Open Space & Conservation Element

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I. INTRODUCTION

A. BACKGROUND AND INTENT

The Open Space and Conservation Element of the General Plan establishes policies for the development of a comprehensive, connected open space system and for the protection and conservation of the City's natural and historic resources.

It is the intent of the Open Space and Conservation Element to:

1. Realize the social, economic, aesthetic and environmental benefits which accrue from the preservation of open space within an urban environment.
2. Ensure the benefits which accrue from the conservation, management and utilization of natural and historic resources.

Goals, objectives and action programs to preserve and regulate land for open space and conservation purposes are included in this Element. Future policies and programs should also be developed using this Element as a basis. The main intent of this Element is to:

1. Provide specific programs for the preservation and conservation of land and natural and historic features, and provide regulations necessary to control the possible negative impact of development which may be allowed.
2. Identify and protect, where appropriate, existing open land, natural and historic resources, and environmental features as integral and necessary components of the Open Space and Conservation Element.

"Goals, objectives and action programs to preserve and regulate land for open space and conservation purposes are included in this Element."

The contents of the Open Space and Conservation Element meet the requirements of state law and provide the City of Carlsbad with a comprehensive document dealing with Open Space and conservation resource management.

The structure of the element as contained herein is as follows:

Open Space and Conservation Element

- State Law
- Relationship to Other Elements
- Background
- Goals
- Objectives
- Implementing Policies and Action Programs
-

For organization clarity, the goals, objectives and implementing policies and action programs have been grouped into eight topics or sections: Open Space Planning and Protection; Obtaining Open Space; Special Resource Protection; Trails/Greenway System; Promotion of Agriculture; Air Quality Preservation; Water Quality Protection; and Historic and Cultural Preservation.

The Open Space and Conservation Element is not intended, and shall not be construed, as authorizing the City to exercise its power to adopt, amend or repeal an open space or conservation zoning ordinance in a manner which will take or damage private property for public use without payment of just compensation therefore. This plan is not intended to increase or decrease the rights of any owner of property under the Constitution of the State of California or of the United States.

B. STATE LAW

Under State law (Section 65302 et.seq., California Government Code), cities must adopt both Open Space and Conservation Elements. The City of Carlsbad has chosen to combine the two elements into one comprehensive element. This element establishes policies for the preservation and conservation of open space land; establishes policies to guarantee the viability of natural and human ecosystems; and guides the protection of physical, cultural, historic, visual and natural resources within the City.

C. RELATIONSHIP TO OTHER ELEMENTS

The Open Space and Conservation Elements have been combined because of their strong interrelationship. They guide and coordinate decisions related predominantly to the

undeveloped land and water surfaces which influence and shape the formal quality of Carlsbad's physical environments. Because open space is a central component in determining a balanced land use pattern, this element bears a strong relationship to the Land Use Element. Open space serves to provide visual relief to the urban form resulting from all the other land uses. The Land Use Map which is a part of the Land Use Element identifies designated open space areas.

The Open Space and Conservation Element relates to the Parks and Recreation Element in that parks are considered necessary and beneficial open space uses. There is a relationship with the Circulation Element and the Noise Element in that larger open space buffers and setbacks are encouraged along designated scenic roadway corridors, which not only provide visual open space, but help to mitigate noise from roadway traffic. Because the Public Safety Element identifies severe-hazardous areas, especially areas subject to geologic hazards, to be considered for open space use, there is also a relationship with the Open Space and Conservation Element.

Finally, the City's Growth Management Plan contains standards to ensure that an adequate amount of open space is provided as growth occurs in the City.

II. FRAMEWORK FOR OPEN SPACE & CONSERVATION PLANNING

A. OPEN SPACE DEFINITION AND CLASSIFICATION SYSTEM

Open Space Classification

"Open Space is defined as any area of land or water which, for whatever reason, is not developed for urbanized uses and which therefore enhances residents' quality of life. The open space may be in its natural state or modified in such a way that the modification itself contributes to this enhancement."

Because of Carlsbad's unique environmental and open space opportunities, a special definition of open space has been adopted which includes and expands upon all the categories of open space provided for in State Law. The following classification divides the broad definition of open space into its many constituent parts. This classification, and the numerical and letter codes ascribed to each type of open space, have been used throughout this element and throughout the Carlsbad Open Space and Conservation Resource Management Plan, with the intent of making easier cross referencing between different parts of the these documents. Any specific area of open space may fall into one or more of these categories.

Open space is defined as:
Any area of land or water which, for whatever reason, is not developed for urbanized uses and which therefore enhances residents' quality of life. The open space may be in its natural state or modified in such a way that the modification itself contributes to this enhancement.
Open space may fall into one or more of the following five categories:

<u>CATEGORY 1</u>: Open Space for Preservation of Natural Resources

a. Plant/Animal Life/Habitat.
   i) Trees and Woodlands;
   ii) Forests and Groves;
   iii) Plant life;
   iv) Animal life;
   v) Habitat for fish and wildlife species; or
   vi) Buffers, links and corridors to enhance the preservation of natural resources.
b. Nature Preserves.
c. Water Features.
   i) Oceans;
   ii) Rivers;
   iii) Streams;
   iv) Lagoons;
   v) Lakes;
   vi) Ponds; or
   vii) Estuaries.
d. Beaches/Bluffs/Banks.
   i) Coastal beaches;
   ii) Coastal bluffs and cliffs;
   iii) Lagoon beaches;
   iv) Lakeshores;
   v) Banks of rivers and streams; or
   vi) Watershed lands.

e. Canyons/Hillsides.
   i) Hillsides;
   ii Slopes; or
   iii) Canyons for preservation of natural resources.
f. Wetlands.
g. Riparian Areas.

CATEGORY 2: Open Space for Managed Production of Resources

a. Forestry/Agriculture/Aquaculture.
   i) Forest lands;
   ii) Rangeland;
   iii) Agriculture;
   iv) Aquaculture;
   v) Horticulture, including greenhouses; or
   vi) Flower fields.
b. Water Management.
   i) Water reservoirs;
   ii) Ground water recharge basins; or
   iii) Watershed lands.
c. Commercial fishery elements, including bays, estuaries, marshes, rivers and streams.
d. Major Mineral resources.

CATEGORY 3: Open Space for Outdoor Recreation (Programmed and Unprogrammed)

a. School grounds.
   i) School playgrounds; or
   ii) School athletic fields and courts.
b. Public parks/recreation areas (programmed and unprogrammed).
   i) City parks;
   ii) Special use areas;
   iii) Special resource areas, including beaches;
   iv) State recreation areas;
   v) Other public recreation areas, other uses of a trail; or
   vi) Areas for access to park and recreation sites, lakeshores, beaches, lagoons, lakes, ponds, rivers, streams, estuaries and coastal bluffs and cliffs.
c. Greenways.
   i) Links and greenways between major recreation and open space areas, including the recreational use of utility easements, and railroad corridors;
   ii) Recreational use of banks of rivers and streams; or
   iii) Scenic highways.
d. Trails for walking, hiking, biking, and skate-boarding, including associated improvements such as staging areas, picnic areas and viewpoints.
   i) Carlsbad Trail System; and
   ii) All other trails.
e. Campgrounds.
f. Golf courses.
g. Private recreation areas, including beaches.
   i) Homeowner pocket parks;
   ii) Ballfields;
   iii Beaches; or
   iv) Other.
h. Equestrian facilities.

CATEGORY 4: Open Space for Aesthetic, Cultural and Educational Purposes

a. Scenic/Historic/Cultural/Educational Value.
   i) Scenic;
   ii) Historic, and cultural value, including paleontological and archaeological areas; or
   iii) Educational value, including significant and/or representative natural habitats, hydrologic, and geological areas.
b. Buffers between land uses, including larger setbacks (building and roadways), and open space marking entries to major developments or neighborhoods.
c. Greenbelts providing separation from surrounding communities.
d. Open space gateways marking entry from surrounding communities and within the City.
e. Museums/Arboreta/Zoologic/Botanical.
   i) Museums;
   ii) Arboreta;
   iii) Zoologic; or
   iv) Botanical gardens.

CATEGORY 5: Open Space for Public Health and Safety

a. Hazardous or special condition areas.
   i) Airport safety zones;
   ii) Earthquake fault zones;
   iii) Manufactured and/or natural steep slopes and hillsides;
   iv) Unstable soils;
   v) Watersheds;
   vi) Floodplains;
   vii) Landslide-prone areas;
   viii) Other hazardous areas; or
   ix) Buffers around said resources.
b. High fire-risk areas.

c. Areas for protection and conservation of water
d. Areas for protection and enhancement of air quality.
e. Bluffs subject to wave erosion.

B. PROTECTION OF OPEN SPACE LANDS

There are a variety of regulatory measures which protect environmental resources in the City of Carlsbad. These regulations operate at all levels of government, including federal regulations such as the National Environmental Policy Act (NEPA), state regulations and agencies such as the California Environmental quality Act (CEQA), and city regulations such as the Carlsbad Municipal Code.

The applicability of these various types of open space in Carlsbad, is shown in Table 1: Regulatory Open Space Protection. A brief discussion of the regulatory measures included in Table 1 can be found below. The shaded boxes indicate which regulations may play a role in preserving the various types of open space.
Understanding the degree of protection already afforded to various types of open space by existing regulations, played an important role in the development of the City's open space plan.

"There are a variety of regulatory measures which protect environmental resources in the City of Carlsbad. These regulations operate at all levels of government, including federal regulations such as the National Environmental Policy Act (NEPA), state regulations and agencies such as the California Environmental Quality Act (CEQA), and city regulations such as the Carlsbad Municipal Code."

OPEN SPACE REGULATIONS

The following is a brief discussion of the primary environmental regulations which assist in the protection of open space in the City of Carlsbad.

National Environmental Policy Act (NEPA)
The National Environmental Policy Act (NEPA) of 1969 applies to projects entirely or partially financed with federal funds. It operates in a manner similar to the California Environmental Quality Act (CEQA), which is discussed below, requiring the preparation of an Environmental Impact Statement (EIS) which is comparable to the CEQA Environmental Impact Report.

Endangered Species Act
Both the State and Federal Endangered Species Acts provide legislation to protect the habitats of listed species as well as the species themselves. Projects that may destroy or adversely modify the critical habitat of a federally or state-listed, threatened or endangered species, regardless of acreage impacts, require formal consultation with the United States Fish and Wildlife Service (USFWS), pursuant to Section 7 of the federal Endangered Species Act, or the California Department of Fish and Game (CDFG), pursuant to the California Endangered Species Act. In either case, impacts would be specifically evaluated and may require mitigation. The federal act requires the USFWS to make a determination with regard to "jeopardy" to the species. If jeopardy is found, the USFWS would likely ask for alternatives and measures to avoid or reduce impacts to the species to the greatest degree possible. Any federal agency action on a project, such as a Section 404 permit, would with regard to "jeopardy" to the species. If jeopardy is found, the USFWS would require that the federal agency engage the USFWS in a formal consultation per Section 7 of the Endangered Species Act. Project impacts are reviewed to determine whether the project "may affect" or may "take" federally listed threatened or endangered species.

Similarly, the State act prohibits agencies from approving projects under CEQA that would jeopardize the continued existence of a candidate species or listed species, and requires the development of alternatives consistent with the CDFG (Fish and Game Code Section 2081), although habitat protection is not guaranteed. The vehicle for CDFG project approval is a Mitigation Agreement.

Army Corps Permits

The U.S. Army Corps of Engineers (ACOE) is responsible for the issuance of permits under the Clean Water Act for the discharge of dredged or fill materials into the waters of the United States. Water of the United States is the broad category of the jurisdictional range of the ACOE that may or may not contain vegetated wetland habitats. All wetlands, therefore, are also waters of the United States and are legally defined with respect to the ACOE permitting requirements in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands.

TABLE 1: REGULATORY OPEN SPACE PROTECTION

OPEN SPACE TYPE	NEPA	Endangered Spec Acts	Army Corps Permits	CEQA	CA Fish/Game 1601/1603	State Lands Commission	State Recreation	L.C.P.	Municipal Code	Growth Mangmt	Land Trusts
1. Open Space for Preservation of Natural Resources											
1a. Plant/Animal Life/Habitat	■	■	■	■	■			■	■	■	■
1b. Nature Preserves	■	■	■	■				■	■		■
1c. Water Features	■		■	■	■	■		■	■	■	■
1d. Beaches/Bluffs/Banks	■			■		■		■	■	■	■
1e. Canyon/Hillsides	■			■				■	■	■	
1f. Wetlands	■		■	■	■			■	■	■	■
1g. Riparian Areas	■		■	■	■			■	■	■	■
2. Open Space for Managed Production of Resources											
2a. Forestry/Agriculture/Aquaculture	■			■				■	■		
2b. Water Management											
2c. Commercial Fisheries	■			■							
2d. Mineral Resources	■		■	■							
3. Open Space for Outdoor Recreation (Programmed and Unprogrammed)											
3a. School Grounds							■			■	
3b. Public Parks/Recreation Areas	■			■			■	■		■	
3c. Greenways											
3d. Trails							■	■			
3e. Campgrounds							■	■	■		
3f. Golf Courses									■	■	
3g. Private Recreation Areas									■		
3h. Equestrian Facilities											

■ Protection Provided

TABLE 1: REGULATORY OPEN SPACE PROTECTION

OPEN SPACE TYPE	NEPA	Endangered Spec Acts	Army Corps Permits	CEQA	CA Fish/Game 1601/1603	State Lands Commission	State Recreation	L.C.P.	Municipal Code	Growth Mangmt	Land Trusts
4. Open Space for Aesthetic, Cultural and Educational Purposes											
4a. Scenic/Cultural/Educational	■			■			■	■	■		■
4b. Land Use Buffers/Entries											■
4c. Greenbelt											■
4d. Gateways											■
4e. Museums/Aboreta/Zoologic/Botanical											■
5. Open Space for Public Health and Safety											
5a. Hazardous Areas	■		■	■				■	■	■	
5b. Fire Risk	■			■					■		
5c. Water Protection	■		■	■				■	■		
5d. Air Quality	■			■							
5e. Wave Erosion			■			■		■			

Aggregate wetland impacts, defined as direct fill or indirect effects of fill greater than 1 acre, require a permit. Certain activities in wetlands or waters of the U.S. are automatically authorized, or granted a National permit, provided they meet specific conditions. All impacts of 10 acres or more require an Individual Permit, which includes consultation with federal agencies, public notice, and preparation of a project alternatives analysis, under the 404(b)(1) Guidelines, that must address avoidance or minimization of wetland impacts.

All permit applications to the ACOE are evaluated under the EPA's 404(B)(1) Guidelines. The guidelines are used as the primary environmental criteria for evaluating the necessity of a proposed discharge of dredged or fill material into waters of the United States. Evaluation under the guidelines determines whether the least damaging and feasible environmental alternative is sought, and whether unavoidable impacts are mitigated appropriately. The basic premise under the guidelines is that mitigation should not be used to offset avoidable impacts. If it is determined that avoidable impacts will occur from the project, an individual permit including public review and detailed alternative analysis may be required.

The U.S. Fish and Wildlife Service does not have a formal permitting process of their own for wetland habitats, but is advisory to the ACOE under Section 404 of the Clean Water Act and via the Federal Fish and Wildlife Coordination Act for all proposed wetland impacts. The Fish and Wildlife Coordination Act provides that the USFWS must be consulted for any proposed impact to wetlands that is under federal review. The USFWS is allowed to comment on all proposed impacts with a view to the conservation of wildlife resources by preventing or reducing the avoidable loss, or damage to, wildlife resources.

In addition, proposed impacts to wetlands that may jeopardize a federally-listed threatened or endangered species or destroy or adversely modify the critical habitat of such species, regardless of acreage impacts, may require formal consultation with the Corps of Engineers and the USFWS pursuant to Section 7 of the Federal Endangered Species Act.

California Environmental Quality Act (CEQA)

CEQA was adopted in 1970 with the intention of ensuring that information regarding the environmental impacts of a proposed project would be available to bodies responsible for approving or denying that project. CEQA requires the preparation of an Environmental Impact Report (EIR) if the proposed project will have "significant" environmental impacts. The EIR must identify environmental impacts and suggest project alternatives and mitigation measures. The approving agency should not approve a project as proposed if there are alternatives or mitigation measures which would substantially lessen the impacts. Therefore, CEQA forms a powerful open space protection tool for certain resources, including all open space for the protection of natural resources, open space for agriculture, forestry and aquaculture, mineral resources, parks and recreation areas, scenic resources, and a variety of public health and safety hazards.

California Department of Fish and Game Codes 1601/1603

The California Fish and Game Code, the CDFG, must be contacted for a Streambed Alteration Agreement for any project that may impact a stream or wetland. The CDFG generally evaluates the information gathered during preparation of the project's EIR/EIS and attempts to satisfy its permit concerns in these documents. The CDFG often accepts mitigation for stream or wetland impacts as a product of the agreement. The policy of "no net loss" of wetland habitat is maintained by the CDFG. Typically, construction restrictions and mitigation conditions are established for granting of their agreement. Any impact to wetlands will require re-creation of wetlands on at least an acre-for-acre basis. Replacement ratios are generally higher, however, to offset the immediate loss, replacement time, and inherent failures in mitigation attempts. Section 1601 applies to public agency proposals and Section 1603 for private-sector proposals.

State Lands Commission

The State Lands Commission is an independent agency, under the direction of a board, with responsibility for administering certain public lands owned by the state or under its control, including vacant school sites, tidelands, submerged lands, swamp and overflowed lands, and beds of navigable rivers and lakes. With powers to sell, lease or dispose of lands, provided any such action is in the public interest, and with the authorization to approve or deny permits for private use of state lands, the Commission may

play a role in protecting certain open space areas in Carlsbad.

State Recreation Planning

The State Recreation Planning column is included in Table 1: Regulatory Open Space Protection not because of any regulations administered by the State Recreation Department, but rather because the de facto operations of the department serve to protect certain coastal resources within Carlsbad. The State owns land for the State Beach Recreation Area, as well as additional land in Zone 3, which it may seek to develop to expand the existing camping facilities offered at the State Beach. Thus, the state's recreation provision and planning have an impact on the open space inventory in Carlsbad.

It should also be noted that under Article 6: California Recreation Trails, State Public Resources Code, addressing "Open-Space Elements and Trails", State law 5076 says: "In developing the open-space element of a general plan ... every city and county shall consider demands for trail-oriented recreational use and shall consider such demands in developing specific open-space programs."

Local Coastal Program

Each of the 15 counties and 53 municipalities along the California coastline is required by the California Coastal Act to prepare a Local Coastal Program (LCP). The LCP includes two main components: a land use plan and related implementing measures including a zoning map and zoning ordinance. In particular, the local coastal land use plans include measures specifically intended to protect natural open space resources, scenic resources, agricultural lands, and public access rights.

Carlsbad Municipal Code

There are a number of components of the City's municipal code which serve to protect open space resources. These include the protection from development of specific resources such as steep slopes, as well as, measures which guide the City's project design review process. The municipal code specifically addresses the protection of all the types of open space included under Category 1: Open Space for the Preservation of Natural Resources, certain types of agriculture, certain recreational open spaces, scenic resources, and certain health and safety issues. Particular components of the municipal code which regulate open space include the Open Space Ordinance, the Hillside Ordinance, the Planned Development Ordinance, the residential park land dedication requirements, and the industrial park land dedication requirements.

Carlsbad Growth Management Program

The City's growth management program includes two critical components with regard to protection of open space in Carlsbad. The first requires that all projects prepare a constraints map indicating the locations of a variety of resources considered environmentally constrained. Beyond this environmentally constrained "set-aside", the growth management program requires that an additional 15-percent of the otherwise developable land be set aside for open space. (The growth management 15-percent open space standard does not apply in certain zones because, at the time the standard was established, the zones were already developed and/or met or exceeded the requirement.) The administration of this 15-percent requirement forms a vital component of the implementation proposals of this element. However, the open space types indicated in Table 1 as protected under growth management are those that are regulated without consideration of the additional 15-percent requirement.

Carlsbad Habitat Management Plan

The Habitat Management Plan designates approximately 6,500 acres of the open space lands in the city for preservation based on its value as habitat for endangered animals and rare, unique or sensitive plant species. The plan identifies how the city can protect and maintain these lands while still allowing additional public and private development consistent with the General Plan and the Growth Management Plan.

Land Trusts

Throughout America, there are a growing number of local, state, and regional groups called land trusts, conservancies, or foundations. These private, nonprofit, tax-exempt charitable corporations typically share a common goal in attempting to protect open space lands threatened by development. Some land trusts are formed to address a specific resource. One such local group is the Buena Vista Lagoon Foundation. However, the more active trusts try to affect land use patterns throughout their community. The inclusion of "Land Trusts" as a column in Table 1 is an attempt to recognize the types of open space most likely to be protected

by the action of such a group if one were active in Carlsbad.

C. CONSTRAINED LANDS

"Environmentally constrained" lands are areas in which development is not permitted due to environmental conditions and which include beaches, permanent bodies of water, floodways, slopes greater than forty (40) percent, significant woodland habitats, and other significant environmental features as determined by the environmental review process or by the City Council. Environmentally constrained lands are prohibited from development under the federal, state and local regulations described above.

Additionally, other lands are sometimes described as "constrained". These lands are areas which are precluded from development because of City regulations, and may include railroad track beds, Circulation Element roadways, and major powerline easements.

Environmentally constrained lands and some of the other lands considered constrained under City regulations form an important, major component of the City's open space system.

"Environmentally constrained lands are areas in which development is not permitted due to environmental conditions and which include beaches, permanent bodies of water, floodways, slopes greater than forty (40) percent, significant woodland habitats, and other significant environmental features as determined by the environmental review process or by City Council."

D. PRECLUDING DEVELOPMENT ON OPEN SPACE LANDS

Not all land that is intended for open space use is environmentally constrained or otherwise constrained from development. In addition to constrained lands, the City requires that additional lands be designated as open space. The City requires that these additional open space lands, considered developable under City regulations, be protected from future development. There are several methods that can be used to protect these lands, including the establishment of open space easements, zoning the property open space, City purchase of the land for open space purposes, and designating the land as open space in the Land Use Element. The following is a summary of these methods of protecting lands as open space.

Open Space Easement
An easement is a grant of one or more property rights by the property owner, to and for the use by the City and/or the public. An open space easement is one which precludes the future or additional development of land covered by the easement and which may allow public use of that land.

Open Space Zoning
The district established to regulate open space lands in the City of Carlsbad within which regulations and requirements uniformly govern the use of the land.

Purchase of Open Space Land
The acquisition of fee interest in open space lands for just compensation.

General Plan Open Space
One of the land use classifications identified in the Land Use Element of the General Plan is open space. Lands classified as open space are precluded from development under the Open Space and Land Use Elements of the General Plan.

E. EXISTING AND APPROVED OPEN SPACE

The City of Carlsbad includes substantial areas which are already developed and in which, therefore, the pattern of open space has largely been defined. Additionally, there are many projects for which planning approvals have been given, although the projects have not been constructed. Open space lands that are considered as existing and approved include:

- Open space which was dedicated or designated in the past and which is, therefore, part of the City's current inventory of open space areas. This includes open space protected by easement, open space zoning, open space General Plan designation, or is publicly owned;
- Open space included in projects which have approved tentative maps or final maps; and

- Open space included in approved master plans and specific plans.

The open space shown in Table 2: Existing and Constrained Open Space Acreages, has been measured on a zone-by-zone basis. The acreage for each zone and the citywide total are estimates. As can be seen in Table 2, the total amount of existing and approved open space in Carlsbad, measured at the end of 1991, equaled approximately 5,900 acres, or roughly 22 percent of the City's total area.

F. CITYWIDE OPEN SPACE PLAN

The following is a discussion of Carlsbad's open space plan from a citywide perspective, defining the relative priorities and general intent for future open space acquisition by type of open space (the types or categories of open space discussed below are those identified in the open space definition and Classification System section).

Table 3: Future Open Space Action Priorities, indicates the relative citywide priorities for each type of open space, as well as the priorities for action on a zone-by-zone basis. The citywide priorities were set by considering the importance of each open space type and also considering the degree of protection already afforded to that type by existing regulations. Thus, for example, while both wetlands and trails could be considered equally important components of the open space system, wetlands are given the lowest citywide priority because they are already effectively protected under existing environmental regulations. Trails, (along with several other resources), on the other hand, are given the highest citywide priority because there is no other program, or set of regulations, which assures implementation of the proposed citywide trail system. To the extent possible, the City should implement the Citywide Open Space priorities.

TABLE 2: EXISTING AND CONSTRAINED OPEN SPACE ACREAGES[3]

ZONE	EXISTING/ APPROVED OPEN SPACES	CONSTRAINED OPEN SPACE[1]	TOTAL CONSTRAINED & EXISTING/ APPROVED OPEN SPACE[2]
1	820.67	18.16	838.83
2	111.10	14.00	125.10
3	71.20	0.72	71.92
4	52.30	1.24	53.54
5	223.50	47.19	270.69
6	405.00	44.46	449.46
7	329.10	5.34	334.44
8	560.00	8.54	568.54
9	202.80	0.00	202.80
10	244.10	78.00	322.10
11	423.60	67.64	491.24
12	207.80	3.56	211.36
13	238.40	7.29	245.69
14	356.40	56.19	412.59
15	256.10	110.62	366.72
16	121.70	15.65	137.35
17	2.10	34.26	36.36
18	250.00	0.00	250.00
19	816.85	12.45	829.30
20	159.30	15.00	174.30
21	20.40	11.56	31.96
22	94.30	0.47	94.77
23	0.00	102.08	102.08
24	48.60	4.45	53.05
25	33.70	97.31	131.01
TOTAL	6,049.02	756.18	6,805.20

1 The acreages of the Constrained Open Space column reflect only the environmentally constrained land acreages not previously included as part of an approved project, and do not include other constrained elements such as railroad track beds and major powerline easements. Constrained land acreages that were approved as part of a project are included in the Existing/Approved Open Space column.

2 The Open Space acreages of this table may differ from acreages delineated in the General Plan Land Use Element. The acreages of this table are derived from the best sources available.

3 The acreages estimated in this table are for use in developing plan implementation programs only. Actual acreages shall be determined by detailed environmental and project review. The acreages in this table are not to be used to establish "minimum" constrained land acreages for any zone.

TABLE 3: FUTURE OPEN SPACE ACTION PRIORITIES

	Citywide	Local Facility Management Zones																								
	Category	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1. Open Space for Preservation of Natural Resources																										
1a. Plant/Animal Life/Habitat	1	C	A	B/C	B	A/C	A	A	C	B/C	B/C	A/B	B/C	C	A/C	A/C	A/C	A	A/C	A/C	A	B	C	A/B	A/C	A/C
1b. Nature Preserves	4	C	D	D	D	D	C	C	C	C	D	A	D	C	D	B/C	D	D	B	C	D	D	D	C	D	C
1c. Water Features	1	A	C	A	A/C	A/C	C	D	C	C	D	C	D	B	A/C	A/C	C	D	A/C	C	C	C	D	C	C	A/C
1d. Beaches/Bluffs/Banks	2	D	D	B/C	D	D	C	C	B/C	B/C	D	D	D	A/C	C	D	D	D	C	C	C	C	C	C	D	D
1e. Canyons/Hillsides	2	C	C	C	C	B/C	A/C	C	C	C	C	B/C	A	C	C	C	C	A	C	C	A	C	D	B	C	C
1f. Wetlands	5	C	C	C	C	C	C	C	C	C	C	C	C	C	B	C	C	C	C	C	C	C	C	A	A	A/C
1g. Riparian Areas	4	C	C	C	B/C	C	C	C	C	C	C	C	C	C	B	C	C	C	B	C	C	B	C	A	C	A/C
2. Open Space for Managed Production of Resources																										
2a. Forestry/Agricultural/Aqua-cultural	5	B	D	D	D	D	D	C	D	D	D	D	D	A/C	D	D	D	D	D	D	D	D	D	D	D	D
2b. Water Management	5	D	D	C	D	D	D	D	D	D	D	D	D	D	C	B	B	D	D	C	D	D	C	B	D	D
2c. Commercial Fisheries	5	B	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
2d. Mineral Resources	5	B	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	B/C
3. Open Space for Outdoor Recreation (Programmed and Unprogrammed)																										
3a. School Grounds	2	E	E	E	E	E	C/E	C/E	E	E	E	B/E	E	E	C/E	E	E	E	A/E	C/E	C/E	E	E	E	E	E
3b. Public Parks/Recreation Areas	1	A/E	E	B/E	E	E	E	E	C/E	C/E	E	B/E	E	B/E	E	E	E	E	C/E	C/E	C/E	E	C/E	E	E	E
3c. Greenways	1	A	D	A	A	A	A	A	A	A	A	A	D	D	A	A	A	A	A	A	A	A/B	A	A	A	D
3d. Trails	1	A	A	A/C	A/B	A/C	A	A/B	A	A/C	A	A	A	A/B	A	A	A	A	A	A/C	A/C	A/B	A/B	A/B	A	D

1	Top Citywide Priority	A	Zone Primary Action Priority
2	Second Citywide Priority	B	Zone Secondary Action Priority
3	Third Citywide Priority	C	Already Protected
4	Fourth Citywide Priority	D	Low Priority or Not Applicable
5	Lowest Citywide Priority	E	Priority Administered Through Other Programs

TABLE 3: FUTURE OPEN SPACE ACTION PRIORITIES

	Citywide	Local Facility Management Zones																								
	Category	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
3. Open Space for Outdoor Recreation (Programmed and Unprogrammed) (Con't)																										
3e. Campgrounds	5	D	D	B	D	D	D	D	E	C	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D
3f. Golf Courses	5	D	D	D	D	D	C	D	D	D	C	D	D	D	D	C	D	D	D	C	D	D	D	D	D	D
3g. Private Recreation Areas	3	D	D	D	C/D	C/D	C/D	C/D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
3h. Equestrian Facilities	4	D	D	D	D	D	D	D	D	D	D	B	D	D	D	D	D	D	D	C	D	D	D	D	D	D
4. Open Space for Aesthetic, Cultural and Educational Purposes																										
4a. Scenic/Cultural/Educational	1	B	C	B/C	B	B/C	C	B/C	C/E	B/C	B/C	B/C	B	A/B	A/C	B	B	A	A/B	A/C	A	A	B/C	A/B	C	C
4b. Land Use Buffers/Entries	2	D	D	C	D	C	D	C	D	A	B/C	D	D	D	D	B	B	B	B	D	B	B	B/C	D	D	C
4c. Greenbelt	4	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	B
4d. Gateways	2	B	B	A	D	C	A	D	D	A/C	B	A	B	B	D	B	B	D	A	B/C	D	D	D	A	D	B
4e. Museums/Arboreta/Zoologic/Botanical	3	D	D	D	D	D	D	D	E	D	D	D	D	D	D	D	D	D	B	D	D	D	D	D	C	D
5. Open Space for Public Health and Safety																										
5a. Hazardous Areas	5	D	C	D	C	C	C	D	D	D	D	C	D	D	D	C	D	D	C	C	C	D	C	D	D	C
5b. Fire Risk	5	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D	D
5c. Water Protection	5	D	D	D	D	D	B	D	D	C	D	C	D	D	C	D	D	D	D	D	D	D	D	D	D	D
5d. Air Quality	5	D	D	D	D	D	D	D	D	B	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
5e. Bluffs Subject to Wave Erosion	5	C	D	C	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D

1	Top Citywide Priority	A	Zone Primary Action Priority
2	Second Citywide Priority	B	Zone Secondary Action Priority
3	Third Citywide Priority	C	Already Protected
4	Fourth Citywide Priority	D	Low Priority or Not Applicable
5	Lowest Citywide Priority	E	Priority Administered Through Other Programs

The priorities and actions on a zone-by-zone basis are sometimes referred to in this section, but are fully discussed in the Open Space and Conservation Resource Management Plan.

CATEGORY 1: Open Space for the Preservation of Natural Resources

Plant/Animal Life/Habitat (1a.)
Open space for plant and animal life, and habitat conservation is considered a Category 1 citywide priority. The general intent is to optimize natural resource values throughout the open space system, and more specifically, to maximize protection and enhancement of plant and animal life and habitats within various preserves. Much of the protection of plant and animal life, and habitats is accomplished through existing regulatory protection. Additionally, the City is preparing a Habitat Management Plan to provide a planning framework specifically designed to protect such resources. However, in determining the best use for open space within each zone of the City, it is clear that many benefits for plants and wildlife could be integrated with open space set aside for other reasons. For example, the design of linear open space greenways can accommodate trails and protect aesthetic resources in the landscape, but, at the same time, be located so as to serve as additional buffers to riparian woodlands or other sensitive habitat areas.

Nature Preserves (1b.)
Open space for nature preserves is considered a Category 4 citywide priority. The protection of plant and animal diversity is important, and the establishment and continued operation of preserves form a key component in achieving this goal. However, the citywide priorities set by this study are primarily concerned with the types of open space which the City should be striving to set aside between now and build out. The existing preserves - Batiquitos and Buena Vista Lagoons and the University of California Dawson Los Monos Reserve - should continue to be managed for natural resource values. Additional future preserves in the City may result from other agencies' actions (for example through expansion of the University of California Reserve), dedication of additional lands for preserves, or through specific mitigation requirements (for example to mitigate for impacts to coastal sage scrub).

Water Features (1c.)
Water features are considered a Category 1 citywide priority for the citywide open space system. Although water features themselves are well protected by environmental regulations, the intent of the open space plan is to expand the amount of open space adjacent to water features and to provide connected open space corridors which are based on the distribution of water features such as creeks. Much of the future open space system in currently undeveloped areas of the City, will be aligned alongside creek corridors.

Beaches/Bluffs/Banks (1d.)
Beaches, bluffs and banks are considered a Category 2 citywide priority for future open space planning. In many cases, these resources are already protected through environmental regulations. Wherever such protection fails, the open space system may serve an important role in completing the protection of these resources.

Canyons/Hillsides (1e.)
Canyons and hillsides are considered a Category 2 citywide priority for future open space planning. The City's regulations already protect hillsides which exceed 40-percent slope, but this regulation does not protect less extreme slopes. In some cases the more moderate slopes serve important open space functions which might be lost to future development if they are not protected in the open space system.

Wetlands (1f.)
Wetlands are extensively protected under existing environmental regulations, with the U.S. Army Corps of Engineers (COE), the California Department of Fish and Game (CDFG), and the U.S. Fish and Wildlife Service (USFWS) all having various degrees of control over wetland impacts. Because of the high degree of protection already afforded to wetlands, they are considered a Category 5 citywide priority for open space actions. This does not mean that wetlands are considered unimportant in the City's open space system, but rather that their inclusion in the open space system is already assured and therefore no additional protection would generally be required through the open space planning process.

Riparian Areas (1g.)
Riparian areas are considered a Category 4 citywide priority. Riparian areas are effectively

protected through a variety of environmental regulations. Because of the extensive protection already afforded to riparian areas, their inclusion in the open space system is already reasonably assured and, therefore, limited additional protection is required through the open space planning process.

CATEGORY 2: Open Space for the Managed Production of Resources

Forestry/Agriculture/Aquaculture (2a.)
Forestry, agriculture, and aquaculture are considered a Category 5 citywide priority for future open space planning except that agricultural uses in the Cannon Road Open Space, Farming and Public Use Corridor shall be considered a category 1 priotity. It is the City's intention to support and utilize all measures available, including the Williamson Act, to secure agricultural land uses for as long as possible prior to development, and to promote the long-term economic viability of agricultural uses. However, it should be recognized that Carlsbad is an urbanizing city, and the projected pattern of development is such that the extensive areas generally required for economic agricultural operations are unlikely to be available in the longterm.

Water Management (2b.)
Water management areas are considered a Category 5 citywide priority for future open space planning.

Commercial Fisheries (2c.)
Commercial fisheries are considered a Category 5 citywide priority for future open space planning.

Mineral Resources (2d.)
Carlsbad does not have any economically significant mineral resources. Mineral resources are considered a Category 5 citywide priority for future open space planning.

CATEGORY 3: Open Space for Outdoor Recreation

School Grounds (3a.)
School grounds are considered to be part of the City's inventory of open space areas. They have been placed in Category 2 citywide priority. School sites function not only to provide spatial and visual counterpoint to otherwise developed areas, but also as recreational open space for school children during school hours and for informal recreation outside of school hours. Some school sites are also subject to joint-use agreements between the local school district and the City to meet neighborhood and community recreational needs.

Public Parks/Recreation Areas (3b.)
These areas have been placed in Category 1 citywide priority. The City of Carlsbad's park system incorporates three primary park types which are defined below. It should be noted that the definitions given below are directly quoted or slightly paraphrased from the City's Parks and Recreation Element.

* Community Parks are leisure facilities, approximately 20 to 50 acres in size; however, due to the 1982 revision of the Parks and Recreation Element of the General Plan, pre-1982 neighborhood parks of less than 20 acres have been reclassified and grandfathered into the Community Park classification. This reclassification was approved by the Parks and Recreation Commission in May 1987 and by the City Council in August 1987. Furthermore, any future acquisition and development of community park sites within the northwest quadrant, where a near-buildout situation exists, in all likelihood will require community park development of sites under 20 acres in size.

  Typically, Community Parks are designed to serve the recreational needs of several neighborhoods. The nature of this type of facility encourages and attracts family unit populations from nearby on a daily basis. Community Parks generally provide both programmed and unprogrammed amenities; however, they are not limited exclusively to either.

* Special Use Areas are typically local facilities that meet the needs of only one or two activity type uses, either passive or active in nature. They are between one and five acres in size and generally provide the basic widely accepted facilities found in a typical park. Facilities of this type include, but are not limited to: swim, tennis or racquetball complexes; meeting halls; athletic complexes; play lots; picnic areas; and interpretive walk areas.

Based on City Council action in August 1987, and confirmed in November of 1990, community school activity fields can be incorporated within the Special Use Area classification and included within the park area inventory. However, only those school sites which operate under "joint-use" facility agreements between the City of Carlsbad and the corresponding school district are, in fact, incorporated within the Parks Inventory.

* Special Resource Areas are local amenities that have either citywide or potential regional significance. The significance is in the quality of the site that makes it unique as either a passive or active recreation area or combination of both. This quality may be natural (water, geological, ecological, etc.), historical (architectural, etc.), or a combination thereof. Consequently, the Special Resource Area, as defined, has a visitor attraction or drawing power to users locally and beyond. Typically, Special Resource Areas provide a unique character and/or use not found in Community Parks or Special Use Areas. In general, they are larger than community parks and are typically characterized by the existence of special or unusual features, natural or manmade, (i.e., a water body, earth formation, historical amenity, or ecological reserve).

Greenways (3c.)

The City's open space program includes the concept of greenways as a Category 1 citywide priority of the future open space system in Carlsbad. A greenway may be defined as an open space connector linking parks, nature preserves, cultural features, larger areas of open space, or historic sites to each other and with populated areas in order to improve environmental quality and provide for outdoor recreation and enhance the visual perception of open space. Greenways also function as wildlife corridors. The City's open space program defines a number of major greenways which will form the structure of much of the future open space system:

* An east-to-west greenway connecting from an adjacent open space corridor, trail connection and park in the City of San Marcos via the future Carrillo Ranch park site, the future Alga Norte Community Park site, the future Zone 19 Community Park site, to the Poinsettia Community Park site. This greenway will also provide connection to two future school sites;

* A north-to-south greenway running from Lake Calavera, past the Zone 14 school site, along Agua Hedionda Creek, crossing Palomar Airport Road at the future intersection with Melrose, to the Carrillo Ranch park site; and

* A generally west-to-east connection from Agua Hedionda Lagoon, through the proposed Veterans Memorial Park and the Evans Point development to Lake Calavera.

* A number of smaller or less complete greenways will be completed throughout the City linking together key landscape features such as the lagoons, parks and schools, and providing open space connections to surrounding cities.

It is generally intended that the following planning and design parameters should be used for Greenways:

* Greenways should be a minimum of 100 feet in width unless other factors require a narrower corridor. This width may incorporate environmentally constrained lands but only that portion of the greenway which is not constrained should be counted toward the growth management open space standard;

* Greenways will typically accommodate trails to allow public enjoyment of open space areas;

* Greenways should be located separate from (not adjacent to) arterial or other major roadways unless other factors preclude such separation.

* Public access along greenways is intended to provide a sense of relief from suburban/urban development. Therefore, the location of trails and the design of grading and plantings within the greenways should seek to minimize the intrusion of development into the viewshed of the trail user;

* The location of trails within greenways should seek to avoid impacts to the privacy of adjacent residential units;

* Wherever possible, greenways should be so located as to take advantage of panoramic views and should connect to viewpoints and along ridgelines;

* Greenways should generally serve to conserve natural resources; any trails or other improvements within greenways should be designed and implemented so as to minimize disturbance to existing native vegetation or sensitive environmental resources;

* Any future plantings within greenways should focus on the use of native and/or other drought tolerant species. Greenways will normally serve as wildlife corridors, and should be designed with wildlife migrations in mind, for example through providing adequate cover;

* Where associated with habitat resources or wildlife corridors, the width of greenways should generally be maximized to provide buffers to said resources.

* The location, planning and design of greenways should be coordinated with the planning for wildlife preserves and corridors that may develop in a habitat management program. Each development project should be reviewed as early as possible to ensure that planning for the objectives of the Open Space and Conservation Resource Management Plan is integrated and symbiotic.

Trails (3d.)
Trails are considered a Category 1 citywide priority for future open space planning.
Key concepts for the trail system planning and design include:

* Routing trails within open space corridors separated from roadways, wherever possible;

* Allowing public access to landscape resources with high aesthetic qualities located throughout the City;

* Designing trails to avoid environmental impacts wherever possible;

* Requiring full environmental review for each individual trail project, either as a stand-alone project, or as part of a larger planning activity;

* Locating trail rights-of-way, as a general rule, in public ownership;

* Providing trail specifications aimed at pedestrian and, where possible, bicycle use. Secondary trails, which connect with the citywide system, are encouraged, but will not normally be accepted by the City through dedication as part of the primary trail system.

Campgrounds (3e.)
Campgrounds are a Category 5 citywide priority for future open space. The City should not pursue dedication of or development of campgrounds except in the limited circumstances described below. The existing South Carlsbad State Beach campground is a valuable recreation resource for the City and its visitors.

Golf Courses (3f.)
Golf courses are considered a Category 5 citywide priority for future open space planning. Although golf courses provide recreational opportunity and also contribute to overall open space throughout the City, golf courses should be either included or excluded from future development areas based upon market forces.

Private Recreation Areas (3g.)
Private recreation areas are considered a Category 3 citywide priority for future open space planning. While such facilities may form a component of future open space in the City, and should continue to be pursued by the City in future private development projects, such facilities should not be considered to count toward meeting the requirements of the City's growth management open space standard.

Equestrian Facilities (3h.)
Equestrian facilities are considered at this time a Category 4 citywide priority for future open space planning. However, the City is planning to accommodate equestrian use on certain trails in the City in order to provide linkage between the equestrian trail systems in the cities of San

Marcos, Encinitas and the County of San Diego, and may consider others at a later time.

CATEGORY 4: Open Space for Aesthetic, Cultural and Educational Purposes

Scenic/Historic/Cultural/Educational (4a.)
Open space areas for scenic, historic, cultural and educational purposes are considered a Category 1 citywide priority for future open space planning. Many of the proposed additions to the open space system will provide scenic amenities; it is intended that both distinctive landscape features and representative areas of typical natural landscapes will be conserved. The open space system may encompass historic and cultural sites, such as the Carrillo Ranch house and the existing adobe structure at Stagecoach Park. Such sites provide obvious opportunities for educational interpretation and activities. It is also intended that much of the trail system be considered as an opportunity for passive interpretive signage, as well as interactive recreational and educational programming.

Land Use Buffers/Entries (4b.)
Land use buffers and entries are considered a Category 2 citywide priority for future open space planning. The most important open space buffers are those between incompatible land uses, such as industrial and residential areas. Open space corridors between residential neighborhoods will strengthen the perception of individual small communities or villages within the City. Open space buffers between land uses will also often function to mark entries to a development or neighborhood.

Greenbelt (4c.)
The objective of a circumference greenbelt encircling the City is considered a Category 4 citywide priority for future open space planning. The greenbelt concept, an open space buffer around the entire City, separating it from neighboring cities -is an attractive idea. A number of existing open space areas, including Batiquitos and Buena Vista Lagoons, seem to provide a basis for a greenbelt. However, further analysis of existing and approved development in Carlsbad and adjacent developing areas, as well as a review of the land uses proposed by neighboring cities' general plans, leads to the conclusion that the opportunity for a fully connected greenbelt has already been lost.

Gateways (4d.)
An open space gateway may be defined as an area of varying dimension within the viewshed of a major entrance route into or within the City, which, through special landscape treatment, monumentation, or other means, defines the transition from one community to another. Gateways are considered a Category 2 citywide priority for future open space planning. Although a perimeter greenbelt is not possible, most of the major roadways entering the City can be surrounded by open space gateways marking the transition from one community to another. In this way, an open space buffer can be created between Carlsbad and its neighbors in the places where travel between communities most frequently occurs. (It should be noted that Carlsbad Boulevard, Interstate 5, and the coastal railroad are already surrounded by open space between Carlsbad and Oceanside to the north and Encinitas to the south.) In a similar manner, the movement from one major area or neighborhood of the City to another can be marked by open space gateways around major roadways. There are many specific open space gateway opportunities in Carlsbad which are discussed on a zone-by-zone basis in the Open Space and Conservation Resource Management Plan.

Museums/Arboreta/Zoologic/Botanical (4e.)
Museums, arboreta, zoologic, and botanical facilities are considered a Category 3 citywide priority for future open space planning. The City should recognize that such facilities can play a part in an open space system and any proposals made for their development should be carefully evaluated. Such a facility need not be large; it is possible that small areas of existing or future parks or open space areas could be planned, designed, and managed to provide modest local examples of museums, arboreta, zoologic and/or botanical gardens available to local residents.

CATEGORY 5: Open Space for Public Health and Safety

Hazardous Areas (5a.)
Hazardous areas are considered a Category 5 citywide priority for future open space planning. This is not because addressing hazardous areas is considered unimportant, but rather that the responsibility for protecting the City's residents and visitors from hazardous areas should not be accomplished by means of an open space program. Many hazardous areas, such as steep

slopes and floodways, are already regulated so as to prevent undue exposure to hazardous conditions. The open space system may often be expanded through such regulations, but their intent is not to protect open space.

Fire Risk (5b.)
Open space for fire risk prevention is considered a Category 5 citywide priority for future open space planning. Obviously, reducing the risk of loss of life and property is a concern of the City. However, it is an issue that is essentially addressed under other programs and is not an open space issue. Nevertheless, some open space areas may serve as fire breaks; the fire chief may require fuel modification programs for open space areas with particularly high risk; and the fire chief shall also retain the authority to close areas to public access in times of especially high fire risk.

Water Protection (5c.)
Water protection is considered a Category 5 citywide priority for future open space planning. The planning of areas for the protection of water resources, although potentially contributing to the overall open space system in the City, is not considered an open space issue. Any areas set aside for water protection may become an incidental bonus to the City's open space system, but given limited fiscal resources, the City's open space planning effort should not strive to achieve acquisition of open space areas for water protection.

Air Quality (5d.)
Air quality is considered a Category 5 citywide priority for future open space planning; it is not believed that the orientation or pattern of the open space system in Carlsbad can measurably impact air quality. Nevertheless, there are some general ways in which open space may result in positive reductions in air pollutant levels:

* Trees and other vegetation absorb carbon dioxide and remove particulate matter from the atmosphere. Properly sited trees around homes can provide shade and lower temperatures within the urban area so that energy, and thus pollutant emissions, can be reduced.

- Open space greenways which accommodate trails for pedestrian and particularly bicycle use can encourage residents to use non-vehicular modes of circulation, thereby reducing emissions related to fossil-fuel-burning engines. The more enjoyable the trail use experience, the more people are likely to choose to use this alternative means of getting around their community. Connections to mass transit hubs such as the future commuter rail stations, and park and ride facilities may be especially valuable in this regard.
-

Bluffs Subject to Wave Erosion (5e.)
Bluffs subject to wave erosion are considered a Category 5 citywide priority for future open space planning.

G. MAPS OF THE OPEN SPACE AND CONSERVATION ELEMENT

Official Open Space & Conservation Map

The Official Open Space and Conservation Map consists of a composite of the constrained open space/and existing/approved open space as discussed above (see Map 1: Official Open Space and Conservation Map). The Official Open Space and Conservation Map is the City's map of approved and constrained open space lands in the City. This map depicts open space areas obtained through master plans, specific plans, planned developments, or other development approvals; and, additional areas of environmentally-sensitive lands which are prohibited from development by the open space ordinance, hillside development regulations, and other development regulations. It is intended that the Official Open Space and Conservation Map would also become part of the Land Use Element.

"The Official Open Space and Conservation Map is the City's map of approved and constrained open space lands in the City."

The existing/approved open space and constrained land open space depicted on this map has been obtained from the best data available at the time of mapping. It is understood that the boundaries of some constrained lands, including wetlands, floodways, hillsides etc., may change over time. It is therefore important to understand that the boundaries of constrained lands as mapped, will be further refined during the project approval process. Although environmentally constrained lands are prohibited

from development under either federal, state or local regulations, the mapping of constrained lands is in no way intended to deny any property owner the reasonable use of their property.

Conceptual Open Space and Conservation Map

The Conceptual Open Space and Conservation Map consists of constrained lands, existing/approved open space lands, conceptual open space lands, and the Carlsbad Trail System (see Map 2: Conceptual Open Space and Conservation Map). The Conceptual Open Space and Conservation Map shows the conceptual open space areas that would be obtained through implementation of the primary and secondary open space priorities described in the Citywide Open Space Plan section of this document, discussed above. The conceptual open space lands and the trails system are the areas in which the City needs to focus its attention in terms of acquisition, whether through application of the 15-percent growth management performance standard, direct purchase, or through other means.

"The Conceptual Open Space and Conservation Map shows the conceptual open space areas that would be obtained through implementation of the primary and secondary open space priorities described in the Citywide Open Space Plan."

The conceptual components of this map, including the trail system and greenways, are intended to be flexible. It is anticipated that the specific alignments of all conceptual open space components will be determined through specific site plan and environmental review. Adjustments to the conceptual open space components, including the trail system and greenways, will not require a general plan amendment. However, the point at which a greenway or trail passes from one zone to an adjacent zone, or from one property ownership to an adjacent ownership, should remain consistent with this map, unless an agreement has been reached with the adjacent zone or owner to shift the transition point. A general plan amendment will not be required to specifically site the conceptual components of this plan. It is anticipated that on an annual basis the City will initiate a general plan amendment to add all dedicated open space areas to the Open Space and Conservation and Land Use Maps. A general plan amendment will be required if any component of the conceptual plan is deleted.

Habitat Management Plan Map

The Habitat Management Plan map graphically shows the preserve system that will be created by conformance with the city's Habitat Management Plan. In total, approximately 6,500 acres of open space lands will be reserved conserving the full range of vegetation types remaining in the city with a focus on rare and sensitive plants, and habitat for endangered animal species. The map consists of existing preserve areas, proposed preserve areas and future preserve areas.

III. GOALS, OBJECTIVES & IMPLEMENTING POLICIES & ACTION PROGRAMS

OPEN SPACE PLANNING AND PROTECTION

This section provides the policy direction for the planning, protection and preservation of open space lands within the City.

A. GOALS

A.1 An open space system of aesthetic value that maintains community identity, achieves a sense of natural spaciousness, and provides visual relief in the cityscape.

A.2 A city with a balance of programmed and unprogrammed open space within each of the four quadrants of the City.

A.3 An open space system that improves the quality of life for the citizens of Carlsbad.

A.4 A city with an adequate amount and variety of open space for outdoor recreation, including, but not limited to: parks; beaches; areas for organized sports; connecting corridors containing trails; water recreation areas (beaches, lagoons, lakes); unique conservation areas for nature study; and, semi-developed areas for camping.

B. OBJECTIVES

B.1 To preserve, protect and enhance those areas of the City that provide unique and special open space functions including, but

not limited to, cultural and visual amenities, active and passive recreational uses, landmarks, buffers between incompatible land uses, wildlife habitats and unique and desirable vegetation.

B.2 To create a more rural atmosphere in the urban environment, by identifying, acquiring, and protecting natural open space areas which are visible from public gathering places.

B.3 To provide public access to all open space areas except where sensitive resources may be threatened or damaged, where the public health and safety may be compromised or where access would interfere with the managed production of resources, such as agriculture.

B.4 To mandate open space as a necessary provision of the Local Facilities Management Zone plans which are required by the Growth Management Ordinance.

B.5 To provide for parks and plazas and preserve natural areas within developments.

B.6 To provide, where possible, increased setbacks along arterial corridors and establish greenways or similar areas to preserve and/or create open space areas as a means of maintaining community scale and identity, separating conflicting land uses, and achieving a sense of natural openness as an integral part of urban surroundings.

B.7 To provide for the distribution of programmed and unprogrammed recreation areas throughout the four quadrants of the City and to separate the uses where needed.

B.8 To set aside 15 percent of the developable land of specified zones as open space, pursuant to the Growth Management open space performance standard.

B.9 To maintain an inventory of open space.

B.10 To monitor implementation of the recommendations of the Open Space and Conservation Resource Management Plan.

B.11 To coordinate open space planning efforts with state and local agencies.

B.12 To contribute to regional biodiversity and the viability of rare, unique or sensitive biological resources throughout the city by maintaining functional wildlife corridors and habitat linkage.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Use open space to provide neighborhood, community, and city identity and to provide separations between conflicting land uses.

C.2 Assure that the City's Open Space Advisory Committee continues to meet on a periodic basis so long as authorized by the City Council. The Committee's responsibilities should include:

(1) Advocacy of Open Space;
(2) Recommendations to the Planning Commission and City Council on Open Space issues;
(3) Continued development and revision of Open Space policies as defined by the City's Open Space ordinances and programs;
(4) Monitoring implementation of Open Space policies;
(5) Recommending priorities for Open Space, including acquisition, use, and maintenance programs, on at least an annual basis;
(6) Setting and refining guidelines for specific project review of Open Space.

C.3 Ensure that the open space ordinance requires monitoring.

C.4 Identify existing open space for protection, management, and potential enhancement to maintain and, if possible, increase its value as wildlife habitat.

C.5 Prepare citywide maps and diagrams showing the following:

(1) Environmentally constrained open space;
(2) Existing and approved open space;
(3) Proposed future open space system concept;
(4) Proposed Carlsbad Trail System.

C.6 Depict on land use maps, zoning maps, and the City's open space maps specific information regarding open space as it becomes available.

C.7 Give city staff the flexibility to add to the open space inventory maps, those new areas which may be created by various circumstances, such as, discretionary approvals, land acquisition, and donations of land.

C.8 Utilize the Growth Management Ordinance to implement the goals and objectives of this element and establish standards for open space.

C.9 Count toward meeting the 15 percent Growth Management performance standard, any land area that otherwise qualifies, but which is not available to the public without some monetary or other consideration, so long as it incorporates one or more of the open space priorities identified for the zone in which it is located, and the granting of the open space credit for such land will not adversely impact the City's ability to obtain open space priorities identified for the zone.

C.10 Revise and amend the Open Space Ordinance, No. 9795 to: (1) more precisely identify and define lands considered as undevelopable; (2) include provisions for buffer areas around sensitive lands; (3) define the word significant; and (4) include specific conditions and restrictions on non-residential development.

C.11 Eliminate powerline easements from consideration as meeting the 15 percent Growth Management open space performance standard, except where the land within the easement is identified as an open space priority, such as a trail or greenway, in accordance with the Open Space and Conservation Resource Management Plan. Credit may be granted for powerline easements if the granting of the open space credit for this area will not adversely impact the City's ability to achieve all of the open space priorities identified for the zone.

C.12 Count toward meeting the Growth Management open space performance standard, only those portions of golf courses identified as an open space priority, such as a trail or greenway, in accordance with the Open Space and Conservation Resource Management Plan. Credit may be granted for other areas of a golf course if the granting of the open space credit for this area will not adversely impact the City's ability to achieve all of the open space priorities identified for the zone.

C.13 Categorize as open space for inventory purposes, all public school playgrounds, athletic fields and courts, although schools themselves shall not be counted in meeting the 15 percent Growth Management performance standard.

C.14 Zone as open space, all lands shown on the Official Open Space and Conservation Map.

C.15 Preserve panoramic viewpoints, as identified in the Open Space and Conservation Resource Management Plan, and where possible, provide public access.

C.16 Acquire, protect or negotiate for public access to those privately-held natural open space lands that could be used for unprogrammed recreational uses.

C.17 Make accessible to the public, those open space areas designated for recreational use, and where feasible, provide them with essential utilities, public facilities and services.

C.18 Recognize as the City's official open space map, the "Official Open Space and Conservation Map," dated June 1992, and make it part of the Land Use Element. (See Map 1: Official Open Space and Conservation Map.)

C.19 Recognize that the map entitled "Conceptual Open Space and Conservation Map" dated June 1992, (see Map 2: Conceptual Open Space and Conservation Map) represents the conceptual open space priorities of the City. The conceptual components of this map, including greenways and trails, are intended to be flexible, and should not be interpreted as

depicting precise, rigid alignments. It is anticipated that the alignments of the greenways and trails may be adjusted as warranted, as better information becomes available through additional fieldwork, further environmental analysis, more detailed planning, or similar future activities. However, the points where a greenway or trail passes from one Local Facilities Management zone to another, or from one property ownership to an adjacent ownership should remain consistent with this map, unless an agreement has been reached with the adjacent zone or property ownership to shift the transition point. A general plan amendment will not be required to specifically site the conceptual components of this map. A general plan amendment will be required if any conceptual component is deleted.

C.20 Require that the following procedure be adhered to for adjusting the boundaries of any open space area shown on the map titled "Official Open Space and Conservation Map" dated June 1992 Findings required for the approval of a boundary adjustment to the map are as follows:

1) The proposed open space area is equal to or greater than the area depicted on the Official Open Space and Conservation Map; and

2) The proposed open space area is of environmental quality equal to or greater than that depicted on the Official Open Space and Conservation Map; and

3) The proposed adjustment to open space, as depicted on the Official Open Space and Conservation Map, is contiguous or within close proximity to open space as shown on the Official Open Space Map.

The City Council may also modify the boundary location shown on the open space maps but only if it finds that the modification is necessary to mitigate a sensitive environmental area which is impacted by development, provided the boundary modification preserves open space at a 2 to 1 ratio (proposed acreage to existing acreage) and is within close proximity to the original area of open space. Additionally, City Council may exempt public rights-of-way from the boundary adjustment procedures. However, environmental analysis shall be performed for all proposed public right-of-way improvements, and if determined that there are significant adverse impacts to the value of the open space system, those impacts shall be mitigated.

It is not the intention of this boundary adjustment procedure to allow for the exchange of environmentally constrained lands which are designated open space, for lands which are not environmentally constrained.

C.21 Eliminate as a means of meeting the open space performance standard parks, public or private. However, credit may be granted for private parks if the granting of the open space credit for this use will not adversely impact the City's ability to obtain all of the open space priorities identified for the zone in the Open Space and Conservation Resource Management Plan.

C.22 Utilize open space where appropriate, to delineate neighborhoods, the City's boundaries and to buffer major land uses within the City.

C.23 Utilize Specific Plans, Master Plans and Local Facilities Management Plans to refine and implement recommendations of the Open Space and Conservation Resource Management Plan.

C.24 Consider for dedication to the City any open space lands, if they are open space areas identified in the Open Space and Conservation Resource Management Plan.

C.25 Review and update the implementation strategies outlined in the Open Space and Conservation Resource Management Plan. These implementation strategies are intended to guide the systematic acquisition, protection, maintenance, administration and financing of open space and provide an organizational structure to implement the City's open space plan.

C.26 Rezone open space lands, dedicated to the City in fee title or easement to open space (OS) zoning.

C.27 Plan for, and design, open space with regard to its various specific functions, as opposed to considering open space as having a single general function.

C.28 Prohibit motorized off-road vehicle use in the City except at the Carlsbad Raceway.

C.29 Prohibit hunting of wildlife in the City of Carlsbad.

C.30 The City shall implement the Habitat Management Plan and shall coordinate its planning with the North County regional Multi-Species Habitat Conservation Plan.

OBTAINING OPEN SPACE

This section establishes the policies for obtaining open space lands within the City.

A. GOALS

A.1 A city which provides for the open space needs of its citizens.

A.2 A city where new developments provide for the open space needs of their occupants.

B. OBJECTIVES

B.1 To develop and implement financing programs for the acquisition and maintenance of open space.

B.2 To fund a well balanced acquisition program providing a variety of open space opportunities spread throughout the community.

B.3 To assure that, to the maximum degree possible, those benefiting from the acquisition or improvement of open space and recreational facilities provide funding in direct proportion to the benefits they derive.

B.4 To encourage a combination of both private and public open space.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Exactions from new developments should include, but not be limited to, legislative protection, Quimby Act dedication, park-in-lieu fees, industrial recreation fees, setback requirements, the provision of essential improvements, and the adoption of appropriate Local Facilities Management Plans, Master Plans, and Specific Plans.

C.2 Conduct an annual review of the methods and programs for acquiring open space in the City of Carlsbad.

C.3 Initiate, coordinate, and supervise specific implementation programs for both short-range and long-range plans, including among other items the Capital Improvement Program, Growth Management Plan, a financial plan, proposed changes to the City's development regulations, and the acquisition of fee and less than fee rights to land.

C.4 Create a trust or other mechanism to facilitate private donations for open space acquisitions, protection, improvements, or maintenance.

C.5 Develop a program to encourage private donations for open space acquisition, protection, improvement, or maintenance by placing the donors' names on permanent markers at the sites of their gifts.

C.6 Use general obligation bonds as a possible source of funding where public funding is necessary for open space purposes.

C.7 Consider the exchange of excess vacant lands for more desirable open space areas.

C.8 Consider appropriate user fees for non-residents utilizing Carlsbad's open space and recreation facilities.

C.9 Consider designating a conservancy agency or similar organization to be responsible for protection, maintenance, monitoring and liability of open space lands.

C.10 Implement when possible, the finance strategies contained in the Open Space and Conservation Resource Management Plan. These implementation strategies

should guide the systematic acquisition, protection, maintenance, administration and financing of open space and provide an organizational structure to implement the City's open space plan.

SPECIAL RESOURCE PROTECTION

The City of Carlsbad contains a host of natural and man-made resources. These special resources include spectacular viewsheds, unique historic cultural, archeological, paleontological and educational resources, and a variety of sensitive plant and animal life species. Included in the City's diverse biota are over 300 species of plants, 200 species of birds, 25 species of reptiles and amphibians, 20 species of mammals, 44 species of fish, 45 species of butterflies, and several thousand species of terrestrial and aquatic invertebrates. The primary objective of this section is to establish policies to protect and conserve these special resources.

A. GOALS

A.1 A city that protects environmentally sensitive land and buffer areas.

A.2 A city that protects and preserves visually attractive and/or significant natural areas.

A.3 A city that preserves optimum sustainable environmental quality levels with respect to air, water, sound levels, and plant and animal life.

A.4 A city that preserves as open space, hillsides, ridges, valleys, canyons, lagoons, beaches and other unique resources that provide visual and physical relief to the Cityscape.

A.5 A city that preserves, where possible, historic, cultural, archeological, paleontological, and educational resources.

A.6 A city that conserves natural and man-made resources.

A.7 A city which makes every possible effort to preserve sensitive flora and fauna.

A.8 A city which preserves a variety of unique conservation areas to accommodate the needs of humans, plants and animals.

A.9 A city which protects wildlife habitat through the preservation and enhancement of significant feeding, nesting, and breeding areas.

A.10 A city which preserves, to the maximum extent possible, the existing level of biodiversity.

B. OBJECTIVES

B.1 To update periodically the inventory of sensitive and constrained lands, and prohibit their development and inclusion for density credit pursuant to the Growth Management Ordinance.

B.2 To protect public health and safety by preserving natural and man-made hazard areas as open space and taking special precautionary measures to protect the public safety where development is possible and permitted.

B.3 To preserve areas of unique scenic, historical, archeological, paleontological and cultural value, and where possible, provide public access to these areas.

B.4 To develop cultural/educational amenities which could include a museum, exhibition hall or interpretive center, within open space areas.

B.5 To amend existing ordinances or develop a new ordinance to clearly define sensitive and constrained lands.

B.6 To minimize environmental impacts to sensitive resources within the City.

B.7 To minimize impacts from new development on hillsides, ridges, valleys, canyons, lagoons, beaches and other unique resources that provide visual and physical relief to the cityscape.

B.8 To develop an inventory of environmentally sensitive resources that are to be conserved within the City.

B.9 To develop and implement, when possible, a plan to guide the systematic acquisition, protection and maintenance of sensitive environmental resources and provide an organizational structure to implement the plan.

B.10 To develop and implement, when possible, a financing strategy to acquire and protect areas which are rich in habitat diversity.

B.11 To protect rare, threatened or endangered plant and animal communities in accordance with the Habitat Management Plan.

B.12 To ensure that whenever possible, new development does not adversely impact sensitive environmental resources.

B.13 To coordinate city habitat management planning efforts with federal, state and local agencies, and other planning efforts of the City.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Utilize sensitive design criteria to preserve the unique and special resources in the City and to integrate them into the design of any development.

C.2 Amend ordinances as necessary to define sensitive and constrained lands consistent with the City's habitat management planning efforts, and prohibit development and density credit thereon.

C.3 Assure that development on hillsides (if allowed) relates to the slope of the land in order to preserve the integrity of the hillsides.

C.4 Designate for preservation as open space those areas that provide unique visual amenities and define the urban form as contained in the Open Space and Conservation Resource Management Plan. These areas shall include agriculture, hillsides, ridges, valleys, canyons, beaches, lagoons, lakes and other unique resources that provide visual and physical relief to the cityscape by creating natural contrasts to the built-up, manmade scene.

C.5 Designate for open space, hillsides, valleys and ridges during the approval of Specific Plans, Master Plans and Planned Developments, and also at the time of subdivision approval consistent with the recommendations of the Open Space and Conservation Resource Management Plan.

C.6 Designate as buffers portions of land next to sensitive environmental areas.

C.7 Assure that where feasible from an environmental standpoint, developments near or adjacent to bodies of water, provide open space that has public access to and views of the water.

C.8 Require a city permit for any grading, grubbing, or clearing of vegetation in undeveloped areas, with appropriate penalties for violations.

C.9 Ensure that the improvements recommended for open space areas are appropriate for the type of open space and the use proposed. No improvements shall be made in environmentally sensitive areas, except to enhance the environmental value of the areas.

C.10 Consider designating for open space those areas that preserve historic, cultural, archeological, paleontological and educational resources.

C.11 Preserve open space areas in as natural a state as possible.

C.12 Require that grading be accomplished in a manner that will maintain the appearance of natural hillsides and other landforms wherever possible.

C.13 Require that soil reports, plans for erosion and sediment control measures and provisions of maintenance responsibilities be a requirement of any approval process.

C.14 Implement ordinances limiting the density, intensity and character of development of hillside areas and ridges, and provide standards for sensitive grading where development of hillsides is allowed.

C.15 Require that at the time of any discretionary approval, any land dedicated to the City for its habitat or scenic value, have an appropriate easement and/or zoning placed on it for resource protection.

C.16 Recognize and implement the policies of the California Coastal Act and the Carlsbad

Local Coastal Program when reviewing potential development in the coastal zone.

C.17 Prevent incompatible development of areas that should be reserved or regulated for scenic, historic, conservation or public health and safety purposes.

C.18 Conserve and encourage the use of appropriate forms of vegetation and sensitive grading techniques needed to: (a) prevent erosion, siltation and flooding, (b) protect air and water resources, and (c) protect and enhance visual resources.

C.19 Preserve natural resources by: protecting fish, wildlife, and vegetation habitats; retaining the natural character of waterways, shoreline features, hillsides, and scenic areas and viewpoints; safeguarding areas for scientific and educational research; respecting the limitations for air and water resources to absorb pollution; encouraging legislation that will assist logically in preserving these resources and, protecting archeological and paleontological resources.

C.20 Preserve the identity of those areas of the City with unique topographic features and establish proper soil management techniques to eliminate or minimize adverse and unsafe soil conditions.

C.21 Use the Williamson Act, land dedication, scenic easements, or open space easements to preserve unique and special resources in the City.

C.22 Participate in the statewide and regional plans (the state of California's Natural Community Conservation Planning (NCCP), efforts with SANDAG and other north county cities in the preparation of a North County Wildlife Forum Multi-species Habitat Conservation Plan), to conserve sensitive environmental resources.

C.23 Coordinate planning and development of a citywide open space system with habitat planning efforts including the city's Habitat Management Plan.

C.24 Minimize the encroachment of development into wetland and riparian areas.

C.25 Coordinate the protection of wetlands, woodlands, riparian areas, and other sensitive habitat areas with appropriate state and federal protection agencies.

C.26 Encourage and participate in regional planning efforts to protect environmentally sensitive species from extinction.

C.27 Require adequate buffers between new development and environmentally sensitive habitats.

C.28 Locate trails and other passive recreational features with care to minimize impacts to sensitive habitats.

C.29 Support innovative site design techniques such as cluster-type housing and transfer-of-development-rights to preserve sensitive environmental resources and to allow development projects to comply with the city's Habitat Management Plan.

C.30 Require private development which impacts sensitive resources to provide appropriate mitigation measures as identified in the city's Habitat Management Plan, so that the existing biodiversity within the City is maintained.

C.31 Amend existing ordinances to specifically indicate that the environmental values of floodplains will be protected.

C.32 Amend existing ordinances as necessary to ensure adequate buffers are provided around floodways, wetlands, riparian areas, woodlands and other sensitive environmental resources.

C.33 Assure that, at minimum, there is no net loss of wetlands acreage or value, and the net gain of wetlands acreage is the long-term goal of the City.

C.34 Require all development projects to comply with the city's Habitat Management Plan.

C.35 Implement the city's Habitat Management Plan including making all necessary changes to applicable city ordinances.

TRAIL/GREENWAY SYSTEM

The objective of this section is to establish policy direction for the creation of a Carlsbad Trail

System and comprehensive greenway linkage system within the City.

A. GOALS

A.1 A city with open space areas connected by Greenways.

A.2 A city with a Carlsbad Trail System.

B. OBJECTIVES

B.1 To ensure that there is continuity and environmental sensitivity in the routing and design of the trail system.

B.2 To route trails near environmentally sensitive areas only with appropriate buffers or fencing.

B.3 To provide trails that serve as pedestrian and bicycle transportation between residential and commercial areas.

B.4 To develop and implement Financing Mechanisms for the acquisition, construction and maintenance of the Citywide greenway and trail system.

B.5 To finance, manage, and acquire land for a Carlsbad Trail System.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Establish a Carlsbad Trail System, primarily pedestrian oriented, but for bicycles where feasible, provided that a financing mechanism for the trail system is approved. Until such financing mechanism is in place the trail system shall be considered proposed. (See Map 2: Conceptual Open Space and Conservation Map.)

C.2 Participate with other north county communities to establish an intercommunity open space linkage program and regional trail network.

C.3 Obtain an irrevocable offer to dedicate or a permanent easement for trailways where feasible, in all cases where trails are proposed or required as part of the Carlsbad Trail System.

C.4 Design the trail system to serve both recreation and non-motorized transportation purposes.

C.5 Provide greenway linkages from major recreational/open space areas to other areas of activity, including, but not limited to, residential neighborhoods, places of employment, parks, schools, libraries, and viewpoints.

C.6 Ensure that trails are sensitive to surrounding land uses and are normally placed at a significantly different elevation than adjacent residences.

C.7 Assure that major powerline easements receive credit toward the 15-percent Growth Management open space performance standard if they are enhanced or improved to establish key links in the Carlsbad Trail System.

C.8 Establish that the "Carlsbad Trail System," as depicted on the Conceptual Open Space and Conservation Map, is the conceptual representation of the possible trail alignments throughout the City (see Map 2: Conceptual Open Space and Conservation Map).

C.9 Prohibit the approval of a project which would eliminate the trail alignments as depicted on the Conceptual Open Space and Conservation Map, unless a general plan amendment is approved to delete such a trail segment.

C.10 Address the citywide greenway system and the Carlsbad Trail System when considering and reviewing Local Facilities Management Plans, major development applications and applications involving potential greenway and trail linkages, as shown on the Conceptual Open Space and Conservation Map (see Map 2: Conceptual Open Space and Conservation Map).

C.11 Design physical improvements to trails, of the Carlsbad Trail System, so that they are consistent with the recommendations of the Open Space and Conservation Resource Management Plan.

C.12 Utilize Table 5.4-6 of the General Plan EIR: Carlsbad Trail System Impact/Mitigation

Summary to identify potential impacts and consider suggested mitigation measures at the time of specific project review of trail system links and approval.

PROMOTING AGRICULTURE

Agriculture is an important resource in the City of Carlsbad. Agriculture policies are intended to support agriculture activities while planning for possible future transition to more urban uses consistent with the policies of the Land Use Element and the Carlsbad Local Coastal Program.

A. GOAL

A city which recognizes the important value of agriculture and horticultural lands.

B. OBJECTIVES

B.1 To develop an inventory of agricultural uses in the City.

B.2 To promote the establishment of agricultural preserves.

B.3 To promote the use of new technology for agricultural purposes to improve the economic viability of agriculture.

B.4 To ensure that new development is sensitive to existing agricultural uses.

B.5 To ensure that agricultural uses do not adversely impact sensitive environmental resources.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Buffer, where possible, agriculture from more intensive urban uses with less intense land uses which are mutually compatible.

C.2 Encourage the use of water conservation techniques in agricultural enterprises including the use of reclaimed wastewater for irrigation.

C.3 Support agriculture water rates for agricultural/horticultural operations as instituted by the Metropolitan Water District.

C.4 Encourage the establishment of new agricultural preserves for areas within the coastal zone designated for agricultural land use.

C.5 Encourage and support the economic viability of agricultural land.

C.6 Encourage agricultural use as a permissible land use in areas designated as open space in non-environmentally sensitive areas.

C.7 Discourage the premature elimination of agricultural land.

C.8 Utilize Master Plans and Specific Plans to encourage the preservation of highly visible areas cultivated for flower production.

C.9 Assure that urban development takes place in those areas that are the least agriculturally productive.

C.10 Support and utilize all measures available, including the Williamson Act, not only to prevent premature developments, but also to promote the economic viability of agricultural uses.

C.11 Utilize proper design criteria for new development to maximize the preservation of agricultural lands.

C.12 Provide landowners and interested citizens with information about agricultural preserves as established by the Williamson Act and encourage them to utilize this information.

C.13 Accomplish grading of agricultural lands in a manner that minimizes erosion of hillsides and minimize stream siltation and to maintain the appearance of natural hillsides and other land forms wherever possible.

C.14 Manage agricultural land and prime soil as a natural resource and as a significant contrasting land use to the urbanized environment of the City.

C.15 Prevent agricultural run-off and other forms of water pollution from entering the storm drain system and polluting the City's water bodies.

C.16 Prior to the approval of discretionary permits within an existing or former agricultural area in Carlsbad, a detailed soils testing and analysis report shall be prepared by a registered soils engineer and submitted to City and County Health Departments for review and approval. This report shall evaluate the potential for soil contamination due to historic use, handling, or storage of agricultural chemicals restricted by the San Diego County Department of Health Services. The report shall also identify a range of possible mitigation measures to remediate any significant public health impacts if hazardous chemicals are detected at concentrations in the soil which would have a significantly adverse effect on human health.

C.17 If use of agricultural chemicals within an existing agricultural operation has the potential to adversely impact a proposed residential development on an adjacent parcel, mitigation measures including, but not limited to, physical barriers and/or separation between the uses should be considered.

FIRE RISK MANAGEMENT

The following is intended to ensure that fire risk management issues, associated with undeveloped open space, are adequately identified during the planning and acquisition of open space land.

A. GOALS

A.1 A city in which the fire risk presented by native wildland open space is mitigated in a manner that provides a reasonable level of fire protection with sensitivity toward the preservation of natural resources.

A.2 A city in which the on-going cost of fire risk mitigation along the interface of wildland areas and developed property is not fiscally burdensome.

B. OBJECTIVES

B.1 To identify high fire risk characteristics of proposed open space areas prior to designation as open space or acquisition by the City.

B.2 To determine the mitigation measures most appropriate for high fire risk areas, within city designated open space areas, prior to city acquisition or designation of those areas.

B.3 To coordinate fire risk management practices with the City's Open Space, Conservation and Habitat Management planning efforts. Prior to designation or acquisition of land for open space purposes, the issues of fire risk liability; land maintenance practices for the reduction of fire risk; funding for long-term fire risk maintenance; and the environmental impacts of fire risk management will be addressed.

B.4 To coordinate city fire risk mitigation measures with the regulations and policies of local, state and federal agencies.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Develop a procedure to evaluate environmental impacts of fuel management procedures, as required by the Fire Chief, in high risk areas.

C.2 Develop a procedure to evaluate fire risk liability exposure associated with city ownership of open space.

C.3 Require city staff to accurately project the annual costs of abatement of fire hazards on proposed open space properties prior to city acquisition.

AIR QUALITY PRESERVATION

The City of Carlsbad is located in the San Diego Air Basin which has been designated as a non-attainment area for a number of air pollutants including ozone, carbon monoxide, and suspended particulates. The attainment of good air quality must be addressed in a regional context. The objective of this section is to establish the policy direction for the City ensuring the City's continued support and coordination with Local, State and Federal agencies to improve the air quality within the region.

A. GOAL

A city with clean air.

B. OBJECTIVES

B.1 To adopt an Updated Air Quality Management Plan (AQMP).

B.2 To participate in a program to improve air quality in the region.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Participate in the implementation of transportation demand management programs on a regional basis.

C.2 Restrict, whenever possible, all unnecessary vehicle trips during episode violations as defined by the State Air Resources Board.

C.3 Provide, whenever possible, incentives for car pooling, flex-time, shortened work weeks, and telecommunications and other means of reducing vehicular miles traveled.

C.4 Make every effort to participate in programs to improve air quality in the San Diego Region.

C.5 Monitor air quality and cooperate with the ongoing efforts of the U.S. Environmental Protection Agency, the San Diego Air Pollution Control District, and the State of California Air Resources Board in improving air quality in the regional air basin.

C.6 The City shall monitor all construction to ensure that proper steps are taken by developers to reduce short-term construction related impacts to air resources. During cleaning, grading, earth moving or excavation developers shall:

* Control fugitive dust by regular watering, paving construction roads, or other dust preventive measures;

* Maintain equipment engines in proper tune;

* Seed and water until vegetation cover is grown;

* Spread soil binders;

* Wet the area down, sufficient enough to form a crust on the surface with repeated soakings, as necessary, to maintain the crust and prevent dust pick-up by the wind;

* Street sweeping, should silt be carried over to adjacent public thoroughfares;

* Use water trucks or sprinkler systems to keep all areas where vehicles move damp enough to prevent dust raised when leaving the site;

* Wet down areas in the late morning and after work is completed for the day;

* Use of low sulphur fuel (0.5% by weight) for construction equipment.

WATER QUALITY PROTECTION

The following policies are directed at protecting the water quality, recreational value and visual character of surface waters within the City of Carlsbad.

A. GOAL

A city with high quality of water resources.

B. OBJECTIVES

B.1 To control storm water pollutants.

B.2 To design storm water conveyance systems that do not adversely impact sensitive environmental resources.

B.3 To improve water quality within the City.

B.4 To coordinate the management of storm water pollutant with federal, state and local agencies.

B.5 To conserve and efficiently manage the potable water resources available to the City of Carlsbad.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Develop and implement a Jurisdictional Urban Runoff Management Program (J-URMP) consistent with the Regional Water Quality Control Board Order No. 2001-01 and any subsequent amendments to it.

C.2 Adopt and implement a Master Drainage and Standard Urban Storm Water Mitigation Plan (SUSMP) consistent with the Regional Water Quality Control Board Order No. 2001-01 and any subsequent amendments to it.

C.3 Periodically, conduct an analysis of the effectiveness of the overall storm water pollution control management program in Carlsbad.

C.4 Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows.resulting from projected future development. The City shall require developments to incorporate structure and non-structural best management practices (BMP's) to mitigate the projected increases in pollutant loads.

C.5 Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into a municipal separate storm sewer system (MS4)

C.6 Make the necessary structural controls to the storm water conveyance system to remove or reduce storm water pollutant levels.

C.7 Post-development runoff from a site shall not contain pollutant loads which cause or contribute to an exceedance of receiving water quality objectives or which have not been reduced to the maximum extent practicable.

C.8 Develop and implement a program to detect and eliminate illicit connections to storm drains and illegal discharges of non-storm water wastes into storm water conveyance systems.

C.9 Developments shall implement appropriate recommendations to protect water quality found in the San Diego Association of Government's (SANDAG's) Water Quality Element of its Regional Growth Management Strategy.

C.10 Implement a program for the testing and monitoring of storm water flows.

C.11 Preserve, where possible, natural water courses or provide naturalized drainage channels within the City.

C.12 Coordinate the needs of storm water pollution management with habitat management, aesthetics and other open space needs.

C.13 Require that, where possible, naturalized channels and pollution management basins be landscaped with native plant species which balance the needs of fire suppression, habitat values, maintenance, aesthetics and pollution absorption.

C.14 Permit public access to creeks, lakes and lagoons, where consistent with sand resource management practices.

C.15 Conserve, whenever possible, creeks in, or restored to, their natural states.

C.16 Conserve, protect and enhance the water resources of the City.

C.17 Promote the use of water efficient sprinkling and gardening systems.

C.18 Require new development to utilize measures designed to conserve water in their construction.

C.19 Maintain natural water resources in the City of Carlsbad in as natural a state as possible by: (a) conserving or improving the appearance and ecology of those which are in a relatively untouched condition; (b) restoring, in accordance with recognized ecological principles and insofar as it is possible, those water areas which have been significantly altered, to a condition which is most beneficial to the public; and (c) simulating a natural condition in areas which are to be altered in the future for purposes of safety engineering, water conservation, or recreation.

C.20 Prevent industrial waste, agricultural runoff, water softener discharges, domestic detergents, and other forms of water pollution from entering the storm drain system and polluting the City's water bodies.

C.21 Utilize sensitive design criteria to protect the integrity of the water resources in the City.

C.22 Prohibit alteration of waterways and water bodies that would cause significant adverse impacts on the environment.

C.23 Prepare a long range plan that provides for adequate potable water, and addresses water conservation and reclamation programs.

C.24 Conserve, and protect the water resources including, but not limited to, floodplains, shoreline, lagoons, waterways, lakes, ponds, and the ocean.

C.25 Coordinate water quality preservation efforts with other cities and agencies having jurisdiction over the portion of drainage basins which extend beyond the city limits.

C.26 Development projects should be designed to comply with the following site design principles:

1. Protect slopes and channels to decrease the potential for slopes and/or channels from eroding and impacting storm water runoff.

2. To the extent practicable, cluster development on the least environmentally sensitive portions of a site while leaving the remaining land in a natural undisturbed condition.

3. Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands and buffer zones. Encourage land acquisition of such areas.

4. Provide buffer zones for natural water bodies.

5. Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment.

6. Where feasible implement site design/-landscape features to slow runoff and maximize on-site infiltration of runoff.

7. Properly design outdoor material storage areas (including the use of roof or awning covers) to minimize the opportunity for toxic compounds, oil and grease, heavy metals, nutrients, suspended solids and other pollutants from entering the storm water conveyance system.

8. Incorporate roof or awning covers over trash storage areas (i.e., with roof or awning covers) to prevent off-site transport of trash and other pollutants from entering the storm water conveyance system.

9. Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways and bridges.

10. Design streets and circulation systems to reduce pollutants associated with vehicles and traffic resulting from development.

HISTORIC AND CULTURAL PRESERVATION

A. GOALS

A.1 A city in which its existing and continuing heritage is protected, preserved, recognized and enhanced.

A.2 A city proud of the beauty and accomplishments characterizing its past and continuing history.

A.3 A city economy strengthened by historic preservation.

B. OBJECTIVES

B.1 To encourage property owners to utilize all available incentives for the preservation of historic resources.

B.2 To promote the use of historic resources for the education, pleasure and welfare of the people of the City.

B.3 To cooperate with historic societies, schools, libraries and citizens to stimulate public interest in historic preservation.

B.4 To enhance the community's recognition that objects of historic importance increase both fiscal and community value.

B.5 To enhance the City's appeal to tourists and visitors in order to support and stimulate business and industry.

C. IMPLEMENTING POLICIES AND ACTION PROGRAMS

C.1 Prepare and maintain a Cultural Resource Survey.

C.2 Create and maintain a local registry of cultural resources.

C.3 Provide landmark identification of designated cultural resources.

C.4 Encourage the use of tax incentives, regional, state and federal programs which promote cultural preservation to upgrade and redevelop property vitality.

C.5 Encourage the formation of historic districts for the protection of resources and promotion of tourism.

C.6 Encourage the rehabilitation of historic structures through adoption of the Historical Building Code.

C.7 Incorporate the Cultural Resource Guidelines in the environmental review of development applications.

C.8 Maintain historical reference materials on file in the main branch of the Carlsbad City Library.

C.9 Implement the following measures for paleontological sites:

1. Phase 1
   Phase 1 shall consist of a qualified paleontologist doing a literature and records search, surface study, subsurface testing if necessary, the recordation of any sites, and a recommendation regarding the need for further work.

2. Phase 2
   If it is determined during Phase 1 that further work is necessary it shall consist of the following:

   A. A qualified paleontological monitor shall be present at a pregrading conference with the developer, grading contractor, and the environmental review coordinator. The purpose of this meeting will be to consult and coordinate the role of the paleontologist in the grading of the site. A qualified paleontologist is an individual with adequate knowledge and experience with fossilized remains likely to be present to identify them in the field and is adequately experienced to remove the resources for further study. No grading permits shall be issued until the monitoring plan has been approved by the Planning Director.

   B. A paleontologist or designate shall be present during those relative phases of grading as determined at the pregrading conference. The monitor shall have the authority to temporarily direct, divert or halt grading to allow recovery of fossil remains. At the discretion of the monitor, recovery may include washing and picking of soil samples for micro-vertebrate bone and teeth. The developer shall authorize the deposit of any resources found on the project site in an institution staffed by qualified paleontologists as may be determined by the Planning Director. The contractor shall be aware of the random nature of

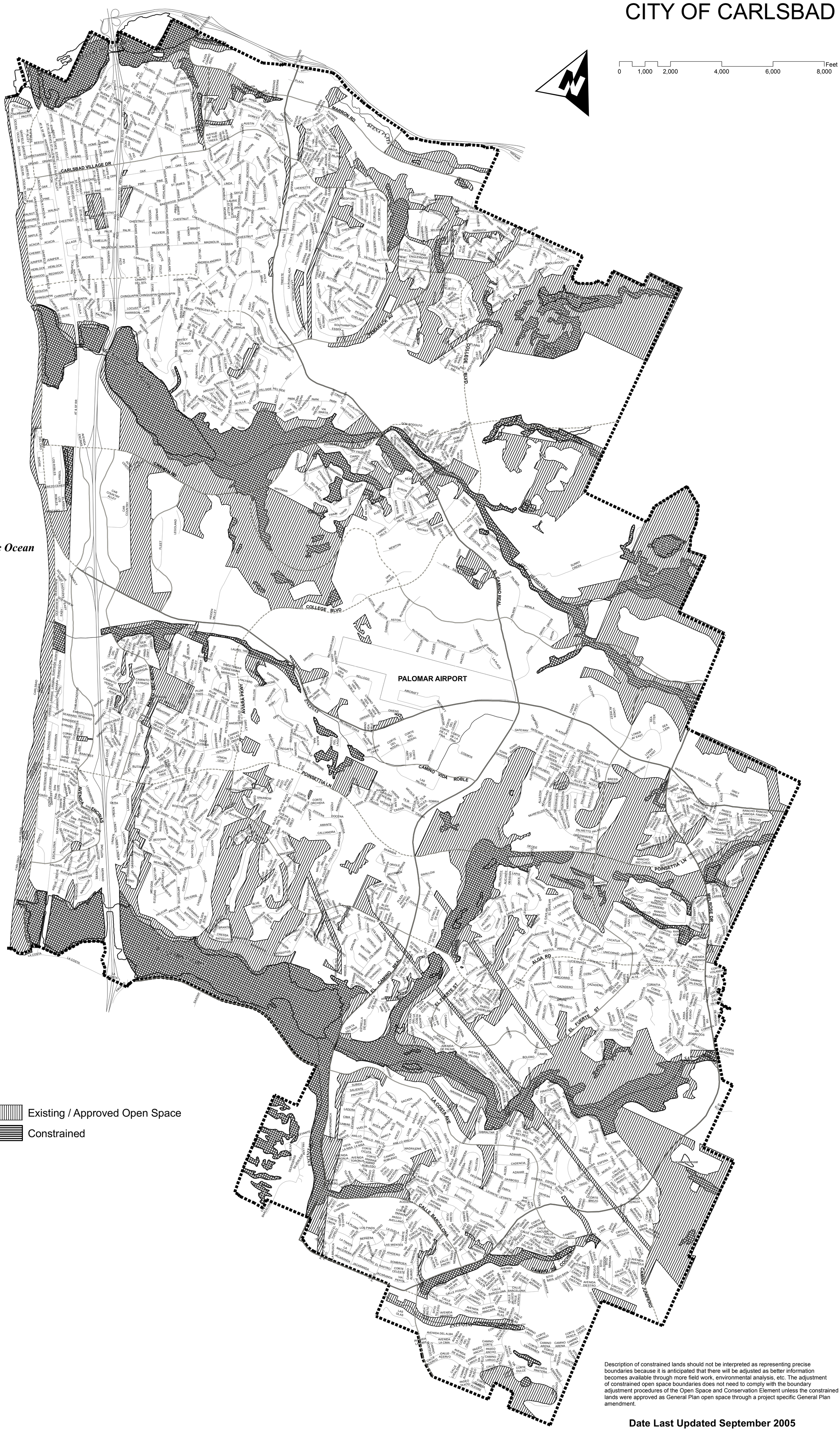
fossil occurrences and the possibility of a discovery of remains of such scientific and/or educational importance which might warrant a long term salvage operation or preservation. Any conflicts regarding the role of the paleontologist and/or recovery times shall be resolved by the Planning Director.

3. Phase 3
Prior to occupancy of any buildings a paleontological monitoring report shall be submitted to the Planning Director and the Carlsbad Historic Preservation Commission. This report shall describe all the materials recovered and provide a tabulation of the number of hours spent by paleontological monitors on the site.

C.10 Prohibit the alteration of properties of state or national significance, unless reviewed under requirements of the California Environmental Quality Act.

OFFICIAL OPEN SPACE & CONSERVATION MAP

CITY OF CARLSBAD



Description of constrained lands should not be interpreted as representing precise boundaries because it is anticipated that there will be adjusted as better information becomes available through more field work, environmental analysis, etc. The adjustment of constrained open space boundaries does not need to comply with the boundary adjustment procedures of the Open Space and Conservation Element unless the constrained lands were approved as General Plan open space through a project specific General Plan amendment.

Date Last Updated September 2005

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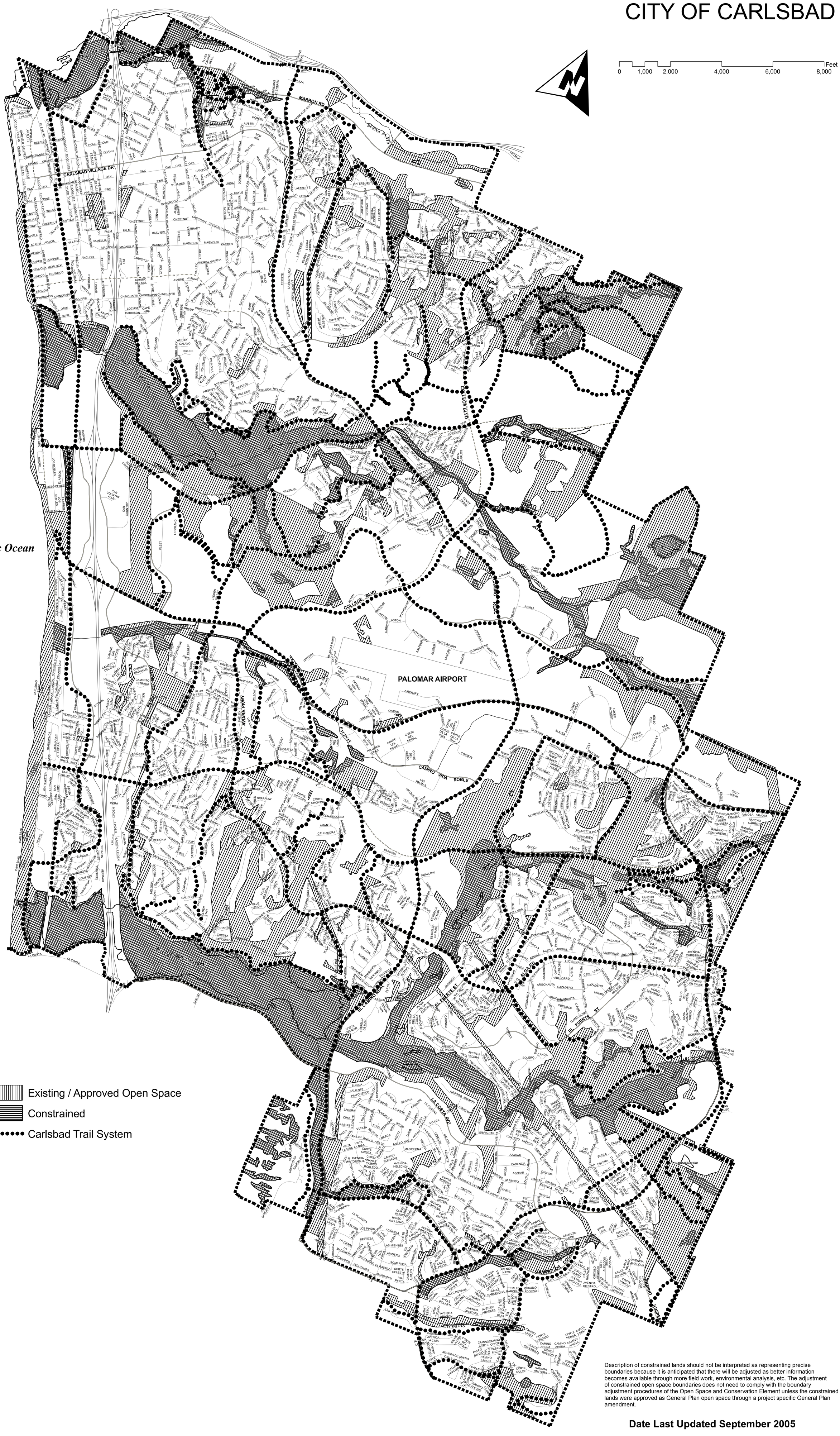
CONCEPTUAL OPEN SPACE & CONSERVATION MAP

CITY OF CARLSBAD



Description of constrained lands should not be interpreted as representing precise boundaries because it is anticipated that there will be adjusted as better information becomes available through more field work, environmental analysis, etc. The adjustment of constrained open space boundaries does not need to comply with the boundary adjustment procedures of the Open Space and Conservation Element unless the constrained lands were approved as General Plan open space through a project specific General Plan amendment.

Date Last Updated September 2005

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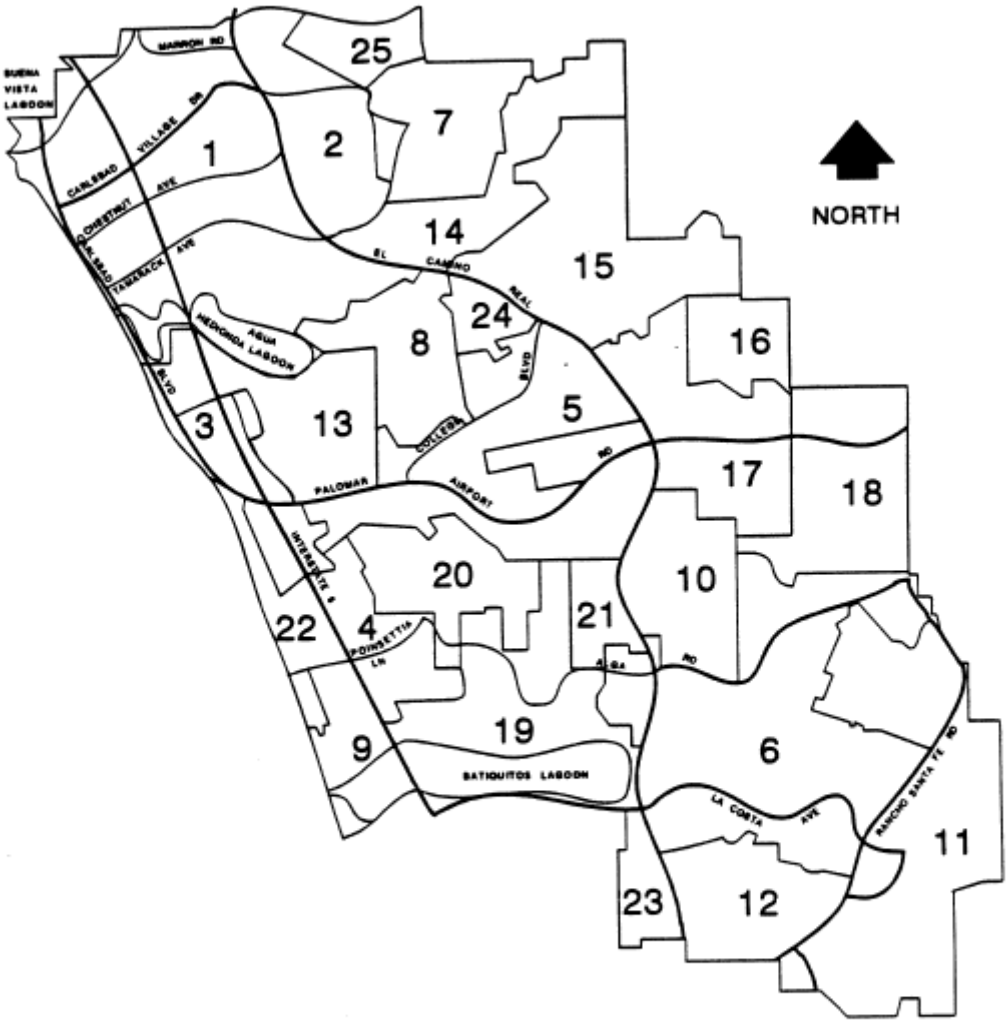
LOCAL FACILITIES MANAGEMENT ZONES



MAP 3

V. GLOSSARY

ACTIVE OPEN SPACE	Open space areas that typically include more complex site improvements and generally have provisions for programmed recreation.
AGRICULTURE	Agriculture is the cultivation and tilling of the soil, dairying, the production, cultivations, growing and harvesting of any agricultural or horticultural commodities, the raising of livestock, bees, fur-bearing animals, or poultry, and the preparation of farm products for market.
AQUACULTURE	Aquaculture means that form of agriculture devoted to propagation, cultivation, maintenance, and harvesting of aquatic plants and animals in marine, brackish, and fresh water. Aquaculture does not include species of ornamental marine or freshwater plants and animals unless utilized for human consumption or bait purposes and maintained in closed systems for personal, pet industry or hobby purposes. This definition specifically excludes hydroponics.
BEACH	A nearly level stretch of pebbles or sand which may be man-made or created by the action of the water, beside a body of water.
BUFFERS, BIOLOGICAL	An area of natural habitat between a riparian or other sensitive habitat and the area modified by adjacent land uses. This area customarily is not accessible to the general public other than for passive recreation.
BUFFERS, GREENBELT	An open area which may be cultivated or maintained in a natural state surrounding development or used as a buffer between land uses or to mark the edge of an urban or developed area.
BUFFER, PLANNING	An area of transition between the biological buffer and urbanized land uses. Passive recreation areas may be incorporated into the planning buffer in a manner that focuses activity (and potential access) away from the habitat.
CAMPGROUND	A plot of ground upon which two or more campsites are located, established or maintained for occupancy by camping units of the general public as temporary living quarters for recreation, education or vacation purposes.
CULTURE	The acquaintance with and taste in fine arts, humanities, and broad aspects of science reflected in institutions specializing in zoology, paleontology, history, archaeology, and horticulture.

DESIGNATED SCENIC HIGHWAY OR ROUTE	An eligible route that has been subjected to all of the steps contained in the Carlsbad Scenic Highways Program, found to possess scenic or historical amenities worthy of preservation and implemented by the adoption of a specific plan and overlay zone.
ENHANCED OPEN SPACE	Open Space areas that have been improved.
ENVIRONMENT	The physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance.
ENVIRONMENTALLY CONSTRAINED AREAS	Areas in which development is not permitted due to environmental conditions and which include beaches, permanent bodies of water, floodways, slopes greater than forty (40) percent, significant woodland **habitats,** major powerline easements, railroad track beds, and other significant environmental features as determined by the environmental review process or by the City Council.
ENVIRONMENTALLY SENSITIVE AREA	Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development.
FIRE HAZARDOUS AREAS	Any land covered with grass, grain, brush or forest, land situated close enough to such areas that are seriously exposed to flying brands, situated on slopes or isolated in such a manner that a fire would be difficult to suppress or would result in substantial fire or erosion damage.
FLOODPLAIN	Any land area susceptible to being inundated from any source by flood water of the one-hundred year frequency flood.
GATEWAY	An area of varying dimension within the viewshed of a major entrance route into the city.
GREENWAY	An open space connector linking parks, nature preserves, cultural features, or historic sites to each other and with populated areas in order to improve environmental quality and provide for outdoor recreation.
GOLF COURSE	A tract of land for playing golf, improved with trees, greens, fairways, hazards, and which may include clubhouses and shelters.
HABITAT	A place or type of site where a plant or animal naturally or normally lives and grows.

HISTORIC AREA	A district, zone or site designated by a local authority, state or federal government within which the buildings, structures, appurtenances and places are of basic and vital importance because of their association with history, or because of their unique architectural style and scale, including color, proportion, form and architectural detail, or because of their being, a part of or related to a square, park, or area the design or general arrangement of which should be preserved and/or developed according to a fixed plan based on cultural, historical or architectural motives or purposes.
LINK OR CORRIDOR	A link or corridor is a connecting area which ties together such open space features as environmental resources, wildlife habitat, ecological preserves, recreation areas, and cultural areas. Examples of such links or corridors are greenways, trails, roadways, visual corridors and railroad rights-of-way.
NATURAL OPEN SPACE	"Natural Open Space" includes environmentally constrained and nonconstrained areas that are in, or similar to being in, their natural or naturalized state.
OCEAN	The whole body of salt water that covers nearly three-fourths of the surface of the earth.