

## CONSERVATION ELEMENT

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### INTRODUCTION

As defined by Chapter 9J-5, Florida Administrative Code, conservation uses are "activities within land areas designated for the purpose of conserving or protecting natural resources or environmental quality, including areas designated for such purposes as flood control, protection of quality or quantity of groundwater or surface water, floodplain management, commercially or recreationally valuable fish and shellfish, or protection of vegetative communities or wildlife habitats". The following natural resources were identified and analyzed: surface water, floodplains, air quality, soils, minerals, natural vegetation, groundwater recharge areas, wildlife, pollution, and potable water. Of these resources, surface water, floodplains, groundwater recharge areas and potable water are analyzed within the Utilities Sub-Element as well as the Conservation Element. The soils information is found within the Future Land Use Element. To avoid duplication, only those items not contained within other elements are reviewed below.

Within the Utilities Element, surface water is analyzed as Item C; floodplains are shown on Map #2 in Item C; groundwater recharge areas are listed as Item E (with a corresponding Map 1); and potable water is analyzed in Item D. Map #2-4, analyzes the soils of the region.

During staff's analysis of the five measurable objectives contained within the Comprehensive Plan, all except 1.5.0. were found to be accomplished. Objective 1.5.0, "The City shall seek to increase its tree canopy coverage from 17% to 30%." received a major setback as a result of the very busy 2004 and 2005 hurricane season and especially as a result of Hurricane Wilma which destroyed nearly 30% of the existing, mature tree canopy. As a result, this objective had to be modified and additional policies to help in the canopy restoration effort have been added.

The City has more than accomplished its stated goals, regarding the acquisition and protection of environmentally sensitive lands as outlined in Objectives 1.3.0 and 1.4.0. These accomplishments are in large part due to the passage of a city-wide environmental bond referendum which allowed for the purchase of four environmentally sensitive sites totaling 66 acres. In addition the City was able take advantage of a further Broward County bond referendum to purchase a 10-acre vacant lot to be developed with a mitigation wetland and an interpretive environmental walking trail.

**1. CONDITION OF THE CONSERVATION ELEMENT AT THE TIME OF ADOPTION (JANUARY 2008):**

**A. Summary of Data and Analysis**

The elements reviewed within the Conservation Element not analyzed as part of the Utilities Element were air quality, minerals, natural vegetation, wildlife, and pollution. A summary of each of these resources is provided below.

1. Air Quality: Air quality remained in the good range within the County, due mainly to its flat terrain, nearly constant air movement and sixty inches of rainfall per year. Three air quality factors continue to be monitored by the Broward County Air Quality Division: carbon monoxide, particulate matter, and ozone levels. An ozone monitoring station has been installed within the City limits at Sawgrass Springs Middle School. The ozone measurements from this site can be viewed at <http://www.dep.state.fl.us/Air/flags/county/Broward.htm>

The City protected air quality by minimizing traffic signals and encouraging proper land use patterns to reduce vehicle emissions. When necessary, the City referred projects that impact air quality to the State Department of Environmental Regulations and the Broward County Environmental Quality Control Board (renamed the Biological Resources Division) for review and comment.

The increased use of fuel efficient, alternate fuel and hybrid vehicles in the City vehicle fleet is contributing to a continued improvement of air quality citywide. In conjunction with this the aggressive street tree restoration program is providing the foundation for a future mature tree canopy that will be capable of sequestering carbon and significantly reducing many other airborne pollutants.

2. Minerals: There were no known sources of commercially valuable minerals within the City.
3. Natural Vegetation: Additional areas of environmental concern within the City not identified by the Broward County Land Use Plan were identified by the City and County, the Environmental Coalition of Broward County, and a local citizens group, the Environmental Preservation and Landscape Advisory group since renamed the Neighborhood and Environmental Committee. This consortium initially identified 36 sites (shown on Table 1 and the accompanying Map 8-1) with 5 additional sites being added subsequently. The City committed to encouraging design that maximized preservation of the natural features identified on the Map 8-1 noted above.

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With proceeds from a 1994 environmental bond issue, four environmentally sensitive land sites (Sandy Ridge Sanctuary, Red Lichen Sanctuary, Pine Flats Preserve and Cypress Gateway Preserve) totaling 66 acres were identified, purchased and restored. These sites were chosen based on unique natural features already existing on the sites and were restored and enhanced and now are monitored and protected to ensure their ecological integrity.

The City has continued identifying environmentally sensitive sites and protecting them from development or ensuring development that preserves existing natural features to the greatest extent possible. In many cases the relevant natural features include stands of natural vegetation, wetland plant communities or wildlife habitat. When appropriate the City provides wetland mitigation opportunities in City parks thereby adding to the inventory of natural vegetation communities and habitat being created and preserved.

Despite the fact that the City is at residential and commercial build out, opportunities for acquiring additional land with existing natural features do arise from time to time. In 2005, the City was able to purchase a 10-acre vacant lot ("Whispering Woods Park") adjacent to an existing Environmentally Sensitive Land site (Red Lichen Sanctuary) and provide opportunity for a 3-acre wetland mitigation.

Preserved natural vegetation communities on public lands continue to be monitored and managed as necessary through supplemental planting of appropriate, native species and the ongoing removal of non-native, invasive species. The City also provides educational opportunities for residents to learn more about protected natural plant communities and how to incorporate native plants and plant communities in residential and commercial landscaping.

As part of the educational program, the City has prepared and continues to update an extensive survey of both native and non-native natural area plants. These findings are documented in Table 3.

In 2005, the City's Landscape Code underwent a significant revision to incorporate new or update existing landscape best management practices. Among the most significant changes were increasing the percentage of required native plants and trees to 50% for any development or redevelopment project, requiring all wet retention areas 1 acre or more in size to include a littoral shelf and appropriate plants, provide more flexibility in the placement of trees on properties.

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4. **Wildlife:** There has been an increased interest in many of the residents towards wildlife. More and more wildlife is being treated not as an unavoidable or necessary evil but instead is being embraced as a valuable and important aspect of the City's natural resources. Not only has the City established a preserve for the endangered Gopher Tortoise at Sandy Ridge Sanctuary but through the preservation of native vegetation communities has also provided for appropriate habitat for many forms of wildlife.

The City has embarked on a campaign to promote a culture of coexistence with wildlife through education and the promotion of wildlife habitat creation and certification on public and private property with the goal of being certified by the National Wildlife Federation as a Community Wildlife Habitat. Table 2 showing the occurrence of wildlife in Coral Springs has been extensively revised based on documented field observations from City Staff and wetland mitigation monitoring reports.

**Pollution:** There were no known water quality or pollution problems with the City at the adoption of the Comprehensive Plan.

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### TABLE 1

#### TABLE A ENVIRONMENTALLY SENSITIVE LANDS SURVEY CITY OF CORAL SPRINGS 2007

This report is a survey identifying the remaining viable natural areas in Coral Springs. These natural areas include four specific categories:

1. Regionally significant.
2. County Natural Resource Areas - (CNRA's).
3. Municipal Natural Resource Areas - (MNRA's).
4. Parks with significant stands of vegetation.

The designations are broken into the following categories:

1. Regionally significant - County Designation
  - A. Urban Wilderness
  - B. Local Area of Particular Concern (LAPC)
2. County Natural Resource Areas (CNRA) - designated by ordinance by the Board County Commission
3. Municipal Natural Areas - Areas identified as municipally important due to natural features on site.
4. Parks - The only parks noted on this map are those with significant environmental features including wetlands or stands of trees.

These areas are identified on the attached City Map 8-1.

#### Definitions

County Natural Resource Area (Broward County) (CNRA):

1. "Natural Resource Area" shall mean real property designated by the Board of County Commissioners of Broward County as meeting the criteria for classification of such lands under this ordinance. (These areas are noted on the map as items 8-14.)
2. Local Area of Particular Concern (LAPC)

The criteria for designating an LAPC include: Areas containing plant communities

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of unique character and/or rare, threatened or endangered species; vegetated communities exceptionally outstanding in growth, structure and/or variety; isolated communities or well-developed, natural vegetation in urban or rapidly urbanized areas; and areas of substantial recreational and/or educational value and/or opportunity. LAPC's are usually recommended immediately for review for Urban Wilderness designation. (These areas are noted on the map as items 4-7.)

### 3. Municipal Natural Resource Areas (MNRA):

To be designated as an MNRA, the area must contain a natural stand of vegetation, including trees, that is dominated by "native" vegetation, or have other environmental features such as wetlands. These sites were identified by the Environmental Preservation and Landscaping Advisory, Bond Advisory committee the City of Coral Springs Parks and Recreation Department, and City of Coral Springs Community Development Committee. (These areas are noted on the map as items 15-24.)

### 4. Parks - Natural Areas:

These areas are natural resources set aside for conservation and recreational activities. These sites include freshwater swamps, cypress heads and slash pine stands. Only the parks with significant environmental features are noted on the map. (These areas are noted on the map as items 25-42.)

### 5. Regionally Significant:

To be regionally significant, a site must have been designated as a Local Area of Particular Concern or an Urban Wilderness by the County.

A Local Area of particular Concern and an Urban Wilderness must satisfy at least three of the following criteria:

- a) Uniqueness - The site contains a significant sample of rare or endangered species, or the site is among a small number of sites in Broward County representing a particular ecological community.
- b) Diversity - A significant sample of two or more ecological communities are contained within the site.
- c) Low Level of Exotic Invasion - The degree and nature of exotic invasion on the site is such that it can be easily managed or mitigated.

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- d) Potential for Protection - Ownership patterns, development status and other factors make the resources of a site likely for successful protection.
- e) Geography - The site has proximity to other resources that would increase its value as an LAPC (e.g., other environmentally sensitive lands, or public parks or a waterfront). (These areas are noted on the map as items 1-6.)

6. Urban Wilderness Area: Is an area designated by the Broward County Urban Wilderness Advisory Board to be protected and set aside as "Wilderness Areas" in permanent preserves that will be protected from incompatible human activity. The criteria for an Urban Wilderness Area are the same as an LAPC. (These areas are noted on the map as items 1-3.)

Below is the corresponding table to Map 8-1 that describes the environmental areas within the City.

SITE NUMBER / NAME	SITE NAME, LOCATION, APPROXIMATE ACREAGE OF NATURAL FEATURES	DESCRIPTION OF ECOLOGICAL COMMUNITY
REGIONALLY SIGNIFICANT		
1	Parcels 1-4 Whispering Woods. Preserved by plat. Platted private roads. No public access. 12 acres.	Urban Wilderness Bald Cypress & Slash Pine Flatwoods
2 Fern Glen Park	Swamp 22. Tract D Butler Farms. Public access from Wiles Road. 12 acres.	Urban Wilderness Slash Pines, Bald Cypress, Red Maple
3 The Preserve	Woodside Estates. Platted private roads. 65 acres with 11.5 acres in public ownership.	Urban Wilderness Bald Cypress & Cabbage Palm Hammock with 22 species of ferns
4 Red Lichen Sanctuary ESL	Parcel A, Whispering Woods Plaza Plat, 12 acres purchased by the City through City's ESL Bond and County bond funding. Public access off Wiles Road.	LAPC Slash Pines Bald Cypress Swamp, Wetland

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5 Tall Cypress	Parcel L-1 Turtle Run. County Park. Public access from Sample Road. 32 acres acquired through county S environmental bond.	LAPC Pine Flatwoods Bald Cypress Large Oaks
6 Tall Cypress	Parcel L-3 & L-4, Turtle Run. City Park. Public access 36 acres.	LAPC Pine Flatwoods Bald Cypress Swamp
7 Sandy Ridge Sanctuary ESL	Pinewood Lake Plat. Public access from Cardinal Road. 37.917 acres by the City through City's ESL Bond.	LAPC Slash Pine Bald Cypress & Sable Palms, Regenerating understory, wetland, Gopher Tortoise preserve
COUNTY NATURAL RESOURCE AREA		
8	Tree preserve parcels (T-1, T-2, T-4) preserved through Coral Creek plat. Public access through internal public roadway system. 13 acres.	CNRA 3 Cypress Heads Swamp (Wetlands)
9 Volunteer Park	City Park Parcel Q-3, Coral Creek. Public access from N.W. 66 <sup>th</sup> Terrace. 13 acres.	CNRA Freshwater swamp Cypress head with bromeliads
10	Tree parcel D (previously T-3), Coral Creek. Public access through internal roadway system. 8 acres.	CNRA Cypress Head with fern understory Swamp (Wetlands)
11	Portion of Parcel R, Turtle Run (North of Sample Road). Public access from Sample Road. 3 acres. Area conserved as part of approved developed site plan for the property.	CNRA Cypress Road
12	Parcel GG-1, Turtle Run (South of Sample Road). Public access from Sample Road. 10 acres.	CNRA Cypress Swamp



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13 Pine Flats Preserve ESL	Parcels A & B Riverside Commercial. Public access from Riverside Drive. 7 acres. Southerly 5.6 acres acquired into public ownership through city's ESL Bond.	CNRA Pine Flatwood, Slash Pine, Bald Cypress & Laurel Oaks
14	Portion of Parcel A, Lake Point, Eagle's Hammock archeological site & Indian campsite preserved through plat. No public access. 8.5 acres.	CNRS Bald Cypress Strangler Fig
<b>MUNICIPAL NATURAL RESOURCE AREA</b>		
15	Parcel F, Maplewood. Public access from University Drive. 50% of resource preserved through approved site plan.	MNRA Bald Cypress & Sabal Palms
16	Parcel M, Maplewood. Public access from University Drive. 8 acres. 50% of resource preserved through approved site plan.	MNRA Bald Cypress with natural area Red Maple
17	Portion of Block 1, Turtle Run. 3 acres. Land essentially developed with single family house.	MNRA Cypress Head
18	Portion of Parcel M, Ramblewood South. Public access from Ramblewood Drive. 17 acres. 50% of resource preserved through approved site plan.	MNRA Wetlands Bald Cypress & Slash Pines
19	Portion of Parcel J, Ramblewood South. Public access from Ramblewood Drive. 23 acres. 50% of resource preserved through approved plat.	MNRA Bald Cypress & Slash Pines
20	Turtle Run. Portions of Parcels K & J1. Public	MNRA K- Bald Cypress

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	access from Turtle Creek. Preserved by Plat. 7.9 acres.	J1- Bald Cypress Wetlands
21	Portions of Pine Ridge South Addition access from Wiles Road. 25% of resource preserved by plat.	MNRA Slash Pine Bald Cypress
22	Proposed Ridgeview Crossing. Public access from University Drive. 25% of resource preserved by plat.	MNRA Bald Cypress
23	Parcel A, Park Ridge Plaza. Sawgrass East of University Drive. 5 acres.	MNRA Bald Cypress
24 Cypress Gateway ESL	Portion of Parcel AA. Oakwood. 2 acres acquired by the City through City's ESL Bond-Public access from University Drive. 2 acres.	MNRA Cypress, Strangler Fig
Park*	Acreage reflect the total acreage of the park.	
25	Regional Park – Wetland Marsh 18+ acres of identified wetlands within the 180+ acres park.	Proposed MNRA
26 Kiwanis Park	11 acres.	Park Bald Cypress & Red Maple
27 Sherwood Forest	29 acres.	Park, Slash Pine & Bald Cypress, Wetland
28 Cypress Hammock Park/Orchid Park	T and KK, Cypress Run.	Park Bald Cypress Strangler Fig
29 Oakwood Park	Oakwood 7 acres.	Park Bald Cypress, Wetland
30 Lions Park	Park #1. 7 acres.	Park Slash Pines & Bald Cypress
31 Whispering Oaks	Whispering Oaks 6 acres.	Park Bald Cypress

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32	Park #19 – University Park 8 acres.	Park Bald Cypress
33 Forest Hills Park	7 acres.	Park Slash Pines
34 Three Mountains Park	21 acres.	Park Cypress Head
35 Jaycee Park	10 acres.	Park Bald Cypress/Slash Pine/Cabbage Palm
36 Three Friends Park	Park #10 –5 acres.	Park Bald Cypress
37	Park 31/35.	Isolated Wetlands
38 “Whispering Woods Park”,	11 acres.	Wetland, Strangler Fig
39 Riverside Park	Portion of Riverside Park 15 acres.	Wetland, Burrowing Owls
40 Volunteer Park	Portion of Volunteer Park, 17 acres.	Wetland
41 Center for the Arts	Portion of Mullins Park, 4 acres.	Cypress Hammock, Native Plantings
42 Poinciana Park	6 acres.	Native Hammock

\*All parks have public access, although such access may be limited in environmentally sensitive areas.

The Environmentally Sensitive Lands map has been updated to reflect new acquisitions and conservation related enhancements on existing parks such as wetland or other habitat creation.

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TABLE 2

Partial List of Wild Life Species Known To Be Present  
in Coral Springs in 2007

A.	Mammals	Opossum Short-tailed shrew Marsh rabbit Gray squirrel Hispid cotton rat Raccoon Black rat Bobcat Nine-banded armadillo Grey Fox Coyote River Otter
B.	Birds	Swallow-tailed kite Red-tailed hawk Kingfisher Osprey Anhinga Mottled Duck Wood Duck Muscovy Duck Great Blue Heron Great Egret Cattle Egret Tri-colored Heron Green Heron Limpkin Woodstork Turkey Vulture Black Vulture Red Shouldered Hawk Coopers Hawk American Kestrel Great Horned Owl Screech Owl Burrowing Owl Pileated Woodpecker Red-bellied woodpecker

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	Downy Woodpecker
	Yellow Bellied Sapsucker
	Cardinal
	Blue Jay
	Mockingbird
	Crow
	Black and White Warbler
	Yellow-billed cuckoo
	Spotted Oriole
	Chuck-will's widow
	Common nighthawk
	Carolina wren
	Purple Martin
C.	Reptiles
	Yellow ratsnake
	Cottonmouth
	Black Racer
	Southern Ringneck Snake
	Gopher Tortoise
	Eastern Box Turtle
	Florida Softshelled Turtle
	Green Anole
	Southeastern Five-lined Skink
	Brown Anole
	Knight Anole
	Iguana
D.	Amphibians
	Oak Toad
	Bufo Toad
E.	Insects
	Zebra Longwing
	White Peacock
	Malachite
	Julia
	Gulf Fritillary
	Monarch
	Ruddy Daggerwing
	Phaeon Crescent

Source: Field observation by City's Environmental Coordinator and monitoring reports for wetland mitigation projects.

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TABLE 3

Plant Species Known To Be Present in ESL sites  
in Coral Springs in 2007  
(**bold** denotes native species)

Air Potato	<i>Dioscorea bulbifera</i>
<b>Alligator Flag</b>	<b><i>Thalia geniculata</i></b>
<b>American Bluehearts</b>	<b><i>Buchnera americana</i></b>
<b>American Pokeweed</b>	<b><i>Phytolacca americana</i></b>
<b>American White Waterlily</b>	<b><i>Nymphaea odorata</i></b>
Arrowhead Vine	<i>Syngonium podophyllum</i>
Australian Pine	<i>Casuarina equisetifolia</i>
Balsam Pear	<i>Momordica charantia</i>
<b>Beach Sunflower</b>	<b><i>Helianthus debilis</i></b>
<b>Beauty Berry</b>	<b><i>Callicarpa americana</i></b>
<b>Blue Flag Iris</b>	<b><i>Iris hexagona</i></b>
<b>Bracken Fern</b>	<b><i>Pteridium aquilinum</i></b>
Brazilian Pepper	<i>Schinus terebinthifolius</i>
<b>Button Bush</b>	<b><i>Cephalanthus occidentalis</i></b>
<b>Cabbage Palm</b>	<b><i>Sabal palmetto</i></b>
<b>Cardinal Air Plant</b>	<b><i>Tillandsia fasciculata</i></b>
Cesar's Weed	<i>Urena lobata</i>
<b>Chara</b>	<b><i>Chara sp.</i></b>
Chinaberry Tree	<i>Melia azedarach</i>
Chinese Ladder Brake	<i>Pteris vittata</i>
Climbing Cassia	<i>Senna pendula</i>
<b>Coast Sandspur</b>	<b><i>Cenchrus incertus</i></b>
<b>Coastalplain Willow</b>	<b><i>Salix caroliniana</i></b>
<b>Cocoplum</b>	<b><i>Chrysobalanus icaco</i></b>
<b>Creeping Cucumber</b>	<b><i>Melothria pendula</i></b>
Creeping Oxeye	<i>Wedelia trilobita</i>
<b>Bald Cypress</b>	<b><i>Taxodium distichum</i></b>
Cypress Vine	<i>Ipomoea quamoclit</i>
<b>Duck Potato</b>	<b><i>Sagittaria spp.</i></b>
Durban Crowsfoot Grass	<i>Dactyloctenium aegyptium</i>
Earleaf Acacia	<i>Acacia auriculiformis</i>
<b>Elderberry</b>	<b><i>Sambucus canadensis</i></b>
<b>Elliott's Lovegrass</b>	<b><i>Eragrostis elliottii</i></b>
<b>Fakahatchee Grass</b>	<b><i>Tripsacum dactyloides</i></b>
<b>Fingergrass</b>	<b><i>Eustachys petraea</i></b>
<b>Firebush</b>	<b><i>Hamelia patens</i></b>

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**Florida Swampprivet**

Florida Tasselflower

**Frog Fruit**

**Golden Polypody**

**Graceful Sandmat**

**Green Buttonwood**

**Groundcherry**

**Gumbo Limbo**

**Horsetail**

Javanese Bishopwood

Knotroot Foxtail

Lantana

**Laurel Oak**

**Lizards Tail**

**Love Vine**

Madagascar Periwinkle

Mascarene Island Leafyflower

Melaleuca

Milk Pea

**Muscadine Grape**

**Myrsine**

Natal Grass

**Native White Plumbago**

**Necklace Pod**

**Oceanblue Morningglory**

**Perennial Marsh Fleabane**

Phasey Bean

**Pickrel Weed**

**Pineland Heliotrop**

Pink Purslane

**Poision Ivy**

**Prickley Pear**

**Primrose**

**Purple Lovegrass**

**Ragweed**

**Red Bay**

**Red Maple**

Rosary Pea

**Royal Fern**

**Saltbush**

**Satinleaf**

**Saw Greenbrier**

**Saw Palmetto**

**Forestiera segregata**

Emilia fosbergii

**Phyla sp.**

**Polypodium aureum**

**Chamaesyce hypericifolia**

**Conocarpus erectus**

**Physalis sp.**

**Bursera simaruba**

**Conyza canadensis**

Bischofia javanica

Setaria geniculata

Lantana spp.

**Quercus laurifolia**

**Saururus cernuus**

**Cassytha filiformis**

Catharanthus roseus

Phyllanthus tenellus

Melaleuca quinquenervia

Galactia volubilis

**Vitis rotundifolia**

**Myrsine quianensis**

Rhynchelytrum repen

**Plumbago scandens**

**Sophora tomentosa**

**Ipomoea indica var.acuminata**

**Pluchea rosea**

Macroptilium lathyroides

**Pontederia lanceolata**

**Heliotropium polyphyllum**

Portulaca pilosa

**Toxicodendron radicans**

**Opuntia compressa**

**Ludwigia sp.**

**Eragrostis spectabilis**

**Ambrosia artemisiifolia**

**Persea borbonia**

**Acer rubrum**

Abrus precatorius

**Osmunda regalis**

**Baccharis glomeruliflora**

**Chrysophyllum oliviforme**

**Smilax bona-nox**

**Serenoa repens**

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Scarlet Milkweed	<i>Asclepias curassavica</i>
Schefflera	<i>Schefflera actinophylla</i>
<b>Sea Grape</b>	<b><i>Coccoloba uvifera</i></b>
<b>Shoestring Fern</b>	<b><i>Vittaria lineata</i></b>
Shrubby False Buttonweed	<i>Spermacoce verticillata</i>
<b>Slash Pine</b>	<b><i>Pinus elliottii</i> var. <i>densa</i></b>
<b>Spanish Needles</b>	<b><i>Bidens alba</i></b>
<b>St. Andrew's Cross</b>	<b><i>Hypericum</i> spp.</b>
<b>Strangler Fig</b>	<b><i>Ficus aurea</i></b>
<b>Shortleaf Fig</b>	<b><i>Ficus citrifolia</i></b>
Surinam Cherry	<i>Eugenia uniflora</i>
<b>Swamp Flatsedge</b>	<b><i>Cyperus ligularis</i></b>
<b>Sword Fern</b>	<b><i>Nephrolepis exaltata</i></b>
<b>Tickseed</b>	<b><i>Coreopsis leavenworthii</i></b>
Torpedo Grass	<i>Panicum repens</i>
<b>Florida Trema</b>	<b><i>Trema micranthum</i></b>
<b>Virginia Creeper</b>	<b><i>Parthenocissus quinquefolia</i></b>
Wand Loosestrife	<i>Lythrum lineare</i>
Washington Fan Palm	<i>Washingtonia robusta</i>
<b>Wax Myrtle</b>	<b><i>Myrica cerifera</i></b>
White Indigo Berry	<i>Randia aculeata</i>
White Vine	<i>Sarcostemma clausum</i>
<b>Wild Coffee</b>	<b><i>Psychotria nervosa</i></b>
<b>Wild Coffee</b>	<b><i>Psychotria sulzneri</i></b>
<b>Wild Petunia</b>	<b><i>Ruellia carolinensis</i></b>
<b>Wild Poinsetta</b>	<b><i>Poinsettia cyathophora</i></b>
<b>Yellow Elder</b>	<b><i>Tecoma stans</i></b>
Littlebell	<i>Ipomoea triloba</i>
Cuban Jute	<i>Sida rhombifolia</i>

Source: Vegetation Survey by FAU students and City's Environmental Coordinator, 2003



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**Table 4**

<b>Park Name</b>	<b>Approximate size of wetland in park (in acres)</b>
Sportsplex	14.50
Riverside Park	2.60
Sherwood Forest	1.00
North Community Park	3.00
Sandy Ridge Sanctuary	0.25
Red Lichen Sanctuary	1.70
Whispering Woods Park	3.40
Volunteer Park	0.50
Oakwood Park	2.75
<b>TOTAL</b>	<b>29.70</b>

The wetlands shown in Table 4 are the result of wetland mitigation projects as mandated by Broward County prior to site development. The impacted wetlands were of poor quality due to changes in hydrology and infestation with invasive plants. The newly created, high quality wetlands are located on public property and serve as wildlife habitat and are an integral part in the regional creation of bird migration resting places along the Atlantic flyway.

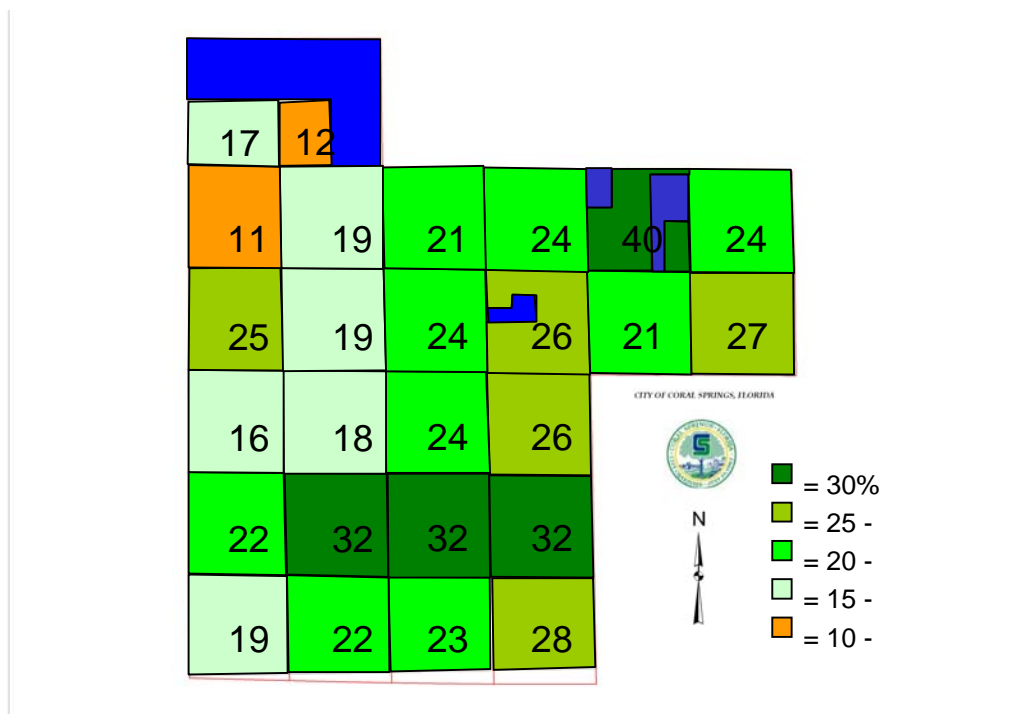
#### **IV. COMPARISON OF CONSERVATION ELEMENT'S ADOPTED OBJECTIVES WITH ACTUAL RESULTS:**

For Objective 1.1.0, the City reviewed the number of times the ozone level exceeded (known as "exceedences") a predefined number. Objective 1.2.0 identifies the city's actions to protect potable water supplies. This is measured by compliance with Consumptive Use Permits issued by South Florida Water Management District for water draws. Objectives 1.3.0 and 1.4.0 identify the City's actions in protecting the natural environment. Objective 1.5.0 was added to identify the City's goal of increasing its tree canopy from 17% to 30%. According to the report, "the point at which trees become a functioning canopy is between thirty to sixty percent (30% to 60%)". In 1994, the Division of Forestry completed a "Tree Canopy Analysis" for Coral Springs that demonstrated that the city had a 17% tree canopy at that time. This was followed up by a "Tree Canopy Analysis" conducted by the City in 2004 which determined the tree canopy to be 23%. Unfortunately, Hurricane Wilma in 2005 reduced the City's tree canopy by an estimated 30% putting the new canopy

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coverage in 2007 at an estimated 16%. The original 30% tree canopy target by build-out (2010) to provide for lower ambient air temperature, cleaner air, noise absorption, reduction of reflected light and glare and other factors cannot be met and a new goal of 2020 has been established.

Figure 1: 2004 tree canopy survey showing average citywide canopy coverage of 23%. Also shown is the percentage coverage over individual sectors throughout the City.



### V. EFFECT ON THE CONSERVATION ELEMENT:

#### A. Changes to the State Comprehensive Plan since 1985

None of the changes to the State Comprehensive plan, Chapter 187, F.S., since 1985 require amendments to this element.

#### B. Changes to the Strategic Regional Policy Plan for South Florida

Strategic Goal 3.1 adds utilizing land acquisition where necessary so that the quality and connectedness of regionally significant natural resources were improved.

These areas as well as other publicly owned Environmentally Sensitive Land's are being enhanced through various mitigation techniques. The City has coordinated

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these efforts to include public/private partnerships to extend taxpayer monies. Examples would include exotic vegetation removals utilizing developer resources combined with other complementary municipal efforts.

In 1989, Broward County passed a \$75 million bond for the acquisition and preservation of Environmentally Sensitive Land properties. City residents overwhelmingly supported this measure. Proceeds from those monies were used within the City to purchase 32 acres of pristine wetlands that were immediately adjacent to an existing 36 acre park (Turtle Run Park). \$500,000 was also contributed by the County towards the City's purchase of Red Lichen Sanctuary, a 14.145 acre Cypress Wetland.

On December 7, 1993, the City forwarded Resolution #93-285 to City voters for a referendum authorizing the issuance of General Obligation Bonds providing for the acquisition, preservation and enhancement of City Environmentally Sensitive Lands. The electorate overwhelmingly approved this in March of 1994.

The City has since issued \$7.5 million of bonds to provide for this acquisition program. As a result, the City has purchased four sites since 1995 totaling 66.00 acres. The four sites are Red Lichen Sanctuary, a 14.15 acre Cypress wetland, Pine Flats Preserve, a 5.66 acre upland resource area, Sandy Ridge Sanctuary a 38.00 acre Pine Flatwoods ecosystem and Gopher Tortoise preserve and Cypress Gateway Preserve a 2.50 acre cypress wetland.

In 1993, Broward County passed Ordinance #93-49 requiring all development actions within the County to be approved by the Environmental Protection Department. That agency provides an initial assessment of the presence or absence of wetlands. The City works cooperatively with Broward County to preserve and protect all wetlands within its jurisdiction. As a result, the City has benefited from the creation of 8 wetland mitigation areas in City parks totaling approximately 35 acres.

### C. Changes to Rule 9J-5, F.A.C.

There were no significant changes to Section 9J-5.003, F.A.C.,.

### D. Changes to Chapter 163, Part II., F.S.

Chapter 163.3177(6)(d) requires the consideration of the regional water supply plan in the preparation of the conservation element. This regional water supply plan is currently still under development and will be incorporated in future updates to the conservation element.

## CONSERVATION ELEMENT

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### **VI. IDENTIFICATION OF PROPOSED OR ANTICIPATED AMENDMENTS TO THE CONSERVATION ELEMENT**

The Goals, Objectives and Policies (GOPs) and the Environmentally Sensitive Lands Map are the only adopted information for this element. Staff has prepared a current version of the Environmentally Sensitive Lands Map for adoption (see attached). Staff believes the majority of the GOPs are still relevant. Due to the City having reached build out several GOPs have been modified to reflect future emphasis on redevelopment as opposed to development efforts.

1. Goal 2.0.0 along with Objective 2.1.0 and Policies 2.1.1 – 2.1.6 were added to the Conservation Element to reflect the increased awareness and concern for the development of environmentally sustainable practices. The policies reflect measures that will reduce the use of toxic materials, increase energy efficiency and promote recycling.
2. Policy 1.2.8 reflecting the City's compliance with the MS4 permitting process was added.
3. Policy 1.4.6 was added to reflect the City's increased commitment to including wildlife habitat protection.
4. Objective 1.5.0 was significantly modified to reflect the damage caused to the City's tree canopy by Hurricane Wilma in 2005. Due to this event, a new target date of 2020 for 30% canopy coverage has been established. In addition, several policies have been added to emphasize educating residents and business owners on the benefits of correctly planting suitable trees. The measure for this objective has been modified to require a regular canopy coverage analysis every five years beginning in 2010. This analysis is essential to track the success of the post-Hurricane Wilma canopy recovery efforts.
5. Although Objective 1.2.0 does include measures and policies related to the protection of future potable water supply a regional water supply plan is currently still under development and changes to this Objective will be incorporated in future updates to the Conservation Element.

Staff continues to monitor State, regional and local regulations in relation to all issues within the Conservation Element in order to remain consistent with the Conservation Element of Broward County Comprehensive Plan.

### **VII. SUMMARY:**

## CONSERVATION ELEMENT

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The City is actively working to protect the environment in order to provide a better quality of life for its citizens. The County continues to be an attainment zone for ozone. The City has contributed to this effort by converting its fleet to run on liquid propane, bio diesel and the increased use of hybrid vehicles. The 7.5 million dollar environmental bond passed overwhelmingly by Coral Springs voters, has enabled the City to aggressively protect the remaining natural resources by purchasing, enhancing and preserving 66 acres of environmentally significant and unique land. Through the study period, the City has improved its conservation efforts as well as the environmental quality of life. These things have been accomplished by thoughtful stewardship of the natural and built environments.