

Envision Carlsbad
Existing Conditions and Issues Exploration



Working Paper **3**

**Open Space and the
Natural Environment;
Access to Recreation and
Active, Healthy Lifestyles**

Working Paper 1

Sustainability

Working Paper 2

The Local Economy, Business Diversity and Tourism

Working Paper 3

Open Space and the Natural Environment;
Access to Recreation and Active, Healthy Lifestyles

Working Paper 4

History, the Arts and Cultural Resources;
High Quality Education and Community Services

Working Paper 5

Walking, Biking, Public Transportation and Connectivity

Working Paper 6

Small Town Feel, Beach Community Character and Connectedness;
Neighborhood Revitalization, Community Design and Livability

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1 Introduction



1.1 Background and Purpose

In January 2010, the Carlsbad City Council adopted the Carlsbad Community Vision, representing the community's most important values, priorities, and aspirations for the future. The community's vision guides the second phase of the Envision Carlsbad process, which entails an update of the city's General Plan, Local Coastal Program, and Zoning Ordinance.

As the first task in this second phase of Envision Carlsbad, existing conditions and issues are evaluated. This evaluation is presented in six working papers, structured around the core values identified in the Carlsbad Community Vision. The working papers provide background information and technical analysis that will be useful for subsequent tasks, and raise policy issues (presented at the end of each working paper) to help the EC³ brainstorm about conclusions and findings, in terms of how these may shape potential alternatives or policies. Importantly, these working papers are discussion tools, rather than final documents to be critiqued or refined. While the primary review and brainstorming group for the working papers will be the EC³, some papers will be appropriate for review and discussion by the city's various commissions and boards.

The six working papers are:

1. **Sustainability**
2. **The Local Economy, Business Diversity and Tourism**
3. **Open Space and the Natural Environment, Access to Recreation and Active, Healthy Lifestyles**

4. **History, the Arts and Cultural Resources; High Quality Education and Community Services**
5. **Walking, Biking, Public Transportation and Connectivity**
6. **Small Town Feel, Beach Community Character and Connectedness; Neighborhood Revitalization, Community Design and Livability**

1.2 This Working Paper

Working Paper #3: Open Space and the Natural Environment; Access to Recreation and Active, Healthy Lifestyles explores these Vision core values:

Prioritize protection and enhancement of open space and the natural environment. Support and protect Carlsbad's unique open space and agricultural heritage.

Promote active lifestyles and community health by furthering access to trails, parks, beaches and other recreation opportunities.

This working paper will describe the locations and extent of natural open space and recreational resources in the City of Carlsbad, the city's current policies and standards for managing these resources, and the role they play in providing residents with opportunities to live active, healthy lifestyles. The paper will also highlight key issues the General Plan will need to address to ensure the ongoing protection and provision of natural open space and recreational resources in the city.

Following this introductory chapter, chapters in this working paper include:

- Habitats and Natural Open Space;
- Beaches, Lagoons and Waterways;
- Parks, Recreation and Active Lifestyles; and
- Planning Issues and Implications.

Habitats and Natural Open Space



2.1 Natural Open Space Overview

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 42 square miles (26,880 acres), about 38 percent of which the city currently classifies as open space. About 77 percent of that open space is comprised of natural open space such as native habitats, lagoons, and streams. 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 grown by the Carlsbad Strawberry Company and the Flower Fields.

2.2 Key Regulatory Setting

Multiple Habitat Conservation Program

Under the California Natural Community Conservation Program, the City of Carlsbad and six other cities in northern San Diego County participated in the preparation of the Multiple Habitat Conservation Program (MHCP), which was adopted and certified by the San Diego Association of Governments (SANDAG) Board of Directors in March 2003. The MHCP is a comprehensive subregional plan that addresses the needs of multiple plant and animal species in northwestern San Diego County and encompasses the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach and Vista. The intent is that these jurisdictions will

implement their respective portions of the MHCP through citywide subarea plans, which describe the specific implementing mechanisms each city will institute for the MHCP.

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 the wildlife agencies, namely U.S. Fish and Wildlife Service (FWS) and California Department of Fish and Game (CDFG), 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 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).

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. There are three additional categories of open space land in the OSMP that are dedicated as non-preserve uses 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 standards lands. The additional acres characterized as natural lands in the OSMP (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, 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/MHCP areas.

City of Carlsbad General Plan Open Space and Conservation Element

Under State law (Section 65302 et seq., California Government Code), cities must adopt both open space and conservation elements. The City of Carlsbad's current General Plan has combined these elements into one comprehensive element. The city's Open Space and Conservation Element establishes goals, objectives, policies and action programs for the regulation of land for open space and conservation purposes, and groups open space into five categories (Figure 2-1):

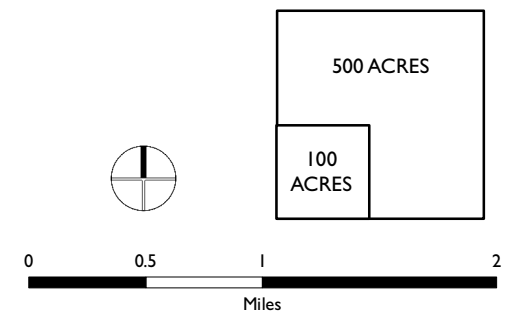
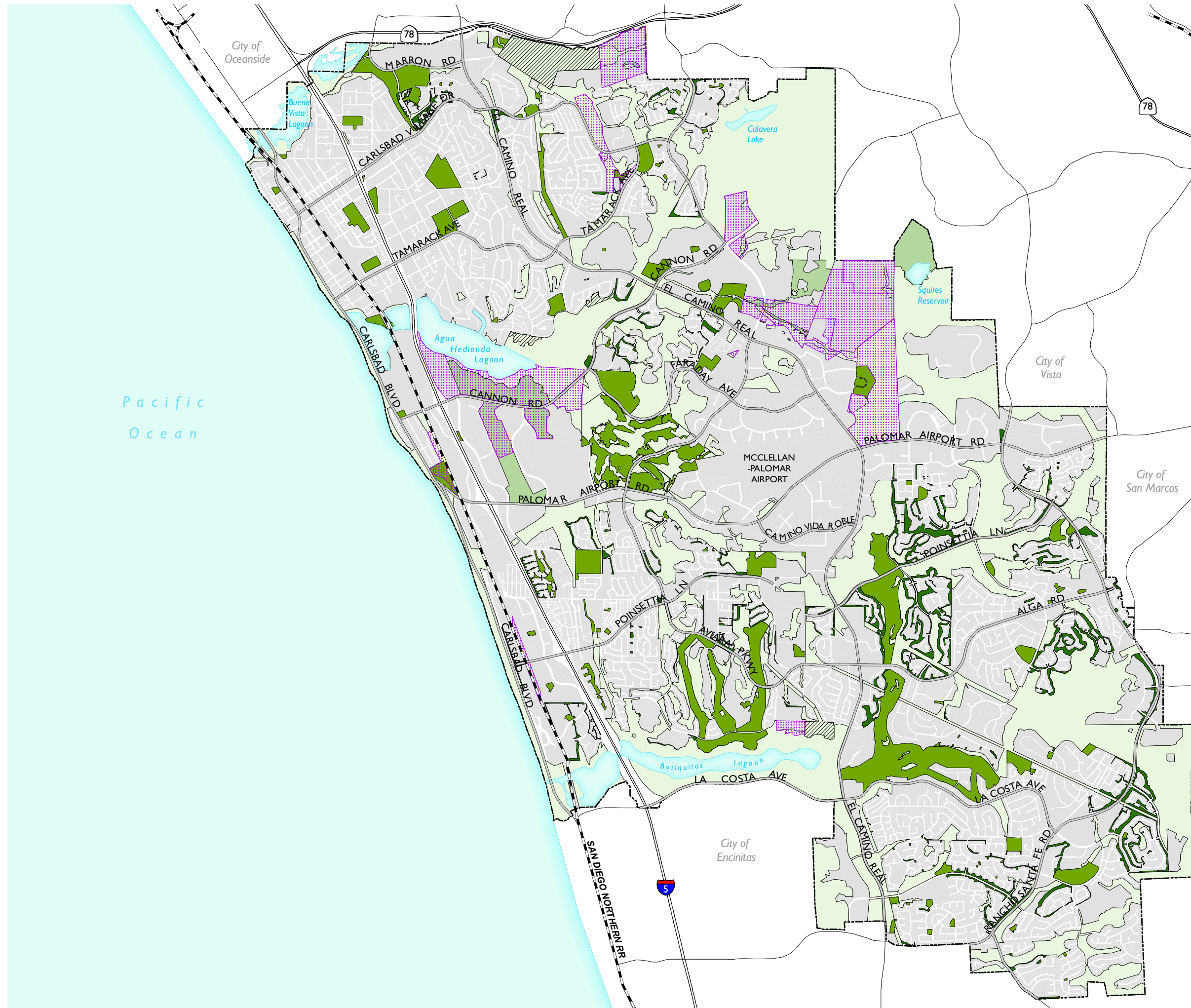
- **Category 1:** Open Space for Preservation of Natural Resources (plant and animal habitat; nature preserves; beaches and bluffs; wetland and riparian areas; canyons and hillsides; and water features such as lagoons and streams)
- **Category 2:** Open Space for Managed Production of Resources (forestry; agriculture; aquaculture; water management; commercial fisheries; and major mineral resources)
- **Category 3:** Open Space for Outdoor Recreation (school grounds; public parks and recreation areas; greenways, such as scenic highways; trails; campgrounds; golf courses; and equestrian facilities)
- **Category 4:** Open Space for Aesthetic, Cultural and Educational Purposes (lands with scenic, historical and cultural value; land use buffers; open space marking entries to the city from surrounding communities, and entries to major developments and neighborhoods within the city; greenbelts providing separation from surrounding communities; and museums, arboreta, zoos, and botanical gardens)
- **Category 5:** Open Space for Public Health and Safety (hazardous special condition areas, such as earthquake fault zones; high fire-risk areas; bluffs subject to wave erosion; and areas for protection and conservation of air and water quality)

Prior to the adoption of the city's Growth Management Plan (1986), the Carlsbad General Plan designated and preserved 25 percent of the city as

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Figure 2-1: Open Space

- 1 Open Space for Preservation of Natural Resources
 - 2 Open Space for Managed Production of Resources
 - 3 Open Space for Outdoor Recreation
 - 4 Open Space for Aesthetic, Cultural and Education Purposes
- Recent Open Space Acquisitions
 - Prop C Open Space Committee Ranked Properties
- Highways
 - Major Roads
 - Railroad
 - City Limits



Source: City of Carlsbad, 2010; SANDAG, 2008; Dyett & Bhatia, 2010.

open space for protection of environmentally significant land and sensitive habitat. The Growth Management Plan required all development (after 1986) to designate 15 percent of the project land area as permanent open space (exclusive of environmentally constrained non-developable land). When the open space required by the city's general plan is combined with the additional open space required by the Growth Management Plan, and properties protected by the city's Habitat Management Plan, it is estimated that the amount of open space in the city at build-out will be 40 percent of the total city land area. As described above in Section 2.1, approximately 38 percent of the city is currently designated as open space, 77 percent of which is comprised of natural open space such as native habitats, lagoons, and streams.

The intent of the General Plan's Open Space and Conservation Element is to realize the social, economic, aesthetic and environmental benefits that accrue from the preservation of open space within an urban environment, and to ensure the communal benefits that accrue from the conservation, management and utilization of natural and historic resources. The element also helps to guide the protection of physical, cultural, historic, visual, and natural resources within the city.

The city's Open Space and Conservation Element includes several policies and action programs for the designation and preservation of open space, including agricultural resources. The city's goal for promoting agriculture is to recognize the important value of agriculture and horticultural lands. The city has established the following objectives for promoting agriculture activities through the current General Plan:

- To develop an inventory of agricultural uses in the city;
- To promote the establishment of agricultural preserves;
- To promote the use of new technology for agricultural purposes to improve the economic viability of agriculture;
- To ensure that new development is sensitive to existing agricultural uses; and

- To ensure that agricultural uses do not adversely impact sensitive environmental resources.

In addition, the city's Land Use Element includes objectives and programs to ensure that the Cannon Road Open Space, Farming, and Public Use Corridor is permanently protected and preserved for open space uses, and to allow farming operations in the area (such as the strawberry fields) as long as they are economically viable.

Open Space Conservation Resource Management Plan

The City of Carlsbad's Open Space Conservation Resource Management Plan (OSCRMP) (1992) defines a program for implementation of an integrated open space system incorporating all types of General Plan open space, including natural habitats and trails. The OSCRMP served to support the city's Growth Management Program by making recommendations on the types of open space to be provided within each Local Facilities Management Zone (LFMZ). While almost all of the zones have been planned to meet the Growth Management open space standard, LFMZ 22 has yet to be planned to this detail and the OSCRMP can be used to guide open space exactions within that zone.

Another purpose of the OSCRMP was to plan a conceptual trail system and propose future trail alignments. The OSCRMP continues to be consulted to plan for improvements to the city's trail network.

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 impacts.

2.3 Habitats and Natural Vegetation

According to the HMP, natural vegetation communities cover approximately 8,758 acres, or 36 percent, of land within the city's jurisdiction. There are eight distinct native plant communities and three non-native habitat types. Habitat types include coastal sage scrub, chaparral, grassland, southern coastal saltwater marsh, coastal and valley freshwater marsh, sycamore alluvial woodland, riparian scrub, oak woodland, disturbed wetland/flooding, eucalyptus woodland, disturbed habitat, developed and open water (see Figure 2-2). The majority of the natural vegetation communities in the city is comprised of coastal sage scrub (38 percent) and grassland (21 percent).

The following provides a description of the natural vegetation communities found within the city.

Upland Habitat

Coastal Sage Scrub

Three types of coastal sage scrub exist within the City of Carlsbad, 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. These habitats primarily occur along dry south-facing slopes or hillsides or on clay-rich

soils adjacent to chaparral. In the City of Carlsbad, 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, as well as the orange-throated whiptail (a California Species of Special Concern) and the federally listed plant species, San Diego ambrosia. 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 as a priority for monitoring and restoration.

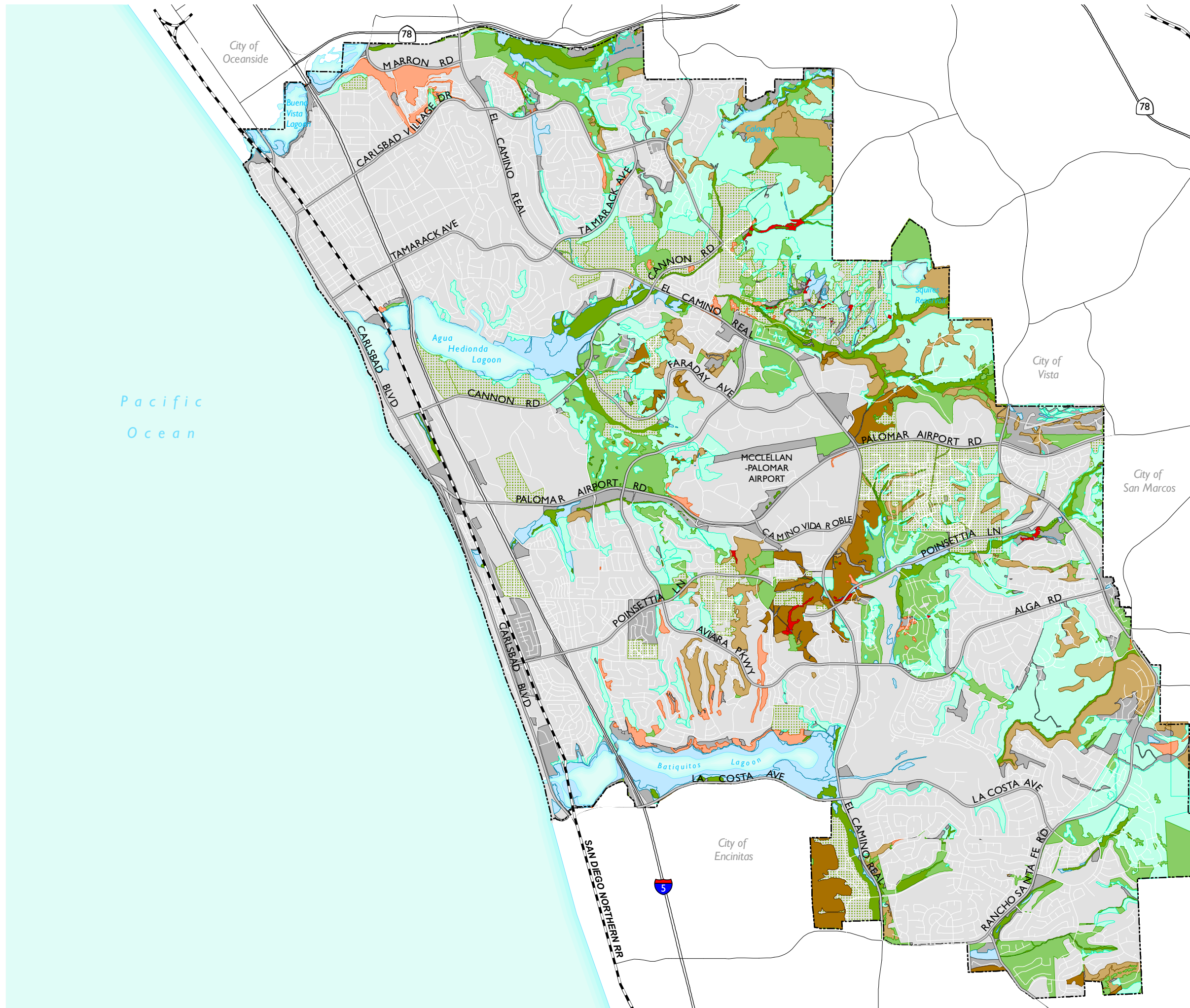
Chaparral

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.

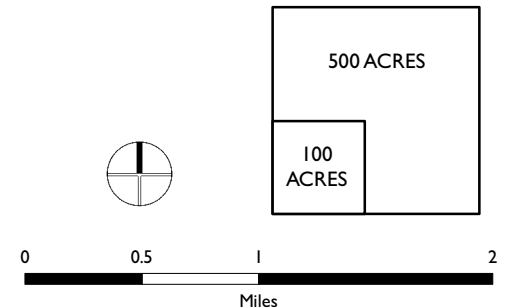
Southern mixed chaparral is a fire- and drought-adapted plant community consisting of various woody shrubs. Chamise chaparral is dominated by chamise, with remaining species including shrubs and understory plants common in other types of chaparral. Both these vegetation communities occur in a patchy 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 consider chaparral habitat are the wart-stemmed ceanothus (designated as sensitive

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Figure 2-2: Vegetation



-  Chaparral
-  Southern Maritime Chaparral
-  Coastal Sage Scrub
-  Eucalyptus Woodland
-  Oak Woodland
-  Grassland
-  Riparian Scrub, Woodland and Forest
-  Marsh, Estuarine, Freshwater, & Wetlands
-  Agriculture
-  Disturbed
-  Urban/Developed
-  Highways
-  Major Roads
-  Railroad
-  City Limits



Source: City of Carlsbad, 1991; SANDAG, 2008; Dyett & Bhatia, 2010.

by the California Native Plant Society), the federally and state listed endangered Orcutt's spineflower, the California endangered short-leaved Dudleya, and the California Watch List species, Southern California rufous-crowned sparrow.

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 California Natural Diversity Database 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. Non-native grassland may also support sensitive animal and plant species such as the federally endangered Stephens' kangaroo rat and federal and state listed San Diego thorn-mint, and may serve as a habitat linkage for a number of wildlife species such as mule deer 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 (a California Watch List species), regionally sensitive Harbison's Dunn skipper, and Nuthalls' scrub oak and Engelmann oak (designated as sensitive by the California Native Plant Society).

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 and willow monardella. 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 of Carlsbad, 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 of Carlsbad 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 and Belding's savannah sparrow, as well as the federally listed light-footed clapper rail. 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.

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 of Carlsbad, apart from the three major coastal lagoons, and provides foraging habitat for the osprey (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 and San Diego button-celery, as well as the federally listed San Diego fairy shrimp. These unique wetland habitats occur in several scattered locations throughout the City of Carlsbad on marine terraces, and are most

prominently located along the railroad tracks south of Palomar Airport Road and north of Poinsettia Lane (within the city's Local Facility Management Zone 22), as well as west of El Camino Real between Camino Vida Roble and Poinsettia Lane (within Local Facility Management Zone 21) and Palomar Point, located off College Avenue.

2.4 Special-Status Species

A total of 51 sensitive plant and animal species have been recorded as occurring or potentially occurring within the City of Carlsbad, as shown in Table 2-1. Currently, 24 of these recorded species are "covered" in the HMP, which means that they are considered by the wildlife agencies to be adequately protected by the provisions of the city's management plan. Since the HMP only addresses habitat management in Carlsbad, coverage for other listed species depends on fuller implementation of the MHCP subregional plan. An additional 19 species are eligible for coverage if additional regional funding becomes available for management within the city, or if other North 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.

WP3: Open Space and the Natural Environment;
Access to Recreation and Active, Healthy Lifestyles

TABLE 2-1: SENSITIVE SPECIES LISTED IN THE HABITAT MANAGEMENT PLAN AS OCCURRING OR POTENTIALLY OCCURRING IN CARLSBAD

COMMON NAME	SCIENTIFIC NAME	STATUS ¹	COVERED BY HMP ²	NE ³	R/W ⁴
Plants					
Blochman's Dudleya	<i>Dudleya blochmaniae ssp. blochmaniae</i>			X	
California Orcutt Grass	<i>Orcuttia californica</i>	FE/SE	List 3	X	X
Cliff Spurge	<i>Euphorbia misera</i>		X		
Del Mar Manzanita	<i>Arctostaphylos glandulosa ssp. crassifolia</i>	FE/ -	List 3	X	
Del Mar Mesa Sand Aster	<i>Corethrogyne filaginifolia var. linifolia</i>		List 3	X	
Encinitas Baccharis	<i>Baccharis vanessae</i>	FT/SE	List 3	X	
Engelmann Oak	<i>Quercus engelmannii</i>		List 2		
Little Mouseltail	<i>Myosurus minimus ssp. apus</i>		List 3	X	X
Nuttall's Scrub Oak	<i>Quercus dumosa</i>		X		
Orcutt's Brodiaea	<i>Brodiaea orcuttii</i>		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/ -	List 2	X	
San Diego Barrel Cactus	<i>Ferocactus viridescens</i>		List 2		
San Diego Button-celery	<i>Eryngium parishii</i>	FE/SE	List 3	X	X
San Diego Goldenstar	<i>Bloomeria clevelandii</i>			X	
San Diego Marsh Elder	<i>Iva hayesiana</i>		List 3		X
San Diego Thorn-mint	<i>Acanthomintha illicifolia</i>	FT/SE	List 2	X	
Spreading Navarretia	<i>Navarretia fossalis</i>	FT/ -	List 3	X	X
Sticky Dudleya	<i>Dudleya viscida</i>		List 2		
Summer Holly	<i>Comarostaphylis diversifolia ssp. diversifolia</i>		List 3		
Thread-leaved Brodiaea	<i>Brodiaea filifolia</i>	FT/SE	X	X	
Torrey Pine	<i>Pinus torreyana ssp. torreyana</i>		List 3		
Wart-stemmed Ceanothus	<i>Ceanothus verrucosus</i>		List 2		
Invertebrates					
Harbison's Dun Skipper	<i>Euphyes vestris harbisoni</i>		X	X	X
Hermes Copper Butterfly	<i>Lycaena hermes</i>			X	
Quino Checkerspot Butterfly	<i>Euphydryas editha quino</i>	FE/ -			
Riverside Fairy Shrimp	<i>Streptocephalus woottoni</i>	FE/ -	List 3	X	X
Salt Marsh Skipper	<i>Panoquina errans</i>		X		X
San Diego Fairy Shrimp	<i>Branchinecta sandiegonensis</i>	FE/ -	List 3	X	X
Reptiles/Amphibians					
Arroyo Toad	<i>Bufo californicus</i>	FE/ -		X	X
Orange-throated Whiptail	<i>Aspidoscelis hyperythra beldingi</i>		X		

TABLE 2-1: SENSITIVE SPECIES LISTED IN THE HABITAT MANAGEMENT PLAN AS OCCURRING OR POTENTIALLY OCCURRING IN CARLSBAD

COMMON NAME	SCIENTIFIC NAME	STATUS ¹	COVERED BY HMP ²	NE ³	R/W ⁴
Birds					
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	FD/SE	X		
Belding’s Savannah Sparrow	<i>Passerculus sandwichensis beldingi</i>	- /SE	X		X
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/ -	X		
Cooper’s Hawk	<i>Accipiter cooperi</i>		X		
Elegant tern	<i>Sterna elegans</i>		X		X
Large-billed Savannah Sparrow	<i>Passerculus sandwichensis rostratus</i>		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
Osprey	<i>Pandion haliaetus</i>		X		X
Rufous-crowned Sparrow	<i>Aimophila ruficeps canescens</i>		X		
Southwestern Willow Fly-catcher	<i>Empidonax traillii extimus</i>	FE/SE	X		X
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	FT/ -	X		X
White-faced Ibis	<i>Plegadis chihi</i>		X		X
Yellow-breasted Chat	<i>Icteria virens</i>		X		X
Mammals					
Pacific Pocket Mouse	<i>Perognathus longimembris pacificus</i>	FE/ -		X	
Stephen’s Kangaroo Rat	<i>Dipodomys stephensi</i>	FE/ST			
Stephen’s Kangaroo Rat	<i>Dipodomys stephensi</i>	FE/ST			
<p>FE – Federally endangered SE – State endangered FT – Federally threatened ST – State threatened FD – Federally delisted</p> <p>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).</p> <p>NE – Narrow endemic species. Narrow endemic species are native species with restricted geographic distributions, soil affinities and/or other habitats.</p> <p>R/W – Species that occur in riparian, wetland, or vernal pool habitat</p>					

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

2.5 Conservation Efforts

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 2-2, for a total of 6,786 acres. As of October 2009, the city had preserved 5,821 acres, or 90 percent of the HMP target, as shown in Table 2-3, leaving a remaining 657 acres to be preserved in hardline conservation or standards areas order to meet the HMP permit requirements.

TABLE 2-2: HABITAT MANAGEMENT PLAN CONSERVATION TARGETS	
VEGETATION TYPE	ACRES
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
Total Target Conservation within Carlsbad	6,478
Gnatcatcher Core Area Contribution	308 ¹
Total HMP Target Conservation	6,786
Rounded to the nearest acre.	

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

TABLE 2-3: CUMULATIVE HABITAT GAINS INSIDE THE HABITAT PRESERVE PLANNING AREA (AS OF OCTOBER 31, 2009)	
VEGETATION TYPE	ACRES
Grassland	637
Coastal Sage Scrub	1,760
Chaparral (Undifferentiated Types)	605
Southern Maritime Chaparral	333
Oak Woodland	13
Eucalyptus Woodland	95
Riparian Scrub, Woodland and Forest	445
Marsh. Estuarine, Freshwater and Other Wetlands	1,131
Disturbed Lands	802
Total Cumulative Habitat Gains Inside Preserve Planning Area	5,821
Gnatcatcher Core Area Contribution	265
Rounded to the nearest acre.	

Source: Annual Report for the Carlsbad Habitat Management Plan, Year 5 (April 9, 2010), acreages revised for November 2010.

Current Status of Preserves

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 2-3. Table 2-4 includes a summary of the city-owned preserves, the management of which is funded through the city’s annual budget.

TABLE 2-4: CITY-OWNED PRESERVES AND MITIGATION PARCELS	
PRESERVE/PROJECT NAME	ACRES
Batiquitos Drive	2.7
Carlsbad Village	13.7
Carrillo Ranch	16.6
La Costa Canyon Park	8.9
La Costa/Romero	12.9
Lagoon Lane	2.7
Lake Calavera Mitigation Parcel	256.1
Los Monos	20.5
Macario Canyon	33.2
Municipal Golf Course	198.2
Poinsettia Park	12.5
Research Center	2.6
Veterans Park	21.1
Total Acres	601.7

Source: City of Carlsbad Preserve Management Plan, September 2008.

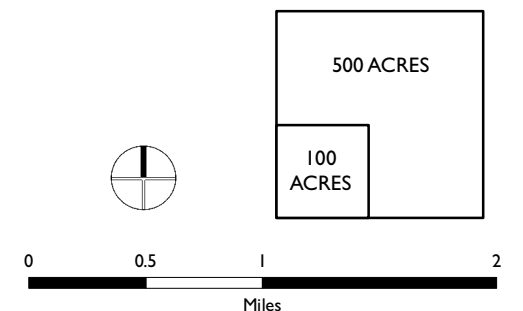
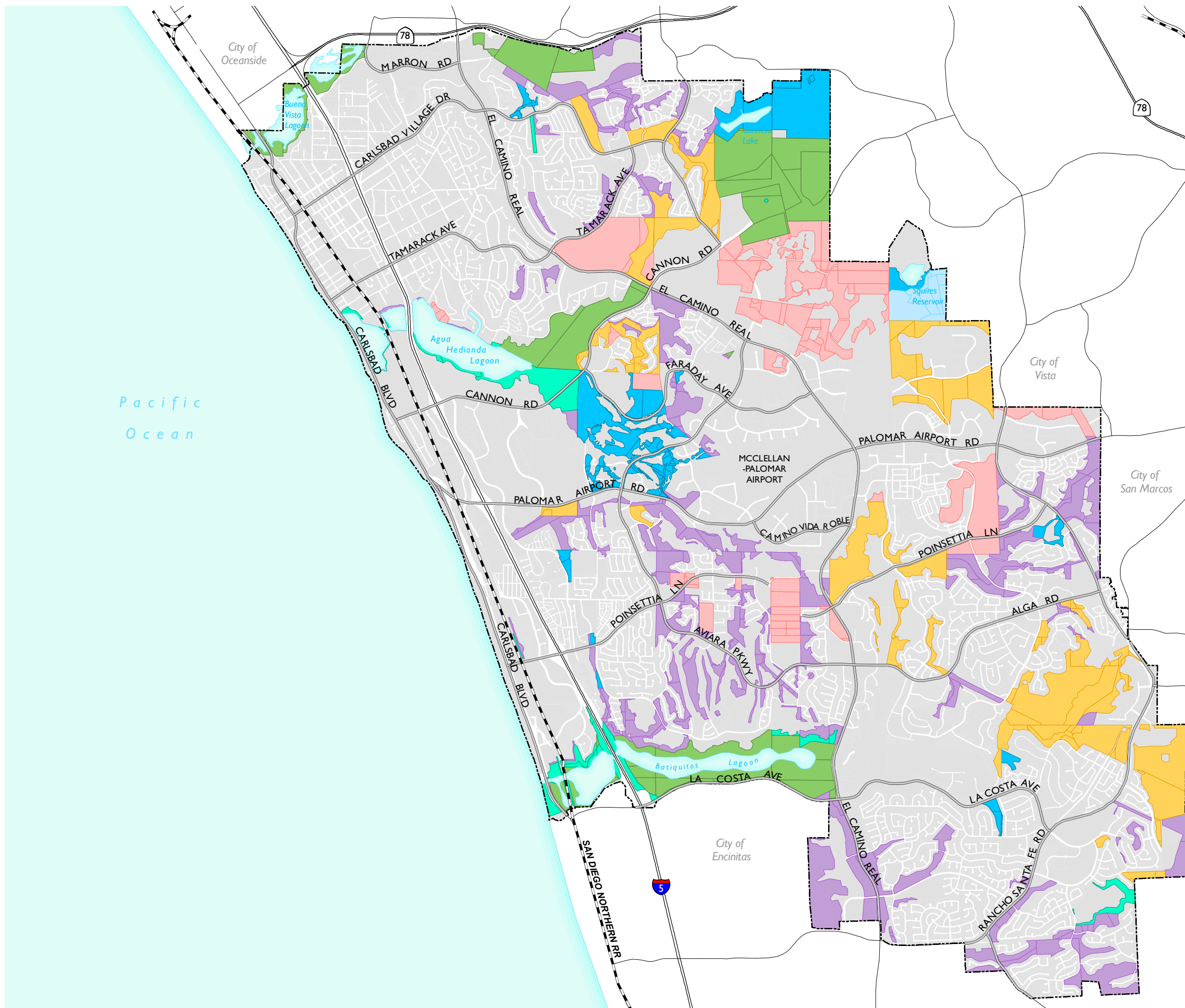
Proposition C Open Space and Trails Ad Hoc Citizens Committee

In 2002, Proposition C was passed by Carlsbad voters, which authorized the City Council to exceed the \$1 million capital spending limit for specified projects, one of which was the acquisition of open space and trail linkages. The Proposition C Open Space and Trails Ad Hoc Citizens’ Committee was formed by the City Council in October 2005 to establish a prioritized list of potential property acquisitions associated with the open space and trails linkage component of Proposition C. The committee met from February 2006 through January 2007, reviewing pertinent open space and trails documents and maps, touring open space areas within the city, and engaging in discussions with interested members of the public. The committee used the information they gathered to develop criteria that was used to rank potential natural open space acquisitions. The committee solicited nominations of potential open space acquisitions and received proposals for 13 properties. These properties were ranked using the committee’s criteria and presented to the City Council in the committee’s final report in February 2007.¹ Subsequent to the preparation of the final report, the City Council recommended three additional areas of the city be evaluated and included in the ranking.

Using the committee’s report and other resources, the city works with non-profit organizations and state and federal wildlife agencies in exploring the willingness of sellers, seeking grant money for open space preservation, and directing other governmental entities to areas for potential preservation for project mitigation. Several conservation acquisitions have occurred to-date, including the Sherman property (now the California Department of Fish and Game’s Buena Vista Creek Ecological Reserve), the Mitsuuchi property near Batiquitos Lagoon, and two Caltrans properties near Agua Hedionda Lagoon.

¹ For more information, please see the Proposition C Open Space and Trails Ad Hoc Citizens Committee Final Report prepared by the Planning Department in February 2007.

Figure 2-3: Current HMP Preserves



Source: City of Carlsbad, 2010; SANDAG, 2008; Dyett & Bhatia, 2010.

2.6 Agricultural and Horticultural Heritage

The City of Carlsbad's agricultural and horticultural resources are considered a valuable part of the city's open space heritage. Various levels of farming and cultivation of agricultural crops have occurred throughout the City of Carlsbad. In the late 1880s agriculture development consisted of citrus fruits, avocados and olives and by the early 1900s dry farming was the town's principle industry. By 1914 farming was expanded to include flowers.

The Flower Fields and strawberry fields constitute a large portion of the existing agricultural uses. The Flower Fields are a result of more than 85 years of floral cultivation that first began in the early 1920s. Today, the Flower Fields comprise more than 50 acres of Giant Tecolote Ranunculus flowers, as well as approximately five acres of other specialty flowers, located at Carlsbad Ranch, east of Interstate 5 (I-5) and north of Palomar Airport Road. Other agricultural uses in the city includes an additional 45 acres of agricultural land located north of the Flower Fields along the south side of Cannon Road, and approximately 26 acres located to the east of that site (these sites are part of the Carlsbad Ranch Specific Plan and are lands affected by Proposition D; see discussion on following page). An additional site located on the north side of Cannon Road along the south shore of Agua Hedionda Lagoon consists of approximately 172 acres, a portion of which is occupied by the existing strawberry fields (a portion of this area is affected by Proposition D). The Carlsbad Strawberry Company's fields are approximately 80 acres in size. The strawberry fields have been in production for more than 40 years.

In recognition of this history, an agricultural conversion mitigation fee program was instituted as an incentive to retain agricultural land, and to support agricultural uses in the future. Under the program, \$10,000 per acre is paid to the city when coastal agricultural lands are developed, to go toward enhancement of natural and agricultural environment, including the development of farmworker housing.



The strawberry fields (top), and Flower Fields, (bottom), are existing agricultural businesses in Carlsbad, as well as iconic open spaces for many community members.

Proposition D

In November 2006, Proposition D—Preserve the Flower and Strawberry Fields and Save Tax Payers Money (Prop D)—amended the Carlsbad General Plan by designating an area of land for special consideration called “The Cannon Road Open Space, Farming and Public Use Corridor.” The Prop D areas consist of approximately 307 acres of privately-owned lands, including the Carlsbad Strawberry Company’s fields and the Flower Fields. The proposition placed a permanent open space designation on the lands to encourage continuation of agriculture as long as it is economically viable for the landowners. When agriculture is no longer economically viable, only other open space uses would be allowed on the lands. The Proposition specifically prohibits residential, commercial and industrial-type uses in the area other than those normally associated with farming operations and open space uses. Prop D calls for the city to conduct a comprehensive planning and public participation process to determine the most appropriate use of the site, which is limited to open space, recreational and public uses.

On July 10, 2007, the City Council approved a work program for engaging the community in the comprehensive planning process. Several workshops and an online survey were conducted to involve the community in the process; and resulted in a refined list of potential agricultural and open space uses that the community participants felt implemented Proposition D and were appropriate for the Cannon Road Agriculture and Open Space Lands. The public outreach also resulted in a set of guiding principles for use on the Cannon Road Agriculture and Open Space Lands. The results of the Proposition D public outreach efforts were documented in a report titled “Creating a Community Vision for the Cannon Road Agriculture (Prop D) Lands.” The report was accepted by the Carlsbad City Council in September 2008. The City of Carlsbad is now developing new regulations in the zoning ordinance to fully implement Proposition D and the results of the community outreach process.

3 Beaches, Lagoons, and Waterways



3.1 Overview of the Carlsbad Coast

The western edge of the city is characterized by sandy beaches and three low-lying river estuaries or lagoons – Batiquitos, Agua Hedionda, and Buena Vista lagoons. The coastal portions of Carlsbad 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 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.

3.2 Key Regulatory Setting

California Coastal Commission and Local Coastal Program

The California Coastal Commission was established by voter initiative in 1972 and later codified through adoption of the California Coastal Act (CCA) of 1976. The California Coastal Commission, in partnership with coastal cities and counties, plans and regulates the use of land and water in the Coastal Zone to: (1) promote the public safety, health, and welfare; (2) protect public and private property, wildlife, marine fisheries, and other ocean and natural resources; and (3) protect the ecological balance of the coastal zone from deterioration and destruction. The CCA acknowledges that existing developed uses, and future developments that are carefully planned and developed consistent with the CCA, are essential to the economic and social well being of the people of California, especially to people living and working within the Coastal Zone

and the general public’s access and enjoyment of natural resources.

The CCA defines the Coastal Zone as the area of the state that extends three miles seaward and generally about 1,000 yards inland. In Carlsbad, the Coastal Zone boundary generally encompasses the area east of the Pacific Ocean to El Camino Real. In California, almost all development within the Coastal Zone requires a coastal development permit from either the California Coastal Commission or a local government with a certified Local Coastal Program (LCP). LCPs contain the ground rules for future development and protection of coastal resources, and specify appropriate location, type, and scale of new or changed uses of land and water. While each LCP reflects unique characteristics of individual local communities, regional and statewide interests and concerns must also be addressed in conformity with CCA goals and policies. Once an LCP is adopted by a city council or county board of supervisors, the LCP is submitted to the California Coastal Commission for review of CCA consistency. Until the California Coastal Commission certifies the city or county’s LCP, all coastal development permits must be obtained from the California Coastal Commission.

Many of the coastal counties and cities in California have divided their Coastal Zone jurisdictions into separate geographic segments. As shown on Figure 3-1: Carlsbad Local Coastal Program, Carlsbad has six Coastal Zone segments: the Agua Hedionda segment (approximately 1,100 acres); the Carlsbad Mello I segment (approximately 2,000 acres); the Carlsbad Mello II segment (approximately 5,300 acres); the West Batiquitos Lagoon/Sammis Properties segment (approximately 200 acres); the East Batiquitos Lagoon/Hunt Properties segment

(approximately 1,000 acres); and the Carlsbad Village Area segment (approximately 90 acres).²

To date, the California Coastal Commission has certified all but one of the city's six segments (the Agua Hedionda segment), meaning the California Coastal Commission retains authority for the issuance of coastal development permits within this segment. In addition, the Mello II segment includes five areas of deferred certification, meaning the California Coastal Commission retains permit issuing authority for these areas. For the other four segments, the city has permit issuing authority for all areas within the segments.³

The topics addressed in the LCP are reflective of the city's unique characteristics and resources, and are also defined by the Coastal Act to ensure that regional and statewide issues are considered. Carlsbad's LCP is undergoing a comprehensive update as a part of the Envision Carlsbad Phase 2 process.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act is the principal state law enacted to establish requirements for adequate planning, implementation, management, and enforcement of water quality controls. The Porter-Cologne Act, which became Division 7 of the California Water Code, established a regulatory program to protect water quality and beneficial uses of all state waters, outlined the responsibilities and authorities of the nine Regional Water Quality Control Boards (RWQCB), and established the State Water Resources Control Board (SWRCB). For the San Diego Hydrologic Region, water quality is regulated by the RWQCB, Region 9 of the SWRCB. Each Regional Board is directed to create a water quality control plan, to include three main components: (1) beneficial uses which are to be protected; (2) water quality objectives which protect those uses; and (3) an implementation plan to accomplish those objectives.

² City of Carlsbad Local Coastal Program, August 14, 1996, as amended 2010.

³ California Coastal Commission Local Coastal Planning Program LCP Status and History Report, October 25, 2007.

San Diego Basin—Region 9, Water Quality Control Plan

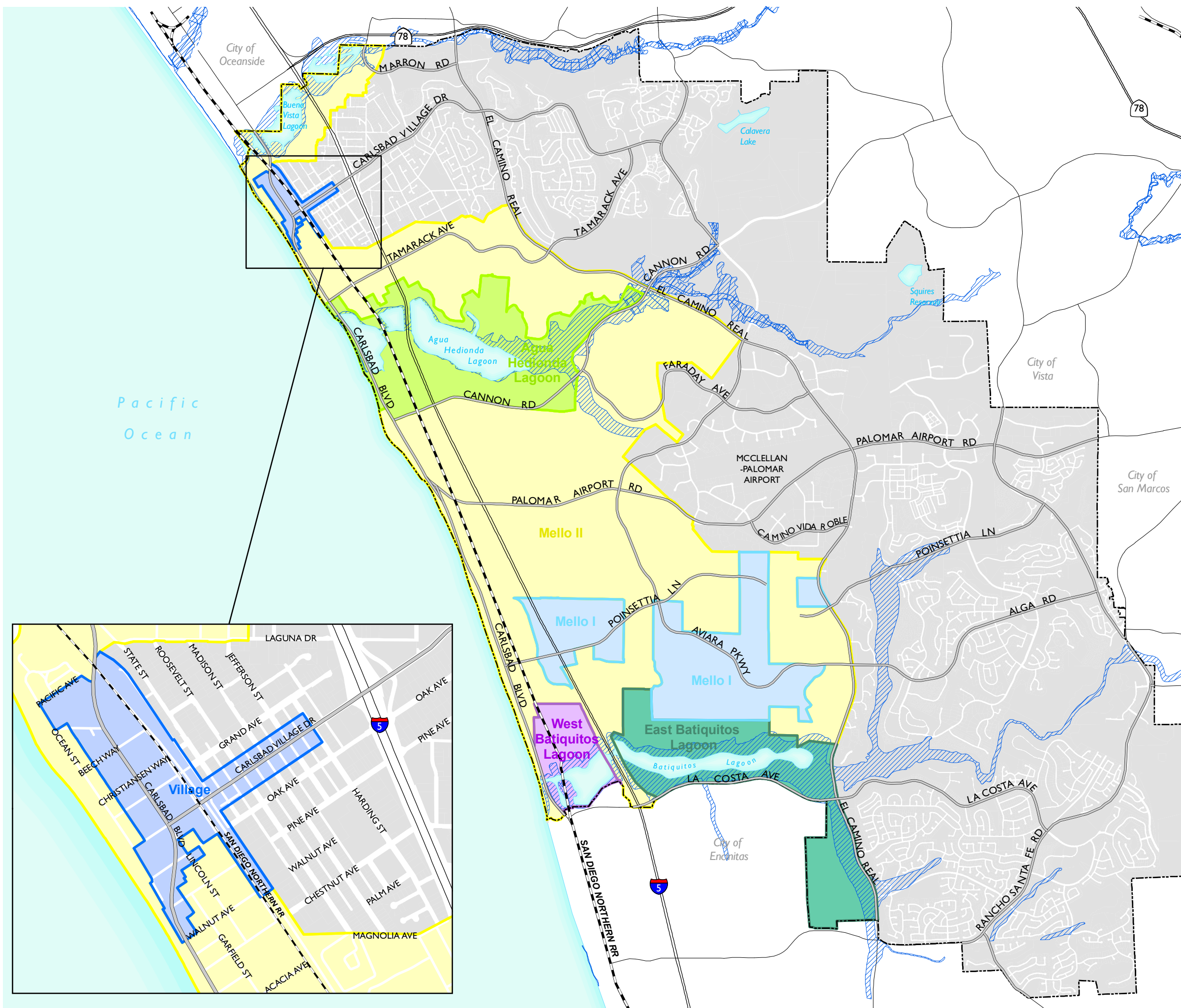
In accordance with the criteria in the California Porter-Cologne Water Quality Control Act, and other pertinent state and federal rules and regulations, each RWQCB is responsible for water quality control planning within their region, often in the form of a basin plan. San Diego County falls within the jurisdiction of the Region 9 of the RWQCB. The San Diego Basin—Region 9, Water Quality Control Plan establishes standards for compliance in the San Diego Basin. The RWQCB is also responsible for implementing the provisions of the General Permit, including reviewing Storm Water Pollution Prevention Plans and monitoring reports, conducting compliance inspections, and taking enforcement actions.

San Diego Region Municipal Stormwater Permit (MS4 Permit)

The Clean Water Act amendments of 1987 established a framework for regulating stormwater discharges from municipal, industrial, and construction activities under the National Pollutant Discharge Elimination System (NPDES) program. The NPDES permit program, as authorized by Section 402 of the Clean Water Act, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States. In California, the SWRCB administers the NPDES municipal storm water permitting program through the nine Regional Boards.

Pursuant to the Municipal Permit issued by the San Diego RWQCB, co-permittees are required to develop and implement construction and permanent storm water best management practice (BMP) regulations addressing storm water pollution associated with private and public development projects. Development projects are also required to include BMPs to reduce pollutant discharges from the project site in the permanent design. The Municipal Stormwater Permit outlines the individual responsibilities of the co-permittees including, but not limited to, the implementation of management programs, BMPs, and monitoring programs, within their jurisdiction and their watershed(s).

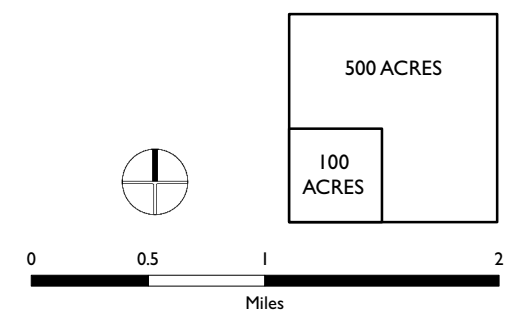
Figure 3-1: Local Coastal Program



- Agua Hedionda Lagoon
- East Batiquitos Lagoon/ Hunt Properties
- Mello I
- Mello II
- Village
- West Batiquitos Lagoon/ Sammis Properties

- 100-year Flood Plain

- Highways
- Major Roads
- Railroad
- City Limits



Source: City of Carlsbad, 2010; SANDAG, 2008; Dyett & Bhatia, 2010.

BMPs associated with the final design are described in the Model Standard Urban Stormwater Mitigation Plan. The County of San Diego requires a storm water management plan to describe potential construction and post-construction pollutants and identify BMPs to protect water resources.

In addition, the RWQCB's Municipal Separate Storm Sewer Systems permit requires control of hydromodification, or changes in the natural flow pattern (surface flow or groundwater) of an area due to development. Hydromodification can be managed by reducing runoff flow and volume, along with including BMPs that reduce volume.

Jurisdictional Urban Runoff Management Program

The city has developed a Jurisdictional Urban Runoff Management Program to comply with Municipal Permit Order No. R9-2007-0001, NPDES Permit No. CAS0108758, issued by the California Regional Water Quality Control Board, San Diego Region. The Permit was issued on January 24, 2007 and is valid for five years. The JURMP, therefore, helps to implement programs to reduce pollution in urban runoff, including programs to regulate new public and private land development during each of the three major phases of urban development, i.e., the planning, construction, and existing development (or use) phases.⁴

Federal Emergency Management Agency

The Federal Emergency Management Agency prepares Flood Insurance Rate Maps, or FIRM's, which identify 100-year flood zones within communities. The 100-year floodplain areas within the city are located around and adjacent to the three lagoons and associated major creeks (see Figure 3-1). Pursuant to the city's LCP and Title 21 (Zoning) of the Carlsbad Municipal Code, development is restricted within 100-year floodplain areas. In addition, the city has identified specific areas where specific protection efforts are necessary, including

steep slopes, drainage/erosion, slope stability, seismic hazards, and floodplain development by designating these areas as part of the Coastal Resource Protection Overlay Zone.

3.3 Beaches

An important component of the Carlsbad General Plan Update is the enhancement and maintenance of beach community character and connectedness. The city has seven miles of beach and coastline divided into three main sections: North Carlsbad beaches, Carlsbad State Beach, South Carlsbad State Beach. The beaches are mostly owned and managed by the California State Parks and Recreation Department, which provides lifeguard/public safety service, maintenance of public restrooms, picnic areas, operation of the South Carlsbad Campground, and various beach parking lots. Beaches in the city are described briefly below.

North Carlsbad Beaches

Beaches north of Pine Avenue to the Oceanside border are jointly owned by the state and the coastal property owners along that stretch. All are open to the public, and the City of Carlsbad provides public access to the beach (See Chapter 4 for a discussion of beach access). Beaches in north Carlsbad do not have established lifeguard services but are patrolled by the State lifeguards when available.

Carlsbad State Beach

Carlsbad State Beach, from Pine Avenue south to Cannon Road includes the Frazee State Beach, Tamarack Surf State Beach and Warm Water Jetty (in front of the power plant). This stretch of Carlsbad's shoreline is one of San Diego County's most popular beaches. The City of Carlsbad provides beach access at Pine Avenue, Sycamore Avenue, Maple Avenue, Cherry Avenue and Tamarack Avenue. Two seawalls and pedestrian walkway connect Pine Avenue to just south of Cannon Road. There are public restrooms and showers at Pine Avenue and Tamarack Avenue. The seawall south of Tamarack Avenue provides additional beach access

⁴ City of Carlsbad, Jurisdictional Urban Runoff Management Program, March 2008.



The beaches in Carlsbad are important open space resources, providing natural communities of plants and animals, as well as recreational and aesthetic benefit for residents and visitors.

ways and provides a pedestrian connection along this entire stretch of beach.

South Carlsbad State Beach

South Carlsbad State Beach stretches from La Costa Avenue to just north of Tarramar Point and includes a popular 220-site South Carlsbad Campground and two-day use areas. Beach areas within the South Carlsbad State Beach include the North Ponto and South Ponto beaches and Terramar Beach. The South Ponto Beach has restrooms, showers and paid parking.

3.4 Lagoons and Lagoon Watersheds

Lagoons are a valuable part of the city's open space network and provide various public benefits, such as hiking trails, scenic views, nature preserves, fishing, and water recreation. There are three lagoons, totaling more than 1,000 acres, located within the city. The following is a basic description of the lagoons and lagoon watershed environmental resources and challenges. Information on lagoon recreational uses and opportunities is provided in Chapter 4: Parks, Recreation and Active Lifestyles.

Buena Vista Lagoon

Buena Vista Lagoon is a 350-acre fresh water lagoon managed by CDFG as a nature reserve. Located on the border between Carlsbad and Oceanside, it became California's first ecological reserve in 1969. CDFG is the major property owner of the lagoon however, a number of adjacent residential property owners have control of small portions of their property as they meet the lagoon's wetland boundary.

Fourteen natural vegetation communities are present within the Buena Vista Creek watershed, and some of the largest areas of freshwater marsh habitat in San Diego County are present around Buena Vista Lagoon. The lagoon offers sanctuary to many species, including birds, mammals, amphibians and reptiles. In fact, millions of birds pass

through this area during the winter and summer migrations because of its location on the annual migration route known as Pacific Flyway.

Although the lagoon itself is maintained as a nature reserve, much of the Buena Vista watershed is already developed. A large percentage of the watershed is under private ownership, making it difficult to acquire large tracts of land necessary to implement a comprehensive preserve system. The primary water quality issues within the watershed concern Buena Vista Lagoon, which is listed as impaired for nutrients, indicator bacteria, and sedimentation/siltation on the U.S. Environmental Protection Agency's (EPA) 2008 303(d) list. The City of Vista has installed a series of check dams and a detention basin to assist in the removal of sediments traveling through the Buena Vista Creek, which is listed as impaired for selenium on the EPA's 2008 303(d) list.

In 2009, the Coastal Conservancy approved use of \$540,000, available from SANDAG, for planning and permitting necessary for restoration of Buena Vista Lagoon State Ecological Reserve in Carlsbad and Oceanside. The lagoon supports a wide diversity of wildlife and is a prized amenity to the community. The funding supplements \$600,000 that the Coastal Conservancy made available for the restoration in 2008.

Currently, the Buena Vista Lagoon Foundation and the Buena Vista Lagoon Technical Advisory Committee (TAC) are pursuing a restoration project for this lagoon. The TAC is considering three different hydraulic regimes including maintaining its current existence as all freshwater, creating a mixture of saltwater and freshwater, or opening up tidal flushing to convert Buena Vista Lagoon to all saltwater. The TAC and consultant team are reviewing the draft EIR/EIS for environmental compliance in order to determine the preferred alternative. A number of issues are currently being studied which would identify potential impacts with the proposed project, including modifying the inlet from the ocean, modifying a bridge at I-5 and other restoration activities. The project will most likely require the purchase of a number of privately

held parcels within and on the perimeter of the lagoon.

Agua Hedionda Lagoon

Agua Hedionda Lagoon is situated between Tamarack Avenue and Cannon Road and is comprised of three inter-connected lagoons, divided by the I-5 freeway and a railroad bridge. Cabrillo Power LLG owns and manages the lagoon water body which primarily provides cooling water for the electric producing generators at the Encina Power Plant. A small portion along the eastern edge of the lagoon is protected by CDFG and designated as a Marine Protected Area under the Marine Life Protection Act. The Agua Hedionda Ecological Reserve was acquired in 2000 by the CDFG and consists of 186 acres of wetland at the eastern end of the lagoon.

Twenty-two vegetation types have been mapped within the watershed, with the most extensive types within the watershed being Coastal Sage Scrub and various kinds of chaparral. Several significant stands of Southern Maritime Chaparral, a rare and highly fragmented vegetation type, occur along the southern edge of the lower basin. Another very rare vegetation type in California, Maritime Succulent Scrub, is represented in the watershed by a stand on the slopes above Agua Hedionda Lagoon just west of I-5.

Agua Hedionda Creek is listed as impaired for indicator bacteria, phosphorus, Total Nitrogen as N, toxicity, manganese, and selenium on the EPA's 2008 303(d) list. A recent invasive plant removal project was successfully implemented at Agua Hedionda Lagoon. In 2000, *Caulerpa Taxifolia*, a species of green algae, was detected in the lagoon. This algae is not native to the Pacific Coast and was apparently accidentally introduced into California waters by someone emptying an aquarium into the lagoon. After detection, an intensive treatment program was initiated at the lagoon from June 2000 - September 2001, as well as a quarterly survey program. Each patch of algae detected was contained and treated within 24 hours of its



The city's lagoons offer habitat for aquatic and vegetative species, as well as aesthetic benefits for visitors and those that live in view.

discovery. As of December 2005⁵, no additional *Caulerpa taxifolia* has been detected in seven surveys over the course of three years. This algae is highly invasive and has become a serious problem in marine ecosystems in other parts of the world, e.g. the Mediterranean Sea, Australia, and New Zealand.

Batiquitos Lagoon

Batiquitos Lagoon consists of approximately 561 acres protected as a game sanctuary and bird estuary. The Batiquitos Lagoon is owned by both the CDFG and the California State Lands Commission. The lagoon was originally open to the ocean, but over time the construction of transportation corridors and other development resulted in sediment closing off the lagoon. Then, in the mid-1990s, a significant lagoon restoration and enhancement project, conducted by the City of Carlsbad, Port of Los Angeles and other cooperating agencies, allowed for the lagoon to open to the ocean again, as it exists today. Based on the final agreement for the Batiquitos Lagoon Enhancement Project (1987) CDFG is responsible for ongoing maintenance and monitoring of the lagoon. Encinitas Creek is listed as impaired for selenium and toxicity, and San Marcos Creek is listed as impaired for DDE, phosphorus, selenium, and sediment toxicity on the EPA's 2008 303(d) list.

The lagoon is a coastal salt marsh with tidal mud flats and is one of the few remaining tidal wetlands on the Southern California Coast. Large areas of salt marsh occupy the lagoon margins and significant stands of freshwater marsh are present where San Marcos and Encinitas creeks enter the lagoon. Fifteen natural vegetation types have been mapped within the watershed, and the lower basin supports high quality stands of Diegan Coastal Sage Scrub and various types of chaparral, including significant stands of Southern Maritime Chaparral. Home to many different wildlife species, endangered birds

⁵ Merkel & Associates 2006.

such as the Snowy Plover, California Least Tern and Clapper Rail have been spotted there.

3.5 Water Quality and Pollution

The water quality situation for each of the three lagoons and their associated watersheds was described briefly above. As discussed in Working Paper #1 (Sustainability), a community's impact on water quality is closely related to the hydrologic context of a region and the sources and types of pollutants that can further degrade or impair the city's water bodies and resources. As additional development occurs in the City of Carlsbad, and in other communities within these watersheds, impervious surfaces may increase from the placement of roads, parking lots, buildings and other infrastructure. These facilities will reduce that amount of water

infiltration into the ground and will increase direct runoff into the city's creeks and lagoons, which could result in further water quality degradation and flooding concerns. In addition, if not controlled, development activities have the potential to cause soil erosion and sedimentation, which may result in increased rates of surface runoff, decreased water quality, and related environmental damage.

An effective use of site, source and treatment control best management practices is crucial to the city's ability to minimize pollutants and reduce water quality impacts. One way to reduce urban runoff volume is to maximize the percentage of permeable surfaces throughout the city in order to allow increased percolation and minimize the amount of runoff directed to impervious areas (e.g., parking lots). In addition, pollutant sources can be minimized by incorporating landscaped areas,

THE CALIFORNIA COASTAL CONSERVANCY: STATE MONEY PROTECTS VALUABLE LOCAL RESOURCES

The California Coastal Conservancy, established in 1976, is a state agency that uses entrepreneurial techniques to purchase, protect, restore, and enhance coastal resources, and to provide access to the shore. The Coastal Conservancy works in partnership with local governments, other public agencies, nonprofit organizations, and private landowners. To-date, the Coastal Conservancy has undertaken more than 1,800 projects along the 1,100-mile California coastline and around San Francisco Bay. The Coastal Conservancy protects and improves coastal wetlands, streams, and watersheds; helps people get to coast and bay shores by building trails and stairways and by acquiring land and easements; assists in the creation of low-cost accommodations along the coast, including campgrounds and hostels; works with local communities to revitalize urban waterfronts; purchases and holds environmentally valuable coastal and bay lands; protects agricultural lands and supports coastal agriculture; and accepts donations and dedications of land and easements for public access, wildlife habitat, agriculture, and open space.

In 2009, the Coastal Conservancy approved use of \$540,000, available from the San Diego Association of Governments, for planning and permitting necessary for restoration of Buena Vista Lagoon State Ecological Reserve in Carlsbad and Oceanside. Urban development around the lagoon has constricted its habitats, and flows of sediments that settle in the lagoon threaten its continued existence. Despite these impairments, the lagoon supports a wide diversity of wildlife and is a prized amenity to the community. The funding supplements \$600,000 that the Coastal Conservancy made available for the restoration in 2008.

drought tolerant plant materials, and slow conveyance of runoff through vegetated areas.

The City of Carlsbad currently employs a number of measures, including BMPs, to prevent pollutants and hazardous materials from entering municipal stormwater conveyance systems. As storm drains are not connected to sanitary sewer infrastructure, water conveyed to these drains are not treated prior to discharging into creeks, lagoons and the ocean. Therefore, pollutants must be reduced and/or removed before entering urban conveyance systems. The city's Storm Water Protection Program conducts inspections, monitoring, and education and outreach to the public. Through this program, the city informs residents and businesses how to prevent pollutants and other hazardous materials from entering storm drains.

3.6 Flooding and Coastal Hazards

FEMA Floodplains

Floodplains are areas of land located adjacent to rivers or streams that are subject to recurring inundation, or flooding. Preserving or restoring natural floodplains helps with flood loss reduction benefits and improves water quality and habitat. Floods are typically described in terms of their statistical frequency. For example, a 100-year floodplain describes an area within which there is a 1 percent probability of a flood occurring in any given year. The Federal Emergency Management Agency prepares Flood Insurance Rate Maps, or FIRM's, which identify 100-year and 500-year flood zones. The 100-year floodplain areas within the city are located around and adjacent to the three lagoons

(see Figure 3-1). Most jurisdictions within San Diego County, including the City of Carlsbad, participate in the National Flood Insurance program. Pursuant to the City of Carlsbad's LCP and Title 21 (Zoning) of the Carlsbad Municipal Code, development is restricted within 100-year floodplain areas.

Sea Level Rise

In California, sea levels have risen by as much as seven inches along the California coast over the last century, resulting in eroded shorelines, deterioration of infrastructure, and depletion of natural resources.⁶ The California State Lands Commission released a report related to sea level preparedness in California, which summarized the efforts of California, federal agencies, and other coastal states to address sea level rise and provided recommendations to reduce the impacts of sea level rise on California's communities. In addition, the 2009 California Climate Adaptation Strategy, summarizes the most recent science in predicting potential climate change impacts and recommends response strategies. The California Energy Commission's 2009 White Paper entitled, "The Impacts of Sea-Level Rise on the California Coast" also describes strategies to address the impacts of sea level rise in California communities. The San Diego County Multi-Jurisdictional Hazard Mitigation Plan (HAZMIT) has identified sea level rise as one of Carlsbad's (and other coastal cities) three primary climate change vulnerabilities (the other two being drought and fire). Areas within the city that are particularly vulnerable to sea level rise are those areas immediately adjacent to the coast, which are similarly vulnerable to coastal storms. Potential strategies to reduce the impacts of sea level rise on the city may include hard engineering (seawalls, breakwaters, levees) soft engineering (beach nourishment and/or replenishment, buffer areas) and restricting or reducing development near the coastal areas.

⁶ California Natural Resources Agency, 2009 *California Climate Adaptation Strategy*.

Safety and Management

Long-term prevention, mitigation efforts and risk-based preparedness for specific hazards within the city are addressed as a part of the HAZMIT, which was finalized in February 2010. The HAZMIT Plan identifies specific risks for San Diego County and provides methods to help minimize damage caused by natural and manmade disasters. The final list of hazards profiled for San Diego County was determined as Wildfire/Structure Fire, Flood, Coastal Storms/Erosion/Tsunami, Earthquake/Liquefaction, Rain-Induced Landslide, Dam Failure, Hazardous Materials Incidents, Nuclear Materials Release, and Terrorism. Currently, the city is in the process of updating its mitigation strategies and action programs within the HAZMIT Plan. Areas of potential concern for the city are coastal storms/erosion and tsunami. (Figure 3-2) In order to improve the city's capacity to handle and convey water flows that may result from these events, as well as alleviate potential flooding and erosion impacts on public and private lands, structures, and infrastructure systems that may result, the city can evaluate opportunities to protect the coast from inundation and ease the stress on existing flood conveyance systems. Opportunities may include incorporating erosion and sedimentation control measures along the coast, improving storm drain infrastructure to divert flows or handle increased capacity, shifting a portion of Carlsbad Boulevard inland, and/or creating new wetland areas within the city's areas of potential concern to increase surface area for water flow conveyance.

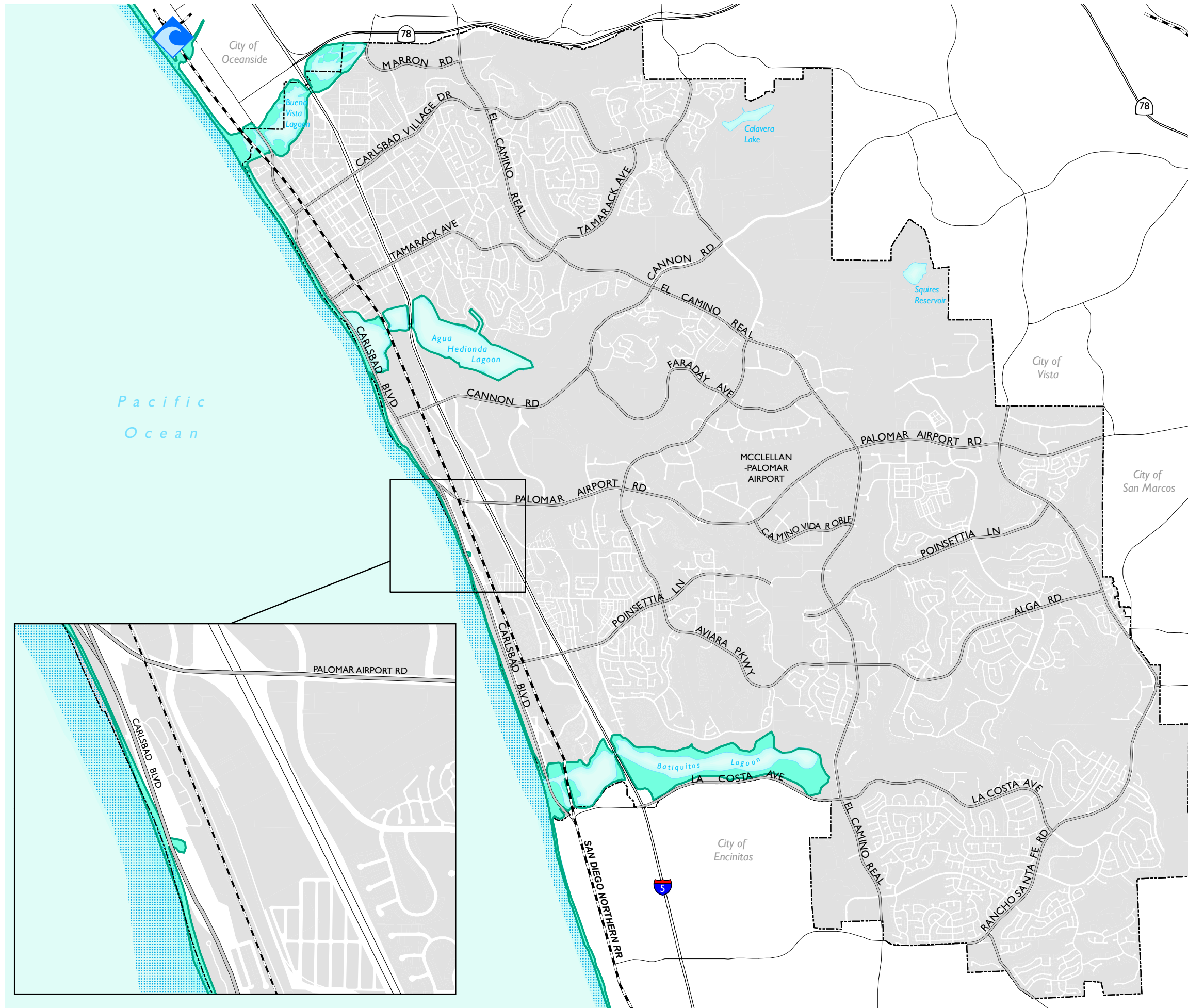
EROSION AND CARLSBAD








Erosion occurs when materials on the earth's surface are loosened, dissolved, or worn away and relocated by natural processes (e.g. rainfall, flowing water, wind, ice, temperature change, gravity) or by human-driven activities (e.g. agriculture, construction). Topsoil is an important soil layer containing organic matter, plant nutrients, and biological activity. The loss of topsoil is the most significant on-site consequence of erosion. Related to erosion, sedimentation occurs when soils are deposited into water, potentially decreasing the water quality and accelerating the aging process of the water body. When the natural rate of erosion has been significantly increased due to human activities or changes in climatic conditions, erosion and sedimentation can lead to increased rates of surface runoff, decreased water quality, and related environmental damage.

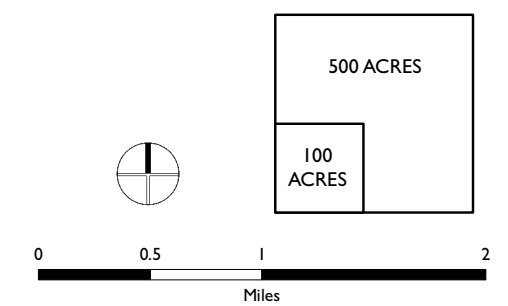
Within Carlsbad, erosion from water, wind and agricultural/development tillage, as well as coastal erosion from storms and rising sea-levels have the potential to threaten the city's water quality, economic viability, and supply of natural resources. Potential consequences include loss of topsoil, loss of agricultural productivity, sedimentation in lakes, rivers, and lagoons, pollution of soil and water by contaminants and nutrients, destruction of habitats and damage to property and infrastructure. The City of Carlsbad is vulnerable to several of these potential impacts due to agricultural activities, development and coastal-related erosion issues. Prevention and control mechanisms to address erosion and sedimentation exist through federal, state and local programs designed to reduce or avoid the effects of human-related or development-driven erosion, including creation of physical barriers, such as vegetation or rocks, to absorb some of the energy of the wind or water that is causing the erosion. More can be found in Section 3.5 related to Water Quality and Pollution.

In terms of coastal erosion, beaches are the first line of defense against ocean waves, providing a buffer between the waves and coastal properties. When beaches are cut back during storms, they progressively lose their buffering ability, making further erosion more likely. The most direct approach to reduce or avoid coastal erosion is to limit the amount of development in the areas likely to be affected by coastal erosion. In addition, the city has identified specific areas where additional protection efforts are necessary, including steep slopes, drainage/erosion, slope stability, seismic hazards, and floodplain development by designating these areas as part of the Coastal Resource Protection Overlay Zone. Additional strategies to address erosion include hard engineering coastal protection measures (seawalls, breakwaters, levees). Beach replenishment and other "soft" structural methods such as the use of revetments or buffer areas can also be used. These issues are also discussed in Section 3.6 Safety and Management.

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Figure 3-2: Coastal Hazards



-  Historic Tsunami Effect Felt
-  FEMA VE Zone (High Risk)
-  Maximum Tsunami Projected Runup
-  Highways
-  Major Roads
-  Railroad
-  City Limits



Source: City of Carlsbad, 2010; SANDAG, 2008; Dyett & Bhatia, 2010.

3.7 Lagoon Education and Community Programs

Programs have been established within the city in an effort to enhance appreciation and care for the lagoon resources. Several of the existing lagoon education and community programs are described below. In addition to the lagoons, other opportunities may exist to enhance the appreciation and care for Carlsbad's beaches, creeks and other natural resources by partnering with groups such as the Surfrider Foundation and California Coastkeeper.

Agua Hedionda Lagoon Foundation

The Agua Hedionda Lagoon Foundation was established in 1990. The mission of this non-profit organization includes the preservation, restoration and enhancement of Agua Hedionda Lagoon and protection of sensitive land, in addition to the enhancement of public stewardship of the lagoon through a broad spectrum of conservation, education and outreach activities. The foundation's Discovery Center is a nature center dedicated to environmental education and outreach. Located at the eastern end of the lagoon estuary and wetland area, the Discovery Center has been hosting public programs and outreach activities since 2005. The center hosts numerous festivals, lectures, seminars and programs throughout the year and also displays exhibits pertaining to historical and environmental aspects of the lagoon.

Batiquitos Lagoon Foundation

The Batiquitos Lagoon Foundation is dedicated to the preservation, enhancement and protection of Batiquitos Lagoon. The foundation, a non-profit organization, is also involved in a number of programs to educate the public in the values of the lagoon's natural environment and habitats. Such programs include docent-led walking tours along the lagoon's existing 1.3-mile trail and Club Pelican, a children's summer camp offering a variety of educational activities covering topics such as the lagoon's history and dynamics.

Buena Vista Lagoon Foundation

The Buena Vista Lagoon Foundation is a non-profit organization incorporated in 1981 with the objectives to conserve and, in conjunction with the Buena Vista Lagoon Audubon Society, restore the Buena Vista Lagoon marsh and wetlands area, stabilize the drainage basin of the lagoon, acquire environmentally sensitive lands and manage for the public good, optimize and channel the efforts of various groups, local, state and federal agencies and promote public awareness of the benefits and beauty of the lagoon.

Buena Vista Audubon Society and Nature Center

The Buena Vista Audubon Society is a chapter of the National Audubon Society and aims to conserve and protect the Buena Vista Lagoon by engaging local government on land use planning issues, supporting state, national and international conservation causes and educates the membership and public on conservation issues. The Buena Vista Nature Center has been built, owned, operated and staffed by members and volunteers of the Buena Vista Audubon Society chapter. The nature center implements conservation strategies through education, advocacy and monitoring. The center provides programs designed to educate the public regarding the importance of Buena Vista Lagoon and nature stewardship. The Buena Vista Lagoon spans from the City of Carlsbad to the City of Oceanside. While the nature center is located in Oceanside, it encourages participation from community members from all over San Diego County. In addition to general information about the lagoon and its native inhabitants, the nature center also offers guided bird watching tours and a children's educational program called Audubon Adventures.

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4 Parks, Recreation and Active Lifestyles



The City of Carlsbad’s parks and recreation system is integral to its sense of community and quality of life. The city has excellent open space resources and great weather year-round, encouraging people to be outdoors. And while many natural open space resources in the city are preserved specifically for habitat or aesthetic reasons, many other open spaces serve recreational purposes. Residents would like to see continued emphasis on open space and recreation, better access to existing open spaces, park programming that satisfy evolving community needs, and expanded access to natural areas, including the lagoons, such as through new trails. This chapter describes active living in Carlsbad; existing parks and other recreational resources; and the standards and planning systems currently in place to maintain and enhance these recreational resources and their use.

4.1 Active Lifestyles and Quality of Life

Regular exercise has been proven to reduce heart disease, hypertension (high blood pressure), and bad cholesterol, reduce symptoms of osteoporosis, prevent and control diabetes, strengthen the immune system, improve arthritis, and relieve pain. Regular exercise also improves mental health by reducing stress and symptoms of depression.⁷ Physical activity need not be strenuous to achieve these health benefits, but greater health benefits can be achieved by increasing the duration, frequency, or intensity of physical activity.⁸

⁷ State of California Department of Parks and Recreation Planning Division, Statewide Trails Office, California Recreational Trails Plan Phase 1, June 2002.

⁸ Report of the Surgeon General, “Physical Activity and Health”, Centers for Disease Control and Prevention, 1996.

The Carlsbad community prioritizes access to parks and recreation resources, including the ocean and beaches, because active lifestyles lead to better physical and mental health outcomes, but also because they value the ways that outdoor recreation and active lifestyle events support community connectedness and a higher quality of life overall. In most communities, walking is the most common form of physical activity,⁹ is accessible across socioeconomic groups, and can be promoted in both urban and rural areas. In addition to health benefits, the City of Carlsbad Pedestrian Master Plan (2008) recognizes that walking also has the potential to address several other interrelated challenges in the city, including traffic congestion, air quality, and community-building. Smart planning for access to recreation and active, healthy lifestyles means taking a balanced approach to the provision of parks and recreation spaces, as well as creating safe and attractive pedestrian and bicycle connections that bring community members out to play and enjoy the city’s various natural assets.

4.2 Key Regulatory Setting

The City of Carlsbad has long been committed to the development of park facilities and recreational programming to meet community needs. Since 1986, the city has tied parks supply to growth management, and the existing General Plan contains a Parks and Recreation Element, last updated in 2003, which describes the important role that park facilities play in enhancing the quality of life for residents, employees and visitors to the city. These two guiding documents, as well as state standards, are described in this section.

⁹ Manson, J.E., et al., “Walking compared with vigorous exercise for the prevention of cardiovascular events in women.” *New England Journal of Medicine*, 2002, 347:716-725.

PERSPECTIVES ON PARKS AND ECONOMIC BENEFITS

Physical Activity Reduces Health Costs. Inadequate physical activity contributes to numerous health problems, causing an estimated 200,000 annual deaths in the U.S., and significantly increasing medical costs. Among physically able adults, average annual medical expenditures are 32 percent lower for those who achieve physical activity targets (\$1,019 per year) than for those who are sedentary (\$1,349 per year).¹

Parks Provide Economic Benefits to Governments and Residents. A study tabulating data on seven different factors related to parks and recreation found that the park system of Denver provided the city annual revenue of \$7.1 million, municipal savings of \$3.6 million, resident savings of \$517 million, and a collective increase of resident wealth of \$48.7 million. The factors measured included property value, tourism, direct use, health, community cohesion, clean air, and clean water.²

Study Supports Importance of Leisure Amenities in Urban Development. A 2008 paper out of the Federal Reserve Bank of Philadelphia and the University of Pennsylvania found that population and employment growth in the 1990s was about 2 percent higher in an MSA with twice as many leisure visits: the third most important predictor of recent population growth in standardized terms. The paper explains that cities with attractive outdoor leisure amenities such as parks and open space disproportionately attracted highly educated individuals and experienced faster housing price appreciation, and investment by local government in new public recreational areas within an MSA was positively associated with higher subsequent city attractiveness.³

1 Litman, Todd, "Evaluating Public Transportation Health Benefits", Victoria Transport Policy Institute, June 14, 2010.

2 "The Economic Benefits of Denver's Parks and Recreation System" Trust for Public Land, July 2010.

3 Carlino, G. and A. Saiz, "Working Paper #08-22: City Beautiful", Research Department, Federal Reserve Bank of Philadelphia, September 2008.

Citywide Facilities and Improvements Plan Standards

The Citywide Facilities and Improvements Plan is the first phase of implementation of the Growth Management Plan (1986, with amendments through 1997). The Citywide Facilities and Improvements Plan ensures that development does not occur unless adequate public facilities are in place to serve that development. As part of the overall Growth Management Plan, the city was divided into 25 Local Facilities Management Zones, each of which has its own Local Facilities Management Plan, consistent with all aspects of the Citywide Facilities Improvements Plan. Together, these plans ensure that adopted performance standards for each type of facility are met prior to new development.

The parks performance standard defined in the Citywide Facilities and Improvements Plan requires “three acres of Community Park or Special Use Area per 1,000 population within the Park District (quadrant) must be scheduled for construction within a five year period or prior to construction of 1,562 dwelling units within the Park District, beginning at the time the need is first identified.” At the time of the preparation of the Citywide Facilities and Improvements Plan, population and park supply were summarized as depicted in Table 4-1, below. When the Citywide Facilities and Improvements Plan was prepared in 1986, existing park acreages met the park performance standard citywide, and in three of the four quadrants.

General Plan Park Classifications and Standards

The current General Plan Parks and Recreation Element (2003) provides the definitions of each park classification, a projection of park acreage demand at buildout according to the Growth Management Plan, a description of 2003 inventory, descriptions of facility standards by classification type, and a description of anticipated future park development projects.

Park Classifications

There are three basic park classifications in use in the City of Carlsbad: community parks, special use areas, and special resource areas. These classifications are introduced briefly below, and parks within these categories are depicted on Figure 4-1.

- **Community Parks.** Community parks are approximately 20-50 acres in size (though some smaller parks have been “grandfathered” into this classification), and designed to serve the recreational needs of several neighborhoods, with a focus on serving families. Community parks are designed to be accessed primarily by vehicle, and are therefore typically located on or near an arterial roadway.
- **Special Use Areas.** Special use areas are typically between one and five acres in size, with only one or two basic uses, which can be either active or passive in orientation. Examples include, but

	NORTHWEST	NORTHEAST	SOUTHWEST	SOUTHEAST	TOTAL
Population	23,539	7,107	5,416	16,128	52,190
Park Acreage	81	30	12	56	179
Acres Required by Standard (3 per 1,000 population)	71	21	16	48	157
Deficit?	No (+11)	No (+9)	Yes (-4)	No (+7)	No (+23)

Source: Citywide Facilities Improvements Plan (1986); Dyett & Bhatia, 2010.

are not limited to, skate parks, dog parks, tennis courts or picnic areas. City Council permits school sites to be included in the park inventory under special use areas, however the General Plan states that current policy is to only include schools with which the city has joint-use facility agreements.

- **Special Resource Areas.** Special resource areas have citywide and potentially regional significance related to the quality of the site or service that it provides. This quality may be a natural feature (geological, ecological, hydrological), historical (architectural, archaeological), or some combination thereof. Special resource areas are typically larger than community parks. Three special resource areas (Lake Calavera, Agua Hedionda Lagoon, and Batiquitos Lagoon) are also designated regional open space parks in accordance with the recommendations of the San Diego Association of Governments report, “Regionally Significant Open Space – Definition.”

General Plan Facilities Standards

The General Plan Parks and Recreation Element describes a more detailed set of standards than the Citywide Facilities and Improvements Plan, covering three different classifications of park and recreational facilities. The General Plan park standards differ from the Citywide Facilities and Improvements Plan standard in that the acreage for community parks and for special use areas are separated, with 2.5 acres per 1,000 residents assigned to community parks and 0.5 acres per 1,000 residents assigned to special use areas (the two standards combined equate to 3 acres per 1,000 residents, which is consistent with the Citywide Facilities and Improvement Plan). The General Plan also includes a standard for special resource areas (2.5 acres per 1,000 population), which is in addition to the growth management standard for community parks and special use areas; however, special resource areas do not count toward meeting the growth management standard for parks.

The General Plan Parks and Recreation Element also recognizes that employees of the city’s industrial areas impact the city’s recreational facilities.

Therefore, the city requires new development within the primary industrial areas of the city (surrounding Palomar Airport Road) to pay a park mitigation fee. The purpose of the fee is to ensure adequate recreation facilities to accommodate the demand created by the daily influx of the industrial work force.

If combined, the standards for the different types of recreation resource areas (special resource areas, special use areas, and community parks) results in a parks standard of 5.5 acres per 1,000 population. Of this, 3.0 acres per 1,000 population are required of developers (to comply with growth management), while the city works to achieve the other 2.5 acres per 1,000 population on its own.

Zoning Ordinance: Planned Development Parkland Requirements

In addition to parkland dedication or in-lieu fees to meet the growth management parkland standards, the Zoning Ordinance also contains development standards for Planned Developments specifying provision of private common community recreational space. All projects of more than 10 dwelling units must provide 200 square feet of centralized, community recreation space per unit. Projects of 25 or fewer units may provide passive or active recreation facilities; projects of more than 25 units provide both active and passive recreation facilities, with a minimum of 75 percent of the area allocated for active facilities. Projects of more than 50 units provide recreation facilities for a variety of age groups. The Planned Development requirements provide examples of active passive recreational uses, and caveats on counting indoor facilities or restricted areas such as slopes, walkways, storage areas, parking, etc.¹⁰ While these required recreational facilities do not count toward the growth management parkland standards, they do help to ensure that recreational facilities are distributed throughout the city and provided with specific neighborhood needs in mind.

¹⁰ Zoning Ordinance Chapter 21.45 Section 21.45.060, Table C, page 713.

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Figure 4-1: Parks and Recreation, with Buffer Analysis

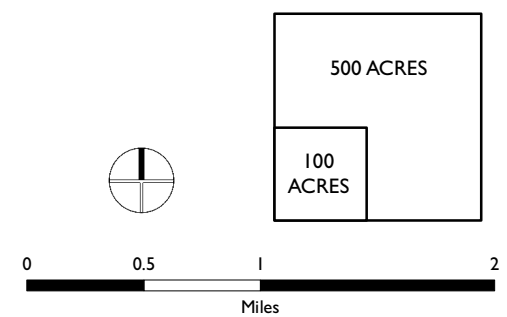
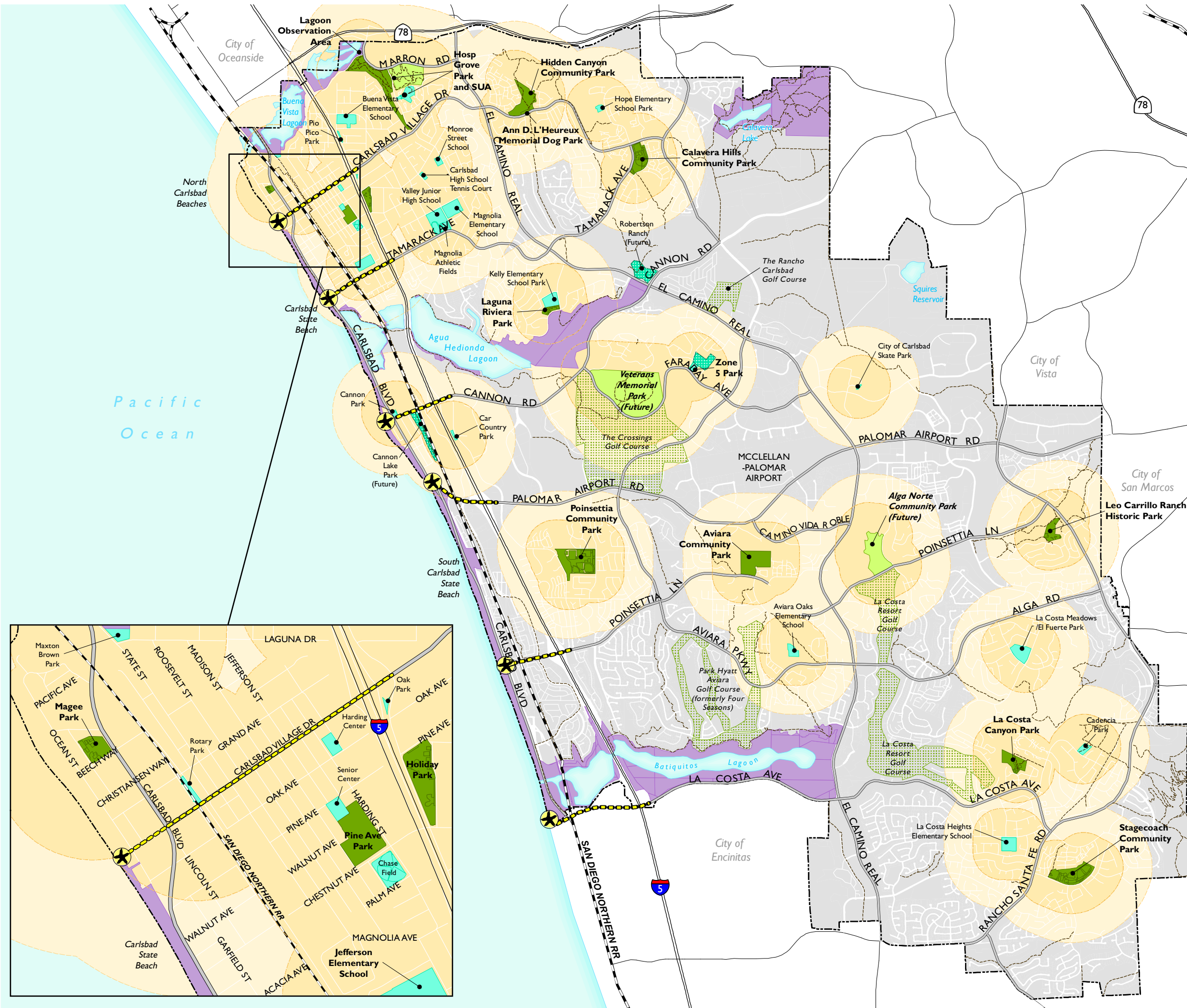
- Community Park
- Future Community Park
- Special Use Area
- Future Special Use Area
- Special Resource Area
- Golf Course

Direct beach access from neighborhoods east of I-5

Parks Access

- 1/4 Mile Buffer
- 1/2 Mile Buffer

- Open Space Trail
- Highway
- Major Road
- Railroad
- City Limits



Source: City of Carlsbad, 2010; SANDAG, 2008; Dyett & Bhatia, 2010.

TABLE 4-2: CURRENT GENERAL PLAN RECREATION FACILITIES STANDARDS

CLASSIFICATION	SIZE	LEVEL OF SERVICE	ACCESS	OWNERSHIP	STANDARD
Special Resource Area	100 acres + unique character and/or use not found in community parks	Citywide	Vehicular, bicycle, pedestrian	Public	2.5 acres/1,000 population
Community Park	20-50 acres as a guideline, where acquisition of sufficient acreage is possible	Community	Vehicular, bicycle, pedestrian	Public	2.5 acres/1,000 population
Special Use Area)	1-5 acres	Neighborhood and community	Vehicular, bicycle, pedestrian	Public, private ¹ and quasi-public	0.5 acres/1,000 population
Recreational Facilities for Industrial Areas	Negotiable	In proximity to employees	Vehicular, bicycle, pedestrian	Public/private	No Standard ²

1 Although the General Plan describes that Special Use Areas may be owned publicly, privately, or quasi-publicly, there are no current examples of private facilities that may be counted toward the growth management parks standard.

2 There is a fee based on square feet of industrial floor area.

Source: City of Carlsbad General Plan, Parks and Recreation Element, p. 6.

State Support for Parks Development: The Quimby Act

The 1975 Quimby Act (California Government Code Section 66477) authorizes cities to require developers to set aside land or pay fees for park improvements. The goal of the Act is to require developers to help provide for parkland needs of new development. The Act allows cities to require dedication or in lieu fees for community and neighborhood parkland contributions up to three acres per 1,000 population, or up to five acres per 1,000 population to match the existing ratio if it is higher than three acres per 1,000 population. For example, if a city already provides two acres of parkland per 1,000 population, the city may require dedication of land or fees up to three acres of parkland per 1,000 new population. However, if a city already provides six acres of parkland per 1,000 population, the city may require dedication of land or fees not to exceed five acres of parkland per 1,000 population.

Under the Quimby Act, fees must be paid and land conveyed directly to the local public agencies that provide park and recreation services community-wide; however, revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. Subsequent amendments to the Quimby Act require agencies to clearly show a reasonable relationship between the public need for the recreation facility or park land and the type of development project upon which the fee is imposed.

4.3 Existing Parks and Recreation Facilities

Existing Parks Inventory

The City of Carlsbad currently has 12 community parks (221 acres), 25 special use areas (61 acres), and five special resource areas (more than 1,300 acres). Table 4-3 below provides a list of existing parks in the city, the quadrants in which they are located, and approximate acreages by park. This table does not include planned parks such as Alga Norte, Veterans Memorial, or Robertson Ranch. For descriptions of planned parks and their status, please see Section 4.4.

In total, existing community parks and special use areas provide an overall ratio of about 2.7 acres per 1,000 population using the city's population estimate used to monitor growth management (104,425 as of December 2009).¹¹ This breaks down into citywide ratios of 2.1 acres per 1,000 population for community parks and .6 acres per 1,000 population for special use areas. Although the current ratio does not meet the growth management standard of 3 acres per 1,000 population, city parks are still in compliance with growth management because planned future parks meet the growth management provision to schedule parks for construction "within a five year period or prior to construction of 1,562 dwelling units within the park district, beginning at the time the need is first identified." See Section 4.4 Future Need, Improvements and Accessibility for more information about future planned parks.

While special resource areas do not count toward the growth management park standard, such areas in the city achieve a ratio of almost 13 acres per 1,000 population, far exceeding the citywide General Plan standard for special resource areas. These parks acreage numbers and ratios include neither land dedicated to golf courses (there is no parks standard applied to golf course land) nor parks under development or in the planning phases (described in



Carlsbad parks and recreation facilities offer opportunities for passive and active outdoor activities, and opportunities for all ages.

¹¹ For growth management purposes, the most recent estimate, 104,425, is based on 2,349 persons per household (based on a 2006 update to 2000 Census data). SANDAG and DOF have higher population estimates because they estimate more people per household.

WP3: Open Space and the Natural Environment;
Access to Recreation and Active, Healthy Lifestyles

TABLE 4-3: EXISTING COMMUNITY PARKS, SPECIAL USE AREAS AND SPECIAL RESOURCE AREAS (2010)

FACILITY NAME	QUADRANT	ACRES
<i>Existing Community Parks</i>		
Aviara Community Park	SW	24.3
Calavera Hills Community Park	NE	16.2
Hidden Canyon Community Park (includes Ann D. L'Heureux Memorial Dog Park)	NE	22.2
Holiday Park	NW	6.0
Hosp Grove Park	NW	27.6
La Costa Canyon Community Park	SE	14.8
Laguna Riviera Park	NW	4.1
Leo Carrillo Ranch Historic Park	SE	27.0
Magee House and Park	NW	2.1
Pine Avenue Park	NW	7.2
Poinsettia Community Park	SW	42.0
Stagecoach Community Park	SE	28.0
Subtotal Community Parks		221.5
<i>Existing Special Use Areas</i>		
Aviara Oaks Elementary School	SW	5.0
Buena Vista Elementary School	NW	2.3
Business Park Recreational Facility (Zone 5 Park)	NW	3.0
Cadencia Park	SE	4.1
Cannon Park	NW	1.9
Car Country	NW	0.9
Carlsbad High School Tennis Courts	NW	1.1
Chase Field	NW	2.7
City of Carlsbad Skate Park	NE	1.0
Harding Center	NW	1.0
Hope Elementary School Park	NE	2.8
Hosp Grove SUA	NW	5.5
Jefferson Elementary School	NW	2.6
Kelly Elementary School Park	NW	2.8
La Costa Heights Elementary	SE	2.0
La Costa Meadows Elementary/El Fuerte Park	SE	2.0
Lagoon Observation Area	NW	0.7
Magnolia Elementary School Park/Athletic Field	NW	4.1
Maxton Brown Park	NW	0.9
Monroe Street Pool	NW	1.8
Oak Park	NW	0.2
Pio Pico Park	NW	0.8
Rotary Park	NW	0.8
Senior Center	NW	3.3
Valley Junior High School	NW	7.5
Subtotal Special Use Areas		60.8

Section 4.4). Golf courses are included in calculation of overall supply of open space in the city. Table 4-4 summarizes existing park acreage by quadrant.

TABLE 4-3: EXISTING COMMUNITY PARKS, SPECIAL USE AREAS AND SPECIAL RESOURCE AREAS (2010)		
FACILITY NAME	QUADRANT	ACRES
Existing Special Resource Areas		
Agua Hedionda Lagoon		254.0
Batiquitos Lagoon		484.0
Beaches		113.2
Buena Vista Lagoon		202.0
Lake Calavera		252.0
Subtotal Special Resource Areas		1,305.2
Total Existing Parkland		1,587.3

Source: City of Carlsbad, 2010.

TABLE 4-4: EXISTING PARKS SUPPLY SUMMARY BY QUADRANT, ACRES (2010)						
	NORTHWEST	NORTHEAST	SOUTHWEST	SOUTHEAST	TOTAL	RATIO
Community Parks	47	38	66	70	221	2.1
Special Use Areas	44	4	5	8	61	0.6
Subtotal	91	42	71	78	282	2.7

Ratio is number of park acres per 1,000 population.
Totals may not add up due to rounding.

Source: City of Carlsbad Parks and Recreation Department, 2010.

WP3: Open Space and the Natural Environment; Access to Recreation and Active, Healthy Lifestyles

Community Parks

Existing community parks are described briefly below and their location is shown on Figure 4-1. Also shown on the figure are special use areas and special resource areas.

AVIARA COMMUNITY PARK



This 24.3-acre park accommodates a variety of sports activities, offering a full-size lighted synthetic turf soccer field, a lighted natural turf softball/baseball field, four basketball half-courts, picnic areas, a children's play area, and restrooms.

CALAVERA HILLS COMMUNITY PARK



This 16.2-acre park provides a community center, picnic areas, three lighted athletic fields and one basketball and two tennis courts, a children's play area, and restrooms.

HIDDEN CANYON COMMUNITY PARK AND ANN D. L'HEUREUX MEMORIAL DOG PARK



This 22.2-acre park provides picnic areas, a children's play area, restrooms, walking paths and undeveloped open space. Hidden Canyon Park is also home to Carlsbad's only dog park, providing fenced off-leash play space, benches, a dog drinking fountain, and plastic bag dispensers.

HOLIDAY PARK



This 6-acre park contains the Kruger, Holiday, and Scout Houses, picnic areas, a children's play area, a gazebo, horse shoe pits, and restrooms.

HOSP GROVE PARK



This 27.6-acre park provides children's play areas, picnic areas, restrooms, trails and natural open space, including eucalyptus groves.

LA COSTA CANYON PARK



This 14.8-acre park contains one basketball and two tennis courts, picnic areas, a children's play area, restrooms, as well as connections to the citywide trail system and views of the ocean.

LAGUNA RIVIERA PARK



This 4.1-acre park provides picnic areas, one basketball and two tennis courts, restrooms and a children's play area.

LEO CARRILLO RANCH HISTORIC PARK



This 27-acre park is a designated Historic National Landmark that was opened to the public in August 2003. The park contains historic structures including adobe buildings and antique windmills, a reflecting pool, museum facility, and natural open space. It is connected to the citywide trails system via the four-mile long Rancho Carrillo trail.

WP3: Open Space and the Natural Environment;
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MAGEE HOUSE AND PARK



This 2.1-acre park contains a rose garden, restrooms and several historic buildings including the Magee House, Heritage Hall and Granary. Tours of the historic buildings are offered by the Carlsbad Historical Society.

PINE AVENUE PARK



This 7.2-acre park provides a synthetic turf athletic field (Brierly Field), two lighted basketball half courts, a picnic area, restrooms and a children's play area.

POINSETTIA PARK



This 42-acre park contains a large tennis complex including 10 lighted courts, three lighted sports fields, a synthetic turf athletic field, two lighted basketball courts, picnic areas, restrooms and a children's play area.

STAGECOACH PARK



This 28-acre park provides a community center, four lighted basketball half courts, four tennis courts, a natural turf softball/baseball field and two synthetic turf athletic fields, picnic areas, restrooms, a children's play area and riparian habitat areas.

Special Use Areas

About 61 acres of land in the City of Carlsbad, most of it in the northwest quadrant, comprise special use areas. Some special use areas are all or a portion of school sites such as elementary schools, middle schools, or high school tennis courts; others are community centers such as the Harding Center or the Senior Center; still others include a swimming pool, a skate park, and a lagoon observation area. Special use areas are included in Table 4-4.

Private Parks

Magdalena Ecke Family YMCA Aquatic Park

The Magdalena Ecke Family YMCA Aquatic Park is located on the Agua Hedionda Lagoon, just west of I-5. The aquatic park is active from April through October. The park is not open to the public; however, during week days in season, the aquatic park is used as a summer camp for children 6-12 years of age, with each camp lasting five days. On the weekends, the aquatic park is rented to private groups by reservation. Usually, one group occupies the park on a given weekend.

California Water Sports/Snug Harbor Marina

Snug Harbor Marina is a public water sports facility located on the north shore of the inner segment of Agua Hedionda Lagoon, just east of I-5. Snug Harbor offers a marina, boat launch, dry storage area, showers, snack bar, boat rental, boat washdown area, convenience store, swimming area and restrooms.

LEGOLAND

LEGOLAND California is a 128-acre family theme park located in the City of Carlsbad, south of Cannon Road and north of Palomar Airport Road, beside the Crossings at Carlsbad Golf Course. The Park is the first theme park in the United States created by Danish toy maker, the LEGO Company. LEGOLAND California offers interactive attractions, family rides, shows, restaurants, shopping and beautiful landscape features specifically geared for families with children ages 2 to 12. There are

more than 15,000 LEGO models in the park created from more than 35 million LEGO bricks. These models range from a Brontosaurus named Bronte (made of more than 2 million LEGO bricks) to a tiny rabbit in a magician's hat in Miniland Las Vegas made of just four bricks.¹²

Trails

There are many benefits associated with greenways and trails. The most often cited is exercise, the promotion of which is associated with improved physical and mental health. Perhaps equally valuable are economic benefits derived from protected open space that adds value to local property and attracts visitors who spend money in the community.¹³ Many trails have multiple recreation benefits such as providing access to vista points for photography and picnic areas for socializing. They also provide opportunities for enjoying solitude, observing wildlife and experiencing the natural environment.¹⁴

The City of Carlsbad has been working for many years to develop and implement a comprehensive trails system. Beginning in 1990, a Trails Feasibility Study laid the groundwork for planning trails within the city. The Open Space and Conservation Resource Management Plan expanded upon the study and provided conceptual trail alignments used to plan the city's trail network. In 2001 the City Council approved the Citywide Trails Report which outlined the future vision and immediate steps to be taken to implement the Citywide Trails Plan.

Currently there are approximately 38 miles of unpaved recreational trails located in a variety of open space areas of the city; current plans call for another 23 miles to be built in the future. Existing trails are listed in Table 4-5, and existing and planned future recreational trails are indicated on Figure 4-1.

¹² Legoland California 2010 Factsheet.

¹³ Bowker, J.M, et al. "Estimating the economic value and impacts of recreational trails: a case study of the Virginia Creeper Rail Trail," *Tourism Economics*, 2007, 13 (2), 241-260

¹⁴ State of California Department of Parks and Recreation Planning Division, Statewide Trails Office, *California Recreational Trails Plan Phase 1*, June 2002.

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TABLE 4-5: PUBLICLY-ACCESSIBLE TRAILS SUMMARY (2010)

	TRAIL SURFACE	LENGTH
Open Space Trails		
Aviara	unpaved	6.0
Legoland	paved	0.5
Hosp Grove	unpaved	3.0
Cove Dr./Agua Hedionda	unpaved	0.3
San Pacifico	unpaved	1.0
Rancho Carrillo	paved/unpaved	4.0
La Costa Valley	paved/unpaved	1.3
La Costa Glen	unpaved	1.2
Villagio	unpaved	0.4
Arroyo Vista	unpaved	0.7
Hidden Canyon Park	unpaved	0.3
Villages of La Costa: The Oaks-South	paved/old RSF Road	1.5
Villages of La Costa: The Ridge	unpaved	1.5
Villages of La Costa: The Oaks-North	unpaved	2.0
The Crossings/Veteran's Park	unpaved/paved	3.0
24 Hour Fitness to Hidden Valley Rd	unpaved	1.0
Village H-North of CBVD	unpaved	0.4
Palomar Forum-Melrose/PAR	unpaved	0.3
Robertson Ranch	unpaved	1.5
Carlsbad Oaks North Bus. Park	unpaved	1.3
Lake Calavera	unpaved	6.4
The Ranch	unpaved	0.7
Agua Hedionda Discovery Center	unpaved	0.3
Subtotal Open Space Trails		38.4
Circulation Element Trails		
Calle Barcelona	paved	1.3
College/Cannon Ave - Calavera Hills II/RR	unpaved	1.5
El Fuerte- Bressi Ranch	unpaved	1.0
Alicante Rd.- VLC- The Greens	unpaved/paved	1.0
Poinsettia Lane- El Fuerte to Brigantine	unpaved	2.1
Subtotal Circulation Element Trails		6.9
Special Coastal Regional Trails		
Sea Wall	paved	0.7
Coastal Rail Trail	paved	0.7
Subtotal Special Coastal Regional Trails		1.4
Total Trail Miles		46.7
Totals may not add up due to rounding.		

Source: City of Carlsbad Parks and Recreation Department, 2010.

Carlsbad community members who participated in the Envision Carlsbad Phase 1 visioning process indicated that a major challenge to trails development and maintenance is the proper design and designation of trails by user group. Community members indicated that different user groups (walkers, bicyclists, equestrians, bicyclists) have different trail needs and that the network should provide different kinds of resources for each group. An important consideration for future trails development will be connectivity between off-road trails and major on-road pedestrian and bicycle routes, such that future improvements in the trail system also contribute to linkages between important sites (beaches, lagoons, schools, and others).

Lake Calavera Trails

Constructed as a man-made reservoir, Lake Calavera is an open space preserve set aside to conserve natural lands for the protection of native plants and wildlife. The area also serves as a habitat mitigation bank for city projects. Lake Calavera Preserve is owned by the Carlsbad Municipal Water District and the Carlsbad City Council serves as the Water District Board. Recreational activities, such as hiking and mountain biking, are conditionally allowed, but must be compatible with habitat and species protection. Trails are improved, maintained and managed by the Parks & Recreation Department with strong volunteer involvement. The open space habitat areas are managed by the Parks and Recreation Department (via a contract to the Center for Natural Lands Management). Lake, Dam, Spillway and other appurtenances are managed and

maintained by the water district. The Lake Calavera Trails Master Plan was completed and approved in January 2010. This plan identifies authorized trails and trail improvements, and was developed with input from the San Diego Mountain Biking Association, Preserve Calavera and residents. Trails in this open space preserve will eventually connect to trails in the adjacent Carlsbad Highlands Ecological Preserve managed by the California Department of Fish and Game, creating a larger, more integrated natural open space recreational resource.

Joint Use Areas

Some school sites are subject to joint-use agreements between the City of Carlsbad and school districts, in order to better meet neighborhood and community recreation needs. The summary of the agreements’ respective sites and status is as follows:

Currently, all school sites that are not part of a Planned Community are designated as Open Space in the Zoning Ordinance, regardless of whether the site contains an athletic field, building, parking lot, or some combination of development types. Prior to 1992, these sites were all counted toward the city’s minimum park standard, though the Open Space and Conservation Resource Management Plan indicates that school sites designated after 1992 would be considered a bonus and not counted toward the minimum requirement.¹⁵ The 1992 Plan also indicates that only those school sites

¹⁵ City of Carlsbad Open Space and Conservation Resource Management Plan (1992), page 56.

TABLE 4-6: SCHOOL SITES JOINT USE AGREEMENT STATUS		
DISTRICT	SITE	STATUS
San Marcos Unified School District	La Costa Meadows School/El Fuerte Park	Per Section 17 of the Agreement (Resolution No. 7240, dated 6/7/83), the initial term was effective for a one year period, and the agreement has been automatically renewed on a year to year basis since that time.
Encinas Union School District	La Costa Heights School/ Levante Park	Per Section 19 of the Agreement (dated 7/23/87), the initial term was effective until 12/31/95, and the agreement has been automatically renewed on a year to year basis since that time.
Carlsbad Unified School District	Magnolia, Jefferson, Buena Vista, Valley, Aviara, and Carlsbad High Schools	Per Section 16 of the Agreement (Resolution No. 89-73, dated 3/7/89), the initial term was effective for a ten year period, and the agreement has been renewed by mutual consent on a year to year basis since that time.

Source: City of Carlsbad, 2010.

which operate under “joint use” facility agreements between the City of Carlsbad and the school district are in fact incorporated within the parks inventory.¹⁶

Other Recreational Facilities

Golf Courses

There is one public/municipal, two daily fee, and one private/resort golf course in the City of Carlsbad. The municipal course is The Crossings Golf Course, an 18-hole, par 72 course located at 5800 The Crossings Dr., straddling College Boulevard between Palomar Airport Road and Faraday Avenue. The daily fee courses are the Park Hyatt Aviara Resort and the Rancho Carlsbad Golf Course, an 18-hole, par 56 course located at 5200 South El Camino Real. La Costa Resort includes two 18-hole championship courses open only to members or those staying at the resort. In total, golf courses make up almost 900 acres and 9 percent of open space in the City of Carlsbad.

Boardwalk/Seawall

The Carlsbad Seawall stretches for about a mile along Carlsbad Boulevard, from Pine Avenue to Tamarack Avenue near the Carlsbad State Beach parking lot. The seawall features a concrete pedestrian walkway with several access points both to the beach below and the street above. The walkway is frequented by runners and walkers, and is a great way to get from Carlsbad Village to Carlsbad State Beach near the jetty, without contending with cars or sand. Just above the seawall, and running parallel to it, is a palisade-like, state owned and maintained, park with a pedestrian walkway, park benches and narrow grassy areas. The closest shops and restaurants are in Carlsbad Village. A walkway/seawall also extends the boardwalk beyond Tamarack Avenue, past Agua Hedionda Lagoon to the power plant just south of Cannon Road, providing additional ocean-front walking opportunities.



Maxton Brown Park (top) is a special use area for picnics and views over Buena Vista Lagoon. Elsewhere on the lagoon fishing is permitted (middle). Golf is also popular and prevalent throughout Carlsbad (bottom).

¹⁶ *Ibid*, page 57.

Ocean and Beaches

The beaches in the City of Carlsbad are introduced in Chapter 3. They are an important component of community identity, and an important resource when it comes to recreation and active lifestyles. Carlsbad residents walk and jog along the beaches and the beach walkways, camp, and often just sit and watch the sun set. The Pacific Ocean is used to swim, surf, sail, fish, kayak, stand-up paddleboard, splash and wade. Dogs are currently not allowed on beaches in the city (on leashes they may walk on the boardwalk, but not on the lower path), and many communities across the country are working to find a balance of beach and ocean access that accommodates dog-owners and non-dog-owners alike.¹⁷

Lagoons

In addition to providing extensive habitat for wildlife and unique ecological services, the lagoons in the city are also important—and by some accounts unrealized—recreational resources. The existing recreational uses for the lagoons are described below to augment the habitat and natural resource descriptions provided in Chapter 3.

Batiquitos Lagoon

Batiquitos Lagoon offers 1.3 miles of public walking and hiking trails along the lagoon's north shore, and additional trail segments are planned. There are several public access points to the north shore trails, primarily along Batiquitos Drive. Dogs are allowed on the trail, but must be leashed. The Batiquitos Lagoon Foundation offers docent-led walks along the trail from its nature center. The foundation also provides informational pamphlets for self-guided nature walks. For those with a license, fishing is permitted only at the rock jetties at the mouth of the lagoon in South Ponto Beach and the rocks under I-5 (east or west of the freeway, on the north side only).

Agua Hedionda Lagoon

Agua Hedionda Lagoon actually comprises three inter-connected segments divided by the I-5 freeway and the railroad bridge. The 66-acre outer lagoon, adjacent to the Pacific Ocean, allows shore fishing and is leased to an aquaculture company cultivating shellfish. Also located in the outer lagoon, the Leon Raymond Hubbard, Jr., Marine Fish Hatchery is one of southern California's premier aquaculture facilities. Built on land donated by San Diego Gas & Electric, this 22,000-square-foot hatchery is an expansion of Hubbs-SeaWorld Research Institute's Ocean Resources Enhancement and Hatchery Program which is restoring the California white seabass population. The hatchery is capable of producing over 350,000 juvenile white seabass annually. The 27-acre middle lagoon is the only one where swimming is allowed and is home to the North Coast YMCA Aquatic Park. The 295-acre inner lagoon may be used for boating, and permitted crafts include jet skis, power boats and passive vessels such as sail boats, stand-up paddleboards and kayaks. A publicly-accessible launching dock, privately owned and operated by California Water Sports, is located at the northwest end of the inner lagoon area. Public access is provided at the south end of Bayshore Drive. In order to operate any vessel on the lagoon, visitors and residents must meet certain requirements including obtaining an appropriate permit from the city. The lagoon is also routinely patrolled by City of Carlsbad Police.

Buena Vista Lagoon

As Buena Vista Lagoon is operated as a nature preserve, there are no active recreational uses permitted there. However, there are many bird watching and viewing opportunities for the public at Maxton Brown Park on Laguna Avenue and State Street, the Ecological Wildlife Viewing Area on Jefferson Street and Marron Road (though this area may be closed at this time), and the Buena Vista Audubon Society's Nature Center on Coast Highway in Oceanside. Fishing in the lagoon from the Coast Highway 101 is another popular activity.

¹⁷ Kingson, J.A. "Lines Drawn in the Sand Over Dogs and Cleanup", *The New York Times*, June 11, 2010.

Monroe Street Pool/Swim Complex

The Monroe Street Pool includes a 25-yard by 25-meter pool, two 1-meter diving boards, a 3-meter diving board, a shallow play area and access ramp, bleachers and deck space. The facility includes shower areas, changing and locker facilities, and restrooms. Aquatics programs provide fitness opportunities, water safety training, instructional classes and competitive and recreational swimming opportunities for all ages and abilities.



City of Carlsbad Skate Park

The City of Carlsbad Skate Park is a 10,500 square foot lighted facility for skate boarding located on Orion Way adjacent to the Safety Center. The facility provides a beginner's area as well as a wide range of ramp, ledge and bowl styles for many skill levels. There are also picnic tables and restrooms nearby.



Active Lifestyle Events

City Classes, Camps and Sports Programs

The City of Carlsbad Parks and Recreation Department offers classes, camps, and sports leagues programs which support active, healthy lifestyles. There is an extensive array of classes programmed, many of which are fitness-related, such as swimming, yoga, pilates, martial arts, cardio training, "bootcamp," dance and classes focused on specific sports such as tennis, volleyball or golf. The city offers camps for kids, tailored to specific age groups. These are located in various places around the city in recreation centers or facilities at a park, and provide a number of recreational opportunities including: water activities, indoor and outdoor games, arts and crafts and more. The city also offers youth and adult sports programs at fields and courts throughout the city. The Youth Sports Division offers a wide variety of programs in a recreational, non-competitive environment, including youth basketball for grades 3-8 and pee wee basketball and indoor soccer for the youngest players. The programs are designed for children of all abilities, with the goal of having fun. Likewise, the Adult Sports Division promotes healthy lifestyles and social connections through a wide variety of



The Monroe Street Pool (top), City of Carlsbad Skate Park (middle), and numerous classes, camps, and sports programs (bottom) are just some examples of specialized recreational opportunities available.

leagues for active adults in a safe, recreational environment, with programs including softball, soccer and men's basketball.

In addition to the classes, camps, and sports leagues, the City of Carlsbad offers aquatics programs at the Monroe Street Pool which provide fitness opportunities, water safety training, instructional classes and competitive and recreational swimming opportunities for all ages and abilities. Gymsnasiums at Calavera Hills Community Center and Stage-coach Community Center provide opportunities for both free play and organized activities for young children. The Community Services Guide, which lists all the classes, camps, and programs offered in the city, as well as other important services and resources, is published three times a year and distributed to Carlsbad residents. It is also available at all city facilities and select community locations.

Carlsbad Marathon and Half Marathon

The City of Carlsbad hosts a winter marathon and half marathon featuring 26 fully-staffed course support stations, continuous entertainment and extensive volunteer support. The races are very popular and usually sell out. The full marathon and starts and finishes at Westfield Plaza Camino Real. Runners head for the coast passing the Buena Vista Lagoon through the Village to Carlsbad Boulevard, then head south to Palomar Airport Road, and after a 3-mile trip inland return to the coast and again head south to a quick U-turn near La Costa Avenue back up the coast to the finish line. The marathon course is rolling, and much of it is along the Pacific Ocean. The highest point of elevation is 308 feet above sea level reached gradually between miles five and nine. In contrast, the half marathon course is the fastest in the San Diego area and one of the fastest in the U.S. It starts and finishes at the same location as the marathon; however the out-and-back course sticks to the coast with no major elevation changes.¹⁸

¹⁸ Description adapted from materials on the website: www.carlsbadmarathon.com

Carlsbad Triathlon

The Carlsbad Triathlon is an annual sprint distance race, consisting of a one-kilometer open-water ocean swim, a 25-kilometer bicycle ride, and a five-kilometer run. The course begins at Tamarack Surf Beach. The triathlon attracts competitors from all over the state, especially those from San Diego, Orange, Santa Barbara and Los Angeles counties.¹⁹

Carlsbad 5000

The Carlsbad 5000 is a five kilometer course in the heart of the city which has seen 16 world records since it began in 1986. The scenic course features two miles along the Pacific Ocean with the start and finish in the heart of Carlsbad's Village. Water stations are located at the start, finish, and along the course, and there are also clocks and timers at every mile. Races are open to people of all ages and abilities, with an elite invitational race closing the day. Other events over the race weekend include a health and fitness expo and a "Junior Carlsbad" race featuring quarter, half, and one-mile races for children 12 and under.²⁰

4.4 Future Need, Improvements and Accessibility

Demand and Distribution

As of December 31, 2009, the City of Carlsbad estimated that the city's population was 104,425, which is based on the number of dwelling units in the city (44,455) and the average of 2,349 persons per household.²¹ As of January 2010, the California State Department of Finance estimated that Carlsbad's population is 106,804. The DOF population estimate is higher than the city's because the DOF uses a higher estimated number of persons per household

¹⁹ Description adapted from Carlsbad Parks and Recreation Department website; accessed October 20, 2010.

²⁰ Description adapted from materials on the website: www.carlsbad5000.com

²¹ City of Carlsbad 2009 Growth Management Plan Monitoring Report; the persons per household is based on data 2000 Census updated by city staff to 2006.

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TABLE 4-7: BUILDOUT PARK NEEDS COMPARISON BY QUADRANT, UNDER DIFFERENT GROWTH ASSUMPTIONS

	GROWTH MANAGEMENT BUILDOUT PROJECTIONS	SANDAG 2040 PROJECTIONS
Northwest		
Population Estimate	34,187	35,490
Park Acres Needed	103	106
Future Park Acres ¹	116	116
Future Surplus or (Deficit)	13	9
Northeast		
Population Estimate	18,905	21,629
Park Acres Needed	57	65
Future Park Acres ¹	67	67
Future Surplus or (Deficit)	10	2
Southwest		
Population Estimate	26,330	27,905
Park Acres Needed	79	84
Future Park Acres ¹	96	96
Future Surplus or (Deficit)	17	13
Southeast		
Population Estimate	39,357	42,365
Park Acres Needed	118	127
Future Park Acres ¹	135	135
Future Surplus or (Deficit)	17	8
Citywide		
Population Estimate	118,779	127,389
Park Acres Needed	356	382
Future Park Acres ¹	414	414
Future Surplus or (Deficit)	58	32

1 Future park acres includes the acreage of existing and future planned parks

Note: This table does not have a specific "horizon year" because it is comparing the projected fulfillment of the city's Growth Management Plan which caps total dwelling unit production but does not specify when. For purposes of SANDAG data, the year 2040 was selected because it most closely resembles the anticipated built out year of this update to the General Plan.

Totals may not add up due to rounding.

Source: City of Carlsbad Growth Management Plan Monitoring Report, 2009; SANDAG, 2009; Dyett & Bhatia, 2010.

when calculating population. For purposes of monitoring consistency with the Growth Management Plan, the city uses the most recent Census data (2006). Any increases in the number of persons per household will affect the projected increases in population in the future, which affects the estimate of required parkland at buildout.

SANDAG projects the City of Carlsbad will have 50,436 housing units and 127,389 residents by 2040 (approximate horizon of the General Plan update), an estimate that is still consistent with the Growth Management Plan, which limits the number of dwelling units in the city to 54,599 (however, as a result of the City Council's action to remove units from the excess dwelling unit bank, the potential units in the city at buildout is only 51,414). The city's 2009 Growth Management Plan Monitoring Report uses SANDAG's latest dwelling unit projections in conjunction with 2,349 persons per household to estimate future population, which results in a tailored population estimate of 118,780.²²

Based on the city's current growth management build-out population projection (118,780), future parkland demand under the current standard will be 357 acres (citywide); however, if SANDAG's population projection (127,389) is used, future parkland demand under the current standard will be 382 acres. Table 4-7 below summarizes the differences in future parkland need based on these different buildout populations, assuming the same city park standards are in place. The table presents total buildout parkland needed for the projected population, planned and funded future parkland, and an estimate of future surplus or deficit. The standards as well as land uses themselves will be examined as part of the General Plan update, so these numbers may change. Special resource areas need is not discussed here because the city supply already vastly exceeds anticipated need based on current citywide standards.

This summary suggests that, based on either the city's or SANDAG's population projections, the city will meet its growth management parkland

requirements through the completion of currently-planned and funded parks (Alga Norte and Veterans; described in the next section). The larger question facing the city is therefore not whether the city can supply enough parkland, but rather, is the existing parkland standard a sufficient measure of park supply adequacy? The following section summarizes planned improvements and remaining considerations, such as access, in terms of land planning and programming.

Planned Improvements

The following section provides a description of future parks and recreation plans for the City of Carlsbad. The section is organized into two basic groups—1) planned improvements to existing parks, and 2) planned new parks—as well identifying those plans which are funded and those which are unfunded. Funded planned parks and improvements are taken into account in the growth management parks standard monitoring in accordance with the growth management plan. Unfunded parks plans are not included in growth management calculations.

Planned and Funded Improvements to Existing Parks and Trails

The following are examples of improvements planned and funded for existing community parks and trails:

- **Pine Avenue Park.** 19,000-square-foot community building/gymnasium (basketball, volleyball, gymnastics, multi-purpose rooms, meeting rooms, teen center, office space); restrooms and storage building adjacent to the existing multipurpose field;
- **Aviara Community Park.** 18,000-square-foot community building (including meeting and activity rooms and park offices);
- **Poinsettia Community Park.** 20,000 square-foot community facility/gymnasium, enclosed soccer field, tot lot, picnic areas, tennis complex, additional parking;

²² SANDAG's future population projection is higher than the population projection used for growth management monitoring because SANDAG forecast's a higher persons per household.

- **Leo Carrillo Ranch Historic Park.** Renovation of additional buildings, construction of additional restrooms, arboretum area, picnic areas, trails, and additional landscaping; and
- **Lake Calavera Trails System.** The conversion of existing trails, abandoned farm roads and utility access roads to authorized trails; the decommissioning of unsustainable and unauthorized trails; habitat restoration projects to restore a total of eight acres in five locations of disturbed areas back to natural habitat; and the installation of trail signage, an interpretive signage program, informational kiosks, boardwalk creek crossings, trash and dog waste stations, picnic facilities, restrooms, and bike racks.

Planned but Unfunded Improvements to Existing Parks

The following are examples of planned but unfunded improvements to existing city parks:

- **Pine Avenue Park.** A one-acre ornamental garden.
- **Hosp Grove BV Lagoon.** Improvements to Hosp Grove Park to expand to an additional 41 acres.
- **Business Park Recreational Facility (Zone 5 Park).** Improvements to Zone 5 Park to expand to an additional 10 acres.

Planned New Parks and Trails

Some entirely new parks are already scheduled in order to meet identified needs in accordance with citywide growth management facilities standards. These planned parks are described briefly below.

Alga Norte Community Park

The Alga Norte Community Park will occupy a 32-acre site in the southeast quadrant east of El Camino Real, bordered on the south by Poinsettia Lane and on the east by Alicante Road. Upon completion, Alga Norte Community Park will provide lighted softball and baseball fields, lighted basketball half-courts, batting cages, and concession stand at the ball fields, picnic areas with barbecues, a playground with universally-accessible play equipment,

an off-leash dog park, and a 15,000 square-foot skate park. An Aquatic Center will provide a deep competition pool with a bulkhead and viewing bleachers, a shallow swim instruction pool, a warm water therapy pool, a “spray-ground” play area for young children, a heated main locker room/restrooms and a “team” restroom/shower area, meeting rooms and a concessions area. Part of the approved master plan, but currently not part of the first phase of the park will include a recreation component with a lazy river, slides and other family activities.

The park site has been graded to prepare for the park’s eventual construction. The City Council recently authorized moving forward with a code compliance check to update the plans and conduct a market, financial, and operational assessment of the current plan. Staff will return to Council at the first of the year to report on these two items and receive further direction.

In terms of the Growth Management Plan, a park that is considered “scheduled for construction” can be counted toward parks adequacy if the improvements have been designed, the site selected, and a financing plan approved. Under these criteria, Alga Norte meets the definition of “scheduled for construction” and may therefore be counted toward parks adequacy in the southeast quadrant.

Veterans Park

Veterans Park is a community park planned for the northwest quadrant, north of Faraday Avenue just east of Cannon Road and across the street from portions of The Crossings at Carlsbad golf course. The city-owned site is approximately 100 acres, of which only about 30 is developable (however trails may be located throughout most of the 100 acres). There is currently no master plan for the park, but there are existing trails open to the public. The anticipated completion date is 2020 or later. With completion of this park, 25 acres of parkland will be attributed to each of the four quadrants.

Robertson Ranch (unfunded)

Robertson Ranch is a 13-acre special use area planned for the northeast quadrant on the northeast

corner of El Camino Real and Cannon Road. There is also a trail at the western edge of the park that was constructed by the developer of Robertson Ranch. The park is anticipated to accommodate soccer fields in order to meet the city's facility guidelines for sports fields (one soccer field per 4,000 population). This park is unfunded in the Capital Improvement Program, and therefore does not currently count toward meeting the city's growth management standard for parks.

Prop C and Open Space Acquisition Priorities

The Proposition C Open Space and Trails Ad Hoc Citizens' Committee ranking process (described in more detail in Chapter 3) resulted in a prioritized list of open space lands recommended for long term conservation. With this list in mind, several acquisitions have occurred to-date, including the Sherman property (now the Buena Vista Creek Ecological Reserve), the Mitsuuchi property near Baticuitos Lagoon, and two Caltrans properties near Agua Hedionda Lagoon (not on the original list). The city continues to approach land owners about acquisition opportunities. Whether or not the city acquires open space lands itself, or another agency acquires and conserves the land, the Prop C committee recommendations and evaluation guidelines provide detailed criteria for the evaluation of future potential conservation sites.

Priority Projects in Pedestrian Master Plan

The City of Carlsbad Pedestrian Master Plan (2008) contains recommendations for improving access to outdoor recreation spaces and pedestrian connections between existing destinations in high demand. The plan provides a detailed analysis that considers pedestrian generators (e.g. population and employment densities, walking-dependent sub populations), attractors (e.g. schools, parks and transit), and barriers (e.g. freeways, rail, steep slopes). The resulting composite suggests areas of greatest need for pedestrian improvements, and makes specific recommendations for system improvements to meet identified needs, rather than simply evenly distributing network improvements across the city. The priority areas include most of the northwest quadrant, the vicinity of

the intersection of Palomar Airport Road and I-5, the vicinity of the intersection of Poinsettia Lane and I-5, the vicinity of the intersection of Aviara Parkway and El Camino Real, and the vicinity of the intersection of La Costa Avenue and Rancho Santa Fe Road. Pedestrian improvements in these areas are targeted to service existing schools, parks, and other facilities with higher demand for pedestrian access. Priority projects for these areas tend to be combinations of sidewalk improvements, installation of curb ramps, signage and striping, and trail connections. Working Paper #5 Transportation will provide more discussion and mapping of the Pedestrian Master Plan findings and recommendations in the context of the General Plan update.

Accessibility

Healthy Lifestyles and Accessibility

A survey of park officials in the 50 biggest U.S. cities found that only 14 had a goal for the maximum distance any resident should live from his nearest park, and among the 14, the standards ranged from as little as one-eighth of a mile to as much as a mile.²³ However, the distance between people and parks may be more important than the overall number of park acres. An example is the City of Los Angeles, which ranked fifth among the 50 big cities in the survey with more than 30,000 acres of parkland. However, more than half of all Los Angeles park acres are concentrated and inaccessible to most neighborhoods, except by car. In terms of maximizing park use and improving public health, this distance is a problem: in a survey of the literature on parks and public health disparities, a study found that Los Angeles residents who live close to parks exercise more and visit parks more regularly than those who live farther away from parks.²⁴

There are health and social benefits to having parkland close to one's home. People who live within walking distance (1/4 mile or five-minute walk) of a

²³ Harnik, P. and J. Simms, "How Far to Your Nearest Park?" The Trust for Public Land, June 2006.

²⁴ Yañez, E. and W. Muzzy, "Healthy Parks, Healthy Communities: Addressing Health Disparities and Park Inequities through Public Financing of Parks, Playgrounds, and Other Physical Activity Settings", The Trust for Public Land, November 2005.

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park have been found 25 percent more likely to meet their minimum weekly exercise recommendation.²⁵ In a study of adolescent girls (whose physical activity levels tend to decline substantially during puberty), those who lived near more parks—particularly parks with amenities that are conducive to walking and other physical activity—engaged in more extracurricular moderate to vigorous activity than girls who lived near fewer parks.²⁶

According to the Carlsbad Community Vision, residents are appreciative of the investment the city has made in a large and diverse parks and open space network for the city. Community members are looking for new facilities to be located to maximize use and access by all neighborhoods, and for them to be tailored to the needs of local populations and designed with all ages in mind.

Park Access

Figure 4-1 depicts quarter- and half-mile buffers around existing and planned²⁷ community parks and special use areas to illustrate one kind of measure of accessibility, with a quarter mile

generally traveled in five minutes on foot, and a half mile in 10 minutes. Table 4-8 below summarizes existing residential land uses by acreage falling within this buffer of existing and planned community parks and special use areas. The table suggests that, with completion of improvements at Alga Norte and Veterans, about 33 percent of existing residential areas will be within five minutes walk of a park, and 66 percent within 10 minutes walk.

For comparison, Figure 4-2 depicts a slightly different walking distance analysis, where actual walkable distances along roadways are indicated using data about Carlsbad’s roadway network. This version of the analysis suggests that actual park accessibility on foot or by bike may be substantially lower than that shown in Figure 4-1, as many parks have limited roadway connectivity. In contrast to Table 4-8, Table 4-9 suggests that, with completion of planned improvements, only about 18 percent of existing residential areas will be within five minutes walk of a park, and 43 percent within 10 minutes walk, leaving 57 percent of existing residential areas beyond a 10 minute walk.

Neither of these basic analyses account for private neighborhood parks and recreation facilities offered in many of the city’s master-planned communities. These would put more people within walking distance to existing and future facilities. However, the city does not maintain a record of size, locations, conditions, or improvements at these facilities and

25 L. Frank et al., “Linking Objectively Measured Physical Activity with Objectively Measured Urban Form: Findings from SMART-RAQ”, Vol. 28, Issue 2, *American Journal of Preventative Medicine*, at 117-125 (February 2005).

26 D. Cohen et al., “Public Parks and Physical Activity Among Adolescent Girls,” Vol. 118, No. 5, *Pediatrics*, at 381-1389 (2006).

27 Only funded planned parks are included in the buffer analysis, although both funded and unfunded parks are shown on the map.

TABLE 4-8: PARK ACCESSIBILITY BY RESIDENTIAL LAND USE – BUFFER ANALYSIS							
EXISTING RESIDENTIAL LAND USE	1/4 MILE ¹		1/2 MILE ¹		BEYOND 1/2 MILE		TOTAL ACRES
	ACRES	ROW PERCENT	ACRES	ROW PERCENT	ACRES	ROW PERCENT	
Mobile Homes	7.7	4%	19.5	11%	160.1	89%	179.5
Multi-Family Homes	361.4	45%	582.4	73%	217.8	27%	800.2
Single Family Attached	243.2	38%	484.4	75%	162.8	25%	647.1
Single Family Detached	1,608.1	32%	3,325.4	65%	1,758.2	35%	5,083.6
Spaced Rural Residential	19.3	22%	49.7	57%	37.2	43%	86.9
Total Acres	2,239.7	33%	4,461.4	66%	2,336.0	34%	6,797.4

1 Distance is measured from the closest point of the residential property to the park property and does not account for the length of roads or paths to physically get from a person’s home to the park.

SANDAG existing land use categories, city designated community parks and special use areas. Buffer generated from boundary line of each community park.

Source: City of Carlsbad Parks and Recreation Department, 2010; SANDAG, 2008; Dyett & Bhatia, 2010.

thus ongoing monitoring and evaluation of these parks as a part of General Plan or Growth Management implementation is unlikely.

Another consideration in an accessibility analysis is that park accessibility is closely related to population and housing density. In less dense communities or neighborhoods, a given acreage of parks per 1,000 residents will mean fewer people within walking distance than would be possible in more dense communities or neighborhoods. The next level of analysis would incorporate residential density data in order to determine how many households are actually within walking distance of these parks. Figures 4-1 and 4-2 suggest that existing areas with low walking access to community parks include the neighborhoods just north of Batiquitos Lagoon and south of Poinsettia Lane along Aviara Parkway and Alga Road, the neighborhoods west of Rancho Santa Fe Road and south of La Costa Avenue, and a pocket of neighborhoods along Tamarack Avenue north of Agua Hedionda Lagoon. Another possible objective

of subsequent analysis would be to determine what recreational assets are offered by existing special use areas which are currently counted toward the parks standard and included in this distance analysis, and to what extent the general public actually has access (for instance in the case of school sites with joint use agreements).

In the late 1970s and early 1980s, the City of Carlsbad chose to focus on providing community parks rather than smaller neighborhood parks. At that time, it was the belief that providing larger community parks, which incorporate a balance of both active and passive recreational amenities, would better meet the recreational needs of the residents, tourists, and employees, and was thought to be more financially desirable from an operational and maintenance standpoint. As mentioned above, private parks within master planned and planned development communities do put more people within walking distance to parks, even if they cannot be counted under city standards. In

TABLE 4-9: PARK ACCESSIBILITY BY RESIDENTIAL LAND USE – WALKING DISTANCE ANALYSIS

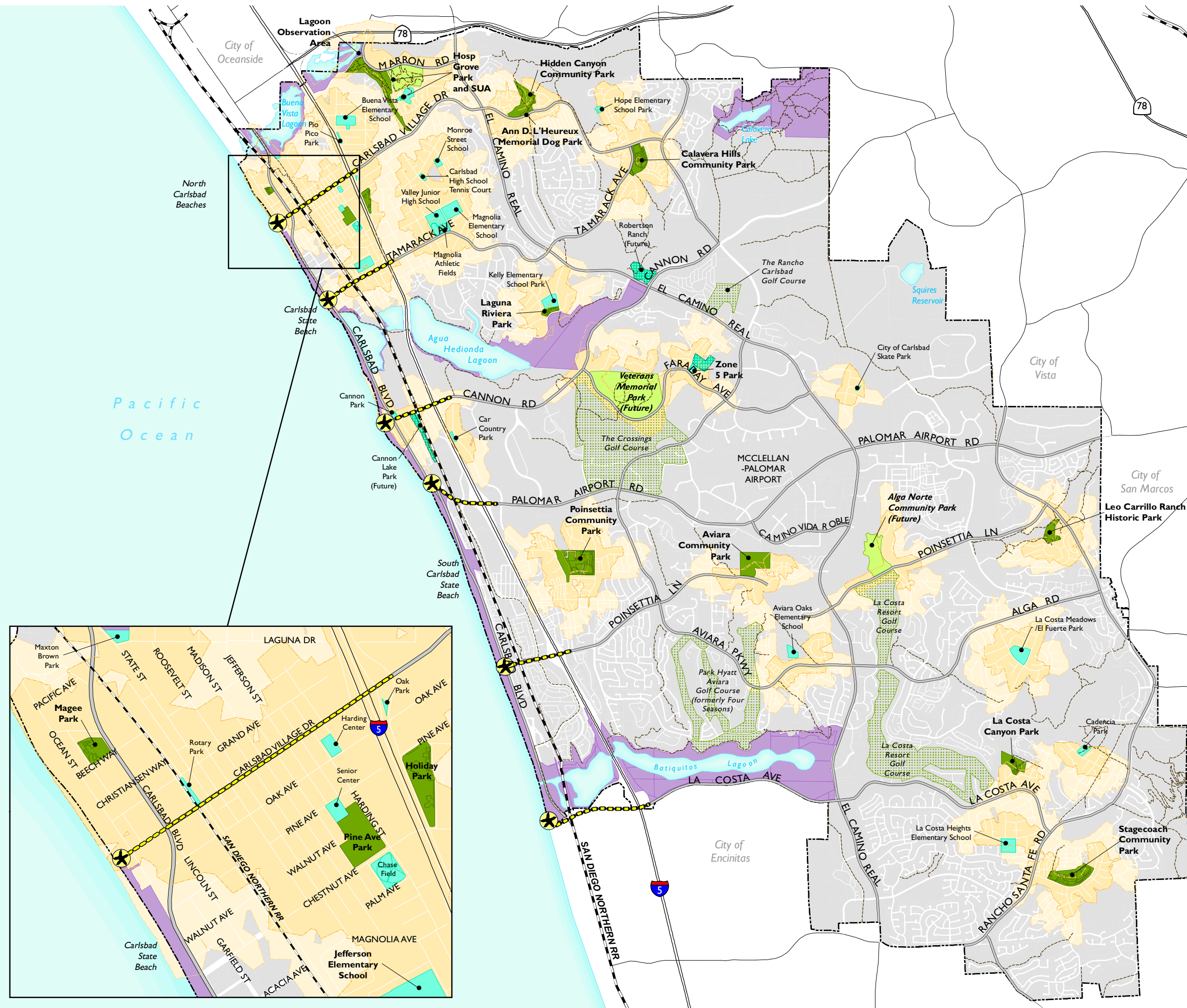
EXISTING RESIDENTIAL LAND USE	1/4 MILE (5 MINUTE WALK)		1/2 MILE (10 MINUTE WALK)		BEYOND 1/2 MILE		TOTAL ACRES
	ACRES	ROW PERCENT	ACRES	ROW PERCENT	ACRES	ROW PERCENT	
Mobile Homes	3.5	2%	11.6	6%	167.9	94%	179.5
Multi-Family Homes	185.9	23%	435.4	54%	364.9	46%	800.2
Single Family Attached	157.8	24%	308.4	48%	338.7	52%	647.1
Single Family Detached	894.5	18%	2,118.1	42%	2,965.5	58%	5,083.6
Spaced Rural Residential	5.9	7%	26.9	31%	60.0	69%	86.9
Total Acres	1,247.6	18%	2,900.4	43%	3,897.0	57%	6,797.4

Notes: SANDAG existing land use categories, city designated community parks and special use areas. Buffer generated from boundary line of each community park.

Source: City of Carlsbad Parks and Recreation Department, 2010; SANDAG, 2008; Dyett & Bhatia, 2010.

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Figure 4-2: Parks and Recreation, with Walking Distance Analysis



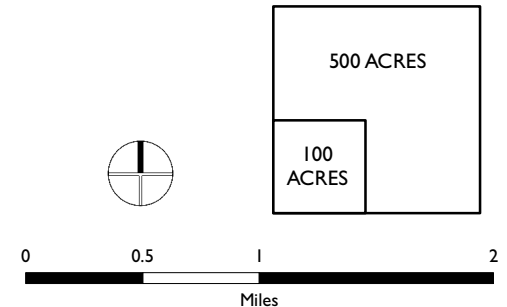
- Community Park
- Future Community Park
- Special Use Area
- Future Special Use Area
- Special Resource Area
- Golf Course

Direct beach access from neighborhoods east of I-5

Parks Access

- 1/2 Mile Walking Distance
- 1/4 Mile Walking Distance

- Open Space Trail
- Highway
- Major Road
- Railroad
- City Limits



Source: City of Carlsbad, 2010; SANDAG, 2008; Dyett & Bhatia, 2010.

order to focus future parks improvements and housing development planning on creating better park access, the city may wish to consider several approaches including new standards that account for walking distance, as well as ones that account for public transportation, park amenities availability, open hours, and other considerations that pertain to the community's experience with city parks.

Beach Access

The City of Carlsbad provides public access to beaches from north to south at Rue des Chateaux, Beech Avenue, Christiansen Way, Grand Avenue, Carlsbad Village Drive, Pine Avenue, Sycamore Avenue, Maple Avenue, Cherry Avenue, Hemlock Avenue and Tamarack Avenue. South of Agua Hedionda Lagoon, beach access becomes more informal as the road descends to sea level, however there are additional access points at the south side of Terramar Beach and at the state campgrounds. If one is traveling on the western side of the railroad corridor, there is no shortage of access points onto the beach. However, if one is traveling east of the rail corridor, access diminishes sharply. Railroad

crossings exist (from north to south) at Carlsbad Boulevard, Grand Avenue, Carlsbad Village Drive, Tamarack Avenue, Cannon Road, Palomar Airport Road, the Poinsettia Coaster Station, Poinsettia Lane, Avenida Encinas, and La Costa Avenue. Several of these crossings are not pedestrian or bicycle friendly, and many are almost a mile apart. Residents and visitors east of I-5 (the vast majority of the community) also have only 10 options for crossing the freeway, but these crossings are not all the same as those that cross the rail; citywide, there are only six direct routes to the ocean from east of I-5. These six access routes are depicted on both figures in this chapter. The Pedestrian Master Plan described earlier in this section provides a more comprehensive picture of pedestrian attractors and barriers throughout Carlsbad, and several of the identified "pedestrian priority areas" relate to these I-5 and rail crossings described here.

With fewer options for developing new parks, the ocean beaches are critical, attractive resources on which the city can capitalize. Several existing neighborhoods are "cut off" from convenient, direct access because their streets dead-end at the railroad

LEARNING FROM DENVER

The Trust for Public Land highlights case studies of creative and effective parks development that serve communities and reduce disparities. In one such case study, Denver Parks and Recreation planners have succeeded in distributing 6,200 acres of parkland among 555,000 people such that upwards of 90 percent of the city's population lives within six "walkable" blocks of a park. The effort was driven by community outreach in which parents clearly indicated they were not comfortable with their children walking (without them) to parks farther than six blocks away. With new developments, Denver has an even higher goal—no house should be farther than three blocks from a park, though the city explains the motivation is that new development is being built more densely than in the past, often with virtually no private yards.

Denver has also had success "repurposing" land for parks. Using bond funding, the city created "learning landscapes" on more than 200 elementary and middle school grounds with improvements including trees, gardens, artwork and playground equipment. The new landscapes are part of the schools, but are also accessible to the public after school hours and on weekends. With schoolyards located every half-mile, this approach adds green space to built-out neighborhoods that previously lacked adequate parks and open areas.

when they would otherwise continue straight to the ocean. In some areas, fencing has been installed to increase safety, blocking long-established informal crossing routes. It has been reported that fence repairs are made regularly due to frequent (unauthorized) “re-openings” of these barriers. The Public Utilities Commission (PUC) and Caltrans are likely to continue to avoid the development of

new rail and freeway crossings, respectively, due to their concern for the safe operation of their transportation systems and the liability that accidents present. The city may want to explore ways to maximize the usefulness of existing crossings, and may want to consider actively engaging the PUC and Caltrans about strategic ways to increase access in the future.

ADA PARKS ACCESS BEST PRACTICE STUDY

In addition to parks and recreation access by all neighborhoods and all ages, another important consideration for parks planning in the City of Carlsbad is parks and recreation access by people of all abilities. The National Center on Accessibility conducted a research study in order to ascertain which practices in the field of parks and recreation accessibility management exceed the minimum standards set forth by the ADA and other disability-related legislation. Using a modified Delphi process, a national panel of experts reached 80 percent consensus on a set of items considered to be among the best practices in the field of accessibility in parks and recreation. Below are some of the highlights from that list:

- Provision of accessible information to patrons, in alternative formats, recognizing persons with visual, hearing, or cognitive impairments;
- Policies which facilitate and promote inclusive and accessible programs, and facilities, in the delivery of recreation and leisure services;
- Establishment of an ongoing, periodic training program for agency personnel and volunteers regarding accessible and inclusive concepts and practices for people with disabilities;
- Establishment of an Accessibility Advisory Board (or similar group) which includes persons with disabilities;
- Demonstrated support by administrators regarding accessible recreation programs;
- Marketing materials and program brochures that are accessibility-oriented for the promotion of inclusion of persons with disabilities;
- Recruiting staff and volunteers with disabilities to develop and deliver public programs;
- An organizational culture and attitude where recreation staff recognizes and promotes the rights of all persons to access fulfilling and enjoyable recreation activities, regardless of ability or disability.

For more information, the full study entitled “Best Practices of Accessibility in Parks and Recreation: A Delphi Survey of National Experts in Accessibility” by Alison Voight, et al., (2008) is available for free online through the Indiana University Scholar Works Repository. A link is provided via the National Center on Accessibility website, at <http://www.ncaonline.org/index.php?q=node/708>.

5 Planning Issues and Implications



1. Should the city focus on increasing the amount of designated open space within the city's network, or focus on access, connections, use and conserving a full range of habitat types?

Approval and adoption of the city's Habitat Management Plan was required in order for the city to receive authorization to impact listed species through the issuance of a permit by the wildlife agencies, namely U.S. Fish and Wildlife Service and California Department of Fish and Game. This authorization was formalized through the execution of an implementation agreement between the city and the wildlife agencies. Of the 6,478 acres of preserve land required by the HMP, almost 90 percent (or 5,821 acres) has been preserved as open space to-date (see Figure 2-3), leaving a remaining 657 acres to be preserved in hardline conservation or standards areas order to meet the HMP permit requirements. Carlsbad is unique in its conservation goals for 40 percent in open space. Other cities in North San Diego County have goals in the 12 percent to 15 percent range. Other cities do not specify a percentage of conserved open space, but lay out specific goals and policies to maintain and preserve environmental sensitive habitats in their jurisdictions.

In addition to the preserve requirements outlined in the HMP, the community has voiced its desire for the city to expand the city's open space network to increase the preservation and protection of important natural resources, and promote the use of appropriate open space areas for recreational, aesthetic, cultural and educational purposes. Although the city owns all city parks and approximately 600 acres of natural

open space land, much of the open space in the city is privately held or owned by the State of California. The city does not have direct control over the designation, preservation, or restriction of activities on state lands, though the city has some control over private lands through exactions, dedications, easements, etc. The City of Carlsbad is working with the state to start a process to review the state's properties along Carlsbad beaches; this may offer opportunity for land swapping to advance objectives of both entities. But overall, the city faces both a diminishing range of potential open space acquisitions and a tighter budget during difficult economic times. Realistically, integrated approaches to conservation and development cannot promise perfect win-win solutions. While conservation increases may not specifically increase economic development in the city, it achieves a collective purpose by bringing to fruition the goals of the community. Due to the scarcity of potential land conservation areas, land use decisions may need to reflect higher density and intensity in remaining available developable lands to achieve these conservation goals.

Through the Proposition C Open Space and Trails Ad Hoc Citizens' Committee, the city has a prioritized list of potential property acquisitions to expand the city's open space and trails linkage (Committee-ranked properties are depicted on Figure 2-1) and a set of ranking criteria to use when other properties are proposed or available for open space preservation. The Buena Vista Lagoon Foundation and Technical Advisory Committee are pursuing a restoration project for the Buena Vista Lagoon that would create a saltwater

habitat alternative. The project will most likely require the purchase of a number of privately-owned parcels within and on the perimeter of the lagoon. This mitigation effort would help the overall health of the lagoon and coastal systems and would add to the city's total open space acreage. The General Plan update should consider further opportunities to support foundation and agency conservation efforts, and to tie those efforts closely to both the Community Vision and ecosystem needs.

2. How might the city's lagoons and other natural areas such as canyons and habitat preserves evolve to balance the recreation and conservation needs of the community? Is there a desire to expand recreational uses of these natural areas? Is there a desire for increased access from the city's existing trail network? How can the educational programs offered today expand and grow?

The city's existing lagoons represent both ecological and recreational assets to the community. As part of the General Plan update, opportunities may exist to expand recreation and public access in these areas, while preserving and protecting the ecosystem that the lagoons provide. Examples of the city's current actions to balance recreation and conservation, as well as some of these opportunities and considerations regarding ecological and recreational value of the lagoons, are provided below:

- The city's current trail network includes existing unpaved open space trails around the northern shore of the Batiquitos Lagoon and plans for a critical trail connection. At the same time, Batiquitos Lagoon provides important wildlife habitat areas and is protected as a game sanctuary and bird estuary.
- Encinitas Creek is considered the strongest remaining wildlife corridor to the Batiquitos Lagoon. The lagoon underwent a major restoration in the mid-1990s to remove sediment, which mainly resulted from

construction of transportation corridors, and allows it to open to the ocean as it had in the past. There is a trail system along this natural corridor in both the City of Carlsbad and in the City of Encinitas.

- Agua Hedionda Lagoon offers the most opportunities for active recreation (boating, fishing, kayaking, etc.), in addition to providing critical vegetation communities, but has very limited trail access. There is a planned unpaved open space trail that would provide access along the north and south shores of the lagoon. Currently, public access is provided at the northwestern end at the lagoon foundation's Northshore Trail, and at the south end of Bayshore Drive. Options to increase public access points and trail connections to this lagoon are being explored.
- As a part of the future coast rail trail, a northern segment is proposed that would connect the existing trail to Buena Vista Lagoon. Buena Vista Lagoon is known for its scenic views and bird watching, provides critical habitat and is designated as an Ecological Reserve by the California Department of Fish and Game.
- Additionally, the city's partnerships with various lagoon educational centers are an important component in striking a balance between recreation and conservation. These relationships and educational programs help community members develop an understanding of the lagoons' history, ecological value and sensitive biological resources. The programs also ensure that future generations continue to recognize the value of the city's lagoons.

The General Plan update can capitalize on existing community educational programs about lagoon biodiversity, including sensitive wildlife and habitat, and environmental implications related to water quality and sedimentation in order to advance the city's goal to balance recreation and conservation amongst community members and active recreational users of the lagoons. City departments and

website can help to publicize existing walking tours, install or improve informational boards near lagoons and city visitor centers, and offer educational outreach events at community centers, schools, and city meetings to help the community to understand the ecological value of the lagoons, in addition to their recreational value.

From a financial standpoint, open spaces such as parks and recreation areas can have a positive effect on nearby residential property values, and can lead to proportionately higher property tax revenues for local governments. Compact, walkable developments can provide economic benefits to real estate developers through higher home sale prices, enhanced marketability and faster sales or leases than conventional development, which in turn leads to higher tax revenues, as well.

Currently, the city maximizes its citizens' connection to other open space opportunities such as canyons and habitat preserves through the incorporation of trails and recreation opportunities like Hidden Canyon Trail for example. The city can continue to increase open space access by implementation of the Citywide Trails plan and ensure connections across open space areas from residential areas. There are also limited opportunities to increase access to existing preserve areas, however, the protection of the resources within the preserves may be the ultimate priority and may restrict public access for protection purposes.

3. Are the existing Growth Management Plan parks performance standards appropriate, or should they be adjusted? Is the amount/type of parkland provided in the city meeting the needs of Carlsbad residents? Should the General Plan update consider new park standards based on factors other than size, such as walking distances, park condition, amenities, or the recreational needs of a particular neighborhood or group of residents?

Carlsbad's existing parkland service level is consistent with the current growth management standard for parks. As Table 4-7 indicates, the city will also have plenty of parkland when it reaches anticipated buildout population, as measured against the current standard. Nonetheless, should the city consider its park development obligations "done" after these planned parks are in place? Will the creation of Veterans Memorial Park, a very large park in the middle of the city, truly meet perceived park needs throughout the community if most residents will have to drive to get there?

The city currently uses the most basic and widely applied kind of service standard for parks: acres per 1,000 population in a given service area (in this case, by quadrant). A standard such as this, tied to financing and growth management planning, can help to ensure that at least the minimum amount of park acreage will be available to all community members. Most California cities maintain a minimum park standard of three to five acres per 1,000 population; the City of Carlsbad's comparable standard is three acres for community parks and special use areas combined.²⁸ However, Carlsbad also promotes and maintains several other kinds of open space, such as special resource areas, planned development private parkland requirements, and conservation open space that takes the form of preserves dispersed throughout the city. If one were to count community parks, special use areas, and special resources areas as total parkland provision, the City of Carlsbad currently offers about 15 acres of parkland per 1,000 residents. With the city already maintaining about 38 percent of all land in open space and holding the ultimate goal of 40 percent, city open space efforts reach well beyond traditional parkland provision to embrace a more holistic open space picture.

²⁸ Carlsbad's growth management park standard is: 3.0 acres of community parks or special use areas per 1,000 population within the park district (city quadrant) must be scheduled for construction within a five year period, or prior to construction of 1,562 dwelling units within the park district beginning at the time the need is first identified.

In terms of the specific question of whether the city standard for parks acreage is sufficient of itself, the city may wish to undertake an analysis to cross check the current standard against actual parks and recreation facilities demand. For instance, in their 1996 book “Parks, Recreation and Open Space and Greenway Guidelines” published by the National Recreation and Parks Association, James Mertes and James Hall describe a detailed process by which a parks acreage service standard may be derived, with the basic steps including:

1. Determining the park classifications to which the standard will apply;
2. Determining the baseline recreation activity “menu” for each park classification, which provides the basis of facility space requirements (e.g. will the park classification include a picnic area? A basketball court?);
3. Calculate the space size standard for each park classification to which the standard will apply (based on the facility space requirements from #2);
4. Determine the present supply of recreation activity choices (usually expressed in terms of visits/year/facility);
5. Determine expressed demand for recreation activity choices (usually expressed in terms of visits/person/year/facility);
6. Determine the minimum population service requirements for recreation activity choices (minimum population served/year/facility);
7. Determine individual standard for each park classification; and
8. Determine the overall standard for the entire system.

Steps one through three are decisions and calculations that could be made as a part of the General Plan update process. However, steps four through eight, if undertaken, would require more careful consideration of the capacity of each kind of facility, as well as public

surveying or other primary data gathering to determine how often people actually use each kind of facility. This additional effort may be more suited to later implementation of General Plan policy direction or Parks and Recreation Department Strategic Plan implementation. The result of this kind of assessment would be a data-driven standard for each park classification that is based on the actual size of facilities, how many people each facility can serve, how much demand there is for each kind of facility, and therefore how much of that kind of facility space would be needed to serve a given population.

As Mr. Mertes and Mr. Hall point out, in addition to a minimum level of service, “there may be a host of other community considerations which, although not easily quantifiable, are nonetheless important in planning the park and open space system.” Questions that have arisen through the Vision process include whether the city currently has the right mix of active and passive recreation facilities. For example, if a neighborhood is predominately comprised of senior residents, then that neighborhood may not need more ball fields, but rather more passive gathering places instead. In another example, in the village area urban parks such as plazas, squares, tot lots, or other kinds of places where people can gather may be more appropriate than ball parks. These differences between neighborhoods suggest that a standard for parks should be flexible enough to facilitate development of different kinds of facilities in different parts of Carlsbad, in accordance with community needs.

After considering these policy issues that go beyond the basic space-related service standard, the service standard may be changed to better reflect community needs and feasibility. Ultimately, the city may determine that the growth management parks standard only deals with basic recreation space as related to population. Other factors, such as park location, accessibility, and facility mix may be monitored and evaluated under adequacy standards separate from growth management.

CONSIDERATIONS FOR A REVISED PARKS STANDARD

Drawn and slightly adapted from “Parks, Recreation and Open Space and Greenway Guidelines,” these are examples of potential issues for consideration when crafting or revising a level of service standard for park and recreation land:

- Will the public be able to use school property? Should the standard include this property?
- Will the inventory include public and private golf courses and country clubs?
- Will the inventory include private or voluntary agency lands, nature conservancies, and similar resources?
- Will the inventory include parkways, boulevards, plazas, or historic sites?
- Will the standard methodology consider travel time to each park from the designated service area?
- Will the standard consider demographic, social, cultural, ethnic, and economic profiles and participation characteristics of neighborhoods or service areas?
- Will the standard consider geographic location, including elevation, climate, etc?
- Will the inventory consider space within the boundary of a park that is undevelopable due to severe topography, sensitive biological resources, or some other physical limitation?
- Will the standard consider the extent to which parks and recreation facilities are served by public transportation, particularly on the weekends and holidays?
- Will the space standard consider optimum park design expressed as a ratio of facility space to support space for parking, pedestrian circulation, etc?

4. Which areas still have access issues after planned parks are completed?

The current city park standards require the provision of minimum park acres for each city quadrant (northeast, northwest, southeast, and southwest sections of the city created by the intersection of Palomar Airport Road and El Camino Real). However, during Envision Carlsbad Phase 1, community members discouraged the use of “quadrants” as a planning tool because it ignores the unique needs of individual neighborhoods, and because geography and size of quadrants suggest smaller planning units might work better for everyone. The analysis in Section 4.5 offers a couple ways to measure access to parks using basic distance calculations. Tables 4-8 and 4-9 make clear that due to the limited number of roads and

road connections in many parts of Carlsbad, walking access to parks from residential areas is quite limited, in particular for areas of the city including the neighborhood defined by El Camino Real on the west, Carlsbad Village Drive on the north, and Tamarack Avenue on the southeast; the neighborhood between Magnolia Elementary and Kelly Elementary; several neighborhoods south of Poinsettia Lane, Aviara Parkway, and Alga Road; and the neighborhoods bounded by El Camino Real on the west, La Costa Avenue on the north, and Rancho Santa Fe Road on the east. Further analysis for purposes of the General Plan update may want to also take into account physical barriers such as I-5, the railroad corridor, natural features

such as streams or canyons, or heavily-trafficked roads which further reduce park access today.

There are some current planning initiatives that are not acknowledged in this first step of the parks access analysis. For instance, private recreation areas (in master and planned developments) provide residents with access to park facilities beyond what is provided by city-run parks, however, a database of these private parks is not maintained by city staff and so conditions, use and needs would not be monitored under General Plan or Growth Management implementation efforts. Furthermore, some transportation network improvements to address identified walking and biking accessibility barriers are already described in the existing Pedestrian Master Plan, however, those improvements are targeted broadly at priority pedestrian areas of all sorts, not specific at improving access to parks.

Currently Carlsbad does not have adopted parks and recreation access standards. The city could decide to either adopt such standards or use them as a de facto method to plan future parks. Once the city has identified access deficiencies, they may be ameliorated in several ways, including by locating new parks in areas that currently lack them, or by enhancing access to existing facilities with improvements such as new trails or path connections, or new connections across barriers such as the railroad. The city may also wish to consider the possibility of providing a transit service to increase access to park facilities. There may be a relatively high cost associated with providing a service such as this, but there may also be potential to partner with schools, other agencies, or other transit access efforts such as those discussed in terms of improving access to beaches. Please refer to later working papers on transportation and community design for more context and discussion on the subject of pedestrian and bicycle access to community facilities and resources.

5. As the city transitions from a period of growth to one of infill and revitalization, population may grow in existing developed areas such as the Barrio and the Village, which may lead to the need to consider more local parks to meet community need. What strategies should the city consider to ensure sufficient park resources in infill areas?

Neighborhoods such as the Barrio and the Village are attractive places for new population because of proximity to public transportation and the mix of goods and services the area can provide. If the General Plan update process leads the city to policies which would promote infill development in this area, population growth in the northwest quadrant may demand additional park acreage under the existing city standard. However, providing additional parkland in already built out areas is a challenge, and this is a fundamental flaw in parks service standards that rely solely on a comparison of service area population and park acreage. The Barrio currently has Chase and Brierly athletic fields, Holiday Park and the Coastal Rail Trail, so additional need may be better met with smaller parks, or park facilities focused on other kinds of gathering places such as plazas, squares or tot lots. In the Village, better connections to and services at the beach may be the most cost-effective solution, particularly given the close proximity and existing rail crossings in place. Yet another consideration for built out infill areas is enhancing joint use opportunities through renewed and expanded agreements with local schools. In return for expanded access to school fields or courts, the city could contribute for instance by installing lighting for presently unlit fields, which would expand the hours of the day they are available for use. Ultimately, Carlsbad may need to consider a fundamentally different definition of parks for these infill areas, one that is more urban but that can still provide needed social, community space.

6. What parks and recreation programming needs should the city prioritize in order to improve “fit” between the population and available facilities and services?

In addition to having an adequate supply of parkland easily accessible, it is critical that parks and other facilities themselves are designed to best serve the potential recreational needs of users/surrounding residents. While design and programming of parks is beyond the scope of the General Plan update and is typically done as part of park and open space master plans (which generally follow general plan updates), during the Envision Carlsbad Phase 1 some community members expressed the need for a better fit between open space programming and actual population needs. While some community members described the problem generally in terms of lack of usability, others more specifically described the need for teen-oriented recreation opportunities, passive adult spaces, and soccer fields. Potential suggestions from the community include additional public gathering places, more family-friendly activities and events/programming that connect residents and keep them actively involved. These kinds of specified needs should be “fit” to neighborhoods throughout the city. For instance, if a neighborhood is predominately comprised of senior residents, then they may need programming of passive gathering places. In contrast, a neighborhood that is predominantly comprised of families with young children may value nearby improvements that include tot lots and picnic areas.

The city has plans for a few new large parks, which, when developed, may alleviate some of these needs. However, it is also possible that on a neighborhood by neighborhood level, community members may wish to be more closely involved in the planning and programming of future parks in their neighborhoods, and even decisions regarding changes to programming for existing parks which are currently underutilized. Improving “fit” in terms of both size and programming has the potential to make existing park resources more

used and appreciated at a time when land supply for new parks is dwindling. What other kinds of park resources could serve aging communities members? Teens?

7. How can the city address the challenge of a financially-sustainable park maintenance system in the long-term, particularly as the city shifts from a developing to a mature, developed city?

Financial sustainability seems to be driving several overarching park planning considerations today, and the city is taking multiple steps, such as postponing construction of some parks, and planning for larger parks, to ensure parks have adequate funding and care over the long-term. However, in the context of the General Plan update, a more comprehensive approach to address park maintenance needs may be warranted, including considerations at the design stage as well as operations, maintenance, and funding streams.

The Parks and Recreation Department is currently undertaking a strategic planning process that includes the identification of new sources of funding and identifies specific targets for change in park maintenance programs in order to save money.

One possibility the community may wish to consider is the formation of lighting and landscape maintenance districts. This kind of district is created to pay for the costs of on-going maintenance of public landscaping that provides special benefits to parcels in given areas of the city. The district provides services solely for the benefit of those parcels located within the district. A district such as this may also be a way in which property owners can vote to assess themselves to pay and receive services above-and-beyond what the city normally provides.

Some maintenance and design approaches may also have environmental benefits whose cost benefits are harder to quantify, such as improving air quality or ecological use of park

areas. Whatever the choice of methods, any cost considerations must factor in the importance of maintenance in ensuring safety, healthy, and attractive recreation environments for users. There is no benefit to reducing maintenance costs for a facility if the reductions result in fewer users, reduced perceived safety, or damage that requires larger investments later. In this respect, the careful placement of parks, and improvements in access, promotion, and programming may help the city get the most out of parks they already maintain.

8. With the City of Carlsbad approaching buildout, what strategies should the city pursue to provide the parks and trails connections to meet the community's needs?

During the Envision Carlsbad Phase 1 visioning process, the community expressed a desire for more complete trail connection from east to west and north to south; particularly, trails that connect the eastern parts of the city to the ocean, and that connect neighborhoods together.

A challenge is that many of the existing trail resources are not connections at all, but rather groups of short trails or looping ones within one neighborhood or property. Future trails development may need to consider whether connecting existing systems trails together is the most important goal, or whether other short connections, such as between nearby neighborhoods, would be even more useful. In each instance, land ownership will be an obstacle to improved connections. Tools such as conservation or access easements, coupled with tax benefits, may provide incentives for land owners to relinquish rights over certain pieces of land; however, these tools are not likely to succeed if the land in question represents a valuable development opportunity.

A further challenge is that different groups (hikers, mountain bikers, equestrians) have different requirements and expectations of the trails they use. Although trail design and programming may be outside the scope of the

General Plan, this working paper acknowledges that community members are interested in a more tailored trail experience. City staff will have to consider both budget and available open space in balancing the demand for specific-use trails with the efficiency of a system of multiuse trails that connect better with one another and serve a wider audience. As the General Plan process continues, the city may wish to solicit more specific public input on the types of trails or trail features most in-demand.

In a few locations, such as the boundary between the Lake Calavera Preserve and the Carlsbad Highlands Ecological Preserve, the city will be taking advantage of opportunities to connect trail systems across ownership boundaries. There is the potential for similar connections to be made with open space trail systems beyond city boundaries. In the context of the General Plan update, the city may wish to involve the parks and recreation departments of neighboring jurisdictions in focused discussions on opportunities for new trail connections.

9. What methods can the city use to ensure the safety of Carlsbad's parks, trails, and natural areas?

In addition to planning for the enhancement of Carlsbad parks, future planning of parks facilities development and maintenance should take into account safety in parks, trails, and natural areas. Safety and security for people visiting city parks and recreation facilities and for those enrolled in recreation programs are very important factors in public satisfaction and participation. People will not visit parks or recreation facilities or participate in programs if they do not feel safe.

The city's system of natural lands and open space is quite extensive, and much of it lacks security lighting (in natural areas this is by design). The Carlsbad Police Department patrols many parks and recreation areas, and some natural areas such as certain accessible areas of lagoons, however, there is ample opportunity for residents to explore these areas

unsupervised. While solitude is often sought-after in a parks and open space experience, City staff and leaders want to ensure the safety of residents in terms of crime as well as interactions with wildlife (e.g. coyotes, mountain lions, snakes, etc.) and other natural area risks (e.g. drowning, falls).

One approach to increasing public safety in parks, recreation, and open space areas include enhanced signage at the entrances to trails and natural open spaces that identify for patrons the natural safety hazards such as animals, poisonous plants, water hazards, and other risks they may encounter on their visit. The ability to notify park visitors of rules, regulations, directions, and safety hazards is important for the public's safety and enjoyment of park and recreation facilities. For trails and public access to lagoons, the city may be able to partner with the management agencies or foundations is the installation of informational signage along trails to identify characteristic species including those that may pose a hazard to humans.

The Parks and Recreation Department may use major repair and maintenance projects to retrofit existing parks and recreation facilities to address potential safety or security needs. For instance, Parks and Recreation can work closely with the Police Department to identify parks or park areas which would benefit from installation of new or additional safety lighting. This lighting should be designed to have the least impact on natural resources such as animals and birds that use nearby habitat, but should nonetheless increase security for residents walking along paved pathways, sidewalks, and entering and exiting park areas.

Other safety measures which may be implemented through new design or retrofit include positioning park restrooms so that doors are clearly visible from the adjoining public street or park driveways, constructing single-entry unisex bathrooms (rather than multiple-stall restrooms), and selectively using fencing near areas with natural hazards, blind spots, traffic hazards, or potential user conflicts.

Maintenance activities include ensuring that limbs of mature trees are pruned to a minimum height of 8 feet above ground level, maintaining vegetation along pathways to retain sight distances and remove sight obstructions, conducting regular safety inspections of park and recreation facilities, and scheduling preventative maintenance for various park safety systems.

10. How can public access to beaches and lagoons be improved?

As described in Chapter 4, the beaches of the City of Carlsbad, while readily accessible all along Carlsbad Boulevard, are much less accessible for households and visitors coming from east of I-5. Issues such as parking availability and parking fees are sensitive ones in the community for just this reason – people must drive from home to the beach in order to enjoy it. Community members not only want their beach access protected and expanded, but also express a desire for more and improved amenities within and along the beaches, for instance ocean front restaurants, a dog beach area, outdoor public facilities for community events, enhanced connections to the trail network and parks, more parking, and other useful facilities such as public restrooms, showers, etc.

Although the city may support many of these objectives, jurisdiction over management and maintenance of beach facilities often falls to the state. Nonetheless, the city is currently talking with the state about improving access to the beaches (as part of the Carlsbad Blvd realignment project). In addition, the city may wish to pursue partnerships with organizations that specifically promote stewardship of the beaches, or organizations that coordinate volunteer time on various projects. A volunteer presence to care for and champion beach improvements and maintenance may be a necessary component of the long-term plan in this tight economy.

In what ways can the City of Carlsbad help to provide greater access? Are there additional opportunities for partnership between the city and the state on specific facilities investments? Should the city focus on getting people to the beach, and let the state handle running and taking care of the beach?

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