prepared by Dyett & Bhatia and Dudek.

### Environmental Setting

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#### PHYSICAL SETTING

The City of Carlsbad is situated along the Pacific Coast. Elevations range from sea level along the coast to about 1,000 feet above mean sea level at the southeastern border of the city. Land within the city's jurisdiction covers about 39 square miles 25,021 acres, about 38 percent of which is currently open space for resource conservation, recreation, agriculture, and aesthetic use. About 7,376 acres (78 percent of open space land) is comprised of natural open space such as native habitats, lagoons, and streams.<sup>1</sup> The city's open space network boasts three lagoons, nearly 40 miles of hiking trails, and almost seven miles of coastline, as well as unique agricultural and horticultural resources such as the strawberry fields and the Flower Fields.

The western edge of the city is characterized by sandy beaches and three low-lying river estuaries or lagoons – the Batiqitos, Agua Hedionda, and Buena Vista lagoons. The lagoons dominate the city's coastal landscape and provide habitat for a variety of resident and migratory bird species as a part of the city's overall open space network. The coastal portions of the city are largely developed; however, natural vegetation communities remain in and around the three coastal lagoons and on some of the higher, steeper-sloped, inland portions of the city. The adjacent cities of Oceanside and Vista are largely built out, such that in many places the natural vegetation communities end abruptly along the city border. The remaining landscape linkages to natural communities outside the city occur along the southeastern border with San Marcos and unincorporated lands and along the southern border with Encinitas.

#### Habitats and Natural Vegetation

Natural vegetation communities cover approximately 7,574 acres, or 30 percent, of land within the city's jurisdiction. The remainder of the city is agricultural lands, disturbed lands, or

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<sup>1</sup> City of Carlsbad. 2014.

developed lands.<sup>2</sup> Natural vegetation communities within the city include coastal sage scrub; chaparral (including undifferentiated and southern maritime); grassland (native and non-native); marsh, estuarine, and freshwater (including southern coastal saltwater marsh and coastal and valley freshwater marsh); riparian (including sycamore alluvial woodland and riparian scrub); and woodland (including oak woodland and eucalyptus woodland). The principal natural vegetation communities in the city include coastal sage scrub (37 percent) and grassland (18 percent). A description of the natural vegetation communities found within the city is provided below.

## **Upland Habitat**

### **Coastal Sage Scrub**

Three types of coastal sage scrub exist within the city, representing approximately 38 percent of the natural vegetation in the city: Diegan coastal sage scrub, maritime succulent scrub and coastal sage scrub- chaparral scrub. Diegan coastal sage scrub is drought-deciduous (plants drop their leaves during dry season, as compared to plants that drop their leaves during cold season) and comprised of aromatic shrubs with a diverse understory of annual and perennial non-woody flowering plants and grasses. Diegan coastal sage scrub primarily occurs along dry south-facing slopes or hillsides or on clay-rich soils adjacent to chaparral. In the city, the largest remaining areas of Diegan coastal sage scrub are in Calavera Hills, near the intersection of College Boulevard and Carlsbad Village Drive, and in the Villages of La Costa. Maritime succulent scrub includes a variety of succulents mixed with typical Diegan sage scrub species. Coastal sage scrub-chaparral scrub is a sub-type of coastal sage scrub and considered a transitional community between coastal sage scrub and chaparral types. Coastal sage scrub is home to the federally threatened coastal California gnatcatcher (*Poliophtilia californica californica*), as well as the orange-throated whiptail (*Aspidoscelis hyperythra*; a California Species of Special Concern) and the federally listed plant species, San Diego ambrosia (*Ambrosia pumila*). Coastal sage scrub is considered sensitive habitat under California regulations, but Diegan coastal sage scrub, in particular, is identified in the California Natural Diversity Database (CNDDDB) as a priority for monitoring and restoration. Coastal sage scrub in the city is part of a regionally significant stepping stone corridor that extends into Oceanside, connecting gnatcatcher populations in Orange and Riverside counties with those south and east of Carlsbad.<sup>3</sup>

### **Chaparral**

There are two categories of chaparral habitat located in Carlsbad: undifferentiated (including southern mixed and chamise chaparral) and southern maritime chaparral. Approximately 11 percent of the natural vegetation communities in the city are undifferentiated chaparral, and approximately 4 percent are mapped as southern maritime chaparral, which is subject to change as a result of site-specific surveys.

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<sup>2</sup> City of Carlsbad 2013,

<sup>3</sup> City of Carlsbad. 2004. *Habitat Management Plan for Natural Communities in the City of Carlsbad*. November 2004.

Southern mixed chaparral is a fire- and drought-adapted plant community consisting of various woody shrubs. Chamise chaparral is dominated by chamise, with remaining species including shrubs and understory plants common in other types of chaparral. Both these vegetation communities occur in a patchy distribution throughout the city and are located on wetter north- and west-facing slopes, alternating with coastal sage scrub, grasslands, and oak woodlands. Southern maritime chaparral is the most limited type of chaparral in the city and is considered a sensitive habitat. It is similar to southern mixed chaparral, except that it occurs on sandstone. Sensitive plant and animal species that may be found in chaparral habitat are the wart-stemmed ceanothus (*Ceanothus verrucosus*; designated as sensitive by the California Native Plant Society (CNPS)), the federally and state-listed endangered Orcutt's spineflower (*Chorizanthe orcuttiana*), the California endangered short-leaved dudleya (*Dudleya blochmaniae* ssp. *brevifolia*), and the California Watch List species, Southern California rufous-crowned sparrow (*Aimophila ruficeps*).

### Grassland

There are approximately 1,807 acres of both native and non-native grasslands within Carlsbad. Native grasslands are considered a sensitive habitat under California regulations and are identified in the CNDDDB as priority areas for monitoring and restoration. Within the city, native grassland vegetation is extremely limited and characterized by valley needlegrass and valley and foothill needlegrass. Non-native grassland, characterized by wild oats, bromes, and other such non-native grasses, is not considered a sensitive habitat. However, it is important to note that non-native grassland may be a significant foraging habitat for raptors and the California Fully Protected white-tailed kite (*Elanus leucurus*). Non-native grassland may also support sensitive animal and plant species such as the federally endangered Stephens' kangaroo rat (*Dipodomys stephensi*) and federally and state-listed San Diego thorn-mint (*Acanthomintha ilicifolia*), and may serve as a habitat linkage for a number of wildlife species such as mule deer (*Odocoileus hemionus*) and scrub species such as California gnatcatcher.

### Woodland

There are two types of woodlands that occur within Carlsbad: oak woodland (approximately 29 acres) and eucalyptus woodland (approximately 257 acres). Oak woodland is dominated by coast live oak with other scattered tree species. Eucalyptus woodland is dominated by various species of planted eucalyptus that survived from agricultural hedgerows, around old dwellings, or in entire groves. Although eucalyptus woodland is a non-native community that does not support sensitive plant or wildlife species, it is often used for nesting by raptors and other birds or roosting by bats. Sensitive species that may occur in oak woodlands include the Cooper's hawk (*Accipiter cooperii*; a California Watch List species), regionally sensitive Harbison's dun skipper (*Euphyes vestris harbisoni*), and Nuttall's scrub oak (*Quercus dumosa*) and Engelmann oak (*Quercus engelmannii*; designated as sensitive by CNPS).

## **Riparian and Wetland Habitat**

### **Riparian**

Riparian habitats are found along drainages and streams, where soils tend to be moist during all or part of the year. Within Carlsbad, riparian communities may also be the result of agricultural runoff. There are approximately 572 acres of riparian habitat located in the city, consisting of riparian scrub, riparian woodland and riparian forest. Riparian habitats are all considered sensitive under federal and state regulations and policies.

Riparian scrub is characterized by several natural and semi-disturbed wetland communities that occur along river courses and seasonally moist drainages. Within Carlsbad, areas of riparian scrub occur in numerous locations, including but not limited to along El Camino Real (south of Batiquitos Lagoon), Encinas Creek, Box Canyon, along the northern portion of the city south of Highway 78 in Buena Vista Creek and in small pockets throughout the city in springs and seeps. Riparian woodland, including sycamore–alder and other riparian woodland, occurs in broad channels of intermittent streams. Specifically, sycamore–alder woodland is uncommon, occurring primarily in the Sunny Creek area (along College Boulevard, east of El Camino Real) and along a narrow drainage south of Lake Calavera, which is located near the northeast boundary of the city. Riparian forest includes southern coast live oak, which is dominated by coast live oak with other scattered tree species. Sensitive species that may occur in riparian habitats include the federally and state-listed endangered least Bell’s vireo (*Vireo bellii*) and willow monardella (*Monardella viminea*). Sycamore–alder woodland supports nesting for a number of raptor species, including nesting of the white-tailed kite and Cooper’s hawk.

### **Marsh, Estuarine, and Freshwater**

Marsh and wetland habitats within Carlsbad consist of southern coastal salt marsh, freshwater marsh, and cismontane alkali marsh, in addition to other wetland and aquatic habitat types, such as estuaries, freshwater/open water, and vernal pools. There are approximately 1,466 acres of marsh habitats in the city, all of which are considered sensitive and are regulated under federal and state regulations and policies.

Southern coastal salt marsh is a wetland community that occurs in low, flat estuaries at the mouths of rivers and streams. These marsh habitats develop in highly saline conditions around the margins of lagoons. Salt marsh habitats within the city are present in the surrounding portions of Batiquitos Lagoon and Agua Hedionda Lagoon; limited amounts also exist around Buena Vista Lagoon. Sensitive species that may occur in salt marsh include the state-listed California black rail (*Laterallus jamaicensis*) and Belding’s savannah sparrow (*Passerculus sandwichensis beldingi*), as well as the federally listed light-footed clapper rail (*Rallus longirostris levipes*). Freshwater marsh is characterized by cattails and bulrushes. These marsh habitats occur in drainages, seepages, and other perennially moist, low places. Cismontane alkali marsh habitats are typically disturbed riparian freshwater marsh that has changed in vegetative character due to disturbance, such as agriculture. Plant species found in these locations are often associated with salt marsh and non-native plant species and may include the state-listed spreading navarretia (*Navarretia fossalis*).

Other wetland habitats, as mentioned above, include estuaries, freshwater/open water, and vernal pools. Estuarine habitat consists of a semi-enclosed body of water that has a free connection with the open ocean where seawater is measurably diluted with freshwater derived from land drainage. Freshwater/open water habitat consists of lakes, ponds, and reservoirs and is almost always surrounded by freshwater marsh, salt marsh, or riparian habitat areas. Lake Calavera is the largest open water area in the city, apart from the three major coastal lagoons, and provides foraging habitat for the osprey (*Pandion haliaetus*; a California Watch List species). Vernal pools are highly restricted wetlands that contain high numbers of endangered, sensitive, and endemic plant and animal species. Sensitive species found in vernal pool habitats include state- and federally listed endangered California Orcutt grass (*Orcuttia californica*) and San Diego button-celery (*Eryngium parishii*), as well as the federally listed San Diego fairy shrimp (*Branchinecta sandiegonensis*). These unique wetland habitats occur in several scattered locations throughout the city on marine terraces and are most prominently located along the railroad tracks south of Palomar Airport Road and north of Poinsettia Lane, as well as west of El Camino Real between Camino Vida Roble and Poinsettia Lane and Palomar Point, located off College Boulevard.

### Special-Status Species

Table 3.3-4 lists the sensitive plant and animal species that have been recorded as occurring or potentially occurring within the city. Currently, 24 of these recorded species are “covered” by the Habitat Management Plan (HMP), which means that they are considered by the wildlife agencies to be adequately protected by the provisions of the city’s HMP. Since the HMP only addresses habitat management in Carlsbad, coverage for other listed species depends on fuller implementation of the Multiple Habitat Conservation Program (MHCP) Subregional Plan. Additional species not covered by the HMP, as shown in Table 3.3-4, may be eligible for coverage if additional regional funding becomes available for management within the city, or if other northern San Diego County cities adopt their subarea plans. Other sensitive plants and animals that could potentially occur in Carlsbad include species listed by state or federal agencies as threatened or endangered, which are protected by state and/or federal environmental laws, and species that are considered to be narrow endemics, which are native species that have a highly restricted distribution, soil affinity, and/or habitat.

**Table 3.3-1: Sensitive Species Listed as Occurring or Potentially Occurring in Carlsbad**

Common Name	Scientific Name	Status <sup>1</sup>	Covered by HMP <sup>2</sup>	NE <sup>3</sup>	R/W <sup>4</sup>
<b>Plants</b>					
Blochman’s Dudleya	<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	IB.1	X	X	
California Orcutt Grass	<i>Orcuttia californica</i>	FE/SE	List 3	X	X
Cliff Spurge	<i>Euphorbia misera</i>	2.2	X		
Del Mar Manzanita	<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>	FE/IB.1	List 3	X	

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Common Name	Scientific Name	Status <sup>1</sup>	Covered by HMP <sup>2</sup>	NE <sup>3</sup>	R/W <sup>4</sup>
Del Mar Mesa Sand Aster	<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	1B.1	List 3	X	
Encinitas Baccharis	<i>Baccharis vanessae</i>	FT/SE	List 3	X	
Engelmann Oak	<i>Quercus engelmannii</i>	4.2	List 2		
Little Mousetail	<i>Myosurus minimus</i> ssp. <i>apus</i>	3.1	List 3	X	X
Nuttall's Lotus	<i>Lotus nuttallianus</i>	1B.1	No	X	
Nuttall's Scrub Oak	<i>Quercus dumosa</i>	1B.1	X		
Orcutt's Brodiaea	<i>Brodiaea orcuttii</i>	1B.1	List 3	X	
Orcutt's Hazardia	<i>Hazardia orcuttii</i>	ST	X	X	
Orcutt's Spineflower	<i>Chorizanthe orcuttiana</i>	FE/SE	X	X	
San Diego Ambrosia	<i>Ambrosia pumila</i>	FE/1B.1	List 2	X	
San Diego Barrel Cactus	<i>Ferocactus viridescens</i>	2.1	List 2		
San Diego Button-celery	<i>Eryngium parishii</i>	FE/SE	List 3	X	X
San Diego Goldenstar	<i>Bloomeria clevelandii</i>	1B.1	No	X	
San Diego Marsh Elder	<i>Iva hayesiana</i>	2.2	List 3		X
San Diego Thorn-mint	<i>Acanthomintha illicifolia</i>	FT/SE	List 2	X	
Spreading Navarretia	<i>Navarretia fossalis</i>	FT/1B.1	List 3	X	X
Sticky Dudleya	<i>Dudleya viscida</i>	1B.2	List 2		
Summer Holly	<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	1B.2	List 3		
Thread-leaved Brodiaea	<i>Brodiaea filifolia</i>	FT/SE	X	X	
Torrey Pine	<i>Pinus torreyana</i> ssp. <i>torreyana</i>	1B.2	List 3		
Wart-stemmed Ceanothus	<i>Ceanothus verrucosus</i>	2.2	List 2		
<b>Invertebrates</b>					
Harbison's Dun Skipper	<i>Euphyes vestris harbisoni</i>		X	X	X
Quino Checkerspot Butterfly	<i>Euphydryas editha quino</i>	FE	No		
Riverside Fairy Shrimp	<i>Streptocephalus woottoni</i>	FE	List 3	X	X

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Common Name	Scientific Name	Status <sup>1</sup>	Covered by HMP <sup>2</sup>	NE <sup>3</sup>	R/W <sup>4</sup>
Salt Marsh Skipper	<i>Panoquina errans</i>		X		X
San Diego Fairy Shrimp	<i>Branchinecta sandiegonensis</i>	FE	List 3	X	X
<b>Reptiles/Amphibians</b>					
Orange-throated Whiptail	<i>Aspidoscelis hyperythra beldingi</i>	SSC	X		
San Diego Horned Lizard	<i>Phrynosoma coronatum blainvillei</i>	SSC	No		
Southwestern Pond Turtle	<i>Actinemys marmorata pallida</i>	SSC	No		X
Western Spadefoot Toad	<i>Spea hammondi</i>	SSC	No		
<b>Birds</b>					
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	FD/SE	X		
Belding's Savannah Sparrow	<i>Passerculus sandwichensis beldingi</i>	SE	X		X
Burrowing Owl	<i>Athene cucularia hypugaea</i>	SSC	No		
California Brown Pelican	<i>Pelecanus occidentalis californicus</i>	FE/SE	X		X
California Least Tern	<i>Sterna antillarum browni</i>	FE/SE	X		X
California Gnatcatcher	<i>Polioptila californica californica</i>	FT/SSC	X		
Cooper's Hawk	<i>Accipiter cooperi</i>	SWL	X		
Elegant Tern	<i>Sterna elegans</i>	SSC	X		X
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	SSC	No		
Large-billed Savannah Sparrow	<i>Passerculus sandwichensis rostratus</i>	SSC	X		X
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	FE/SE	X		X
Light-footed Clapper Rail	<i>Rallus longirostris levipes</i>	FE/SE	X		X
Long-Billed Curlew	<i>Numenius americanus</i>	SWL	No		X
Northern Harrier	<i>Circus cyaneus</i>	SSC	No		
Osprey	<i>Pandion haliaetus</i>	SWL	X		X
Rufous-crowned Sparrow	<i>Aimophila ruficeps canescens</i>	SSC	X		

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Common Name	Scientific Name	Status <sup>1</sup>	Covered by HMP <sup>2</sup>	NE <sup>3</sup>	R/W <sup>4</sup>
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	FE/SE	X		X
Western Bluebird	<i>Sialia Mexicana</i>		No		
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	FT/SSC	X		X
White-faced Ibis	<i>Plegadis chihi</i>	SWL	X		X
Yellow-breasted Chat	<i>Icteria virens</i>	SSC	X		X
<b>Mammals</b>					
SD Black-Tailed Jackrabbit	<i>Lepus californicus bennettii</i>	SSC	No		
Southern Mule Dear	<i>Odocoileus hemionus fuliginata</i>		No		

1 FE - Federally endangered SE - State endangered  
 FT - Federally threatened ST - State threatened  
 FD - Federally delisted SSC – State species of special concern  
 SWL – State watch list

California Rare Plant Ranks

- 1B – Rare, threatened, or endangered in CA and elsewhere
- 2 – Rare, threatened, or endangered in CA but more common elsewhere
- 3 – Plants needing additional information
- 4 – Plants of limited distribution

Threat ranks: 1 – Seriously; 2 – Fairly; 3 – Not very threatened

2 HMP List 2: Species coverage contingent on other MHCP Subarea plans being permitted; HMP List 3: Species coverage contingent upon funding for management of conserved areas (Source: HMP pp. C-10 to C-12).

3 NE - Narrow endemic species. Narrow endemic species are native species with restricted geographic distributions, soil affinities and/or other habitats.

4 R/W - Species that occur in riparian, wetland, or vernal pool habitat

Source: City of Carlsbad, 2014.

## REGULATORY SETTING

### Federal Regulations

#### **Federal Endangered Species Act**

Under the federal Endangered Species Act (ESA) of 1973, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered (16 U.S.C. 1533[c]). Pursuant to the requirements of the ESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the planning area and determine whether the proposed project will have



a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the ESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 U.S.C. 1536[3], [4]). The U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) are responsible for implementation of the ESA.

USFWS also publishes a list of candidate species. Species on this list receive special attention from federal agencies during environmental review, although they are not protected otherwise under the ESA. The candidate species are those for which the USFWS has sufficient biological information to support a proposal to list as endangered or threatened.

### ***Magnuson–Stevens Fishery Conservation and Management Act***

The Magnuson–Stevens Fishery Conservation and Management Act (Magnuson–Stevens Act) establishes a management system for national marine and estuarine fishery resources. This legislation requires that all federal agencies consult with NOAA Fisheries regarding all actions or proposed actions permitted, funded, or undertaken that may adversely affect essential fish habitat (EFH). EFH is defined as “waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” The legislation states that migratory routes to and from anadromous fish spawning grounds are considered EFH. The phrase adversely affect refers to the creation of any impact that reduces the quality or quantity of EFH. Federal activities that occur outside EFH but that may, nonetheless, have an impact on EFH waters and substrate also must be considered in the consultation process.

### ***Migratory Bird Treaty Act***

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed in 50 Code Federal Regulations (CFR) 10.13. The regulatory definition of “migratory bird” is broad and includes any mutation or hybrid of a listed species and includes any part, egg, or nest of such bird (50 CFR 10.12). Migratory birds are not necessarily federally listed endangered or threatened birds under the ESA. The MBTA, which is enforced by USFWS, makes it unlawful “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory bird or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11).

### ***Clean Water Act***

The Clean Water Act (CWA) was enacted by Congress in 1972 and has been amended several times since inception. It is the primary federal law regulating water quality in the United States and forms the basis for several state and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation’s rivers, streams, lakes, and coastal waters. The CWA prescribes the basic federal laws for regulating discharges of pollutants and sets minimum

water quality standards for all surface waters in the United States. At the federal level, the CWA is administered by the U.S. Environmental Protection Agency (U.S. EPA). At the state and regional levels, the CWA is administered and enforced by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs). Any project resulting in permanent or temporary fill of jurisdictional waters is subject to provisions of sections 401 and 404 of the CWA, sections 1600 through 1616 of the California Fish and Game Code, and Section 401 RWQCB certification or waiver. Acquisition of these permits is a regulatory requirement and is not considered in and of itself mitigation for loss of waters of the United States.

### ***National Pollutant Discharge Elimination System Program***

The 1972 amendments to the federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program to control discharges of pollutants from point sources (Section 402). The NPDES Permit Program is the primary federal program that regulates point source and nonpoint-source discharges to waters of the United States. The SWRCB issues both general and individual NPDES permits for certain activities. The NPDES is discussed in detail in Section 3.8, Hydrology and Flooding/Water Quality, of this Program EIR.

## **State Regulations**

### ***California Endangered Species Act***

The California Endangered Species Act (CESA) establishes state policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Under CESA, the California Department of Fish and Wildlife (CDFW) is responsible for maintaining a list of threatened species and endangered species (California Fish and Game Code Section 2070). The CDFW also maintains a list of candidate species, which are species that the CDFW has formally noticed as under review for addition to the threatened or endangered species lists. The CDFW also maintains lists of Species of Special Concern that serve as watch lists. Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the area, and determine whether the proposed project will have a potentially significant impact on such species. CDFW encourages informal consultation on any proposed project that may impact a candidate species.

### ***California Fish and Game Code***

Under the California Fish and Game Code, the CDFW provides protection from “take” for a variety of species, including Fully Protected species. “Fully Protected” is a legal protective designation administered by the CDFW, intended to conserve wildlife species that risk extinction within California. Lists have been created for birds, mammals, fish, amphibians, and reptiles.

Birds of prey are protected in California under the Fish and Game Code (Section 3503.5, 1992). Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any

such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFW. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Non-raptor native birds receive similar protection under California Fish and Game Code Section 3503. Project impacts to these species would not be considered significant unless the species are known to, or have a high potential to, nest in the area or rely on it for primary foraging.

The Native Plant Protection Act of 1977 (Fish and Game Code Sections 1900 et seq.) gives the CDFW authority to designate state endangered, threatened, and rare plants and provides specific protection measures for identified populations.

The CDFW also protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Sections 1601 to 1606 of the California Fish and Game Code. The Fish and Game Code stipulates that it is “unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake” without notifying CDFW, incorporating necessary mitigation, and obtaining a streambed alteration agreement. Through policy, CDFW asserts jurisdiction to the top of banks of all streams, including intermittent and ephemeral streams, extending laterally to the upland edge of adjacent riparian vegetation. CDFW uses the Cowardin system for wetland identification and classification, which typically results in a larger jurisdictional area than federal jurisdiction under the CWA. Under this system, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

### ***California Native Plant Society***

The CNPS maintains a list of special-status plant species based on collected scientific information. Designation of these species by the CNPS has no legal status or protection under federal or state endangered species legislation. CNPS’s California Rare Plant Ranks (CRPR) are defined as follows: CRPR 1A (plants presumed extinct); CRPR 1B (plants rare, threatened, or endangered in California and elsewhere); CRPR 2 (plants rare, threatened, or endangered in California, but more numerous elsewhere); CRPR 3 (plants about which more information is needed – a review list); and CRPR 4 (plants of limited distribution – a watch list). In general, plants appearing on CRPR 1A, 1B, or 2 meet the criteria of Section 15380 of the California Environmental Quality Act (CEQA) Guidelines; thus, substantial adverse effects to these species would be considered significant.

### ***California Coastal Act of 1976***

As noted above, CDFW identifies areas for the protection of environmentally sensitive habitats; under the California Coastal Act (CCA), protection is provided for these areas in the coastal zone. The CCA identifies environmentally sensitive habitats as areas in which plant or animal life and

or their habitats are rare or vulnerable due to the special nature or role in an ecosystem that can be easily disturbed or degraded by human activities and developments.

### **California Natural Community Conservation Planning Act of 1991**

The Natural Community Conservation Planning (NCCP) Act of 1991 provides a framework for state and local government, as well as private interest efforts for the protection of regional biodiversity and the ecosystems upon which they depend. Natural community conservation plans allow for the appropriate, compatible economic activity to occur while ensuring the long-term conservation of multiple species. As a result of this act, the Carlsbad HMP was prepared under the MHCP.

### **Local Regulations**

#### **Multiple Habitat Conservation Program**

Under the California NCCP Act, the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista participated in the preparation of the MHCP, a comprehensive plan that addresses the needs of multiple plant and animal species in northwestern San Diego County. The MHCP Subregional Plan was adopted and certified by the San Diego Association of Governments (SANDAG) Board of Directors in March 2003. The intent is that each jurisdiction will implement their respective portions of the MHCP Plan through citywide “subarea” plans, which describe the specific policies each city will institute for the MHCP.<sup>4</sup>

#### **Habitat Management Plan for Natural Communities in the City of Carlsbad**

The City of Carlsbad prepared a subarea plan as a part of the MHCP, called the “Habitat Management Plan for Natural Communities in the City of Carlsbad,” (HMP) which was adopted by the Carlsbad City Council in November 2004. The HMP outlines specific conservation, management, facility siting, land use, and other measures that the city will take to preserve the diversity of habitat and protect sensitive biological resources in the city while also allowing for additional development and growth as anticipated under the city’s General Plan. Formal approval and adoption of the HMP occurred through issuance of a permit by wildlife agencies, namely USFWS and CDFW, as well as execution of an implementation agreement between the city and the wildlife agencies. To date, Carlsbad’s HMP is the only adopted subarea plan in the MHCP subregion. The Carlsbad HMP preserve contains natural habitats that are necessary to sustain threatened, listed, or sensitive species, and to maintain biological value. According to the permit issued by the wildlife agencies, the HMP is required to establish a preserve of 6,478 acres of natural habitat (within the city’s jurisdictional boundary), as well as an additional 308 acres of “core area” habitat for the coastal California gnatcatcher (outside of the city’s jurisdiction).

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<sup>4</sup> SANDAG (San Diego Association of Governments). 2003. *Final MHCP Executive Summary*. Prepared for the Multiple Habitat Conservation Program for the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. Prepared by AMEC Earth & Environmental Inc. March 2003.

One of the HMP management goals is to conserve a full range of vegetation community types, with an emphasis on sensitive habitat types. As part of the HMP, the city is required to preserve 6,478 acres of land within the city’s jurisdictional boundaries and an additional 308 acres of habitat for the coastal California gnatcatcher outside of the city’s jurisdiction (i.e., “gnatcatcher core”). The number of acres of each habitat projected to be conserved in the HMP is given in Table 3.3-2, for a total of 6,786 acres. As shown in Table 3.3-3, as of October 31, 2012, the city had preserved 5,877 acres within the city’s boundaries (91 percent of the HMP target) and 280 acres outside the city’s boundaries (91 percent of the HMP target) for the gnatcatcher core; there is a remaining 601 acres within the city’s boundaries and 28 acres outside the city’s boundaries to be preserved to meet the HMP requirements.

Individual preserves within the HMP preserve boundaries include ecological reserves, privately owned pre-existing preserves, city-owned preserves, and project-related preserves. Preserve locations are shown in Figure 3.3-1. Table 3.3-4 includes a summary of actively managed preserves over 100 acres in size.

**Table 3.3-2: HMP Conservation Targets**

<i>Vegetation Type</i>	<i>Acres</i>
Grassland	707
Coastal Sage Scrub	2,139
Chaparral (Undifferentiated Types)	676
Southern Maritime Chaparral	342
Oak Woodland	24
Eucalyptus Woodland	99
Riparian Scrub, Woodland, and Forest	494
Marsh, Estuarine, Freshwater, and Other Wetlands	1,252
Disturbed Lands	745
<b>Total Target Conservation within Carlsbad</b>	<b>6,478</b>
Gnatcatcher Core Area Contribution	308
<b>Total HMP Target Conservation</b>	<b>6,786</b>

Source: Table 8 – Habitat Management Plan for Natural Communities in the City of Carlsbad, November 2004.

**Table 3.3-3: Cumulative Habitat Gains inside the Habitat Preserve Planning Area (As of Oct. 31, 2012)**

<i>Vegetation Type</i>	<i>Acres</i>
Grassland	637
Coastal Sage Scrub	1,777
Chaparral (Undifferentiated Types)	605
Southern Maritime Chaparral	346
Oak Woodland	13
Eucalyptus Woodland	95
Riparian Scrub, Woodland, and Forest	452
Marsh, Estuarine, Freshwater, and Other Wetlands	1,184
Disturbed Lands	768
<b>Total Target Conservation within Carlsbad</b>	<b>5,877</b>
Gnatcatcher Core Area Contribution	280
<b>Total HMP Target Conservation</b>	<b>6,157</b>

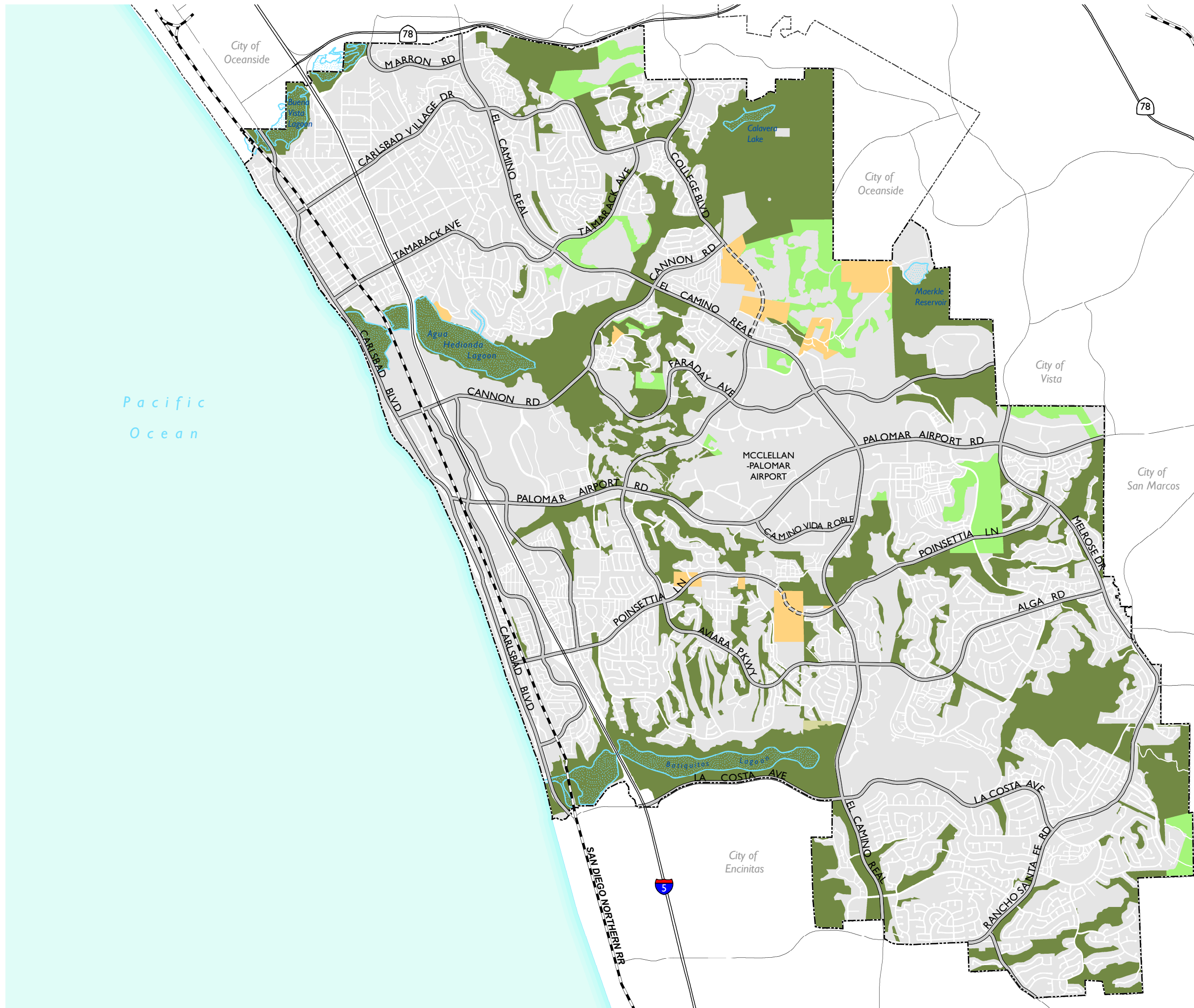
Source: Annual Report for the Carlsbad Habitat Management Plan, Year 8 (April 13, 2013).

**Table 3.3-4: Actively Managed HMP Preserves Over 100 Acres in Size, as of July 25, 2013**

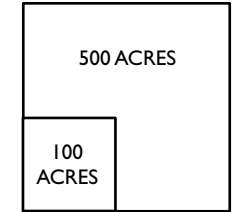
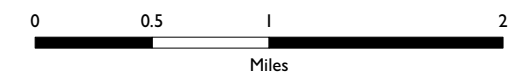
<i>Preserve Name</i>	<i>Size (Ac)</i>	<i>Preserve Manager</i>
Rancho La Costa	831	Center for Natural Lands Management
Batiquitos Lagoon Ecological Reserve	564	California Department of Fish and Wildlife
Carlsbad Highlands Ecological Reserve	472	California Department of Fish and Wildlife
Lake Calavera (city owned)	257	Center for Natural Lands Management
Calavera Hills II/Robertson Ranch	256	Center for Natural Lands Management
Carlsbad Oaks North	220	Center for Natural Lands Management
Agua Hedionda Ecological Reserve	197	California Department of Fish and Wildlife
Buena Vista Creek Ecological Reserve	142	California Department of Fish and Wildlife
Buena Vista Lagoon Ecological Reserve	140	California Department of Fish and Wildlife
Macario Canyon (city owned)	129	Center for Natural Lands Management
La Costa Glen	108	Center for Natural Lands Management

Figure 3.3-1  
**PROPOSED  
 GENERAL PLAN  
 HMP Preserve Areas**

- Existing Hardline
- Proposed Hardline
- Outside-Conserved
- Standards Area
- Highways
- Major Street
- Planned Street
- Railroad
- Lagoons/Water
- City Limits



Pacific  
 Ocean



Source: City of Carlsbad, 2012; SANDAG, 2013; Dyett & Bhatia, 2013.

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### **Open Space Management Plan**

As a framework plan to assist in the implementation of the MHCP and HMP, the city's Open Space Management Plan (OSMP) establishes procedures, standards, guidelines, and conditions for long-term conservation and management of sensitive species and habitat. The OSMP applies to three additional categories of open space land that are not included in the areas identified as preserved in the HMP or MHCP. The categories are as follows:

- **Other Natural Lands.** The OSMP applies to all of the natural lands in the city, whereas the HMP applies to natural lands consisting of existing or proposed preserves and lands subject to HMP standards. The other natural lands that are not subject to the HMP (mostly isolated smaller fragments of habitat) were not included in the HMP and MHCP primarily because they did not contribute significantly to the overall biological value of the preserve; however, they are included in the OSMP planning area and continue to be managed as open space.
- **Developed Parks.** This category includes existing parks as well as parks to be developed in the future. Some of the parks under this category are not strictly "open space" in the natural sense, but are developed facilities, such as a skate park or ball field, that are used for outdoor recreational purposes. Developed parks have been incorporated into the city's geographic information system (GIS) inventory so that citywide management can be scheduled, tracked, and analyzed in this database.
- **Drainage Basins.** The city's drainage basin facilities were also incorporated into the city's GIS inventory for the OSMP so that management can be scheduled, tracked, and analyzed. The drainage basin parcels are included as an overlay because they are sometimes covered by other categories and may overlap with the HMP and MHCP areas.

### **HMP Guidelines**

A set of guidelines have been developed by the city to aid in the implementation of the Carlsbad HMP. The HMP guidelines are intended to provide a summary of pertinent regulations from the HMP.

#### *Guidelines for Biological Studies*

The Guidelines for Biological Studies were developed to provide the biological standard for processing HMP permits and to help the user navigate through the HMP regulations. The guidelines are intended to ensure that adequate environmental impact analysis is conducted for projects using the appropriate biological data, and that HMP-compliant mitigation is incorporated into project design and permit conditions.

#### *Guidelines for Preserve Management*

The Guidelines for Preserve Management are intended to clarify HMP-related biological monitoring and management obligations. This document pulls together all pertinent components from the MHCP, HMP, implementing agreement (IA), and OSMP. The document provides a review of the coordination and communication structure; monitoring and management responsibilities; a clarification of obligations for preserve managers, the city, and wildlife agencies;

species-specific monitoring and management requirements; a process for establishing preserve management priorities; templates and checklists for monitoring, management, and annual reporting; and preserve management plan guidelines.

#### ***Guidelines for Riparian and Wetland Buffers***

The Guidelines for Riparian and Wetland Buffers provides information about designing effective riparian buffers and identifying allowable land uses in a manner that is consistent with the Carlsbad HMP. The document supplements the HMP by providing recommendations and best practices that are consistent with local, state, and federal wetlands-related regulations. The guidelines objectives include providing buffer design recommendations and variance procedures in order to facilitate HMP implementation in the city; identifying allowable uses and land use restrictions for riparian/wetland buffer zones; developing generic and specific buffer management/land use guidelines corresponding to potential adjacent land uses to reduce or eliminate resulting edge effects; and identifying specific opportunities and constraints for buffer establishment on the watershed (stream-reach) level.

#### ***Guidelines for Habitat Creation and Restoration***

The Guidelines for Habitat Creation and Restoration are intended to assist applicants in designing the restoration part of their mitigation program and to assist city staff in evaluating and approving restoration plans. The guidelines provide project applicants and consulting biologists an overview of typical components included in creation projects for planning purposes. There are separate guidelines for creation, restoration, and enhancement.

#### ***Community Forest Management Plan***

The Community Forest Management Plan (2000) provides guidance to conserve forest areas through proper design, maintenance, and education. The document includes guidelines and procedures for planting, maintaining, removing, replacing, and preserving trees within public areas. A significant portion of the city's forest and most visible landscape features include trees within the city's rights-of-way and other public areas; however, these trees are often the most overlooked by community members. A critical component of the Community Forest Management Plan is to encourage public understanding of the urban and community forest and educate people to make informed decisions regarding tree removal, retention, replacement, and maintenance. A number of direct and indirect public relations and outreach initiatives are outlined in the Community Forest Management Plan in an effort to foster support and citizen education for a healthier and safer urban forest with more positive human effects.

## Impact Analysis

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### SIGNIFICANCE CRITERIA

For the purposes of this Program EIR, a significant impact would occur if the proposed General Plan 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; by the California Department of Fish and Wildlife; or by the U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Wildlife, or by the U.S. Fish and Wildlife Service;
- 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 (the Habitat Management Plan for Natural Communities in the City of Carlsbad), natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

### HMP Thresholds of Significance

The Carlsbad HMP groups vegetation communities into six habitat groups/types: A through F. The habitat groups/types are defined as follows:

- **Group A:** Coastal salt marsh, alkali marsh, freshwater marsh, estuarine, salt pan/mudflats, riparian forest, riparian woodland, riparian scrub, vernal pools, disturbed wetlands, flood channel, freshwater Engelmann oak woodland, and coast live oak woodland.
- **Group B:** Beach, southern coastal bluff scrub, maritime succulent scrub, southern maritime chaparral, and native grassland.
- **Group C:** Gnatcatcher-occupied coastal sage scrub.
- **Group D:** Unoccupied coastal sage scrub, coastal sage/chaparral mix, and chaparral (excluding southern maritime chaparral).
- **Group E:** Annual (non-native) grassland.

- **Group F:** Disturbed land, eucalyptus, and agricultural lands.

For the purposes of analyzing impacts under the city's HMP, a significant impact to biological resources would occur if implementation of the proposed General Plan would result in:

- Inconsistency with the adopted Carlsbad HMP;
- Impacts to Habitat Groups A-F (described above);
- Any impacts to federally or state-listed species, including impacts to occupied habitats; or
- Loss of a "significant population" of a sensitive species, where the loss would substantially reduce the likelihood of the survival and recovery or restrict the range of the species.

Impacts to non-sensitive habitats are generally not considered significant. If, however, the densities of sensitive species within the habitat were sufficiently high or the habitat functioned as an important wildlife movement corridor, habitat linkage, or crucial foraging habitat, impacts could be considered significant.

## **METHODOLOGY AND ASSUMPTIONS**

Based on a review of relevant maps and biological resources documentation for the city, this Program EIR presents a list of special-status species that have been observed or have the potential to occur in the city, due to the presence of the basic habitat types that they inhabit. The scale of the maps used for analysis allows only a general identification of habitats; thus programmatic impacts are discussed in broad, qualitative terms. This assessment does not satisfy the need for project-level CEQA analysis for individual projects. Individual projects under the proposed General Plan will require project-level analysis at the time these projects are proposed based on the details of the projects and the existing conditions at the time such projects are pursued. Future projects that may result in significant impacts to biological resources will require identification of project-specific mitigation measures at that time consistent with the city's Guidelines for Biological Studies and the HMP.

Future projects implemented under the proposed General Plan could result in both direct and indirect impacts to biological resources. These impacts are defined below.

**Direct Impacts:** The loss of individual species and/or their habitats through the alteration, disturbance, or destruction of biological resources that would result from project-related activities, is considered a direct impact. Direct impacts include temporary impacts, such as the disturbance or removal of vegetation during construction that is revegetated, and permanent impacts, which refer to the 100 percent loss of a biological resource.

**Indirect Impacts:** Reasonably foreseeable effects caused by project implementation on biological resources outside of the direct area of impact (usually the limits of grading) are considered indirect impacts. Indirect impacts may include increased human activity, decreased water quality and altered hydrology, soil compaction, elevated noise and dust levels, and the introduction of

invasive wildlife or plant species. Temporary indirect impacts are usually related to construction activities, whereas permanent indirect impacts are usually related to ongoing maintenance and operational activities.

## **SUMMARY OF IMPACTS**

Implementation of the proposed General Plan could result in substantial adverse effects to sensitive biological resources. These impacts could occur directly through future ground-disturbing activities such as grading and excavation associated with development, or indirectly from the effects of increased urbanization of the city. However, as described below, the proposed General Plan includes goals and policies that focus on preserving and protecting significant biological resources. In addition to these goals and policies, applicable future projects implemented under the proposed General Plan would be required to implement mitigation consistent with the city's guidelines for biological studies and the HMP. As such, all impacts associated with implementation of the proposed General Plan would be less than significant.

## **IMPACTS**

**Impact 3.3-1 Implementation of the proposed General Plan will not result in substantial adverse effects, 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; by the California Department of Fish and Wildlife; or by the U.S. Fish and Wildlife Service. (Less than Significant)**

Development subsequent to implementation of the proposed General Plan would allow for the conversion of undeveloped land to new urban uses, or the redevelopment of existing developed areas. Development would introduce new uses in or adjacent to habitats that support a number of special-status species (see Table 3.3-1 for a list of special-status species that have been observed or have the potential to occur within the city). Direct impacts to special-status species could result from the conversion of habitat either temporarily, as a result of grading, excavation, and construction activities, or permanently from the ongoing operation and/or maintenance of a project or plan. Indirect impacts could result from elevated dust or noise levels or increased sediment loads in runoff from construction activities. Indirect impacts could also result from permanent alterations to hydrology upstream of habitats supporting sensitive species, including increased runoff, sedimentation, or pollutant loads, and increased human activity. Most new development expected to occur within the timeframe of the proposed General Plan would be within existing developed areas. However, should new development occur within the undeveloped areas of the city, the continuity and viability of habitat supporting sensitive species could potentially be altered due to acreage reductions, resulting in a potentially significant impact to sensitive species.

Although implementation of the proposed General Plan may result in actions that could adversely affect sensitive species, the Open Space, Conservation, and Recreation Element of the proposed General Plan includes policies and regulations that would minimize or avoid impacts to sensitive

species by requiring the protection and preservation of such resources. Implementation of the proposed General Plan policies and regulations listed below would help to minimize or avoid impacts to sensitive species. In addition, sensitive species in the city are protected under the city's HMP, which establishes a network of HMP preserves to conserve a full range of vegetation community types, with an emphasis on sensitive habitat types. In addition to the conservation and management of habitat, the HMP includes measures to avoid, minimize, and mitigate impacts to species covered by the HMP; the measures are to be applied to all public and private projects citywide.

Implementation of the policies of the proposed General Plan, listed below, and compliance with the HMP, in addition to federal, state, and local regulations, would reduce impacts to candidate, sensitive, or special-status species as a result of the proposed General Plan to less than significant.

### **Proposed General Plan Policies that Reduce the Impact**

#### *Open Space, Conservation, and Recreation Element Goals*

- 4-G.2 Protect environmentally sensitive lands, wildlife habitats, and rare, threatened, or endangered plant and animal communities.

#### *Open Space, Conservation, and Recreation Element Policies*

- 4-P.8 Maintain and implement the City's Habitat Management Plan (HMP), including the requirement that all development projects comply with the HMP and related documents. Require assessments of biological resources prior to approval of any development on sites with sensitive habitat, as depicted in Figure 4-3 in Chapter 4 of the General Plan.
- 4-P.11 Continue participation in regional planning efforts to protect habitat and environmentally sensitive species.
- 4-P.12 Support innovative site design techniques such as cluster-type housing and transfer-of-development-rights to preserve sensitive environmental resources and to allow development projects to comply with the city's Habitat Management Plan.
- 4-P.18 Require a city permit for any grading, grubbing, or clearing of vegetation in undeveloped areas, with appropriate penalties for violations.

### **Mitigation Measures**

None required.

**Impact 3.3-2 Implementation of the proposed General Plan will not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and**

**regulations, or by the California Department of Fish and Wildlife, or by the U.S. Fish and Wildlife Service. (Less than Significant)**

Development subsequent to implementation of the proposed General Plan would allow for the conversion of undeveloped land to new urban uses that could result in direct and indirect impacts to sensitive natural communities. Direct impacts to sensitive vegetation communities could occur temporarily as a result of grading, excavation, and construction activities, or permanently from the ongoing operation and/or maintenance of a project or plan. Indirect impacts could result from elevated dust or increased sediment loads in runoff from construction activities. Indirect impacts could also result from permanent alterations to hydrology upstream of habitats, including increased runoff, sedimentation, or pollutant loads, and increased human activity, which could result in trampling and disturbance. Most new development expected to occur within the timeframe of the proposed General Plan would be within existing developed areas. However, should new development occur within the undeveloped areas of the city, the acreage of sensitive natural communities could be permanently reduced, resulting in a potentially significant impact to sensitive natural communities.

Although implementation of the proposed General Plan may result in actions that could adversely affect sensitive natural communities, the Open Space, Conservation, and Recreation Element of the proposed General Plan includes policies and regulations that would minimize or avoid impacts to sensitive natural communities by requiring the protection and preservation of such resources. Implementation of the proposed General Plan policies and regulations listed below would help to minimize or avoid impacts to sensitive natural communities. In addition, sensitive natural communities in the city are protected under the city's HMP, which establishes a network of HMP preserves to conserve a full range of vegetation community types, with an emphasis on sensitive habitat types. In addition to the conservation and management of habitat, the HMP sets forth required mitigation ratios for covered habitats in Table 11 of the HMP, which are to be applied to all public and private projects citywide that impact a covered habitat type.

Implementation of the policies of the proposed General Plan, listed below, and compliance with the HMP, in addition to federal, state, and local regulations, would reduce impacts to riparian habitat or other sensitive natural community as a result of the proposed General Plan to less than significant.

**Proposed General Plan Policies that Reduce the Impact**

*Open Space, Conservation, and Recreation Element Policies*

In addition to Goal 4-G.2 and policies 4-P.8 and 4-P.11, listed above the following policies would reduce potential impacts to sensitive natural communities.

- 4-P.10** Ensure that the improvements recommended for open space areas are appropriate for the type of open space and the use proposed. No improvements (excluding necessary infrastructure) shall be made in environmentally sensitive areas, except to enhance the environmental value of the areas.

- 4-P.17            Require that, at the time of any discretionary approval, any land identified as open space for its habitat or scenic value shall have an appropriate easement and/or land use and zoning designation placed on it for resource protection.

**Mitigation Measures**

None required.

**Impact 3.3-3 Implementation of the proposed General Plan will not 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. (Less than Significant)**

Development resulting from implementation of the proposed General Plan may result in both direct and indirect significant adverse impacts to jurisdictional wetlands or waters. Jurisdictional wetlands and waters occur within the city primarily in the vicinity of the BatiQUITOS, Agua Hedionda, and Buena Vista lagoons. Other wetland habitats occur along creeks and drainages. Vernal pools occur in several scattered locations throughout the city on marine terraces. Development on or adjacent to these areas could potentially affect these resources either directly through fill or indirectly through the alteration of the hydrologic regime.

Although implementation of the proposed General Plan may result in actions that could adversely affect jurisdictional wetlands or waters, the Open Space, Conservation, and Recreation Element of the proposed General Plan includes policies and regulations that would minimize or avoid impacts to these resources by requiring the protection and preservation of such resources. In addition, if jurisdictional resources are determined to be potentially impacted by a project, all such future development projects would require Clean Water Act Section 404/401 Permits from the U.S. Army Corps of Engineers (ACOE) and RWQCB, respectively, and a 1600-Series Streambed Alteration Agreement with the CDFW. Future projects potentially affecting jurisdictional wetlands and waters would comply with the USFWS, CDFW, and ACOE “no net loss” policy and would require mitigation, including wetland creation and restoration/enhancement.

The city’s HMP is supplemented by the city’s Guidelines for Riparian and Wetland Buffers, which provides buffer design recommendations and identifies allowable uses and land use restrictions for riparian/wetland buffer zones. The guidelines also include minimization and mitigation measures designed to protect riparian and wetland habitats from pre-construction and construction activities.

Implementation of the policies of the proposed General Plan, listed below, compliance with the measures listed in the Guidelines for Wetland and Riparian Buffers, and compliance with applicable federal and state regulations described above would ensure that potential impacts to federally protected wetlands from implementation of the proposed General Plan would be less than significant.



**Proposed General Plan Policies that Reduce the Impact**

*Open Space, Conservation, and Recreation Element Policies*

In addition to Goal 4-G.2 and Policies 4-P.8, 4-P.11, and 4-P.18, listed above, the following policies would reduce potential impacts to federally protected wetlands.

- 4-P.48            Ensure that the grading of agricultural lands is accomplished in a manner that minimizes erosion of hillsides and minimizes stream siltation and to maintain the appearance of natural hillsides and other land forms wherever possible.
- 4-P.49            Prevent agricultural run-off and other forms of water pollution from entering the storm drain system and polluting the city's water bodies.
- 4-P.63            Preserve, where possible, natural watercourses or provide naturalized drainage channels within the city. Where feasible, implement restoration and rehabilitation opportunities.
- 4-P.64            Coordinate the needs of storm water pollution management with habitat management, flood management, capital improvement projects, development, aesthetics and other open space needs.

**Mitigation Measures**

None required.

**Impact 3.3-4 Implementation of the proposed General Plan will not 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. (Less than Significant)**

Large blocks of open space or undeveloped areas within the city may serve as wildlife corridors for common and listed species. Future development in undeveloped areas allowed under the proposed General Plan could result in direct or indirect impacts to the movement of wildlife through impacts to habitat or fragmentation of open space. However, the majority of development anticipated under the proposed General Plan will involve redevelopment of or new development within existing developed areas. In addition, the Open Space, Conservation, and Recreation Element of the proposed General Plan includes the policies listed below that would minimize or avoid impacts to important wildlife corridors and linkages by requiring the protection and preservation of such resources. Compliance with the proposed General Plan policies would ensure that impacts to wildlife corridors would be less than significant.

**Proposed General Plan Policies that Reduce the Impact**

*Open Space, Conservation, and Recreation Element Policies*

In addition to Goal 4-G.2 and Policy 4-P.8, listed above, the following policy would reduce potential impacts to biological resources.

- 4-P.14** Maintain functional wildlife corridors and habitat linkage in order to contribute to regional biodiversity and the viability of rare, unique or sensitive biological resources throughout the city.

**Mitigation Measures**

None required.

**Impact 3.3-5 Implementation of the proposed General Plan will not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)**

A set of guidelines have been developed by the city to aid in the implementation of the Carlsbad HMP. These include the Guidelines for Biological Studies, Guidelines for Preserve Management, Guidelines for Habitat Creation and Restoration, and Guidelines for Riparian and Wetland Buffers. The proposed General Plan has been developed to promote consistency throughout all elements that comprise the General Plan as well as with other city plans and ordinances that provide policy direction for the preservation of biological resources in the city. Implementation of the proposed General Plan policy, listed below, would ensure consistency of future projects with the HMP guidelines; therefore, impacts would be less than significant.

**Proposed General Plan Policies that Reduce the Impact**

*Open Space, Conservation, and Recreation Element Policies*

Goal 4-G.2 and Policy 4-P.8, listed above, would reduce potential impacts to biological resources.

**Mitigation Measures**

None required.

**Impact 3.3-6 Implementation of the proposed General Plan will not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan, such as the Habitat Management Plan for Natural Communities in the City of Carlsbad. (Less than Significant)**

The city is participating in regional conservation efforts through implementation of the Carlsbad HMP, which serves as Carlsbad's subarea plan under the MHCP. The MHCP is a comprehensive, multiple jurisdiction planning program designed to develop an ecosystem preserve in northwestern San Diego County. This preserve system is intended to protect viable populations of key sensitive plant and animal species, their habitats and ecosystem function, while accommodating continued economic growth.

No existing or proposed hardline conservation areas as designated by the Carlsbad HMP would be designated by the General Plan as a development area; all areas would remain protected pursuant to the HMP. All future development projects, including both public and private projects, implemented under the proposed General Plan would be required to comply with the conditions of the HMP, including compliance with the established mitigation ratios and the avoidance and minimization measures for special-status species and sensitive vegetation. Implementation of the proposed General Plan policies, listed below, would ensure that impacts related to conflicts with the adopted HMP would be less than significant.

**Proposed General Plan Policies that Reduce the Impact**

*Open Space, Conservation, and Recreation Element Policies*

In addition to Goal 4-G.2 and Policies 4-P.8 and 4-P.11, listed above, the following policy would reduce potential impacts related to conflicts with the adopted HMP.

- 4-P.15            Coordinate the implementation and planning of the city’s Habitat Management Plan with the North County Multi-Species Habitat Conservation Plan.

**Mitigation Measures**

None required.

**Impact 3.3-7 Implementation of the proposed General Plan will not result in an inconsistency with the adopted Carlsbad HMP. (Less than Significant)**

As discussed above, the city is participating in regional conservation efforts through implementation of the Carlsbad HMP, which serves as Carlsbad’s subarea plan under the MHCP. The proposed General Plan has been developed to promote consistency throughout all elements that comprise the General Plan, as well as with other city plans and ordinances that provide policy direction for the preservation of biological resources in the city. No existing or proposed hardline conservation areas as designated by the Carlsbad HMP would be designated by the General Plan as a development area; all areas would remain protected pursuant to the HMP. All future development projects, including both public and private projects, implemented under the proposed General Plan would be required to comply with the conditions of the HMP, including compliance with the established mitigation ratios and the avoidance and minimization measures for special-status species and sensitive vegetation. Implementation of the proposed General Plan policies, listed below, would ensure that impacts related to conflicts with the adopted HMP would be less than significant.

**Proposed General Plan Policies that Reduce the Impact**

*Open Space, Conservation and Recreation Element Policies*

Goal 4-G.2 and Policies 4-P.8, 4-P.11, and 4-P.15, listed above, would reduce potential impacts related to consistency with the adopted HMP.

### **Mitigation Measures**

None required.

#### **Impact 3.3-8 Implementation of the proposed General Plan will not result in impacts to Habitat Groups A-F identified in the HMP. (Less than Significant)**

Development subsequent to implementation of the proposed General Plan would allow for the conversion of undeveloped land to new urban uses that could result in direct and indirect impacts to sensitive vegetation communities, including those which comprise Habitat Groups A-F identified in the HMP. Direct impacts to sensitive vegetation communities could occur temporarily as a result of grading, excavation, and construction activities, or permanently from the ongoing operation and/or maintenance of a project or plan. Indirect impacts could result from elevated dust or increased sediment loads in runoff from construction activities. Indirect impacts could also result from permanent alterations to hydrology upstream of habitats, including increased runoff, sedimentation, or pollutant loads, and increased human activity, which could result in trampling and disturbance. Most new development expected to occur within the life of the proposed General Plan would be within existing developed areas. However, should new development occur within the undeveloped areas of the city, the acreage of sensitive vegetation communities could be permanently reduced, resulting in a potentially significant impact to Habitat Groups A-F.

Although implementation of the proposed General Plan may result in actions that could adversely affect Habitat Groups A-F, the Open Space, Conservation, and Recreation Element of the proposed General Plan includes policies and regulations that would minimize or avoid impacts to sensitive vegetation communities by requiring the protection and preservation of such resources. Implementation of the proposed General Plan policies and regulations listed below would help to minimize or avoid impacts to sensitive vegetation communities. In addition, Habitat Groups A-F in the city are protected under the city's HMP, which establishes a network of HMP preserves to conserve a full range of vegetation community types, with an emphasis on sensitive habitat types. Any impacts to vegetation communities listed in Habitat Groups A-F would be mitigated for at the ratio set by Table 11 of the HMP. For properties in the Coastal Zone, vegetation communities are further protected by the additional conservation standards established in HMP Section D-7.

Implementation of the policies of the proposed General Plan, listed below, and compliance with the HMP, in addition to federal, state, and local regulations, would reduce impacts to riparian habitat or other sensitive natural community as a result of the proposed General Plan to less than significant.

#### **Proposed General Plan Policies that Reduce the Impact**

##### *Open Space, Conservation, and Recreation Element Policies*

Goal 4-G.2 and Policies 4-P.8, 4-P.11, 4-P.15, and 4-P.18, listed above, would reduce potential impacts to riparian habitat or other sensitive natural community.

### **Mitigation Measures**

None required.

#### **Impact 3.3-9 Implementation of the proposed General Plan will not result in any impacts to federally or state-listed species, including impacts to occupied habitats. (Less than Significant)**

Development subsequent to implementation of the proposed General Plan would allow for the conversion of undeveloped land to new urban uses, or the redevelopment of existing developed areas. Development would introduce new uses in or adjacent to habitats that support a number of federally and state-listed species (see Table 3.3-1 for a list of special-status species that have been observed or have the potential to occur within the city). Direct impacts to federally and state-listed species could result from the conversion of habitat either temporarily as a result of grading, excavation, and construction activities or permanently from the ongoing operation and/or maintenance of a project or plan. Indirect impacts could result from elevated dust or noise levels or increased sediment loads in runoff from construction activities. Indirect impacts could also result from permanent alterations to hydrology upstream of habitats supporting sensitive species, including increased runoff, sedimentation, or pollutant loads, and increased human activity. Most new development expected to occur within the life of the proposed General Plan would be within existing developed areas. However, should new development occur within the undeveloped areas of the city, the continuity and viability of occupied habitat supporting federally and state-listed species could potentially be altered due to acreage reductions, resulting in a potentially significant impact to federally and state-listed species.

Although implementation of the proposed General Plan may result in actions that could adversely affect federally and state-listed species and their occupied habitats, the Open Space, Conservation, and Recreation Element of the proposed General Plan includes policies and regulations that would minimize or avoid impacts to federally and state-listed species by requiring the protection and preservation of such resources. Implementation of the proposed General Plan policies and regulations listed below would help to minimize or avoid impacts to federally and state-listed species. In addition, federally and state-listed species in the city are protected under the city's HMP, which establishes a network of HMP preserves to conserve a full range of vegetation community types, with an emphasis on sensitive habitat types. In addition to the conservation and management of habitat, the HMP includes measures to avoid, minimize, and mitigate impacts to species covered by the HMP, which are to be applied to applicable public and private projects citywide.

Implementation of the policies of the proposed General Plan, listed below, and compliance with the HMP, in addition to federal, state and local regulations, would reduce impacts to federally and state-listed species, including occupied habitats, as a result of the proposed General Plan to less than significant.

**Proposed Plan Policies that Reduce the Impact**

*Open Space, Conservation and Recreation Element Policies*

Goal 4-G.2 and Policies 4-P.8 and 4-P.11, listed above, would reduce potential impacts to sensitive habitats and species.

**Mitigation Measures**

None required.

**Impact 3.3-10 Implementation of the proposed General Plan will not result in loss of a “significant population” of a sensitive species, where the loss would substantially reduce the likelihood of the survival and recovery or restrict the range of the species. (Less than Significant)**

As described above, development subsequent to implementation of the proposed General Plan could result in direct and indirect impacts that could result in the loss of sensitive species. However, the Open Space, Conservation, and Recreation Element of the proposed General Plan includes policies and regulations that would minimize or avoid impacts to sensitive species by requiring the protection and preservation of such resources. In addition, sensitive species in the city are protected under the city’s HMP, which establishes a network of HMP preserves and provides measures to avoid, minimize, and mitigate impacts to species covered by the HMP, which are to be applied to applicable public and private projects citywide.

Implementation of the policies of the proposed General Plan, listed below, and compliance with the HMP, in addition to federal, state, and local regulations, would reduce impacts to sensitive species such that implementation of the proposed General Plan would not reduce the likelihood of the survival and recovery or restrict the range of the species; therefore, impacts would be less than significant.

**Proposed Plan Policies that Reduce the Impact**

*Open Space, Conservation and Recreation Element Policies*

Goal 4-G.2 and Policies 4-P.8 and 4-P.11, listed above, would reduce potential impacts to sensitive species.

**Mitigation Measures**

None required.