

Exhibit A

Text proposed for deletion is shown ~~stricken~~ and text proposed for addition is shown underlined.
Supplement 55 provided by MuniCode is the base document for the EAR based changes shown.

Chapter 9 CONSERVATION AND OPEN SPACE ELEMENT

| | | |
|----------|--------------------|-----------------------|
| Adopted: | February 20, 1990 | By Ordinance No. 373 |
| Amended: | July 9, 1991 | By Ordinance No. 400 |
| Amended: | March 2, 1993 | By Ordinance No. 423 |
| Amended: | October 26, 1993 | By Ordinance No. 430 |
| Amended: | December 15, 1998 | By Ordinance No. 537 |
| Amended: | August 22, 2000 | By Ordinance No. 577 |
| Amended: | December 5, 2000 | By Ordinance No. 584 |
| Amended: | December 11, 2001 | By Ordinance No. 606 |
| Amended: | December 10, 2002 | By Ordinance No. 627 |
| Amended: | May 27, 2003 | By Ordinance No. 630 |
| Amended: | September 6, 2005 | By Ordinance No. 677 |
| Amended: | December 11, 2007 | By Ordinance No. 779 |
| Amended: | December 16, 2009 | By Ordinance No. 850 |
| Amended: | December 10, 2013 | By Ordinance No. 945 |
| Amended: | July 8, 2014 | By Ordinance No. 957 |
| Amended: | February 27, 2018 | By Ordinance No. 1055 |
| Amended: | September 10, 2019 | By Ordinance No. 1110 |
| Amended: | May 11, 2021 | By Ordinance No. 1158 |
| Amended: | | By Ordinance No. |

Acronyms used in this chapter:

| | |
|-------|--|
| CGMP | Comprehensive Growth Management Plan |
| CRA | Community redevelopment area |
| FDEP | Florida Department of Environmental Protection |
| PAMP | Preserve area management plan |
| SFWMD | South Florida Water Management District |

Section 9.1. Background

Martin County is expected to increase its total permanent population from ~~143,600~~ 164,300 in ~~2010~~ 2025 to ~~164,293~~ 178,000 in ~~2025~~ 2040. One purpose of addressing public open space in the Comprehensive Growth Management Plan (CGMP) is to define the County's goals regarding preservation and provision of public open space, especially as growth and development continue. The result should be a program of actions to be undertaken by the County. Public open space supports conservation, passive recreation, aesthetics and quality of life, in an area undergoing rapid growth, preservation of public open spaces is of great importance.

Martin County lies along the central eastern coast of the State. It is bounded on the north by St. Lucie County, on the east by the Atlantic Ocean, on the south by Palm Beach County and on the west by Okeechobee County and Lake Okeechobee. The South Florida Water Management District (SFWMD) reported the ~~long-term~~ historical average ~~annual~~ rainfall in the Martin-St. Lucie region as ~~55.4~~ 55.00 inches. From May 1, ~~2015~~ 2022 to

April 30, ~~2016~~ 2023, defined as water year ~~2016~~ 2023 (WY ~~2016~~ 2023), the SFWMD measured ~~54.17~~ 52.14 inches of total rainfall in the St. Lucie River Watershed (SFWMD South Florida Environmental Report ~~2016~~ 2024). During WY2016, El Niño conditions caused significantly higher than normal rainfall during the dry season in the St. Lucie Watershed (SFWMD 2016). This resulted in unusual patterns of hydrology, water quality, and ecology in St. Lucie Estuary (SLE) since rainfall is one of the most important external drivers of the physics, chemistry, and ecology to the estuary. During the WY2016 dry season, the estuary received more freshwater inflow from the upstream watershed and Lake Okeechobee, leading to atypically high nutrient loads and lower salinity levels than are usually observed during the dry season. The wetter than normal dry season of WY2016 resulted from El Niño conditions. Annual rainfall in WY2016 was comparable to WY2014 (53.4 inches), while slightly higher than WY2015 (49.9 inches) (SFWMD South Florida Environmental Report 2016).

South Florida has experienced localized and widespread multiyear wet cycles and multiyear dry cycles. Localized tropical storms can produce heavy rains and high tides, sometimes resulting in extensive damage caused by coastal and inland flooding. Localized droughts can reduce the water table of shallow aquifers and negatively affect natural wetland hydroperiods (the period of time when a wetland is covered by water). Rainfall is seasonal, with the majority of the precipitation falling between June and October. The average January temperature in Stuart is ~~66.5~~ 75 degrees and the average July temperature is ~~82.3~~ 90.2 degrees. The annual average temperature is 75.2 degrees.

Martin County has three major physiographic regions: the Atlantic Coastal Ridge in the east, the Eastern Flatlands through the central and western portions, and the Everglades in southwestern Martin County.

The Atlantic Coastal Ridge marks the position of the former coastline when sea levels were higher than today. The ridge itself consists of the Jensen Beach and Jonathan Dickinson sandhills, which are separated by the St. Lucie River estuary. The sandhills of Jonathan Dickinson State Park reach an altitude of 86 feet above mean sea level, the highest altitude in Martin County (Soil Survey of Martin County, page 3). The Indian River Lagoon runs east from this ridge, and the barrier islands (Hutchinson Island and Jupiter Island) are divided by the St. Lucie Inlet. The soils of the Atlantic Coastal Ridge are generally well-drained sands. The native vegetative communities in this area are primarily scrub and coastal strand communities. The Savannas, lying in St. Lucie and northern Martin County, is a freshwater marsh system that has formed behind the ridge. The greatest urban development in the County has occurred along the Atlantic Coastal Ridge.

The Eastern Flatlands comprise the area westward from the Atlantic Coastal Ridge to Lake Okeechobee, except for a small part of the Everglades in the southwestern corner of the County. The Eastern Flatlands are generally lower than the Atlantic Coastal Ridge, with elevations ranging from 20 to 30 feet above mean sea level. There are two minor ridges in the Eastern Flatlands, the Orlando Ridge and the Green Ridge. The Orlando Ridge is more westerly, higher and better defined than the Green Ridge. The plant communities in this region are generally referred to as flatwoods. The dominant vegetation in drier areas is a mixture of slash pine and saw palmetto. In wetter areas there are, grasslike (graminoid) marshes, cypress or hammocks.

Population density in the Eastern Flatlands is lower than along the Atlantic Coastal Ridge, and the area is used primarily for agriculture. There is a small strip of Everglades along the shores of Lake Okeechobee in southwestern Martin County. The region has a maximum width of about 1.5 miles in this area. The boundary between the Everglades and the Eastern Flatlands is sharply defined, with vegetation in the Everglades primarily in sawgrass communities. Much of this area of organic soils has been intensely developed for agriculture.

Section 9.2. Existing Conditions

Martin County has specific areas considered environmentally sensitive. They include the ocean system, estuary system, flood zones, sandhills and upland hammocks. These systems are linked in unique and special ways. Seemingly small or insignificant alterations can lead to substantial system failure, resulting in losses throughout the system.

9.2.A. *Soils and vegetation.* Most of the soils in Martin County are sandy and subject to wind erosion, especially when covering vegetation is disturbed or the soil is otherwise exposed. Martin County soils can be divided into five general categories based on relief, drainage characteristics and the associated vegetation. These include:

1. Soils of the sand ridges and coastal islands, which are nearly level to moderately steep. They are excessively to poorly drained and predominantly sandy.
2. Soils of the low ridges and knolls, which are nearly level to gently sloping, are excessively to poorly drained. The subsoil is weakly cemented (meaning it does not hold together well) and predominantly sandy.
3. Soils of the flatwoods, which are nearly level and poorly drained. Most areas have a dark colored, sandy subsoil that is weakly cemented in places. Some areas have a loamy subsoil within a depth of 20 inches or at a depth of 20 inches to 40 inches.
4. Soils of the sloughs and freshwater marshes, which are nearly level and poorly to very poorly drained. These soils vary from sandy throughout to having a loamy subsoil within a depth of 20 inches or at a depth of 20 to 40 inches. Some of the soils also are organic (meaning they have significant amounts of organic material).
5. Soils of the tidal swamps, which are organic to a depth of more than 50 inches. They are nearly level and very poorly drained. The substratum varies from sandy to having a clay layer.

Martin County contains these native vegetative communities:

South Florida Coastal Strand
Sand Pine Scrub
South Florida Flatwoods
Upland Hardwood Hammocks
Tropical Hammocks
Cypress Swamps (i.e., domes and strands)
Salt Marsh
Mangrove Swamp
Swamp Hardwoods
Freshwater Marsh and Ponds
Slough
Bay Swamps
Sawgrass Marsh

Martin County prides itself on its greenness and abundance of nature. Martin County has large areas of rare habitat, fundamental to support the ecosystems of threatened and endangered plants and animals and provide for wildlife that can live nowhere else. The rolling hills of sand pine scrub from Jonathan Dickinson State Park north through Jensen Beach add a special character and look to coastal Martin County. A report on coastal scrub by the Florida Fish and Wildlife Conservation Commission identifies Martin County as the last large reservoir of this rare habitat on Florida's east coast. If an adequate area is not preserved, a whole list of threatened and endangered species will be lost.

The native vegetative communities and their plant associations in Martin County create tremendous value, both aesthetically and ecologically. When these areas are cleared, the following may happen:

- Wind and water erode the soil;
- The immediate neighborhood suffers from blown dust and sand and poor air quality;
- The estuary continues to degrade from siltation; and

- The noise buffering benefits provided by natural vegetation is lost (natural vegetation is a superior noise buffer and more effective than a manmade buffer or barrier).

Native vegetative communities with intact natural soil surfaces are important as these areas provides:

- The best medium for aquifer recharge;
- Excellent protection from the invasion of exotic species;
- Areas which help provide adequate clean water for human and environmental needs;
- Natural conservation of water, since natural vegetation is adapted to naturally utilize the local climate whereas planting and maintaining new non-native vegetation requires massive amounts of irrigation waters; and
- Protection for water quality since maintaining planted non-native vegetation requires fertilizer, pesticides and herbicides which lead to reduced water quality in groundwater and natural water bodies.

Preservation of natural vegetation in native vegetative communities is not simply a question of providing large preserves for plants and animals. The myriad of benefits provided by preserved wetland and upland habitats are especially important in urban settings.

For this reason, Martin County has adopted policies requiring preservation of areas of native wetland and upland habitat in place within all developments. These policies are stronger than those of most other local governments. As a result, Martin County can expect a greener future with more habitat diversity.

9.2.B. *Wetlands*. Wetlands serve many important hydrological and ecological values and functions. They:

- Recharge and filter groundwater in the shallow aquifer that provides water for homes and central utilities in Martin County,
- Reduce the impact of flooding by acting as storage basins and temper the effect of climate extremes; and
- Act as uniquely productive biological systems, providing home and food for the majority of Florida's threatened and endangered species.

In sending water to meet the ocean tides from the St. Lucie Inlet, the isolated freshwater wetlands that form the overflow headwaters of creeks and streams help to create the estuary, with its tremendous biological productivity. Without wetlands, there would be no estuary. Ocean fisheries, both recreational and commercial, would cease to exist as we know them without the estuarine wetlands and the freshwater wetlands that sustain the estuary.

Isolated wetlands, sloughs, creeks, estuaries, lagoons and ocean resources are linked through water resources and are interdependent. Each system depends on the quantity and quality of freshwater they receive, how often water flows in and how long it flows. These variables dictate the kinds of plants and animals that live in each particular ecosystem. These ecosystems are extraordinarily productive biologically, and their sustainability depends on a very complex and fragile interaction between food chain dynamics and nutrient cycling. The natural functions within these interconnected systems are affected by changes in the flow rates and volumes of freshwater entering the system, the quality of the water and the duration of the changed conditions. Stormwater plans must ~~assure~~ ensure that water quality is maintained and enhanced through control of the rate, timing and volume of discharges from surface water management systems from both point sources (coming from a specific, identifiable source) and nonpoint sources (coming from a general source that cannot be identified).

The St. Lucie Estuary suffers from excess freshwater from drainage facilities in the wet season, and can be especially damaged during excessive rainfall events. A study by the U.S. Army Corps of Engineers estimated that 200,000-acre-feet of storage must be restored in the watersheds in Martin and St. Lucie Counties to restore a

natural level of salinity. Wetland preservation, water table protections and runoff volume and timing controls needed to assure functioning wetlands are critical to restoring and maintaining a healthy estuary.

Martin County residents consider wetlands as beneficial and aesthetically pleasing within their communities; these areas provide for natural habitat that is critical to species such as the sandhill crane and the endangered wood stork.

Activities that degrade, destroy or otherwise negatively affect wetlands values and functions must be restricted or eliminated.

Wetland losses in the last century have been significant for Florida and Martin County. Martin County has taken a stand that wetlands will not be altered, except in very limited circumstances, which are detailed in the wetland policy. The only ~~exemptions~~ exceptions for altering wetlands in Martin County are included in Policy 2.2A.2 and in Policy 9.1G.2(7) of this element.

Even in those limited situations where avoidance of wetland impact is impossible, the applicant must show that the least damaging alternative has been chosen and the damage has been mitigated.

Activities adversely affecting wetlands in areas of urbanization and agricultural use include:

- Direct removal of natural vegetation from the wetlands or the buffer zones surrounding these wetlands;
- Increasing the volume of freshwater flows to the estuary in the wet season and decreasing dry season flows;
- Habitat destruction by dredging and/or filling;
- Construction within the wetlands or a buffer zone;
- Introduction or natural invasion of exotic vegetation within wetlands or a buffer zone;
- Improper or inadequate chemical and waste disposal, including agricultural wastes and improper installation of septic tanks;
- Improper or inadequate stormwater and surface water management;
- Habitat destruction by motorized vehicles; and
- Alteration of wetland hydroperiods by mining, excavation and dewatering activities, and adjustments to stormwater weir levels to lower water tables to accommodate urban and agricultural developments.

Martin County's wetland policies will continue to assure that natural wetlands are preserved and restored to the greatest extent possible, and that there is no net loss of the spatial extent and the functions and values of natural wetlands.

9.2.C. *Public open space.* Pressures from urban residential development in the east of the County, present the most immediate concern and challenge to open space. Rural development is largely limited to agriculture in the central and western areas of the County. It is widely recognized that some agricultural land uses can have impacts just as great as urban residential development. Martin County expects all development to assume a greater share of the responsibility in caring for the County's sensitive environmental systems.

Martin County has approximately 90,182 acres of publicly owned open space, which includes county, state, federal and water management district acreage (see table 9-1 for an inventory of public open space). It is important not to confuse the terms "open spaces" or "public open space" with the definition of open space as the permeable, unobstructed portions of a site plan, as used in the County Land Development Regulations and in Chapter 4, Future Land Use.

The County has numerous parks that provide access to natural resources. Two large resource-based parks have been developed, one on the waterfront at Pendarvis Cove, on land leased from the South Florida Water

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Management District (SFWMD), and the second, Peck Lake Park, on land leased from the Florida Inland Navigation District.

Table 9-1
Publicly Owned or Managed Open Spaces and Resource-Based Parks
Martin County, ~~2017~~ 2025

| Park | Location | Acres |
|--------------------------------------|---|------------------------------|
| | <i>COUNTY</i> | |
| | <i>Beaches and Causeway Parks</i> | |
| (City Strip) | 1323 N.E. MacArthur Boulevard | 1.50 |
| Alex's | 2701 N.E. Ocean Boulevard | 3.45 <u>18</u> |
| Bathtub Reef | 1585 N.E. MacArthur Boulevard | 8.00 |
| Beachwalk/Pasley | N.E. Ocean Boulevard | 10.00 <u>13</u> |
| Bob Graham <u>Beach/Addition</u> | 3225 N.E. Ocean Boulevard | 17.10 <u>16</u> |
| Bob Graham Beach Addition | 3225 N.E. Ocean Boulevard | 5.0 |
| Bryn Mawr | 2661 N.E. Ocean Boulevard | 0.62 |
| Chastain | 1213 S.E. MacArthur Boulevard | 1.26 |
| Clifton S. Perry | 1291 S.E. MacArthur Boulevard | 0.18 <u>18</u> |
| Curtis | 3001 N.E. Ocean Boulevard | 2.60 <u>6</u> |
| Fletcher | 45 N.E. MacArthur Boulevard | 0.80 <u>1.1</u> |
| Hobe Sound Beach Park | 1 South Beach Road | 2.00 |
| House of Refuge | 301 N.E. MacArthur Boulevard | 10.46 |
| Jensen Beach | 4191 N.E. Ocean Boulevard | 19.00 <u>22.3</u> |
| Jensen Beach Causeway | N.E Causeway Boulevard | 15.80 <u>20</u> |
| Muscara | 3691 N.E. Ocean Boulevard | 22.00 |
| North County | 4775 N.E. Ocean Boulevard | 0.82 |
| Santa Lucea | 55 N.E. MacArthur Boulevard | 10.0 |
| Sea-Turtle | N. of Jensen Beach | 5.00 |
| Stokes | 2259 N.E. Ocean Boulevard | 0.40 |
| Stuart Beach | 889 N.E. Ocean Boulevard | 76.00 |
| Stuart Beach Addition | N.E. Ocean Boulevard, next to Stuart Beach | 2.90 |
| Stuart Causeway | N.E. Ocean Boulevard | 14.90 |
| Tiger Shores | 1337 N.E. Ocean Boulevard | 0.80 |
| Virginia Forest | 1951 N.E. Ocean Boulevard | 0.74 |
| | <i>COUNTY</i> | |
| | <i>Other Resource-Based Parks</i> | |
| Timer Powers Park | Citrus Boulevard, Kanner Highway and SR 710 | 37.00 <u>38.2</u> |
| Gleason Street Boat Ramp | Gleason Street | 0.50 |
| South County Boat Ramp | SR A1A and Osprey Street | 31.00 |
| Banner Lake | Hobe Sound | 2.00 |
| Greenfield Park | SR A1A | 1.50 |

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| Hobe Sound West Recreation Area | 5400 S.E. Bridge Road | 108.70 |
| Hosford Park | 7474 S.E. Gaines Avenue | 6.7 <u>7.2</u> |
| Indian Riverside Park | 1955 N.E. Indian R iver Drive | 60 |
| Jenson Civic League | N.E. Ocean Boulevard | 0.75 |
| Jimmy Graham Park/Boat Ramp | 8555 S.E. Gomez Avenue | 32 |
| Lake Okeechobee Boat Ramp/Pier | SR 441 and SR 98 | 0.80 |
| Manatee Park | 4358 S.E. Bayview Street | 0.50 |
| Palm City Park | 2050 S.W. Mapp Road | 25 |
| Peck's Lake Park | 8108 S.E. Gomez Avenue | 78.00 |
| Pendarvis Cove Park | 1100 S.W. Chapman Way | 44.00 |
| Phipps Park | 2175 S.W. Locks Road | 70.00 |
| Port Mayaca | SR 76 and SR 441 | 0.50 |
| Maggy's Hammock Park | 3854 S.E. Kubin Avenue | 21.00 |
| Sandsprit Park | 3443 S.E. St. Lucie Boulevard | 14.50 |
| Tilton Parcel | U.S. 1 and Baker Road | 38.60 |
| Tropical Farms Park | 8446 S.W. Tropical Avenue | 3.00 <u>4.5</u> |
| Wayside Park | SR 708 and SR 76 | 0.50 |
| | <i>COUNTY Conservation Lands</i> | |
| Halpatiokee Park and South Fork Addition | 76445 S.E. Lost River Road | 500 <u>570</u> |
| Hawk's Hammock | 7201 S.W. Markel Street | 432.00 |
| Danforth | Mapp Road | 27.00 |
| Rio Nature Park | Wright Boulevard, South of Old Dixie Highway | 2.00 |
| Delaplane Preserve | S.W. Gaines Avenue | 51 <u>52</u> |
| Dutcher | North of Causeway Boulevard, Hutchinson Island | 23.00 |
| Dutcher II | North of Causeway Boulevard, Hutchinson Island | 38.00 |
| Gables | North County | 80 |
| Gomez Avenue | Gomez Avenue | 33.60 <u>34</u> |
| Jensen Beach Impoundment | Adjacent to Dutcher | 93.00 |
| Jensen Beach West | West side of Ocean Boulevard, adjacent to Jensen Beach Park | 33 |
| Kiplinger | Indian Street, West of Kanner Highway | 120.60 <u>164</u> |
| Lake Okeechobee Ridge | SR 441 | 245.00 <u>202</u> |
| Loxahatchee River Park | S.E. Island Way | 1.00 |

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|---|---|---------------------------|
| Twin Rivers Park | Williams Way | 24.00 |
| Scrub Oak | S.E. Federal Highway | 22.00 |
| South Fork Addition | East of I-95, South of SR 76 | 37.00 |
| South Tiger Shores | N.E. Ocean Boulevard | 0.30 |
| Joes River Park | N.E. Ocean Boulevard | 1.70 <u>12</u> |
| Spoil Islands MC 1, 2, 3, 4 and 7 | Indian River Lagoon | 83.00 |
| Mapp Creek Preserve | Citrus Boulevard | 302.82 |
| Kitching Creek Preserve | S.E. 138th Street | 51 |
| Biele Property | U.S. 1 near Poincianna Gardens | 21.45 |
| | <i>STATE PARKS</i> | |
| Savannas State Preserve | West of the Coastal Ridge | 176.67 |
| St. Lucie Inlet State Park | North tip of Jupiter Island | 1,087.03 |
| Jonathan Dickinson State Park | 16450 S.E. Federal Highway | 10,328.00 |
| Seabranh Property | SR A1A, South of Cove Road | 927.00 |
| | <i>TRAILS</i> | |
| Allapattah Flats Nature Trail | Allapattah Flats | N/A |
| Allapattah Flats Fox Brown Equestrian Trail | Allapattah Flats | N/A |
| Delaplane Trail | Delaplane Preserve | N/A |
| East Coast Greenway | Multiple locations adjacent to Savannahs, Seabranh and Jonathon Dickinson State Parks | N/A |
| Hawk's Hammock Trail | Hawk's Hammock | N/A |
| Halpatiokee Bike Trail | Halpatiokee Regional Park | N/A |
| Maggy's Hammock Trail | Rocky Point Hammock | N/A |
| Rafael E. Sanchez Memorial Trail | Lake Okeechobee Ridge (North of the C-44 Canal on the East side of SR 441) | N/A |
| Robert B. Jenkins/C-23 Trail | C-23 Canal, between Boat Ramp Avenue and County Road 609 | N/A |
| Kiplinger Trail | Kiplinger | N/A |
| Martin County Blueways Trail | Throughout the Martin County's waterways | N/A |
| South Fork Trail | Halpatiokee Regional Park | N/A |
| DuPuis Trail | DuPuis Management Area | N/A |
| Savannahs Hawks' Bluff Trail | Savannas State Preserve | N/A |
| Sea Branch Trail | Seabranh Property | N/A |
| Loxahatchee State Canoe Trail | Jonathan Dickinson State Park | N/A |
| Florida Trail, Everglades | | N/A |
| | <i>FEDERAL</i> | |
| Hobe Sound National Wildlife Refuge | 13640 S.E. Federal Highway | 796.70 |

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| St. Lucie Locks | Near SR 76 | 20.00 |
| Port Mayaca Public Area | SR 76 and U.S. 441 | 10.00 |
| Chancey Bay Public Area | U.S. 441 | 5.00 |
| | <i>SOUTH FLORIDA WATER MANAGEMENT DISTRICT</i> | |
| DuPuis Management Area | East of Lake Okeechobee, South of SR 76 | 8,320.00 |
| Loxahatchee River | South of Jonathan Dickinson State Park | 569.62 |
| Savannas State Preserve | Spices West of the Coastal Ridge | 66.10 |
| West Jupiter Wetlands | North of County line, West of SR 711 | 1,286.07 |
| Pal Mar | South Martin County | 13,391 |
| Pal-Mar East | South Martin County | 2,831 |
| Atlantic Ridge State Park | Mid County | 5,882 |
| C-44 West Reservoir | | 13,352 |
| Allapattah Flats | West County | 20,945 <u>21,709</u> |
| Cypress Creek | South County west of I-95 | 3,457 <u>2,948</u> |
| Harmony Ranch | South of Bridge Road and West of I-95 | 1,849 |
| Culpepper Ranch | South County West of I-95 | 1,294 |
| Allapattah Flats | West County | 20,945 |
| Cypress Creek | South County west of I-95 | 3,457 |
| Williamson Ranch | SR 710 | 541 |

N/A = not available

Sources: *Martin County Engineering Public Works Department, FY25 Levels of Service analysis Ecosystem Restoration and Management Division, using 2017 Martin County Geographic Information Systems data.*

Table 9-2
Major Privately Owned Open Spaces
Martin County, 2009

| Parcel | Location | Acres |
|---|-----------------------------|--------|
| Barley Barber Swamp/Preserve (Florida Power & Light)* | SR 710, North of Indiantown | 435.61 |
| Blowing Rocks Nature Preserve* | South end Jupiter Island | 81.75 |
| Sandhill Nature Preserve | SR A1A | 62.00 |
| Girl/Boy Scout Camp | Dickinson State Park | 610.00 |

* Publicly accessible.

Sources: *Florida Recreation and Parks Facility Inventory, DEP, 1987; SFWMD, 1998. Martin County Parks Department records 2009, Martin County Property Appraisers Records, 2009.*

The County has been involved in numerous efforts to identify and purchase tracts of public open space lands. One of the first efforts involved a \$5 million beach bond issue passed by the voters in 1982, which was used to buy significant amounts of Atlantic beachfront for public access and conservation. Martin County has participated in

the Save Our Coast and Conservation and Recreation Lands Program. Two properties in the County were purchased by the Conservation and Recreation Lands Program, the north county Savannas buffer area and the Seabbranch (Mobil Land Development Corporation) parcel.

On May 16, 1989 a bond referendum called "Lands for You," was passed in Martin County, allowing the use of a \$20 million general obligation bond to finance acquisition of recreational lands and acquisition and preservation of environmentally sensitive lands. This program bonded a total of \$20 million, \$12.4 million for conservation lands, \$6.6 million for community parks and \$1 million in contingency funds. This program led to the purchase of 3,150 acres of conservation lands and 366 acres of recreation lands, at an average cost of \$14,030 per acre. The total acquisition costs of this program exceeded \$48 million. The purchase was achieved through partnerships with the SFWMD, Florida Department of Environmental Protection (FDEP), nonprofit groups and private citizens. The \$20 million general obligation bond has been spent and the Lands For You program completed.

In 1996, the citizens of Martin County recognized the need to preserve lands designated by the state and federal governments as integral to the successful restoration of the Florida Everglades and the Indian River Lagoon. The community approved a one-cent sales tax for five years to acquire lands in the Comprehensive Everglades Restoration Plan and the Indian River Lagoon program. The Healthy Rivers program generated \$50 million in revenue that was leveraged to purchase 42,762 acres of conservation land at a cost of \$304,925,000. Property purchased under this program includes: Allapattah Flats, Cypress Creek, Hartsel Ranch, Pal Mar, Seabbranch, Atlantic Ridge and the C-44 reservoir and stormwater treatment areas. Partnerships with the SFWMD and the FDEP greatly contributed to the overwhelming success of the Healthy Rivers Program.

Section 9.3. Future Needs

9.3.A. *Public open space.* Martin County has developed, and will continue to update, a long-range master plan for acquiring and managing large open space areas for conservation and recreation. The plan will support consolidation of the separate efforts and set a direction for future efforts. Wherever possible, public open space or preserve areas should be massed together to provide viable, connected ecosystems and should be joined with adjacent private preserve areas to produce contiguous preserve areas. Martin County has established policies requiring continuity of preserve areas within this element.

In 1989, Martin County adopted the Public Land Acquisition Manual which specifies administrative procedures for evaluating offered open spaces and conservation lands. The Land Acquisition Selection Committee identified other programs available for acquiring and protecting these parcels. Consequently, several of the parcels acquired by the Lands For You Program used matching funds to complete the purchase of lands. The Lands For You Program also identified restrictions that would be placed on the land. Table 9-3 lists lands purchased between 1989 and 2001 through the Lands For You Program. The following list of lands is a subset of the Public Open Space listed in Table 9-1.

Table 9-3*
Lands For You Acquisitions

| LOCATION | ACREAGE |
|------------------|---------|
| Bessemer | 432.00 |
| Smith | 34.50 |
| Citrus Boulevard | 37.00 |
| Spices | 77.13 |
| Seabbranch | 927.00 |
| Sundial | 1.66 |
| Dutcher | 23.00 |
| Tallis | 18.00 |
| Garritano | 7.00 |

| | |
|-----------------------|---------------------------------|
| Daskas | 2.00 |
| Beachwalk | 2.72 <u>13</u> |
| Pasley | 7.41 |
| Graham | 31.00 <u>32</u> |
| Dubner | 2.78 |
| Gomez Avenue | 33.61 <u>34</u> |
| Kiplinger | 79.60 <u>164</u> |
| Pal Mar | 980.30 <u>13,391</u> |
| <u>Pal Mar East</u> | <u>2,831</u> |
| Tilton | 38.57 |
| Finn | 0.32 |
| South Fork Addition | 37.00 |
| Lake Okeechobee Ridge | 245.00 <u>202</u> |
| Rocky Point | 24.00 |
| Stuart Beach Addition | 2.90 |
| Santa Lucea | 10.00 |

* Table 9-3 is a subset of Table 9-1.

The County will continue to support efforts to increase the amount and protection of publicly accessible open spaces, such as scenic roadway corridors and neighborhood native areas. Such areas define the look and feel of Martin County and are closely tied to its quality of life. While it is important to preserve inaccessible areas for their natural values, it is also important to preserve areas that are easily accessible to give the public appropriate access to the County in its natural state. This effort would include a program to maintain or increase:

- (1) Preservation of native trees and vegetation along roadway corridors with natural scenic qualities (example: U.S. 1 through Jonathan Dickinson State Park); and
- (2) Areas of native plants and animals within or near neighborhoods (examples: Maggy's Hammock Park, Seabranck Property).

For purposes of equity and future acquisition, the County shall continue to investigate funding mechanisms to purchase land for conservation and public open space. The County should continue its policy of preserving easements along the Okeechobee Waterway and C-23 Canal as a means of providing public access for fishing, hiking and other passive recreation pursuits along these two, and other, public waterways.

9.3.B. *Activities and impacts in special wetland areas.* Activities affecting wetlands in Martin County fall into three categories: (1) urbanization, (2) agriculture and (3) recreation.

Urbanization is occurring predominantly in the area east of the Florida Turnpike/Sunshine State Parkway, affecting the coastal and estuarine wetlands. The population of coastal Martin County has been steadily increasing. Residential and business development have encroached upon and affected coastal wetland areas, and lands within and adjacent to wetlands have been sold for development. Homeowners desire not only to build homes or businesses but also to express their riparian rights. Urbanization also causes accumulation of wastes, including solid waste, wastewater, surface water runoff, industrial wastes and hazardous wastes.

Agricultural activities dominate in the creek and slough area of western Martin County. In western Martin County wetlands have been drained for use as pasture and/or crops, altering water levels. The major changes in water level, perceived as necessary to use this area for agriculture, have already occurred. As the population of Martin County grows, these areas will be pressured for future urban development, which would require future alterations to the drainage system.

Transition areas, such as the Cane Slough, are experiencing both urbanization and agricultural activities. Recreational activities affect both the east (e.g., marina development) and the west (e.g., off-road recreational vehicles).

9.3.C. *Land suitability by project type.* Martin County, in accordance with development approval procedures, reviews each application for development approval for compliance with all land development regulations. All wetlands and preserved uplands are protected from adverse impacts of development in accordance with the land development regulations and the Comprehensive Plan. A comprehensive review of each development proposal is performed by the Martin County Growth Management Department in coordination with all applicable County, state and federal agencies.

Section 9.4. Goals, Objectives and Policies

Goal 9.1 To effectively manage, conserve and preserve the natural resources of Martin County — air, water, soils, habitat, fisheries and wildlife, and especially the St. Lucie Estuary and the Indian River Lagoon — giving consideration to an equitable balance of public and private property rights.

Objective 9.1A. To ensure that air quality in Martin County continues to meet or surpass National Ambient Air Quality Standards for all pollutants measured by the FDEP.

Policy 9.1A.1. Road improvement program. Martin County shall ensure that traffic flows smoothly to minimize vehicle emissions in order to maintain or enhance air quality. The County therefore shall (1) implement the Capital Improvements Road Program and other necessary road projects and (2) require that new development and redevelopment projects construct needed road improvements concurrent with the traffic impact of the development. Road improvements needed to mitigate a project's impacts shall be listed as a condition of development approval and shall be included on the development timetable.

Policy 9.1A.2. Reduction of emissions. As part of transportation planning for developments, the following means of reducing air-polluting emissions shall be considered:

- (1) Bicycle paths;
- (2) Sidewalks;
- (3) Paratransit (e.g., car pooling, van pooling);
- (4) Flexible work hours;
- (5) Mass transit; and
- (6) Mixed use development.

Policy 9.1A.3. Control of volatile organic compound emissions. Business owners at all dispensing facilities in the County shall install devices to reduce Stage I (federal air quality measures) emissions of volatile organic compounds resulting from storage and pumping of petroleum-based products. FDEP shall be responsible for implementation of this policy, consistent with the most recent state and federal regulations.

Policy 9.1A.4. Asbestos removal and disposal procedure. All buildings, except single-family residences scheduled for demolition or renovation shall be surveyed for the presence of asbestos. Asbestos shall be removed prior to demolition or renovation. Asbestos removal shall be performed by a contractor licensed under the Florida Department of Professional Regulation and FDEP. Asbestos disposal shall be in accordance with FDEP regulations and at sites it has approved.

Policy 9.1A.5. Site stabilization requirements. Site clearing, vegetation removal and/or building demolition shall be phased concurrent with construction activity to minimize soil erosion and generation of airborne dust, in accordance with the National Pollution Discharge Elimination System. Site stabilization construction practices (such as but not limited to seeding, wetting and mulching) that minimize airborne dust and particulate emissions generated by construction activity shall be completed within 30 days after clearing work has been completed. Building or infrastructure construction shall begin no later than 30 days after vegetation removal and site clearance.

Policy 9.1A.6. Land-clearing debris. Open burning of land-clearing debris shall be prohibited in the Urban Service District (as defined in the Future Land Use Element). However, burning using the oxygenated or pit burning technique, which does not add particulate matter or smoke to the air, shall be allowed. Vegetative debris shall be either chipped and delivered for composting to a legal disposal site or delivered to the chipper at the landfill and prepared for composting. Non-vegetative debris (construction/demolition debris) shall be disposed at an approved landfill.

Policy 9.1A.7. Native vegetation uses. During construction activities, native vegetation shall be retained to act as a buffer between adjacent properties and to minimize nuisance dust, noise and air pollution. This requirement shall be a condition of all development approvals. Barricades shall be used on-site to preserve the vegetation to be retained. Areas especially vulnerable to wind or water erosion, such as shorelines or bluffs, shall retain existing vegetation during construction and be the last area or part of the final phase of a phased clearing plan to be cleared.

Policy 9.1A.8. Land clearing. Land clearing shall not be permitted in unincorporated Martin County until a permit is obtained and posted. A land clearing permit shall not be required if it has been determined by the County that the project is exempt from the requirement for a permit and that listed species will not be impacted. A land clearing permit shall not be issued until a vegetative analysis as required herein has been approved by the County in association with applicable development review procedures. Land clearing shall not be allowed except as described in Policy 9.1G.11 or Policy 9.1A.9 unless a final site plan has been approved. For agricultural purposes, no land clearing shall begin until a vegetative analysis and a preserve area management plan (PAMP) for any required wetland or upland habitat have been approved by the County.

Policy 9.1A.9. Clearance of native vegetation. Clearing of native vegetation on subdivision lots prior to the issuance of a building permit for construction on single-family lots shall be limited to that necessary for installation of roads, utilities and drainage improvements. However, this policy shall not apply to zero-lot-line developments with lots of 6,500 square feet or less, or in limited cases where it has been demonstrated as necessary to retain excess fill on-site in designated areas.

Objective 9.1B. To maintain the quality of groundwater within the County at acceptable levels for human use and natural resources.

Policy 9.1B.1. Ground water protection. Groundwater protection shall be accomplished through implementation of the goals, objectives and policies in Chapter 13, Drainage and Natural Groundwater Aquifer Recharge.

Objective 9.1C. To enhance the quantity of groundwater within the County through implementation of effective water management and conservation techniques.

Policy 9.1C.1. Groundwater enhancement. Groundwater enhancement shall be accomplished through implementation of the goals, objectives and policies in Chapter 13, Drainage and Natural Groundwater Aquifer Recharge.

Objective 9.1D. To maintain and where unacceptable, improve the quality of surface water within the County.

Policy 9.1D.1. Surface water quality. Maintenance and improvement of surface water quality shall be accomplished through implementation of the goals, objectives and policies in Chapter 13, Drainage and Natural Groundwater Aquifer Recharge.

Objective 9.1E. To reduce the rate of soil erosion and resulting sedimentation from agricultural and land development activities.

Policy 9.1E.1. Techniques to reduce soil erosion. The County shall continue to cooperate with FDEP in its efforts to implement techniques such as best management practices to reduce the rate of soil erosion.

Policy 9.1E.2. Land clearing plan. A plan for land clearing, with dates for clearing, stabilization and construction, shall be approved by the County prior to any clearing. Site clearing, vegetation removal and/or building demolition shall be phased concurrent with construction activity to minimize soil erosion and generation of airborne dust. Construction practices (such as, but not limited to, seeding, wetting and mulching) that minimize airborne dust and particulate emissions generated by construction activity shall be completed within 30 days of completion of clearing work. The slopes of constructed lakes from the top of the bank to the control water elevation (landward edge of littoral zone) shall be immediately stabilized and/or sodded to the satisfaction of the Engineering Public Works Department upon completion of the lake construction. Building or infrastructure construction shall commence no later than 30 days after vegetation removal and site clearance is completed.

Policy 9.1E.3. Off-road vehicle limitations. Off-road vehicles shall be used on public lands only in areas designated for such use and shall be strictly regulated to assure protection of areas susceptible to severe soil erosion and wildlife habitat destruction. Off-road and power-assisted vehicles shall be prohibited on lands designated as conservation, except for purposes as authorized by the agency assigned with land management responsibilities for the property.

Policy 9.1E.4. St. Lucie Canal bank stabilization. Any plan or proposal to stabilize the St. Lucie Canal banks shall be implemented in an environmentally sensitive manner. Martin County shall coordinate with the U.S. Army Corps of Engineers on the creation of that plan.

[Policy 9.1E.5. Reserved.]

Policy 9.1E.6. Regulation of land clearing. All land clearing shall be regulated, as specified in the Land Development Regulations.

Policy 9.1E.7. Erosion control for drainage outfalls. All drainage outfall and irrigation connections, including those associated with agricultural uses, shall be designed to prevent erosion and sedimentation.

Policy 9.1E.8. Floodplain protection. Floodplains and natural harbors (i.e., Manatee Pocket) in Martin County shall continue to be recognized as unique resources requiring protection and conservation in the stormwater and flood control component of the Land Development Regulations. Floodplains and natural harbor banks and shores shall be treated specifically for slope protection and erosion control/mitigation.

Objective 9.1F. Mining and excavation. To minimize degradation of surface water, groundwater and wildlife habitat by enforcing the mining, excavation and fill component of the Land Development Regulations.

Policy 9.1F.1. Regulation of excavation and fill operations. The County shall continue to actively enforce the ~~mining, excavation and fill~~ excavation, filling, and mining requirements as provided in the Land Development Regulations. If the Regulations need revising, the amendments should continue to provide for stormwater system design; a lake management plan, including shoreline restoration; protection of roads and neighborhoods; and protection of wetlands and other environmentally sensitive or rare habitats. The lake management plan shall provide for phasing of land disturbance and it shall include proof of financial responsibility.

Policy 9.1F.2. Site excavations between or within wetland systems. Excavated lakes designed to be part of a site's stormwater management system shall be designed to protect and maintain normal hydroperiods in preserved adjacent wetlands against negative impacts of activities. The functions and values associated with preserved wetland areas shall be protected during and after excavation activities.

Policy 9.1F.3. Provisions for littoral zone vegetation. Following completion of all new excavation or mining activities, native littoral vegetation and upland transitional vegetation shall be planted around all deep water habitats.

- (1) *Littoral zone planting area requirement.* The littoral zone planting area shall include at least 10 square feet per linear foot of lake perimeter. The littoral zone planting area consists of the area between one foot above and four feet below control water elevation.
 - (a) Slopes for planted littoral zones shall be no steeper than 10 feet horizontal to one foot vertical to a distance of 5 feet waterward of the designated zone. Shallower slopes are encouraged to promote greater success of the plantings.
 - (b) For areas with soil inadequate to ensure plant survival, the littoral zone shall be provided with at least six inches of an organic topsoil mix to promote vegetative growth. The littoral zone must be planted with at least five species of appropriate native wetland vegetation, with an average spacing of two feet on center. Species must be chosen and spaced such that the plants can be expected to cover at least 80 percent of the area within one year of the planting date and to be maintained in perpetuity. The Growth Management Department will maintain a list of acceptable plant species appropriate for use in specific littoral zones.
 - (c) Reclamation of all disturbed mining/excavation areas shall begin immediately following excavation or each phase of excavation, whichever occurs first. All disturbed and reclaimed areas shall be planted or seeded with a permanent native groundcover to reduce the loss of topsoil due to water and wind erosion; prevent the establishment of prohibited plant species; and provide adequate growing conditions for reclamation plantings.
 - (d) A littoral zone planting plan shall be provided detailing the species and number of plants to be used, the location and dimensions of the littoral areas, a typical cross section of planted littoral zones and the methods for planting and ensuring survival of the plants.
 - (e) Excavated lakes or ponds shall be stabilized no later than 30 days after completion of the excavation. Excavated lakes or ponds shall be planted with required littoral and upland vegetation prior to the issuance of the first certificate of occupancy for any lot in the development or the associated development phase. As part of a management plan, the applicant shall provide a phasing plan for planting large-scale lake systems or interconnected multi-lake systems that would allow phasing of lake planting.
- (2) *Upland and transitional zone planting area requirement.* The native upland and transitional zone buffer area shall include a total area of at least 10 square feet per linear foot of lake perimeter. The native upland and transitional zone planting area consists of the area immediately beyond the landward extent of the littoral zone planting area. The native upland and transitional zone buffer may consist of preserved or planted vegetation, but it shall be limited to native species of trees, understory and groundcover.
 - (a) The upland and transitional zone shall be planted with at least five native plant species, which shall include trees at least 8 feet in height and understory seedlings at least 18 inches in height. Existing native vegetation in the upland transition zone shall qualify in fulfilling this requirement. Plants must be installed in accordance with the standards provided in the Martin County landscape regulations. Species shall be chosen and spaced such that the plants can be expected to cover at least 80 percent of the area within one year of the planting date and to be maintained in perpetuity.
 - (b) At a minimum, the planting plans shall detail the location, species and numbers of plants to be used, and the methods for planting and ensuring survival of the plants.
- (3) *Adjacent habitat and islands.* The required littoral zones and upland buffer zones may be created by using areas contiguous to the lake or by creating habitat islands within the water body. At least 25 percent of the lake shoreline must be provided with littoral zones, and adjacent upland

buffers must be at least 10 feet wide. Using islands with native littoral zone vegetation and upland vegetation is encouraged to meet this requirement.

- (4) *Tree planting requirements for mining and excavation activities.* At least one tree shall be provided for every 500 square feet of littoral and upland transition zone buffer areas. The trees must be at least eight feet in height and consist of native freshwater wetland and transitional varieties.
- (5) *Extent of project site.* The project site to be reviewed shall include all property within 100 feet of the perimeter of the excavation or fill, and shall include sufficient area to meet upland preservation requirements and to provide access to the site. Where wetlands exist within 200 feet of a proposed excavation, the project site review shall be extended to include them. Wetlands shall be protected from any negative impacts that may result during construction, excavation, maintenance or monitoring activities.

Policy 9.1F.4. Guarantees and performance bond requirements. A three-year performance bond/security shall be provided to ensure completion of the restoration of the mining or excavation site. This work shall include items such as general cleanup, grading and revegetation of the lake banks, littoral zones and upland transition zone. The County Engineer shall approve the amount of the security for the restoration, and it shall be 110 percent of a cost estimate prepared by a Florida registered engineer. The cost estimate of restoration shall include the littoral/upland planting materials approved in the planting plan. The guarantees for phased projects may be bonded separately.

Policy 9.1F.5. Compliance certification. Within 30 days of completion of the excavation or mining project, or each completed phase of the project, a Florida registered professional engineer or a Florida registered professional surveyor/mapper shall certify that the excavation was constructed in substantial conformance with the plans and specifications approved by the County. The professional certifying the excavation shall submit a certification report.

Policy 9.1F.6. Excavation and fill fees. Fees for excavation and fill activities shall be sufficient to cover the cost of impacts on Martin County roads and implementation costs, including enforcement and monitoring.

Policy 9.1F.7. Maintenance responsibilities. A management plan shall be approved before an excavation or mining operation receives approval. Following completion of the mining operation, the property owner(s), successors, or property owners' association shall be responsible for executing the management plan, which shall contain the following statement:

"It shall be unlawful to alter the approved slopes, contours or cross sections, or to chemically, mechanically or manually remove, damage or destroy any plants in the littoral or upland transition zone buffer areas of constructed lakes, except upon the written approval of the Growth Management Director. The owner or property owners' association, its successors or assigns must ensure that reclaimed upland and planted littoral and upland transition areas are maintained and that prohibited and invasive non-native plant species are removed continuously from these areas."

Objective 9.1G. Natural systems. To protect and preserve the many functions and values of wetland and upland natural systems, including flood control, groundwater aquifer recharge and wildlife habitat.

Policy 9.1G.1. Protection of wetlands. All wetlands in Martin County shall be protected. Negative impacts shall not be allowed in wetlands or within the buffer surrounding the wetland. All development shall be consistent with the wetland protection requirements of the CGMP and Florida Statutes. Inconsistent and/or incompatible future land uses shall be directed away from wetland areas. Compliance with all wetland protection requirements must be demonstrated before issuance of a development approval or order. This policy shall apply regardless of whether or not the wetlands in question have ever been delineated through either a binding or nonbinding boundary determination.

The intent of Policies 9.1G.1 through 9.1G.4 is to protect natural wetland systems even when they are affected by manmade excavations. This policy is not intended to protect manmade excavations in uplands.

Though manmade wetlands are exempt from this policy and are not protected as natural wetlands, development review shall assure that impacts to them do not adversely affect drainage or natural systems.

Policy 9.1G.2. Wetlands, general provisions. The following definitions, restrictions, violations, waivers and density transfer provisions shall apply:

- (1) *Wetland areas.* Wetlands, as defined in Florida Statutes, are those areas that are inundated or saturated by surface water or groundwater at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce, or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto. The delineation of the landward boundary of wetlands must be as required by state law.

In determining if a wetland meeting the definition in Policy 9.1G.2(1) is a natural system protected under Policies 9.1G.1 through 9.1G.4 the following standards shall apply:

- (a) Only manmade wetlands clearly excavated in uplands will be exempt.
- (b) Navigable canals connected to the waters of the State, whether excavated in uplands or wetlands, will not be exempt, if wetlands can be delineated consistent with Florida Statutes section 373.421(1).
- (c) Wetlands artificially created following an excavation and where there are no wetlands beyond the bank top of the excavation will be exempt.
- (d) Manmade wetlands that are within or directly adjacent to natural wetlands will not be exempt and will be protected as part of the natural wetland system.
- (e) Excavation in upland soils where there is not sufficient evidence to prove that the excavation was manmade, but not within or adjacent to a natural wetland, will not be exempt and will be protected as a natural wetland.

~~The Martin County Composite Wetland Map, figure 9-1 (on file with the Martin County Growth Management Department) is a composite of several data sources: 1981 data on hydric soils, the 1985 National Wetlands Inventory data, satellite classification data (Thematic Mapper and SPOT data) from multiple years and Martin County environmental field data. The use of data from multiple years and sources is critical.~~

~~The An analysis of composite digital data sources map is a can be a useful guide tool for environmental professionals to identify the presence or locate potential location of wetlands; but ; however, Florida Statutes section 373.421(1) requires the delineation of wetland boundaries in the field according to Florida's unified wetlands delineation methodology. The methodology will determine the final jurisdictional location and extent of wetlands. As field and satellite data become available, they will be used periodically to update the composite map County's~~

Geographic Information System mapping software, ensuring it reflects the most date current, digitally derived ~~wetland coverage~~ environmental information. The general wetland vegetation types for selected hydric soils are shown in Table 9-4.

**Table 9-4
Type of Wetland Area and Associated Soil Types**

| Type of Wetland Area | Associated Soil Types |
|------------------------|--|
| Forested saltwater | 30, 40, 50, 67, 79 |
| Nonforested freshwater | 3, 5, 10, 12, 19, 49, 54, 56, 57, 70, 74 |
| Forested and mixed | 13, 22, 38, 40, 51, 58 |
| Forested freshwater | 60, 62, 69, 73 |

Source: Soil Survey of Martin County Area, Florida (Martin Soil and Water Conservation District; U.S.D.A. Soil Conservation Service, 1981; Florida Division of Forestry, 1981).

- (2) *Negative impacts.* No negative impacts shall be allowed in wetlands or within the surrounding buffer unless so authorized under waivers and exceptions in this Element.
- (3) *Illegal activity; wetland alteration.* Restoration will be required at the site of alteration where (1) illegal activities in violation of the CGMP or the Land Development Regulations have altered wetland area so that all or part of the original area no longer meets the definition of a wetland or (2) have negatively affected a wetland. Restoration of buffers, habitat and hydrology of the original wetland area shall be required and the restored wetland shall be protected as a natural wetland. This policy shall apply regardless of whether or not the wetlands in question have ever been delineated through either a binding or nonbinding boundary determination.
- (4) *Identification of wetlands on-site.* Martin County shall continue to require that all applications for development approval include an identification of all wetland areas on-site. This requirement shall continue to be included in the Land Development Regulations. All preserve areas and buffers designated on site plans shall be maintained free of exotic plants, trash and debris.
- (5) *Preserve Area Management Plan (PAMP) provisions.* Any application for development plan approval must contain a PAMP to protect all wetlands located on and off the site. The requirements for PAMPs are found in Policy 9.1G.13. PAMP, of this Chapter.
- (6) *Violations.* Where evidence indicates that drainage, clearing or other development or manmade impacts have taken place since April 1, 1982, in violation of applicable wetland development restrictions in effect at the time the violation occurred, restoration shall be required before any development permits or orders are issued, or within 90 days after receiving a notice of violation. A minimum two-year letter of credit or other acceptable financial alternative must be submitted to assure the successful restoration of the violation. This policy shall apply regardless of whether or not the wetlands in question have ever been delineated through either a binding or nonbinding boundary determination. However, where there has been a binding determination by a state agency or the SFWMD, that determination will control as required by law.
- (7) *Waivers and exceptions.* All wetland alterations allowed under these exceptions shall be mitigated sufficiently to ensure no net loss of functions or of the spatial extent of wetlands in Martin County. In all cases where wetlands alterations are allowed the least damaging alternative shall be chosen and mitigation shall replace the functions and values and the spatial extent of the altered wetlands. Exceptions shall not result in adverse impacts on plants and animals that are designated by the federal government or the state of Florida as "Endangered" or "Threatened." Development plans shall provide restoration of the natural hydroperiod to the maximum extent technically feasible, and shall provide for buffers, exotic vegetation removal, long-term

maintenance guarantees, and any other actions necessary to assure the continuing values and functions of the wetland area.

No exceptions or waivers will be granted to these standards except under the conditions described below:

- (a) On lots of record as of 1982 to provide reasonable use.
- (b) Where the applicant demonstrates that encroachment of wetlands or wetland buffers is necessary for construction and/or maintenance of a public utility (as defined in Florida Statutes section 366.02(1983)), an exemption may be granted under the following conditions:
 - 1) The construction or maintenance is for a linear facility (power line) that cannot be accomplished without wetland impacts;
 - 2) The utility has demonstrated that the encroachment is necessary and no reasonable upland alternative exists;
 - 3) The activity is designed and located to assure the least amount of damage to the wetlands;
 - 4) The applicant has submitted a proposal for reforestation and/or mitigation to offset the impact;
 - 5) Permits have been received from the appropriate state and federal environmental agencies, and copies of those permits have been submitted to Martin County prior to issuance of the County permit;
 - 6) The Martin County Growth Management Department has reviewed the application, and has determined in writing that the proposed encroachment is the least damaging alternative;
 - 7) The applicant has provided proof of ownership or easement over the property to be encroached;
 - 8) A plan has been approved by the Growth Management Department for the removal of undesirable exotic vegetation as part of the restoration and/or mitigation proposed in Policy 9.1G.2(7)(~~d~~)4);
 - 9) The applicant has demonstrated that the construction or maintenance activity will maximize the preservation of native indigenous vegetation; and
 - 10) The utility has demonstrated that, if fill is required, the minimum necessary will be used to assure reasonable access to the property or construction activity.
- (c) For elevated ~~observation~~ boardwalks, single-family residential docks, ~~and~~ accessways, multi-slip docks and accessways, boat ramps or commercial docks and accessways that are designed and located to assure the least amount of damage to wetlands and wetland buffers. These structures shall meet criteria of the Coastal Management and Conservation and Open Space element, and shall be approved by the appropriate state and federal agencies prior to construction.
- (d) For proposed or approved bridges in a public right-of-way crossing estuarine waters where public access may be maintained in accordance with the provisions in Policy 8.1C.1(3)(c)4).
- (e) For the construction of public road right-of-way.
- (f) Stormwater treatment projects listed in the adopted Capital Improvements Plan and constructed by the Martin County Board of County Commissioners, as well as reservoirs,

stormwater treatment areas and related facilities constructed as part of the Comprehensive Everglades Restoration Plan in any part of Martin County, subject to the following:

- 1) The project must be designed to cause the least amount of negative impact to wetlands. Waivers to existing requirements will be based on the principle of protecting the highest quality habitat and impacting the lowest quality habitat. Following are example habitats ranked from lowest to highest in quality and importance:
 - [a] Wetland buffers degraded with exotic vegetation;
 - [b] Wetland buffers, undisturbed;
 - [c] Wetlands, isolated and degraded;
 - [d] Wetland systems, large and disturbed;
 - [e] Wetland systems, large and undisturbed.
- Wetland quality will be assessed using criteria established by the State of Florida.
- 2) All projects must follow all state and federal regulations and permitting requirements.
 - 3) Waivers to the CGMP policies or the Land Development Regulations will not be granted that would jeopardize the continued existence of threatened or endangered species as listed by the Florida Fish and Wildlife Conservation Commission or the U.S. Fish and Wildlife Service.
- (g) Where the applicant demonstrates that encroachment of the wetlands or wetland buffers is necessary for access, and no reasonable upland alternative exists. In such cases, an exemption will be granted only when appropriate environmental agencies or the Martin County Growth Management Department certify in writing that it is the least damaging alternative, and that the applicant has submitted a mitigation proposal that will minimize damage to the extent technically feasible.
- (8) *Density transfer*. All property owners have the right to transfer density to the upland area on any site containing wetlands pursuant to the following stipulations:
- (a) The development must be submitted for review as either a planned unit development or a clustered multifamily project in one of the multiple-family residential zoning districts.
 - (b) In addition, the following equations must apply:
 - 1) The resulting residential density of the upland property must be no greater than 15 units per acre, except that for densities in excess of 10 dwelling units per acre there must be a 75-foot native upland transition zone around all wetlands;
 - 2) The total number of units allowed in any development using this formula must be equal to or less than the allowed maximum density for the entire parcel as shown on the Future Land Use Map;
 - 3) Density transferred must not exceed one-half of the wetland acreage multiplied by the gross density; and
 - 4) For parcels with wetlands occupying 50 percent or more of the total site, the gross residential density of the upland property must not exceed two times the gross residential density of the entire parcel.

- (c) All performance standards, including upland preservation requirements, must apply to all upland development.
- (d) The increase in net residential density created by density transfer must not create unreasonable adverse environmental impacts on adjacent wetlands or uplands, or land use incompatibilities with neighboring adjacent properties, unless such impacts are mitigated to the satisfaction of the Board of County Commissioners. All environmental mitigation must be consistent with the wetland protection policies in the CGMP, including Objective 9.1G. Land use incompatibilities must be mitigated consistent with the policy in Section 4.4I.5 through 4.9E (Residential Land Use Orderly Transition and Buffering) and Objective 4.1F of the Future Land Use Element.
- (e) Whenever density transfers are proposed, the provisions in Policy 9.1G.2(8)(b) notwithstanding, the net buildable residential area of all plans must include at least 50 percent permeable open space. A golf course may account for no more than 60 percent of the required open space.

("Net buildable density" is defined as the allowable number of residential units divided by the net buildable upland area. "Net buildable upland area" is defined as the gross land area less all wetlands.)

Policy 9.1G.3. Wetlands, special. In addition to the wetland areas defined in this element, certain wetland areas are considered to be of special concern. These are:

- (1) The north county Savannas;
- (2) Britt Creek;
- (3) Arant's Creek and Swamp;
- (4) Warner Creek;
- (5) Hutchinson Island estuarine area;
- (6) St. Lucie South Fork and Islands;
- (7) Willoughby Creek;
- (8) Manatee Creek;
- (9) Intracoastal Waterway and adjacent marshes;
- (10) St. Lucie South Fork headwaters;
- (11) Myrtle Slough;
- (12) Danforth Creek;
- (13) Kitching Creek headwaters;
- (14) Cypress Creek and Loxahatchee River headwaters;
- (15) Bessey Creek;
- (16) Mapp Creek;
- (17) Hog Creek;
- (18) Allapattah Slough;
- (19) Barley Barber Swamp;
- (20) Bluefield Wetlands;

- (21) Boar and Myer Hammocks;
- (22) Bluefield Wetlands;
- (23) Cane Slough;
- (24) Roebuck Creek;
- (25) Wetlands within state, regional and/or federal designated greenways.

In addition to the provisions set forth in Policy 9.1G.2 above, special consideration and additional protective measures will be required to ~~assure~~ ensure protection of the special wetland areas. These measures will be incorporated as conditions of approval during the site plan review process to ensure maintenance of the biological, scenic and navigational qualities of these special wetland areas.

Policy 9.1G.4. Buffer zones and performance criteria for wetlands. The following buffer zone provisions and performance criteria for wetland areas identified in Policy 9.1G.2 must be met. These provisions and criteria shall continue to be implemented through the Land Development Regulations.

(1) *Buffer zone provisions:*

- (a) For wetlands connected to natural creeks, rivers, water bodies connected to surface waters of the state, and surface waters of the state, a buffer zone of native upland and transitional vegetation, at least 75 feet wide, must be provided and maintained. "Surface waters of the state" as used here are a subset of the more inclusive term "waters of the state", as defined in Florida Statutes Chapter 403.
- (b) Where natural bluffs occur with slopes exceeding one foot vertical to three feet horizontal, required buffers must start at the top of the bank. The buffer must be sized and designed to assure both stability of the bluff and sufficient level ground to provide a visual and physical buffer of native vegetation.
- (c) For all new developments obligated to submit plats or site plans, plans must show sufficient preservation area to protect natural banks and prevent future impacts to wetlands. Where banks have been previously cleared or filled and are not sufficiently stabilized, the banks must be resloped (if necessary) and revegetated with appropriate native vegetation. Martin County will determine if banks need to be stabilized and resloped to prevent erosion.
- (d) Buffers must be measured from the edge of the delineated wetland and not from the wetland vegetation.
- (e) For isolated wetland areas, a minimum 50-foot buffer zone of appropriate native vegetation must be provided and maintained from the landward extent of the wetland.
- (f) The buffer zone must consist of preserved native vegetation and must include existing canopy, understory and groundcover of native species only. Areas that are void of existing, natural associations of native vegetation must be supplemented with appropriate native vegetation in accordance with a PAMP approved by the Martin County Growth Management Department. Exotic vegetation must be removed, and any native vegetation removed or destroyed subsequent to the adoption of this plan must be replaced with appropriate native vegetation.

(2) *Performance criteria for wetland areas:*

- (a) The following restrictions apply to the direct removal of natural vegetation from the wetlands or the buffer zone surrounding the wetlands:

- 1) Vegetation must not be cleared or removed except in compliance with a PAMP approved by the Martin County Growth Management Department, or in compliance with those minimal activities permitted for riparian usage (e.g., docks and walkways).
 - 2) All materials cleared from the wetland or buffer zone must be removed from the site, not piled or stored within the wetland or designated upland preserve areas.
- (b) Dredging and/or filling:
- 1) Dredging or and/or filling are not allowed in the wetlands or the surrounding buffer zone, except in compliance with the provisions of the excavation and fill regulations and a PAMP approved by the Martin County Growth Management Department.
 - 2) A separation at least 200 feet wide must be maintained between the wetland and any lake excavations unless an alternative plan using an impermeable barrier or gradient analysis is approved by Martin County in consultation with the SFWMD.
 - 3) Filling that occurs landward of the buffer zone must be stabilized or contained to prevent runoff and degradation of buffer zone vegetation within 30 days of vegetation removal.
- (c) Construction within or adjacent to the wetlands and/or wetlands buffer zone:
- 1) The structure and foundation of docks shall be designed to accommodate surface water flows and must not impede, interrupt or impound surface water flows.
 - 2) Marina development must conform to the marina siting section of the CGMP.
 - 3) Maintenance of functional structures is permitted if it is performed in the least intrusive manner possible. Maintenance must not result in additional damage to the wetland or wetland buffer zone.
 - 4) The use of heavy equipment must be minimized in wetland areas and/or buffer zones.
 - 5) Temporary filling of the wetland area or buffer zone for construction is prohibited, unless authorized by another provision in this Plan.
 - 6) All pilings must be secured, placed or set to the desired depth by the least disruptive method, based on existing site characteristics.
 - 7) Wetland buffer zones, or any other designated upland preserve area, must be protected from encroachment due to construction or building maintenance activities, as follows:
 - [a] New construction must be set back at least 10 feet (or more if warranted by specific site conditions) for primary structures. Accessory structures (pool decks, screen enclosures, driveways, etc.) must be set back at least 5 feet, unless specifically identified in the exceptions in this policy.
 - [b] The requirement for a five-foot setback may be rescinded for lots of record, provided that the Growth Management Director determines that the lot was essentially devoid of vegetation in the preserve area on the

date of adoption of the CGMP, meaning that no purpose would be served by the additional five-foot buffer zone.

- (d) Prohibition of planting exotic vegetation in wetlands or wetland buffer zones:
 - 1) Exotic vegetation or incompatible native vegetation must not be planted within or encroach upon the wetland area or buffer zone.
 - 2) Any proposed planting in the wetland area or buffer zone must receive prior approval from Martin County and must be native vegetation compatible with the existing soil and climatic conditions.
- (e) Disposal of wastes in and around the wetlands and buffer zone:
 - 1) It is prohibited to discharge domestic, industrial or agricultural wastewaters containing heavy metals, herbicides, pesticides or any other toxic substance(s) in excess of concentrations established by state, federal or county guidelines into the wetlands and/or buffer zone.
 - 2) New developments must comply with the provisions of Chapter 10, Sanitary Sewer Services Element.
 - 3) Before receiving any development approvals, existing lots of record as described in Policy 4.1E.3 must meet the provisions of Chapter 10, Sanitary Sewer Services Element, and the requirements of the Martin County Health Department for a septic tank or other individual wastewater treatment system.
 - 4) Septic tanks and drain fields must not be constructed within 75 feet of the delineated wetland. In the case of a lot of record created prior to April 1, 1982, the Growth Management Department director may approve a waiver to the 75 setback upon a finding that the setback would prevent any reasonable use.
 - 5) Hazardous material in designated areas must not be disposed within 200 feet of the wetland or buffer zone. Hazardous material shall only be stored and used in accordance with adopted local, state and federal regulations.
 - 6) If a solid waste disposal facility is planned near a wetland or buffer zone, the facility must be designed to prevent negative effects on the wetland or buffer zone.
- (f) Stormwater and surface water management:
 - 1) Direct discharge of stormwater into wetlands or buffer zones shall be prohibited.
 - 2) Stormwater retention basins must be used to maintain post-development discharges at pre-development levels. In addition, retention basins must be designed and constructed with sediment traps and litter or trash screens. The retention basin must be vegetated, and the use of herbicides or pesticides within the retention basin must be discouraged.
 - 3) Any alteration of water levels in wetlands is prohibited unless determined necessary to restore or maintain the natural hydroperiod of the wetland system, by way of a surface water management plan approved by Martin County in consultation with the SFWMD.
 - 4) The timing and volume of water discharge must be appropriate to restore and/or maintain the natural hydroperiod of the wetland.

- (g) Waivers and exceptions. The following exceptions to Policy 9.1G.4.(1), buffer zone provisions, are allowed:
- 1) For lots of record (April 1, 1982) with an area of one acre or less with wetlands that abut or connect to the estuaries or their navigable tributaries, the wetland buffer shall be reduced to 25 feet. The buffer shall not require additional "construction setbacks" from the buffer area. However, required zoning setbacks from property boundaries shall remain applicable. Erosion control devices shall be installed and maintained throughout the duration of any construction activities adjacent to the wetland buffer. The wetland buffer shall not be subject to a preserve area management plan (PAMP) unless a PAMP has already been established pursuant to a development order, prior to August 13, 2013.
 - a. Native upland and wetland vegetation in the wetland and wetland buffer shall be maintained. If no native vegetation exists within this zone, there is no requirement to replant with this material. Invasive exotic vegetation shall be removed from the wetland and wetland buffer as part of any permit approval on the property.
 - b. For slopes 4:1 or greater from the residence to mean high water, a stormwater detention swale at least 12 inches deep must be provided in the buffer zone and continued along the entire width of the lot.
 - c. For slopes less than 4:1 (e.g., steeper slope) from the residence to mean high water, a stormwater detention berm at least 16 inches high must be provided in the buffer zone, continued along the entire width of the lot and extended up the sides of the lot for at least one-third of its depth.
 - d. For slopes 4:1 or greater (e.g., Code standard or shallower slope) from the residence to mean high water, and with a buffer zone of at least 50 feet, the requirements for a swale can be waived.
 - e. For lots with existing native vegetation in the buffer zone, a berm or swale, as required, must be provided upland and outside this zone.
 - 2) Single-family residential lots of record on plats approved after April 1, 1982 may be developed in accordance with the regulations (wetland buffer, setback, and performance criteria) in effect at the time that the plat was approved.
 - 3) Existing permitted structures within a wetland buffer zone may be maintained, rebuilt or reconstructed within the existing foot prints.
 - 4) For residential lots of record (as of April 1, 1982) with an area of more than one acre but not more than two acres, with wetlands that abut or connect to the estuaries or their navigable tributaries, the wetland buffer zone may be reduced to less than 75 feet but shall not be reduced to less than 25 feet for either primary or accessory structures. New principal structures on lots shall maintain a wetland buffer zone equal to or greater than the average wetland buffer and shoreline protections zone of the nearest principal residences on adjacent lots. The average shoreline protection zone of the nearest principal residences on adjacent lots shall be determined by measuring from the point of each of the existing principal residences nearest to mean high water.

Native wetland and upland vegetation in the wetland and wetland buffer shall be maintained and the 25-foot buffer shall be exceeded if the lot size is large enough to

allow it and the larger buffer zone conforms to the neighborhood pattern. If no native vegetation exists within this zone, there is no requirement to replant with this material. Invasive exotic vegetation shall be removed from the wetland and wetland buffer as part of any permit approval in the property.

- 5) For a lot of record as of April 1, 1982, to reduce the buffer to isolated wetlands, to provide reasonable use.

Policy 9.1G.5. Preservation of upland native habitat. Martin County shall ensure preservation of at least 25 percent of the existing upland native habitat in the County. To attain this goal, the current total County upland preservation percentage of 10.9 percent shall be increased to 15 percent in 1995, 20 percent in 2000 and 25 percent in 2005 (see Table 9-5). These percentage goals shall be attained for both endangered/rare and common uplands, to the maximum extent feasible.

The policies related to native upland habitat aim to protect and preserve native upland habitat in place within all developments. The following definitions apply:

- (1) *Native upland habitat:* Native plant community associations, including canopy, understory and groundcover, or any combination of them that are generally undisturbed and unimproved.
- (2) *Special upland habitats:* Native upland habitats that are endangered, unique, threatened or rare in Martin County, or regionally rare.

Determination of endangered or regionally rare habitat will be based on habitats identified by the Florida Natural Areas Inventory's (FNAI) Guide to the Natural Communities of Florida and supported by applicable state and federal authorities. Special upland habitats include natural upland communities that are ranked as either rare or imperiled or critically imperiled in the FNAI Guide.

Special upland habitats in Martin County include but are not limited to sand pine/scrub oak associations, turkey oak associations, hardwood hammock associations, tropical hammock associations, coastal hammock associations and cabbage palm/oak hammock that may have such native trees as cypress, magnolia, maple and bay trees.

- (3) *Common upland habitats:* Native upland habitats that are not included in the definition of special habitats. This definition also includes natural upland communities that are not ranked as rare, imperiled, or critically imperiled natural communities as ranked in the FNAI Guide. Mesic flatwood communities (FNAI) are a common native upland habitat in Martin County.

Native upland habitats acquired by the County for conservation or set aside with development have been mapped and will continue to be updated and refined as new data becomes available.

Policy 9.1G.6. Preserve requirements for common habitat. Twenty-five percent of common native upland habitat occurring on-site shall be preserved in place in all developments, unless the upland habitat requirements are met by the preservation of special upland habitat.

Policy 9.1G.7. Preserve requirements for special habitat. Where special upland habitat occurs on-site, all of the special habitat up to 25 percent of the total upland property on-site, shall be preserved.

Policy 9.1G.8. Calculation of preserve area requirements.

- (1) Where only common habitat occurs on-site, preservation of no more than 25 percent of the total upland native habitat on-site shall be required. Where possible, 25 percent of each common habitat type shall be preserved.
- (2) Where special habitat occurs on-site:
 - (a) Where special habitat amounts to less than 25 percent of the total upland, all of the special habitat shall be preserved.

- (b) Where special habitat amounts to more than 25 percent of the total upland, an area of special habitat equal to 25 percent of the total upland shall be preserved.
- (3) Where common and special habitats both occur on-site, the maximum required area to be preserved shall be no more than 25 percent of the total upland.
- (a) Where common habitat and special habitat both exist on the same site, the first requirement to be met shall be preservation of 25 percent of the total uplands in unique, endangered, threatened or rare habitat.
- 1) Where 25 percent of the total upland has been preserved in special habitat, there shall be no further requirements for preservation of common upland native habitat.
 - 2) Where the special habitat amounts to less than 25 percent of the total uplands, all special habitat shall be preserved. In addition, the following rules shall apply to the remaining common habitat:
 - a) If the habitat consists of a single type, 25 percent of the habitat must also be preserved, except that preservation will be required for no more than 25 percent of the total uplands.
 - b) If the habitat consists of more than one type, 25 percent of the common habitat must also be preserved through preservation of up to 25 percent of each common habitat type. However, preservation of more than 25 percent of the total uplands habitat will not be required.

To illustrate Policies 9.1G.8.(3)(a)2)a) and b):

- A 100-acre site consisting of 100 acres of upland, of which 24 acres is special upland habitat and 76 acres is common habitat, must preserve 24 acres of rare special habitat and 1 acre of common habitat.
 - A 100-acre site consisting of 100 acres of upland, of which 35 acres is special habitat and 65 acres is common habitat, must preserve 25 acres of special habitat.
 - A 100-acre site consisting of 100 acres of upland, of which 5 acres is special habitat and 20 acres is common habitat, must preserve 5 acres of special habitat and 5 acres of common habitat.
 - A 100-acre site with 100 acres of upland and 45 acres of upland habitat consisting of 5 acres of special and 40 acres of common habitat, comprised of 20 acres of one common habitat type and 20 acres of another common habitat type, must preserve 5 acres of special habitat and 5 acres of each common habitat type.
 - In contrast, a 100-acre site with 45 acres of upland, of which 5 acres is special habitat, 20 acres is one type of common habitat and 20 acres is another type of common upland habitat, must preserve 5 acres of special habitat and a total of 6.25 acres of common habitat.
- 3) Golf courses must retain and preserve at least 30 percent of their total upland area in native upland habitat. Increased preservation is warranted for golf courses because of their high water use and the potential for increased runoff of nutrients, pesticides and herbicides. This requirement shall be applied to the area designated for golfing. It shall not reduce the requirement for preservation

of 25 percent of common habitat, or for preservation of the 25 percent of total upland where special habitat exists for the remaining parts of the project.

- (4) The requirements for wetland buffers and shoreline protection zones are separate from upland preserve requirements. The total native upland habitat set aside may exceed 25 percent when buffers or shoreline protection zones are included. Areas set aside for buffers may be included in the calculations for native upland habitat requirements only when they are made up of the appropriate habitat types and meet the standards of this policy.
- (5) Preserved upland habitat must be located in areas with intact canopy, understory and groundcover in a functional, clustered arrangement that maximizes wildlife use and maintains the long-term viability of native upland plant communities. Except for necessary road crossings and other access purposes, native upland preserve areas must be arranged in a continuous clustered fashion where possible, adjacent to lakes, wetlands, natural water bodies and other preserved habitat located on-site or off site. The use of upland preserve areas as long, narrow buffers between lots is discouraged.
- (6) Areas where trimming, mowing or other intrusions will be necessary for maintenance cannot be included in the calculation of preserve areas. This includes drainageways that require maintenance, and the area under power lines.
- (7) Preserve areas must be at least 50 feet wide.
- (8) Splitting or phasing property in single ownership in order to lessen preserve requirements is prohibited.

Policy 9.1G.9. Alternative compliance for projects within a CRA. Chapter 18 provides alternative means to comply with the obligation to preserve no less than 25% of native upland habitat for development located in a CRA.

Policy 9.1G.10. Reduction of requirements to provide reasonable use of a site. Innovative site design techniques shall be applied to maximize on-site preservation of native upland habitat. The requirements for an on-site preserve area may be reduced only after a showing that, despite such techniques, these requirements preclude reasonable use of the site. Requirements may be reduced only in the amount necessary to provide reasonable use of the site. The mitigation measures allowed by this policy may only be used when reasonable use is precluded. All other development must preserve native upland habitat on-site, except for the waivers and exceptions identified in Policy 9.1G.9. This option may be used only after all perimeter buffer requirements have been met.

Where buffer requirements have been met and innovative design has been applied yet reasonable use is still not possible, the following options are available subject to the approval of the Board of County Commissioners:

- (1) Purchase similar upland native habitat community(ies) outright within the same planning area, or if not available, in Martin County; or
- (2) Create an equal amount of similar native upland habitat adjacent to other areas of preserved native habitat on-site or off-site.

The off-site area must be preserved in place on a site deeded to the County or to a private conservation group recognized by the County.

A PAMP must be provided for the off-site areas of preservation or habitat creation. Long-term funding for management must be assured by the applicant prior to development plan approval as per Policy 9.1G.2.(1) of this element.

Policy 9.1G.11. Commercial agricultural uses. Where commercial agricultural uses are proposed for lands that are native upland habitat and are designated "agriculture" on the Future Land Use Map, and

where the proposed agricultural use would require clearing existing habitat, preservation of the native upland habitat shall be required, as follows:

- (1) Common native upland habitat is defined in Policies 9.1G.5(1) and 9.1G.5(3). The property owner of the proposed agricultural use must:
 - (a) Preserve at least 10 percent of each common native upland plant community occurring on-site; or
 - (b) Pay a land value exaction fee at the time the land is converted. The fee must be equivalent to the average assessed value of one acre of the particular habitat type under consideration within the County, multiplied by the number of acres the proposed use was required to preserve, but elected to contribute to preservation off-site. Whenever possible, these funds must be used to purchase property in close proximity to the subject site. An application to the SFWMD for an agricultural surface water management permit shall be submitted concurrently with an agricultural clearing permit. The time of conversion of the agricultural land from its current natural state will be evidenced by an application to the SFWMD for an agricultural surface water management permit. Applicants proposing to pay a land value exaction fee are exempt from the preservation requirements established in Policy 9.1G.11.
- (2) Special upland habitat is defined in Policy 9.1G.5(2). The property owner of the proposed agricultural use is required to:
 - (a) *Preserve part of the native upland plant community on the site:* The property owner must preserve at least of 25 percent of each ~~native special upland habitat plant community~~ occurring on-site that is (1) designated as unique or rare in Martin County or (2) designated as regionally rare or endangered as determined by the TCRPC FNAI Guide to the Natural Communities of Florida and supported by state and federal agencies. ~~These habitats will be limited to oak/cabbage palm hammock associations, sand pine/scrub oak associations, coastal hammock associations, turkey oak associations and other hardwood hammock associations with native trees such as cypress, magnolia, maple and/or bay trees;~~ or
 - (b) *Pay a land value exaction fee:* When an application for an agricultural surface water management permit is submitted to the SFWMD, the property owner must pay a land value exaction fee equivalent to the average assessed value of one acre of the habitat type under consideration within the County, multiplied by the number of acres the proposed use was required to preserve but elected to contribute to preservation off-site. Whenever possible, these funds must be used towards purchasing property in close proximity to the subject site. Applicants proposing to pay a land value exaction fee are exempt from the preservation requirements established in Policy 9.1G.11.
- (3) Martin County will attempt to reach agreement with the SFWMD to avoid permit duplication by using environmental resource permits to review and enforce native upland habitat preserve requirements for agriculture. Where this is not possible, a separate County permit will be required for agricultural clearing of native habitat. In all cases of clearing native uplands, an upland and wetland vegetative analysis must be supplied to Martin County, along with a PAMP. These must be approved by the Martin County Growth Management Department prior to any site development or alteration. Before clearing on sites larger than 10 acres, the PAMP and upland and wetland vegetative analysis must be submitted to the Florida Fish and Wildlife Conservation Commission and the FDEP for comment and plan implementation.

Policy 9.1G.12. Agricultural uses. All agricultural uses shall comply with the applicable objectives and policies set forth in this element. Any exceptions or exemptions to the policies of the CGMP will require an amendment supported by adequate data and analysis. To the maximum extent possible, regulations

and/or ordinances shall be enacted to avoid unreasonable interference with efficient and economical use of agriculturally designated lands.

Policy 9.1G.13. PAMP. For all required wetland, wetland buffer, upland preserve areas, and shoreline protection zone areas, new development shall provide and implement a PAMP with provisions to:

- (1) Remove and provide continued management of exotic vegetation and debris;
- (2) Revegetate the wetland, wetland buffer, and upland preserve areas with appropriate native vegetation, if necessary.
- (3) Protect plant and animal species that are rare, endangered, threatened or a species of special concern as defined by the federal government or the State of Florida (including the Florida Fish and Wildlife Conservation Commission). These must include any species or special upland native habitat that the ~~Treasure Coast Regional Planning Council (TCRPC)~~, Florida Natural Areas Inventory or Martin County determines to be regionally rare, endangered or threatened with extinction, in accordance with recommendations from applicable state and federal agencies. ~~These must also include unique and rare upland native habitats in Martin County (sand pine/scrub oak associations, turkey oak associations, hardwood hammock associations, tropical hammock associations, coastal hammock associations and cabbage palm/oak hammock).~~ All permitting conditions must be included as an attachment to the PAMP, and the recommendations, requirements and conditions for permit must be made part of the PAMP.
- (4) Provide any additional measures deemed necessary to protect and maintain the functions and values of wetland and upland preserve areas, including monitoring provisions to assure continued compliance.
- (5) Mitigate previous or potential drainage impacts, to the maximum extent technically feasible, in order to restore the natural hydroperiod for wetlands.
- (6) Maintain the quality and quantity of natural drainage patterns, which provide inflow to the wetlands, by incorporating these areas into the project's surface water management plan. The water quality, rate, timing and volume of runoff must recreate natural conditions for the benefit of wetlands and recurring waters.
- (7) Provide buffers of appropriate native vegetation adequate to ~~assure~~ ensure continuance of wetlands values and function. Wetlands on adjacent property must also be protected from adverse impacts.
- (8) Include requirements for fines or penalties for noncompliance with PAMP provisions.
- (9) Prohibit alteration of preserve areas except through a PAMP amendment approved by the Board of County Commissioners.
- (10) Monitor restoration of uplands, wetlands, and wetland buffer areas to ensure the survivorship of planted vegetation and any required maintenance to perpetuate naturally functioning habitats.

Each PAMP must be certified by a responsible professional as provided in the Land Development Regulations. The certification must state that the PAMP meets all the requirements of the CGMP and the Land Development Regulations and will ~~assure~~ ensure continuance of the preserve's functions and values as native upland habitat.

Policy 9.1G.14. Wildlife habitat preservation. The County shall take steps to ensure preservation of native upland habitat of sufficient size to enable long-term survival of individual wildlife and plant species that are rare, endangered, threatened or of special concern. This policy may be satisfied through one of the following methods, subject to approval by the Board of County Commissioners:

- (1) Environmentally sensitive siting of manmade facilities on individual sites through preservation of viable native habitat (micrositing);
- (2) Dedication of land for preservation and/or conservation purposes to the County or some other common entity;
- (3) Habitat protection fee (land value exaction);
- (4) Transfer of development rights; or
- (5) Increased preservation of native habitat adequate to support existing populations of protected plants and animals.

The County shall establish a minimal threshold level by which this policy is to be implemented. The County shall also adopt development regulations to implement the mechanisms for upland habitat protection.

Policy 9.1G.15. Construction setbacks to preserve areas. Wetland buffer zones or any other designated upland preserve areas shall be protected from encroachment due to construction and/or building maintenance activities, as follows:

- (1) New primary structures proposed for adjacent areas must be set back at least 10 feet (or more, if warranted by specific site conditions). Accessory structures (pool decks, screen enclosures, driveways, etc.) must be set back at least 5 feet.
- (2) For single-family lots of record both primary and accessory structures may be set back less than 10 feet, but not less than 5 feet, provided:
 - (a) The existing development of adjacent lots is similar; and
 - (b) The wetland buffer zone or other designated upland preserve area can be protected from encroachment; and
 - (c) The lot cannot be developed with the setback criteria in Policy 9.1G.15(1).
- (3) The five-foot setback criterion may be rescinded for lots of record, as defined by the CGMP, provided that the Growth Management Director determines that the lot was essentially devoid of vegetation in the preserve area on the date when this plan was adopted, and thus no purpose would be served by the additional five-foot buffer zone.
- (4) Restoration requirement: Where evidence indicates that clearing or other development or manmade impacts have taken place after February 20, 1990, in violation of requirements for preservation of upland native habitats or wetland buffer zones or any other development restrictions in effect at the time the violation occurred, restoration will be required before issuance of any development permits or orders, or within 90 days after receiving a notice of violation. A minimum two-year letter of credit or other acceptable financial alternative must be submitted to assure ensure the successful restoration of the violation.

Policy 9.1G.16. The upland protection requirements detailed in Policies 9.1G.5 through 9.1G.15 above may be waived by the Board of County Commissioners to the minimum extent necessary for stormwater treatment projects listed in the adopted Capital Improvements Plan and constructed by the Martin County Board of County Commissioners, as well as reservoirs, stormwater treatment areas and related facilities constructed as part of the Comprehensive Everglades Restoration Plan in any part of Martin County.

- (1) The project must be designed to cause the least amount of negative impact to upland habitat. Waivers to requirements will be based on the principle of protecting the highest quality habitat and impacting the lowest quality habitat. Below are example habitats ranked from lowest to highest in quality and importance.

- (a) Common upland habitat degraded by exotic vegetation.
 - (b) Common upland habitat, undisturbed.
 - (c) Special habitat (endangered, unique or rare upland habitat) shall be protected as specified in this element of the Comprehensive Plan.
- (2) All projects must comply with all state and federal regulations and permitting requirements.
 - (3) Waivers to CGMP policies or the Land Development Regulations will not be granted that would jeopardize threatened or endangered species as listed by the Florida Fish and Wildlife Conservation Commission or the U.S. Fish and Wildlife Service.

Policy 9.1G.17. Quantification. Identification, mapping, and quantification of public open space and private preserve area resources shall be accomplished using Geographic Information Systems (GIS) technology or appropriate technology, as funding permits.

Policy 9.1G.18. Monitoring. Martin County shall monitor privately owned preserve areas for compliance with the approved Preserve Area Management Plans for the respective preserve areas, as staffing and funding levels permit. Priority shall be given to preserve areas with the largest acreage and the most sensitive habitat.

Objective 9.1H. To protect and enhance wildlife and fish populations and habitat.

Policy 9.1H.1. Land use decision guidelines. Land use decisions shall reflect the effects of development on fish, wildlife and habitat and the cumulative effect of development or redevelopment on wildlife habitat. In cases where rare, endangered or threatened species or species of special concern are known to be present, a PAMP must be prepared at the time of site plan submittal, as a condition of approval. Classification of fish, wildlife and habitat is defined by the federal government and the State of Florida, including the Florida Fish and Wildlife Conservation Commission. This policy also covers any species or native special upland habitat the TCRPC determines to be regionally rare, endangered or threatened with extinction. To ensure adequate protection, protected plants and animals that cannot be provided with sufficient undisturbed habitat to maintain the existing population in a healthy, viable state on-site shall be effectively relocated in accordance with local, state and federal regulations.

Policy 9.1H.2. Secondary impacts on water. The PAMP shall provide reasonable assurance that a regulated activity will not cause adverse secondary impacts to a water resource. The PAMP shall also provide reasonable assurance that the secondary impacts from construction, alteration and intended or reasonably expected use of a proposed activity will not cause violations of water quality standards or impede the functions of wetlands or other surface waters.

Policy 9.1H.3. Secondary impacts on endangered species' environments. The PAMP shall provide reasonable assurance that the construction, alteration and intended or expectable uses of development will not adversely affect the ecological value of uplands to aquatic or wetland-dependent listed animal species to the extent that it impedes nesting or denning by these species. Listed species shall include flora and fauna classified as species of special concern, threatened or endangered by the U.S. Fish and Wildlife Service or the Florida Fish and Wildlife Conservation Commission.

Habitat management guidelines have been developed by the U.S. Fish and Wildlife Service or the Florida Fish and Wildlife Conservation Commission for some listed animals species dependent on aquatic or wetland environments. The applicant must comply with these guidelines and provide assurance that the proposed development will not adversely affect upland habitat functions. For aquatic-dependent or wetland-dependent listed animal species for which habitat management guidelines have not been developed, the applicant must propose measures to avoid and minimize impacts to habitat function.

Policy 9.1H.4. Site plan review guidelines. Site plan review and evaluation shall consider the effect of development on wildlife, fish and habitat. A PAMP shall be required when native upland or wetland habitat must be preserved consistent with applicable policies in Chapter 8, Coastal Management, as well as this chapter. The County shall require reasonable safeguards to prevent or significantly reduce the potential for adverse impacts of development activities. These safeguards shall be incorporated into a PAMP and shall be based on recommendations resulting from an environmental assessment of the proposed activity by a qualified biologist or ecologist in consultation with applicable state and federal agencies. The PAMP shall describe a habitat management program that addresses those particular endangered or threatened species or species of special concern found on-site. It shall specify:

- (1) All activities to be undertaken to support habitat values to sustain viable communities;
- (2) The manner and method in which disrupted wildlife or habitat will be relocated;
- (3) Management procedures necessary to maintain viability of protected habitat;
- (4) Design features and management techniques to protect the habitat and endangered or threatened plant and animal species or species of special concern from the effects of drainage and other impacts related to development or agricultural use; and
- (5) The extent, type and timing of any planting and the requirement to enhance habitat conditions.

Policy 9.1H.5. Sea turtle and bald eagle protection. The County shall continue to actively support regulations that protect the bald eagle; prohibits harassing, taking, selling or transporting sea turtles and sea turtle eggs; and protects fish and wildlife in the Lake Okeechobee management area and the islands of the south fork of the St. Lucie River. The Martin County Land Development Regulations shall also be consistent with state and federal regulations for sea turtle and bald eagle protection.

Policy 9.1H.6. Site assessment for endangered plant and animal populations. Before approval or commencement of site-clearing activities within the known range of endangered or threatened species, or where such species are expected to occur based upon habitat suitability and species ranges, a survey shall be conducted by qualified environmental consultants and/or government ecologists to determine whether or not there are populations of endangered or threatened plant and animal species or species of special concern.

Policy 9.1H.7. Prohibition of certain exotic pest plant species. The County shall prohibit the planting of Australian pine, Melaleuca, Brazilian pepper, Mimosa pigra, carrotwood and other exotic pest species identified by the County. ~~The County shall use the Exotic Pest Plant Council list and determine which species shall be prohibited in the County; this shall be specified in the Land Development Regulations.~~ Use of these species to meet the requirements of the County's landscape regulations shall be prohibited. Removal and continued management of these exotic pest species shall be required as a condition of development approval.

Policy 9.1H.8. Protection of trees. In addition to protecting upland habitats, Martin County shall continue to protect trees. Oaks and other native hardwood trees shall be given the highest priority.

Objective 9.1I. To continue implementation of the comprehensive County-wide waste management program as described in Chapter 12, Solid and Hazardous Waste.

Objective 9.1J. To pursue an aggressive program to identify, preserve and provide appropriate public access to areas of natural beauty and scenic importance.

Policy 9.1J.1. Acquisition of environmentally sensitive lands. Through joint County/state partnerships, the County shall continue to seek acquisition of the environmentally sensitive lands listed in Policy 9.1G.3, which protect unique, rare or endangered habitat; assure survival of listed wildlife species; protect scenic water corridors; and provide public access and open space.

Policy 9.1J.2. Acquisition of areas for protection and public access. The County shall continue to identify areas of unique natural beauty, significant habitats of flora and fauna, and areas of historical, geological and archaeological significance that are suitable for public acquisition for protection and/or public access. These efforts shall prioritize parcels for protection and/or acquisition. The County shall identify programs, including state and federal programs, to protect local open space resources and shall identify any restrictions applicable to the land under each program.

Policy 9.1J.3. Natural area greenways and wildlife corridor. In conjunction with Policy 9.1J.2, the County shall continue to coordinate with pertinent state wildlife management agencies and regional resource planning agencies to identify natural greenways and wildlife corridors to link existing public parks, preserve areas and similar areas used for conservation and habitat preservation. The County shall work to coordinate the resources of other public and private natural resource preservation agencies in order to enhance the County's efforts to fiscally support and encourage public land acquisition in conjunction with current land use planning and development regulations, and to create a system of natural area greenways and wildlife corridors.

Policy 9.1J.4. Small neighborhood open space areas. The County shall continue to identify and acquire publicly accessible open spaces with native flora and fauna in or near neighborhoods. These spaces shall provide a break from urban development in the manner of Maggy's Hammock Park and Possum Long Nature Center. Passive recreation, such as picnicking and hiking, shall be encouraged in these areas.

Policy 9.1J.5. Linear parks along waterways. Martin County shall continue to preserve easements along the C-23 Canal and Okeechobee Waterway to provide public access for fishing, hiking and other passive recreational uses.

Policy 9.1J.6. Design concepts for open space. In making public open space available for public use, the County shall use creative, innovative design concepts that employ the use of natural materials and conservation of sensitive environmental areas.

Policy 9.1J.7. Evaluation of publicly owned lands. The County shall evaluate all publicly owned lands not in current use or identified for future use, as described in Objective 4.5D. In addition to the public uses identified in Objective 4.5D., publicly owned lands shall be evaluated for use as public open space.

Policy 9.1J.8. Landscaping and maintenance of public open spaces. The County shall landscape and maintain public lands consistent with the applicable Land Development Regulations, as amended.

Policy 9.1J.9. Funding open space landscaping and maintenance. The County shall continue to investigate various funding sources, such as user fees, impact fees and volunteer programs, to finance the costs of implementing these policies.

Policy 9.1J.10. Maintain open space level-of-service standard. Martin County shall continue to maintain an open space level of service in the Capital Improvements Element of the CGMP.

Policy 9.1J.11. Continuation of Public Land Acquisition Program. The County shall continue to use the Public Land Acquisition Program first started by Resolution No. 89-4.26. The County shall continue to work to select, purchase and maintain public open space, consistent with the land acquisition manual approved by Resolution No. 89-4.26.

Policy 9.1J.12. Revision of Land Development Regulations. To achieve the open space policies as stated herein, the County shall review and revise the Land Development Regulations, if necessary, to assure that landscape requirements apply to all defined open spaces.

Policy 9.1J.13. Intensity and density transition zones. New land development shall provide for intensity and density transition zones abutting conservation areas and passive public parks. To maintain compatibility and to harmonize with the wildlife populations and natural systems, new development

adjacent to conservation areas or passive public parks shall be limited to single-family development. The following activities shall be prohibited within the first tier or block of new development:

- (1) Altering the hydrologic regime or lowering the water table;
- (2) Generating, storing or handling of hazardous wastes;
- (3) Generating nuisance noise, dust, lighting or odors;
- (4) Generating high concentrations of excessive nutrient runoff.

Objective 9.1K. To ensure that resources occurring in or affecting more than one governmental jurisdiction are effectively managed to preserve, protect and enhance natural systems, wildlife, fisheries and habitat.

Policy 9.1K.1. Interagency coordination. The County shall continue to coordinate with the appropriate agencies to further and implement the Treasure Coast Regional Comprehensive Policy Plan; Lake Okeechobee and Okeechobee Waterway Shoreline Management Plan; North Fork of the St. Lucie River and Indian River Lagoon Aquatic Preserve Protection Plans; Hutchinson Island Resource Planning and Management Plan; Loxahatchee River Management Coordinating Council and other Loxahatchee restoration focused groups the Indian River Lagoon, North Palm Beach and Lake Okeechobee portions of the Comprehensive Everglades Restoration Plan; and other plans and programs that will require the involvement of the County. Appropriate agencies include the TCRPC, U.S. Army Corps of Engineers, SFWMD, and FDEP.

Policy 9.1K.2. St. Lucie estuary system. The County shall coordinate with the Martin Soil and Water Conservation District and other relevant agencies to promote awareness of new information concerning the St. Lucie River estuary system and the effects of development on the functions and values of the estuary system. Restoration of the St. Lucie estuary shall remain a top priority, in conjunction with the Indian River Lagoon portion of the Comprehensive Everglades Restoration Plan.

Policy 9.1K.3. Coordination for protection of state and federal parks. The County shall continue to coordinate with, and assist where appropriate, those agencies responsible for protecting and managing federal wildlife refuges and state parks, waterways and beaches. A complete list of such facilities is contained in Chapter 7, Recreation Element.

Policy 9.1K.4. Natural system protection. The County shall cooperate with surrounding local governments and state agencies in an effort to enhance existing natural systems.

Policy 9.1K.5. Future Land Use Map amendments. Comprehensive Plan amendment applications concerning property that is located completely or partially within the boundaries of the CERP, Indian River Lagoon, and Northern Everglades Plan projects, will be required to provide information concerning the impact of the requested amendment on the relevant project.