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CONSERVATION

Seminole County Comprehensive Plan Element

CONSERVATION

CONSERVATION ELEMENT INTRODUCTION

The Conservation chapter or "Element" of a comprehensive plan is required by State Law to explain how the community will conserve, use and protect natural resources, including air, water, water recharge areas, wetlands, waterwells, estuarine marshes, soils, beaches and shores (if any), floodplains, rivers, bays, lakes, harbors, forests, fisheries and wildlife, marine habitat, minerals and other natural and environmental resources. The Conservation Element is connected to the Future Land Use Element in two ways:

A A future land use map or map series contained in the Future Land Use Element is required to identify existing and planned waterwells and cones of influence, where applicable; beaches and shores, including estuarine systems, where applicable; rivers, bays, lakes, floodplains and harbors; wetlands; minerals, and soils.

B The future land uses identified on the maps are required to be consistent with State law and rules.

Seminole County has an abundance of significant natural resource areas; most notable are the Wekiva, St. Johns and Econlockhatchee Rivers that are of statewide significance. The St. Johns River (and tributaries) is an Outstanding Florida Water Body and an American Heritage River, and the Wekiva River is an Outstanding Florida Water Body and federally designated Wild and Scenic River. The Wekiva River System Advisory Management Committee (established by Congress in 2000), with consultant assistance, is currently developing management goals and objectives that address five Outstanding Resource Values identified for the Wekiva River Wild and Scenic designation. This study is due for completion in 2009. The Econlockhatchee River is also an Outstanding Florida Water Body.

These rivers, in addition to numerous wetlands, lakes, and streams, provide not only habitat to a substantial wildlife population, but also offer attractive community assets and recreational opportunities. The preservation of both the quantity and quality of these resources is vital to the function of these resources and necessary to ensure the continued attractiveness of Seminole County. The County is firmly committed to implementing the provisions of Article II, Section 7 of the Constitution of the State of Florida regarding natural resources and scenic beauty. Seminole County is also committed to supporting the principles of the Central Florida Regional Vision ("How Shall We Grow?"), including the principle to "preserve open space, recreational areas, farmland, water resources and regionally significant natural areas."

The County's adoption of floodprone and wetland ordinances were critical steps to providing Countywide protection of wetlands. The County's wetlands protection program has established an extensive network of wetlands under conservation easements. Land acquisition efforts by Seminole County and the State of Florida have led to the conservation of major wetland systems in the Econlockhatchee, Wekiva, St. Johns, and Lake Jesup Basins. An ongoing focus on the conservation of intact wetland systems in the rural portion of the County serves to supplement these acquisition programs.

The County has adopted a Comprehensive Wetlands Management Strategy, incorporated into this Element, that addresses the different types of wetlands in urban versus rural areas. For wetland systems in urban areas, mitigation is allowed where wetland function and value have been severely compromised. However, for most wetlands in urban areas, preserving, enhancing, and incorporating these areas with compatible land uses are emphasized. Compatible land uses may include parks, stormwater facilities, trails, floodplain preservation areas, and buffers between different types of development. For Rural Areas, sustaining

existing land uses and approved development intensities is a priority, along with preserving and enhancing wetland systems through innovative conservation strategies.

Considering the growth patterns of the County, it is increasingly important and challenging to maintain the quality of the County's natural resources. The Conservation Element addresses the long-range implementation of programs aimed at meeting recent environmental legislation and preserving the County's natural amenities. Program components address the quantity and quality of resources, including groundwater, surface water, floodplain, wetlands, upland communities, soils, air quality, and open space. The long-range plan includes implementation of the following major studies and programs:

A Groundwater Assessment Model

B Water Conservation Programs

C Natural Lands Program

D Recharge Area Overlay Zoning District

E Expanded Water Reuse Systems

F Wellfield Protection Regulations

G Underground Tank Program

H Well Capping Program

I Energy Conservation and Greenhouse Gas Reduction

J Educational Brochures

K Comprehensive Wetlands Management Program

L Seminole County Watershed Atlas

M Wekiva Parkway and Protection Act, Master Stormwater Management Plan Support

N Open Space Standards and Preservation Regulations

The success of these programs depends to a large degree upon community support and involve a significant amount of coordination with the municipalities and environmental agencies. Primary sources of information used to produce this Element include the following:

A 1987 Conservation Element

B 1995 Conservation Element

C 1998 Evaluation and Appraisal Report

D 2006 Evaluation and Appraisal Report

E 2001 Conservation Element

F Natural Resources Inventory

G Spring Hammock Management Plan

H Florida Fish and Wildlife Conservation Commission Change Detection Data

I St. Johns River Water Management District Wetlands Trend Analysis

J 2000 Seminole County Wetland Trend and Policy Study

K The 2007 Central Florida Regional Growth Vision (How Shall We Grow?)

L Seminole County Ten Year Water Supply Plan (Work Plan)

CONSERVATION ELEMENT
ISSUES AND CONCERNS

Issue CON 1 **Soils**

Soils provide several resource functions including drainage, stormwater filtration, water storage, aquifer recharge, and ground stabilization.

In 1990, the US Department of Agriculture, Natural Resources Conservation Service (formerly the Soil Conservation Service) issued an update to the Soil Survey of Seminole County, Florida. This generalized soils map is a useful tool in identifying potential limitations relating to various building activities and in minimizing degradation to soil functions and impacts to water quality. The County routinely requires a soils analysis by a qualified soils engineer as part of the development review process.

Issue CON 2 **Recharge Protection**

The most effective aquifer recharge areas are often located within areas most suitable for development. Continued implementation of development performance standards and other mechanisms ensures the preservation of most effective recharge areas.

The Floridan Aquifer is the primary source of potable water for Seminole County. Replenishment of the Aquifer occurs primarily from rainfall to recharge areas. The most effective recharge areas are generally high, dry uplands with highly permeable soils and poor surface drainage. These areas are shown in *Exhibit FLU: Recharge Areas*. Measures to protect most effective recharge areas include the increase of open space areas, stormwater management activities, and protection of native vegetation. This is particularly important within the southwest and west portions of the County, which are highly urbanized, thus leading to a greater amount of impervious surfaces. Other potential measures include use of natural retention areas, minimizing lowering of the water table, septic systems and treated effluent used for spray irrigation.

Issue CON 3 **Groundwater Supply**

Both the quantity and quality of available potable water supplies is an increasing concern as Seminole County continues to experience both growth and redevelopment.

In 1986, Seminole County undertook a Groundwater Supply Study to assess the availability and quality of potable water supplies. The study (completed in 1991) includes a Countywide (including portions of Orange County) model of the Floridan Aquifer and evaluates existing and future water demands, critical water supply areas, salt-water intrusion, and future wellfield locations. The County will be able to meet projected water demands without substantial conservation programs. A task force of County, municipal and private water supply agencies was created to assess study results and develop recommended water conservation programs, and recommend further study needs. A wellfield protection ordinance has been adopted to regulate and develop performance standards for uses within protection zones, which may impact groundwater quality. The St. Johns River Water Management District (District) has completed a lengthy study

process of the water supply issues of the entire St. Johns River Basin, of which Seminole County is a part. Seminole County has been designated as a priority water resource caution area as a result of this study process. This study indicated that the Floridan Aquifer, the primary source of groundwater, is scheduled to decrease significantly in volume during the next planning horizon. The study also identifies alternatives for water supply to offset these decreases, most notably, surface water. Additional information regarding potable water supply, including the District Regional Water Supply Plan (2005), is contained in the Potable Water Element of this Plan.

There are multiple issues related to establishment of a surface water supply system, including siting of facilities, costs, and minimum flows and levels, to name a few. Seminole County has collaborated with the District to study surface water opportunities within the middle basin and is providing staff representatives on several key advisory groups relative to the entire water supply planning process. Seminole County will maintain an active role in this process and play a major role as a facilitator of interests with the various stakeholders. The County will further address the tapping the St. Johns River as an alternate water supply source during future Comprehensive Plan Evaluation and Appraisal Reports.

In 2004, the Florida Legislature enacted the Wekiva Parkway and Protection Act, which included provisions for protection of surface and ground water resources within the Wekiva Study Area. To address the Act's requirements for development of a master stormwater management plan, and to design a plan in the most cost-effective, efficient, and non-piecemeal manner, 14 of the 15 local governments in the Wekiva Study Area (excluding the City of Maitland) collaborated in the creation of a regional stormwater master plan. The plan, known as the "Wekiva Parkway and Protection Act, Master Stormwater Management Plan Support, Final Report, November 2005" identified stormwater issues with the Wekiva Study Area and provided recommendations to address the issues in context of compliance with the Act.

2007 Update on Groundwater Water Supply

For the last 15 years, the District's water supply planning and assessment investigations have documented that the rate of withdrawal of groundwater in certain areas within the jurisdiction of the District is approaching the maximum rate that can be sustained without causing unacceptable adverse impacts to the water resources and related natural systems. Water supply planning results to date show that at some locations, withdrawal rates will likely approach or reach sustainable limits in the foreseeable future, well within the current 20-year planning horizon.

The 2005 District Water Supply Plan (DWSP 2005), *[also known as the Regional Water Supply Plan (RWSP)]* addresses current and future water use, traditional and alternative water sources and water conservation efforts required to meet 2025 water supply needs while sustaining water quality and protecting wetlands and aquatic systems. The DWSP 2005 is designed to meet the requirements of the water supply planning provisions of Section 373, Florida Statutes, and is based on a planning horizon

extending through 2025. (The above text for this section was excerpted from: Technical Publication SJ2006-2, District Water Supply Plan, 2005).

The County has created a Water Supply Facilities Work Plan (Work Plan) based on the County's future service needs and consistent with and coordinated with the DWSP 2005. The Work Plan can be found in the Potable Water Element of the Comprehensive Plan.

Issue CON 4 Air Quality

Air quality is an issue requiring increased attention as Seminole County continues to grow and redevelop. It may become necessary to evaluate the feasibility of establishing an air quality-monitoring program and to review and amend existing regulations.

Air quality in Seminole County is currently monitored by either the Florida Department of Environmental Protection or required as part of the Development of Regional Impact (DRI) program. The County itself does not have an air quality monitoring program as Seminole County has no major point source generators. Congestion from auto traffic historically has not warranted monitoring. The County's efforts to reduce greenhouse gas emissions by incentivizing more energy-efficient land use redevelopment efforts are anticipated to reduce vehicle miles traveled, and improve air quality.

Seminole County does not anticipate the necessity nor feasibility of establishing an air quality-monitoring program at this time. This evaluation may include monitoring and analysis requirements for major transportation construction projects, non-DRI projects with projected high traffic volumes, and areas of high traffic congestion. Further, the County will continue to monitor the need for revisions to the existing air quality provisions together with the County's Land Development Code update scheduled for completion to occur by the end of 2011.

Issue CON 5 Mining and Borrow Pit Operations

The County's Land Development Code requires submittal of a reclamation plan for mining and borrow pit operations.

In 1994, the County revised the borrow pit ordinance, which covers digging other than dredge and fill operations. The revised ordinance strengthened existing standards or added new standards in the areas of geological assessment, site access, environmental impact assessment, excavation, dewatering, hauling, and enforcement.

The Department of Environmental Protection, Division of Resource Management, Bureau of Mine Reclamation is responsible for establishing reclamation rules. The Bureau claims jurisdiction over any excavation of a resource, including soil, and requires that a Notice of Intent to Mine be filed when certain criteria of excavation size, speed, use, etc., are met. Approval of the reclamation plan is not required before removal can begin.

Issue CON 6 Wetlands

Wetlands perform a variety of functions, including flood/stormwater storage, moderation of groundwater flow, removal of contaminants, nutrient cycling, and maintenance of plant and animal communities.

Conservation of intact wetland systems (including upland buffers, isolated and connected wetlands) is beneficial to a sound water system, wildlife and to residents of Seminole County.

Seminole County adopted a wetland protection program in the early 1980's. This program included adoption of the Wetlands Overlay Zoning Classification, a Wetlands Field Guide, and wetland regulations in the Land Development Code. Since then, Seminole County has improved the natural resources database, including the incorporation of the St. Johns River Water Management District (District) wetland and natural community Geographic Information System (GIS) data set.

The development of planning standards for natural resources, along with detailed performance standards included within the County's Land Development Code, established restrictions on development activities in wetlands. The District has developed more comprehensive wetland policies since the mid 1980's including protocol for isolated wetlands, a statewide-wetland methodology, and detailed guidelines for mitigation. Concurrent with these efforts at the local and regional level, the US Army Corps of Engineers (Corps) has expanded its jurisdiction over isolated wetlands and reduced the acreage threshold for which an Individual Permit is required.

The effectiveness of these policies and regulations has reduced wetland impacts, even in urbanizing areas of Seminole County. As a result, the combined effort of Seminole County, the District and the Corps has resulted in the conservation of substantial acreage of wetlands in the portions of Seminole County developed since 1985. To date, there are over 18,000 acres of the County's 41,000 acres of wetlands in public ownership, which translates to roughly 43% of the County's wetlands.

In addition, local and State land acquisition programs have resulted in the purchase, or conservation of environmentally sensitive wetlands and uplands in the County. The protection of these conservation lands provides one component of the framework for a conservation strategy that can assure the long-term conservation of significant wetland systems in the rural portions of the County.

The County continues to enforce wetland protection measures within the urban service area and coordinates regulatory efforts with the District and the Corps. These measures are important in sustaining the mosaic of isolated and connected wetlands surrounded by diverse uplands that exist in the rural landscape and other recognized environmentally sensitive areas of the County.

The County shall continue to evaluate additional measures for the protection of these systems along with the concentration of mitigation efforts, acquisition programs, and partnerships with other agencies and private landowners.

Since preservation, restoration, reclamation, or impact mitigation of disturbed land is important, not only to the County's appearance but also to the quality of its environmental habitat, it is important to establish criteria for such plans. The County reviews State standards and those of other jurisdictions in establishing criteria for preservation, restoration, reclamation, and mitigation.

Issue CON 7 Energy

In 2007, the County created the Seminole County Energy Conservation Committee to provide a more proactive approach to energy conservation. The Committee was charged with the creation of an energy mission statement, policy, and plan for the future. Additionally, the County applied for participation in the US Environmental Protection Agency's Energy Star Program. Energy conservation will continue to be an issue facing residents of Seminole County well into the 21st Century. The potential exists to conserve energy through the development of efficiency programs for the various types of energy consumed. Most of Florida's energy usage is for transportation and electric power generation.

Petroleum products used for transportation, natural gas used by consumers, and most of the energy used for electrical generation are imported into the State. Florida obtains a portion of electric power from other states through bulk transmission lines. Florida Gas Transmission Company, LLC, has historically supplied natural gas to Florida via a pipeline extending across the State from supply sources in the western gulf region. New natural gas transmission pipelines are planned in Florida, including a recent pipeline installation in northwest Seminole County.

Solar energy is the main renewable energy source abundant in Florida.

Simple changes in the types of light bulbs and the schedule for turning lights on and off can have a significant effect on energy savings. Commercial, governmental, industrial, and institutional offices can become more energy-efficient through the development of comprehensive energy efficiency and conservation plans. Education of homeowners about simple activities to save energy is important. Seminole County is attempting to follow the national trend toward sustainability and more energy-conservative public building and neighborhood design, which preserves natural resources and is significantly more energy-efficient.

Seminole County has been incorporating "green" building features into facilities for some time. In 2003, the County completed the "Green Lights" program, which involved switching out fluorescent bulbs and ballasts for more energy-efficient products in most of the County's major buildings. Since 1993, the County has saved almost $560,000 by participating in Florida Power and Light's Load Control program. The County's Criminal Justice Center, completed in 2004, incorporates drought tolerant landscaping materials, low water consumption plumbing fixtures, energy-efficient air conditioning systems, and computer controlled lighting systems. In 2007, the County replaced more than $1,000,000 worth of old, energy-inefficient Heating, Ventilating, and Air Conditioning equipment at the County Services Building.

Additional examples of how the County is addressing energy conservation include promoting infill redevelopment to reduce infrastructure costs; enforcing the Florida Energy Code; installing fiber optic cable; and installing solar lighting in County parks.

The Board of County Commissioners intends that, to the greatest extent possible, any new County buildings and facilities incorporate the most cost-effective energy conservation measures and that any rehabilitative work on

existing buildings or facilities are equipped with energy conservation features.

In 2008, the Board of County Commissioners added energy policies into the Conservation Element of the Seminole County Comprehensive Plan. In 2010, additional energy conservation policies were added into the Future Land Use Element (through the creation of the Energy Conservation Overlay, within which energy conserving land use patterns are to be incentivized) and the Conservation Element.

During 2009 and 2010, as part of the Federal American Recovery and Redevelopment Act of 2009 (ARRA), the County applied for and received a Redevelopment and Energy Conservation Grant to assist with energy conservation. The first stage of the grant involved creation of an energy conservation strategy, which was approved. The second stage was the development of a list of projects to improve energy conservation of both County buildings and fleet, and potential private sector buildings should a grant or loan program be approved. The list of projects has been submitted for approval during 2010. As a part of this process, the County joined the International Council for Local Environmental Initiatives in order to use its software program. The program enables a user to determine the degree to which changes in buildings and processes will conserve energy and reduce greenhouse gases.

The County will continue to incorporate energy conservation features into the design and construction of new County facilities, and implement recommendations from the Seminole County Energy Conservation Committee.

Issue CON 8 Low Impact Development

Low Impact Development (LID) is an innovative approach to stormwater management that incorporates various land planning and design practices and technologies to reduce impact to water quality from urban development.

In general, the LID approach includes practices that:

A Encourage preservation of natural resources;

B Allow development in a manner that helps mitigate potential environmental impacts.

C Reduce cost of stormwater management systems

D Use a host of integrated management practices to reduce runoff; and

E Reduce pollutants into the environment.

Issue CON 9 Total Maximum Daily Load

Total Maximum Daily Load (TMDL) is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

The Federal Clean Water Act requires that states submit a list of surface waters that do not meet applicable water quality standards (impaired waters) and establish TMDLs for these waters. Essentially, each impaired water body/segment will be allowed to receive a certain annual

amount/quantity of pollutant from every source such as point sources (industries, wastewater treatment plants, etc.), stormwater runoff, agricultural runoff, and air deposition. The TMDL development for each pollutant of concern for each water body will be determined through the TMDL development cycle.

Water bodies that are determined to be unhealthy or "impaired", based on the State's water quality standards, require the development and implementation of specific management plans which will return the water bodies to their previously unimpaired or healthy state. There are currently 24 water bodies in Seminole County identified as impaired water bodies.

County staff will continue to work cooperatively with staff from the Florida Department of Environmental (FDEP) toward developing a proactive approach to the TMDL process through the County's monitoring program, National Pollutant Discharge Elimination System program, education/outreach programs, and County Watershed Atlas project. These projects, along with coordination between County and FDEP staff, with the assistance of the County's consultant, has and will continue to enable the County to participate and have greater affect upon the development of TMDLs for all impaired water bodies, including those within County municipalities.

In 2007, the County and County Municipalities approved an interlocal agreement to significantly streamline intergovernmental cooperation and funding opportunities to address this issue without creating a new entity or superseding the authority of individual jurisdictions.

Issue CON 10 Central Florida Regional Growth Vision and Seminole County Natural Lands Program

In 2007, the Central Florida Joint Policy Framework Committee created a regional growth compact consisting of regional growth principles. Among these is a principle to "Preserve open space, recreational areas, farmland, water resources, and regionally significant natural areas." The Conservation Element includes goals, objectives, and policies that significantly address each of these principles. These principles grew out of a visioning process conducted during 2006 and 2007. The process involved approximately 20,000 Central Florida residents who were asked to answer the question "How Shall We Grow?" through a series of community meetings, presentations and surveys. The product of this process, "The Central Florida Regional Growth Vision" represents a shared vision of the preferred method for directing the growth of the six county region that includes Seminole County between 2007 and 2050. By 2050, the population of the region is expected to more than double from 3.5 million to 7.2 million residents, thus necessitating development of a guiding Vision.

The Conservation Element goal focuses on protection and preservation of open space, recreational areas, farmland, water resources, and regionally significant areas consistent with this Regional Vision.

The citizens of Seminole County recognized the need, in advance of most local governments in Central Florida, to protect, by acquisition, natural lands for preservation and passive resource-based recreation through voter-approved referendums. In 1990, the voters of Seminole County

approved a $20 million-dollar bond, which created the Seminole County Natural Lands Program (NLP). The NLP subsequently established a system to assess, rank and purchase environmentally significant lands throughout the County. Again, in 2000, a voter-approved referendum provided for $25 million dollars with $20 million dollars for support of the County trails program and $5 million dollars for natural lands. The County used these monies to purchase lands to preserve and/or restore their important ecological functions, as well as provide sites for passive resource-based recreational activities. Since the inception of the program, Seminole County has purchased and currently manages just over 6,600 acres of land through the NLP.

Wilderness areas and trails created from these referendums include the Black Bear, Black Hammock, Geneva, Chuluota, Lake Proctor, Econ River, Lake Jesup, and Spring Hammock Preserve. These environmental assets are open to the public for environmental education and passive recreation. The County designated these lands as "Preservation/Managed Lands" on the Future Land Use Plan Map in 2008 in response to the 2006 Evaluation and Appraisal (EAR) Major Issue finding of a need to ensure that the County Comprehensive Plan is more accessible and understandable.

The County currently operates three showcase trails within the County's trail network. These trails include the Seminole Wekiva, Cross Seminole, and Flagler Trails, among several of the County's trail network.

The County shall continue to manage the more than 6,600 acres of Natural Lands acquired through the 1990 Natural Lands Bond Referendum and November 2000 Natural Lands–Completing the Connection Bond Referendum, for the acquisition of significant natural habitats, open space areas and greenways.

The County shall continue to coordinate with the State of Florida, the St. Johns River Water Management District, the Nature Conservancy, the Trust for Public Lands, the Congress of Regional Leaders of *myregion.org*, and all other agencies involved in preservation of environmental assets to create a Countywide and regionally linked open space system and Greenways/Trails/Blueways system that assists in permanent preservation of County and regional environmental assets. As a part of this effort, the County shall continue to support attempts by the State Legislature to identify and fund a successor program to the Florida Forever grant program that assists with local efforts to acquire environmentally significant features.

Each of these efforts clearly demonstrates Seminole County's consistency with and implementation of the conservation theme of the Regional Vision of preserving Central Florida's lands, waters, air, and wildlife, and the ongoing 'Green Print' process undertaken by the Congress of Regional Leaders, as a part of the Central Florida Regional Growth Vision.

These efforts also support the direction of the Legislature, through House Bill 697 enacted in 2008, to conserve energy by conserving environmental lands. Each preserved area removes land from potential development, thus reducing the possibility of urban sprawl, which requires greater use of automobiles by those seeking to reach distant homes or employers.

Issue CON 11 Arbor Regulations

In 2004, the County adopted a significant revision to the arbor regulations within the Land Development Code (Section 60, Arbor Regulations). Included in these revisions, among others, was the establishment of the Board of County Commissioners as the Seminole County Tree Committee; fines for removal of trees in excess of an arbor permit; creation of an arbor violations trust fund; expanding the list of preferred tree species; revisions relating to logging; adding the definition of affected persons; and clarifying the provision for removal of dead, diseased, or damaged trees, and exotic trees.

Issue CON 12 Conservation of Water Resources

The County shall continue its ongoing efforts to conserve water by guiding land development patterns into forms that are water-conservative, and examining revisions to the Land Development Code that reduce the need for irrigation of landscaping in developed areas. The County shall evaluate changes to the landscaping requirements of the Land Development Code (LDC) to determine the feasibility of revising the current regulations. The County shall also conserve water resources through continuation of the Seminole County Water Conservation Program.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

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CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES

GOAL

Preserve, properly manage and, where possible, enhance the quantity, quality and function of Seminole County's natural resources for existing and future generations to include, but not be limited to the following natural resources: air, surface waters, groundwater supplies, soils/minerals, wetlands, native habitat and wildlife, floodplain, endangered, threatened and species of special concern, open spaces, aquifer recharge areas, and historic and archaeological resources.

OBJECTIVE CON 1 GROUNDWATER PROTECTION

The County shall continue to make use of new and existing studies as the basis for establishing programs to that protect both the quantity and quality of groundwater resources and recharge areas.

Policy CON 1.1 Groundwater Model/Assessment

The County shall continue to work with the St. Johns River Water Management District, United States Geological Survey, Department of Environmental Protection, and interested parties to evaluate its long-range water conservation plan as part of the District regional water supply planning process, including participation in working groups and advisory groups on water supply planning, minimum flows and levels, and other aspects of the process, including facilitation of input from stakeholder groups.

Policy CON 1.2 Recharge Area Protection/Conservation Measures

The County shall enforce the provisions of the 2007 10-Year Water Supply Facilities Work Plan, required by Chapter 163, Florida Statutes regarding groundwater conservation measures and policies for regulation of water usage, water use restrictions and irrigation alternatives, and shall evaluate the implementation of these measures as part of each Comprehensive Plan Evaluation and Appraisal Report.

Policy CON 1.3 Recharge Area Protection

The County shall continue to enforce the Aquifer Recharge Overlay Zoning Classification, which sets alternative design criteria and standards to protect the functions of most effective aquifer recharge areas, and shall evaluate the need to update these criteria and standards as part of the County's Land Development Code update scheduled for completion by 2010.

Policy CON 1.4 Recharge Area Reuse

The County shall continue to evaluate the use of septic systems and effluent reuse systems within most effective recharge areas and determine any long-term negative impacts on groundwater quality and, if appropriate, adopt and develop additional regulations governing these systems.

Policy CON 1.5 Wellfield Protection

The County shall continue to monitor provide protection for areas surrounding public water supply wellfields according to the criteria set out in *Policy FLU 1.13 Wellfield Protection*.

Policy CON 1.6 Intergovernmental Wellfield Protection

The County shall pursue agreements, as needed, with municipalities and private water utilities for development and implementation of the Wellfield Protection Program.

Policy CON 1.7 Underground Tank Program

The County shall continue to implement and administer an underground storage tank program coordinated with and consistent with requirements of the Department of Environmental Protection and other appropriate agencies to ensure protection of groundwater resources.

Policy CON 1.8 Underground Tank Regulations

The County shall review existing regulations and, if appropriate, develop County standards governing the refurbishment and replacement of underground tanks during the County's Land Development Code update scheduled for completion by 2010.

Policy CON 1.9 Wellcapping Program

The County shall continue to inform the St. Johns River Water Management District with regard to newly identified free flowing wells for action by the District's Abandoned Artesian Well Plugging Program. At the time of the next District Water Supply Plan update, if not earlier, the County shall reconsider its ability to participate in this matching-fund program.

Policy CON 1.10 Geneva Freshwater Lens (Bubble) Protection

A The County shall continue to evaluate the potential for acquisition of lands within the Geneva Freshwater Lens Area, as depicted in Exhibit FLU: Resource Protection Areas, and shall establish appropriate land use densities and measures to protect its critical recharge functions.

B The County shall coordinate with the St. Johns River Water Management District to evaluate the need for developing a sub-regional groundwater flow model for evaluating cumulative impacts to the Geneva Freshwater Lens for use when considering water well permit applications. Use of this model may serve as a method of reducing withdrawals that result in encroachment of chloride into this valuable natural resource.

C Development must demonstrate that groundwater withdrawals do not adversely affect water quality and water quantity of the Geneva Freshwater Lens.

D Agricultural uses must demonstrate compliance with Best Management Practices recommended by the Office of Agricultural Water Policy, Florida Department of Agriculture and Consumer Services.

Policy CON 1.11 Effluent Reuse

The County shall evaluate its expanded effluent reuse program as part of each Comprehensive Plan Evaluation and Appraisal Report. The program shall, at a minimum, evaluate the following:

A Implementing expanded dual-line systems for County operated wastewater facilities in an economically and environmentally sound manner;

B Requiring new development to install dual-line systems lines at the time of development where reuse programs are programmed or exist. This includes the identification of service areas where reuse may be applied and development of a phased implementation program;

C Implementing existing sewer agreement takeback provisions;

D Mechanisms to transport and dispose of reuse water within the most effective recharge areas;

E Incentives for encouraging reuse systems; and

F Determining when reuse programs may be appropriate.

Policy CON 1.12 Florida-friendly/Waterwise Landscaping Regulation

The County shall continue to promote the use of Florida-friendly/Waterwise landscaping irrigation techniques through updates and evaluations of County landscape regulations, which, as of 2008, set standards for the use of native and drought tolerant species, removal of exotics, vegetative clearing, and efficient irrigation to maximize conservation of water resources. The evaluation process during 2009 considered the existing arbor and landscaping requirements of the Land Development Code with special attention given to the Florida Department of Environmental Protection's prohibited plant list and the Florida Exotic Pest Plant Council's Category 1 and 2 lists, and shall evaluate changes to landscape regulations for nonresidential uses to encourage greater use of Florida-friendly/Waterwise plant materials.

Policy CON 1.13 Safe Withdrawal Rates

The County shall coordinate with the St. Johns River Water Management District (District) and surrounding jurisdictions to determine safe withdrawal rates and appropriate land use intensities to ensure an adequate water supply for existing and future needs and shall seek cooperation with the District on continued development of a water budget model.

Policy CON 1.14 Private Well Withdrawal

The County shall cooperate with the St. Johns River Water Management District to monitor the impacts of private well withdrawals on the Floridan Aquifer.

Policy CON 1.15 Minimize Water Withdrawal/Transport

The County shall minimize the withdrawal or transport of water to future developments that would adversely impact existing well production.

Policy CON 1.16 Emergency Water Conservation

The County shall continue to utilize, as necessary, the Emergency Water Conservation ordinance to enable the County to limit water usage, including restrictions on reclaimed water use, by methods that may include, but are not limited to, citations with fines in order to enforce restrictions and surcharges for excessive consumption and use methods as are otherwise authorized by law. The ordinance shall, at a minimum, be consistent with the St. Johns River Water Management District's Emergency Water Conservation requirements.

Policy CON 1.17 Ten-Year Water Supply Facilities Work Plan

A The County shall assess projected water needs and sources for at least a 10- year planning period as part of creating and maintaining a Water Supply Facilities Work Plan (Work Plan) within the Potable Water Element. Capital projects planned during the first five years of the Work Plan shall also be shown in the Capital Improvements Element.

B The Work Plan shall address each major type of water supply project, groundwater use optimization, conservation, reuse, and development of alternative water supply sources and water resources. For each project type, a detailed description of the project schedule, major activities and capital projects shall be provided and updated, as necessary.

Policy CON 1.18 Coordination with Regional Water Supply Plan

The Work Plan shall be updated within 18 months following an update to the District Regional Water Supply Plan. The County shall coordinate with the St. Johns River Water Management District's most recent Water Supply Plan when proposing or amending the 10-year Water Supply Facilities Work Plan (Work Plan). This coordination shall be documented in the text of the Work Plan with each amendment. Where appropriate and feasible, the Work Plan shall include collaborative approaches with other local governments for water supply source use and development, and water resource development.

Policy CON 1.19 Articulation of Water Conservation and Reuse Programs and Practices

Water conservation and reuse programs and practices that are part of the Seminole County Water Supply Facilities Work Plan (Work Plan) are detailed in Potable Water Element *Policy POT 5.9 Water Conservation Programs and Practices* and *Policy POT 5.10 Reclaimed Water Programs and Practices*.

OBJECTIVE CON 2 SURFACE WATER PROTECTION

The County shall continually evaluate its ongoing surface water quality program to protect and, where necessary and feasible, enhance the quality of surface waters.

Policy CON 2.1 Water Quality Assessment

The County shall, through its ongoing water quality monitoring program, identify areas of need for more intense sampling and shall partner with the appropriate agencies to accomplish these investigations. The County shall, with each Evaluation and Appraisal Report, evaluate the need for more intense sampling to address the continuous nature of surface water quality programs and processes.

Policy CON 2.2 Water Quality Improvement

The County shall continue to implement, as part of the Federal and State mandated Total Maximum Daily Load policies, a program to identify and improve surface water quality associated with stormwater runoff within receiving waters, which are below established standards.

Policy CON 2.3 Best Management Practices

The County shall evaluate every five years, after coordination with the Agricultural Extension Agency, Natural Resources Conservation Service and other appropriate agencies, its Water Conservation and Sensitive Lands Plan and Best Management Practices (BMPs) to minimize agricultural, horticultural and silvicultural impacts to both surface water quantity and quality, wetland and floodplain areas. This evaluation shall include a review and incorporation of any applicable new BMP's established by the Division of Forestry, Florida Department of Environmental Protection, St. Johns River Water Management District, Department of Agriculture and Consumer Services, and other agencies.

In addition to this Plan, all activities permitted within designated wetland and floodprone areas, including agriculture and silviculture shall, at a minimum, comply with the County's existing Wetland, Floodprone and Arbor Ordinances to ensure the protection and function of these resource areas.

Policy CON 2.4 Water Body Building Setback

The County shall continue to require that building setbacks for new development be placed at least 50 feet from the ordinary high water mark of water bodies.

Policy CON 2.5 Wekiva River

A The County shall continue to manage and regulate development along the Wekiva River to ensure its continued designation as an Outstanding Florida Water Body and Wild and Scenic River, and shall continue to ensure that all development maintains consistency with the Wekiva River Protection Act and Wekiva Parkway and Protection Act (see Future Land Use Element for other policies relating to the Wekiva River).

B The County shall enforce all clearing and building setbacks or protection/buffer zones and areas along the Wekiva River as imposed by rules of the St. Johns River Water Management District, any State

agency or as may be otherwise imposed by law, provided that a minimum 200 foot clearing and building setback shall be set along the Wekiva River, as measured from the ordinary high water elevation or the landward limit of established conservation areas, to serve as a scenic and environmental buffer to maintain the status quo of the natural environment and prevent public harm.

C As additional protection, development activity (including the placing or depositing of fill within wetlands and the 100-year floodplain identified by FEMA), within the Wekiva River Protection Area shall be prohibited except in cases of overriding public interest. Where wetland values are degraded due to overriding public interest, mitigation efforts shall occur. Floodplain impacts will require compensating storage.

Policy CON 2.6 Water Quality Design Techniques

The County shall continue to evaluate and, if appropriate, enact, alternative development (design, construction and maintenance) standards which enhance water quality. This evaluation shall include, at a minimum, a review of the following:

A Non-structural storm water management system designs;

B Littoral zone vegetation requirements;

C Vegetation removal and management standards;

D System designs that conserve uplands and populations of listed species; and

E Low Impact Development practices.

Policy CON 2.7 Intergovernmental Coordination

The County shall continue to coordinate and pursue joint programs with and seek funding, where available, from with the St. Johns River Water Management District, the Florida Department of Environmental Protection, and other agencies for surface water management studies and improvements programs. Specific programs that require further coordination include, but are not limited to, Surface Water Improvement Program, joint projects toward the restoration of Lake Jesup, Total Maximum Daily Load program, and the protection of the Econlockhatchee and Wekiva River Basins.

Policy CON 2.8 Educational Brochures

The County shall develop and distribute to homeowners associations, civic groups, schools and other organizations, educational brochures addressing surface water and lake improvement practices and related matters such as Florida-friendly Landscaping for properties within the Wekiva Study Area and all other impaired watersheds identified by the Florida Department of Environmental Protection's Total Maximum Daily Load program.

Policy CON 2.9 Environmental Education Program

The County shall continue to support and expand existing environmental programs (Natural Lands Education, Watershed Action Volunteers, Lakewatch, Florida Yards and Neighborhoods, and Parks Education) and pursue alternatives to expand the public's knowledge of environmental

programs through education, the media and other available avenues of communication. The County shall continue to provide public access to environmental data by expanding the Countywide Watershed Atlas and the Natural Lands Program Web Sites.

Policy CON 2.10 Total Maximum Daily Load

The County shall work cooperatively with the Florida Department of Environmental Protection (FDEP) to develop a proactive approach to the Total Maximum Daily Load (TMDL) process through the County's monitoring program, National Pollutant Discharge Elimination System program, Lake Management program, and County's Watershed Atlas project. These projects, and coordination between County and FDEP staff, with assistance from the County's consultant, has and will continue to enable the County to participate and have greater affect upon the development of TMDLs for all impaired water bodies, including those located within municipalities.

Policy CON 2.11 Low Impact Development Practices

The County shall amend the Land Development Code by 2010 to incorporate Low Impact Development practices to stormwater management that conserve and protect natural resource systems, reduce infrastructure costs, and mitigate potential environmental impacts.

A In general, the LID approach includes practices that:

B Encourage preservation of natural resources;

C Allow development in a manner that helps mitigate potential environmental impacts.

D Reduce cost of stormwater management systems;

E Use a host of management practices to reduce runoff; and

F Reduce pollutants into the environment.

Policy CON 2.12 Florida Consumer Fertilizer Task Force

The County shall adopt the recommendations of the Florida Consumer Fertilizer Task Force, established by the Florida Legislature, and shall adopt Best Management Practices into the Land Development Code by January 1, 2010, to reduce and eliminate pollution to County waterways from improper use of consumer fertilizers.

OBJECTIVE CON 3 FLOODPLAIN, WETLANDS, AND UPLAND COMMUNITIES

The County shall protect ecological systems including wetlands and uplands, which are sensitive to development impacts and provide important natural functions for maintenance of environmental quality and wildlife habitats.

Policy CON 3.1 Environmentally Sensitive Lands Overlay Area

To ensure continued compliance with the provisions of the National Flood Insurance Program and the wetlands protection programs of the St. Johns River Water Management District (District), the County shall maintain the Environmentally Sensitive Lands Overlay Area as an adopted Exhibit in the Future Land Use Element for use during review of proposed developments. Pursuant to Rule 9J-5.003, Florida Administrative Code, Seminole County hereby defines the "Environmentally Sensitive Lands Overlay" to mean areas inundated during the 100-year flood event or identified by the National Flood Insurance Program as an A Zone or V Zone on Flood Insurance Rate Maps or Flood Hazard Boundary Maps, and lands identified as Wetlands contained within Seminole County on the maps of the District. Nothing in this definition shall be construed to prohibit silvaculture operations which employ the Florida Department of Agriculture and Consumer Affairs Best Management Practices as revised in 1993. The Exhibit FLU "*Environmentally Sensitive Lands Overlay*" shall be updated and adopted as an amendment to the Seminole County Comprehensive Plan each time the National Flood Insurance Rate Maps and/or District Wetlands maps are updated. The Environmentally Sensitive Lands Overlay shall apply to unincorporated Seminole County.

Policy CON 3.2 Countywide Wetland/Flood Regulations

The County shall encourage local governments, through joint planning agreements and intergovernmental agreements, to adopt the County's floodprone and wetland performance standards and regulations for use in reviewing and approving all new development/redevelopment proposals.

Policy CON 3.3 Wetlands Management Program

The County shall continue to protect wetlands identified as part of the Environmentally Sensitive Lands Overlay as defined in *Policy CON 3.1 Environmentally Sensitive Lands Overlay Area* through either the County Land Development process that applies to locally significant wetlands, as specified in *Policy CON 7.4 Wetland Regulation – Buffers, Performance Standards and Compatibility*, or by referring applicants to the St. Johns River Water Management District permitting process for regionally significant wetlands.

Policy CON 3.4 Open Space Regulation

The County shall continue to use and enforce, at a minimum, the open space requirements contained in the Seminole County Comprehensive Plan in *Policy FLU 1.5 Natural/Environmental Lands Acquisition and Management Program, Policy FLU 1.6 Green Print Coordination, Policy FLU 1.7 Performance Standards for Management of Archaeological Resources Located on Proposed Development Sites, Policy FLU 1.14 Conservation of Water Resources, Policy FLU 1.17 Cluster Development, Policy FLU 2.1 Development Standards, Policy FLU 2.13 Performance Standards for Urban*

Neighborhoods, Policy FLU 2.14 Crime Prevention Through Environmental Design, Policy FLU 4.4 Urban Open Space, On-Site Recreational Amenities and Buffering Performance Frameworks for Infill/Redevelopment Areas and *Policy FLU 5.15 Mixed-Use Developments*, the implementation standards of these policies as contained in the Seminole County Land Development Code; and the definition of open space unique to the Wekiva Study Area.

Policy CON 3.5 Planned Development PD/Cluster Developments

The County shall continue to allow planned developments and cluster type developments in order to preserve large contiguous areas of wetlands and other environmentally sensitive communities. Performance standards contained in the Seminole County Comprehensive Plan and implemented by the Land Development Code shall ensure that the use of the Planned Development option is compatible with surrounding land uses and is a beneficial use within the community.

Drafter's note: Policy 3.5 operates with the assumption that there is no right to any particular land use (i.e., single family homes, townhouses, etc.) within a Planned Development (PD). All uses within a PD are subject to approval by the Board of County Commissioners (BCC) and are dependent upon satisfaction of Comprehensive Plan and Land Development Code performance standards to achieve compatibility with adjacent development, neighborhoods, development trends, etc. The BCC may impose reasonable conditions at the time of zoning approval of PDs.

Policy CON 3.6 Conservation Easements/Dedications

The County shall continue to rely upon conservation easements or require dedication of open space areas to an appropriate agency as a tool for preserving floodplain, wetland and ecologically significant communities.

Policy CON 3.7 Agency Regulation Coordination

The County shall coordinate with the St. Johns River Water Management District (District), the Department of Environmental Protection, the Florida Department of Community Affairs, the Florida Fish and Wildlife Conservation Commission (FFWCC), and other appropriate agencies as required by, and in order to implement *Policy IGC 3.3 Plan Coordination*, and during the review of development proposals, to ensure that comprehensive plan amendments, development orders and permits are consistent with the Wekiva Parkway and Protection Act, Wekiva River Protection Act, the District Protection Zone rules, adopted Management Plans, and the FFWCC regulations for the protection of endangered, threatened or species of special concern (both plant and animal), and all other applicable laws, rules and regulations.

Policy CON 3.8 Econlockhatchee River Basin Protection

The County shall continue to regulate development consistent with the Seminole County Econlockhatchee River Basin Protection Ordinance to ensure its preservation as a recognized outstanding natural resource. This basin is shown on *Exhibits FLU: Resource Protection Areas* and *CON: Econlockhatchee and Wekiva River Protection Areas and Wekiva Study Area*. Minimum ordinance provisions necessary to ensure protection of the Econlockhatchee River Basin shall include:

A A 550 foot development restriction zone;

B Provisions for density transfers outside of protection zones and critical habitats;

C Protection of floodplain, wetlands, and rare upland habitat;

D Historic and archaeological resource assessments; and

E Minimal removal of native habitats.

Policy CON 3.9 Econlockhatchee River Outstanding Florida Water Designation

The County shall continue to manage and regulate development along the Econlockhatchee River to ensure its continued designation as an outstanding Florida Water Body and ensure that all development is consistent with the Econlockhatchee River Protection Overlay Standards Classification.

Policy CON 3.10 Protection of Endangered and Threatened Wildlife

The County shall continue to require, as part of the development review process, that prior to development approval, proposed development must coordinate with all appropriate agencies and comply with the US Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission Rules as well as other applicable federal and State Laws regarding protection of endangered and threatened wildlife.

Policy CON 3.11 Planning Standards for Natural Resource

The County shall evaluate and update, as needed, the Planning Standards for Natural Resources in conjunction with the Land Development Code update scheduled for completion by 2011, and ensure the addition of appropriate State and Federal procedures and regulations pertaining to endangered and threatened species, should the State and federal regulations reflect any changes that have occurred since the County last updated its Land Development Code.

Policy CON 3.12 Central Florida Regional Growth Vision (How Shall We Grow?)

The County shall guide development in accordance with the principles of preserving open space, recreational areas, farmland, water resources, and regionally significant areas, as established by the 2007 Central Florida Regional Growth Vision (How Shall We Grow?).

OBJECTIVE CON 4 SOILS/MINERALS/BORROW PITS

The County shall minimize adverse impacts to the natural resource functions of soils prior to development.

Policy CON 4.1 Septic Tanks

The County shall continue to rely on the State Health Department to develop and implement guidelines and standards to regulate the location and use of septic systems on soils with low or very low potential.

Policy CON 4.2 Soil Survey

The County shall continue to use the most recent Soil Survey of Seminole County and Soil Supplement as a source of soil interpretation information for Countywide land use planning and development review and approval.

Policy CON 4.3 Public Facilities on Low Potential Soils

The County shall discourage the dedication of land for public ownership or maintenance for utilities, roads, or future public facility sites in areas where soil potential is low or very low unless these areas are to be used for passive recreation, preservation or retention, conservation easements, drainage, wildlife habitat areas or unless the overriding public interest warrants the dedication of such lands.

Policy CON 445 Erosion/Stream Bank Stabilization

The County shall continue to ensure, as part of the water quality program, the minimization of erosion and the stabilization of stream banks through planting of trees, shrubs and other vegetation or materials to stabilize soils and treat storm runoff.

Policy CON 4.5 Mining and Borrow Pit Operations

The County shall to evaluate Land Development Code (LDC) regulations relative to Mining and Borrow Pit Operations, including the requirement for submission of restoration, reclamation and/or mitigation plans, during the LDC update scheduled for completion by 2010.

OBJECTIVE CON 5 AIR QUALITY

The County shall ensure that established air quality standards are maintained within Seminole County.

Policy CON 5.1 Air Quality Monitoring

The County shall continue to evaluate the need for expanding existing air quality monitoring stations within Seminole County through coordination with the Florida Department of Environmental Protection, the East Central Florida Regional Planning Council and adjacent municipalities. This evaluation, at minimum, shall include the following:

A Adequacy of existing monitoring programs;

B Location of existing and future areas of traffic congestion and major transportation construction areas for possible monitoring; and

C Joint funding of ongoing monitoring programs.

Policy CON 5.2 Monitoring Regulations

The County shall evaluate, if necessary, the need to include standards and criteria for requiring ongoing air quality monitoring as part of development orders approving large projects as part of the Land Development Code update scheduled for completion by the end of 2011.

Policy CON 5.3 Toxic Chemical Release

The County shall continue to rely on Land Development Code regulations governing the use and release of toxic chemicals or other matter into the air.

Policy CON 5.4 Reduction of Greenhouse Gas Emissions

The County shall continue its efforts to reduce greenhouse gas emissions from the transportation sector by incentivizing energy-efficient land use patterns through redevelopment that will reduce reliance on the automobile and by continuing support for Central Florida Regional Transportation Authority (LYNX) public transit improvements and the SunRail commuter rail to provide alternatives to the automobile. If financially feasible, the County may also make continued use of the software of the International Council for Local Environmental Initiatives , which provides a framework to track energy and waste related activities in a community, and to calculate the amounts of greenhouse gases produced by each activity and sector.

OBJECTIVE CON 6 WATER CONSERVATION

The County shall continue its ongoing efforts to conserve water by guiding land development patterns into forms that are water-conservative, and examining revisions to the Land Development Code that reduce the need for irrigation of landscaping in developed areas.

Policy CON 6.1 Water Conservation Techniques

A The County shall evaluate by 2010 changes to the landscaping requirements of the Land Development Code to determine the feasibility of revising the current regulations. Current regulations encourage use of Florida-friendly/Waterwise landscaping irrigation techniques. Potential changes include requirements to mandate the use of such materials for a minimum portion of the required open space for nonresidential development. The County shall ensure the changes are coordinated with and are supportive of the County's adopted irrigation and landscape ordinances and complies with the Potable Water Element *Policy POT 1.5 Conservation Devices* and *POT Water Supply Plan, Section III.I* as well as Conservation Element *Policy CON 1.12 Florida-friendly/Waterwise Landscaping Regulation.*

B The County shall evaluate by 2012 the grant program initiated by a municipality within Seminole County to assist single family homeowners to retrofit existing lawns and replace them with Florida-friendly/Waterwise plant materials and determine if a similar program is financially feasible for Seminole County, based on funding such as fines assessed against frequent violators of irrigation limitations.

Policy CON 6.2 Water Conservation Programs

The County shall conserve water resources through continuation of the Seminole County Water Conservation Program, which includes, but is not limited to, the following projects:

A Residential Reclaimed Retrofit Program. As a part of the County's Consolidated Consumptive Use Permit (CUP), a five phase program has been initiated to install water reuse lines within the County's Northwest Service Area. Phase 1 was completed in February of 2008; it will ultimately serve 825 houses. Phase 2 will be bid for construction during summer of 2008. Upon completion of Phases 1 and 2 in the Northwest Service Area, approximately one million gallons of potable water a day (mgd) will be saved and irrigation systems in those areas will rely upon reuse water. Phases 3 and 4 will be designed during 2008 and built during 2009. Phase 5 will be designed in 2010. Combined with further program expansion in the Northeast, Northwest, and Southeast Service Areas a total offset (savings) of groundwater due to this program is ultimately estimated as 2.62 mgd. Installation of reuse facilities is scheduled presently only for high use irrigation areas, but neighborhoods with access to reclaimed water mains can use the MSBU program to acquire reclaimed water for irrigation. *(Support: POT Water Supply Plan, Sec IV.C and IV.D.)*

B Demonstration Garden. Continue to operate, if financially feasible, a "demonstration garden" of Florida-friendly plants at the County's Environmental Studies Center, as well as preparing and implementing a new site at the Seminole County Extension Office at Five Points, on U.S.

17-92, in partnership with the Seminole County Master Gardeners, in creating a Waterwise Learning Garden for citizens. The presence of this Garden shall also result in a savings of water by Seminole County.

C Public Education. Continue, if financially feasible, the public education efforts in water conservation through the provision of information via the County's website and presentations on water conservation issues throughout the community (schools, festivals, special events, civic groups and garden clubs). Expand the public education efforts through taping of programming to be aired on Seminole Government Television for a series about environmental issues (including water conservation) and a series of before and after of the Waterwise Learning Garden.

D Appropriate Irrigation Systems. Continuation, if financially feasible, of the program for provision of appropriate irrigations systems for single family homes. A study is underway during 2008 to evaluate whether such systems can also be provided to "commercial" water users (which includes multi-family residential uses).

E Enforcement. Continue enforcement of Water Conservation Ordinance 2007-18, which is in accordance with Rule 40C-2.042(2) (a) and (b), Florida Administrative Code, with a trained team of employees who patrol service areas of the County for violation of water limits. Identification of violators results either in outreach opportunities to educate, or imposition of fines when restrictions are continually disregarded.

OBJECTIVE CON 7 COMPREHENSIVE PROTECTION OF WETLANDS

The County shall protect the natural functions provided by wetlands with strategies that direct incompatible uses away from wetlands by first avoidance of the wetland on a site, or minimization of impacts, and then either a conservation easement and setbacks and/or the use of techniques that provide for mitigation of potential impacts on wetlands, consistent with the Uniform Mitigation Assessment Method used by the St. Johns River Water Management District. The natural functions of wetlands vary depending upon the type, location, and classification, but could be affected by the degree of historic alteration. For purposes of fulfilling this objective, urban wetlands will refer to wetlands within the County's urban area (i.e., wetlands outside of the County's Rural Area as established in the Comprehensive Plan) but and not contained in the Wekiva River Protection Area. Studies have found that in aggregate, the wetland systems in the Wekiva River Basin, Lake Jesup Basin, and the Rural Area are higher in quality and function, and provide connectivity of a regional significance. The wetlands in other portions of the County also provide value even if not as a part of a regional system. The County's strategy for sustaining the functions of those wetland systems in the urban area, and in rural areas other than those with special protections shall include the following directives:

Policy CON 7.1 Land Acquisition and Associated Management Plans

The County shall focus on completion of management plans associated with lands acquired via the County's Natural Lands Program. The County shall continue to acquire, as monies are available, and partner with other agencies to acquire areas of environmental sensitivity and wetlands in the Wekiva River Basin, Lake Jesup Basin, the East Rural Area, and the Geneva Freshwater Lens Area.

Policy CON 7.2 Special Area Protection

The County shall continue to enforce and apply all special federal, State, and local provisions that relate to protection of wetlands and their functions, including:

A The Wekiva River Protection Area as defined in Section 369.303(9), Florida Statutes, *Policy FLU 1.9 Wekiva and Econlockhatchee River Protection* and *Objective FLU 13 Protection of the Natural Resources of the Wekiva Study Area* and its policies, contained within the Seminole County Comprehensive Plan;

B The Wekiva Global Compliance Agreement;

C All provisions set forth in the Land Development Code of Seminole County relating to protection of wetlands and intended to implement the wetland protection policies of this Plan;

D The Econlockhatchee River Protection Ordinance;

E Standards set forth in this Plan which protect the Rural Area; and

F All State and Water Management District wetland protection requirements, including:

1 The St. Johns River Water Management District's Wekiva and Econlockhatchee Riparian Habitat Protection and Water Quality Zone Standards; and

2 The St. Johns River Water Management District's Drainage Basin Rules as applicable to Nested Basins and Specially Designated Basins.

Policy CON 7.3 Future Land Use Designations

The County shall continue to utilize the Future Land Use designations as contained within this Plan to direct incompatible uses away from wetlands, including:

A The use of special planning techniques;

B The application of the Environmentally Sensitive Lands Overlay; and

C Reliance on the Urban/Rural Boundary and the associated protection provided therein to wetlands.

Policy CON 7.4 Wetland Regulation-Buffers, Performance Standards and Compatibility

A Upland buffers adjacent to protected wetlands provide habitat for some wetland dependent species, and protection from detrimental effects of development adjacent to the wetland.

B The County shall require a 15 foot minimum, 25 foot average wetland buffer in areas outside of the Wekiva River Protection Area and the Econlockhatchee River Protection Area that will protect the function of the wetlands and the dependent organisms. Acceptable uses within the designated upland buffers include restoration, enhancement, and pervious trails.

C The County's Development Review Process shall continue to guide development that may impact locally significant wetlands outside of the Wekiva River Protection Area and Econlockhatchee River Protection Area in a manner consistent with and supportive of the regulations contained in Rule 40C-4.302(2), Florida Administrative Code (FAC) and the regulations contained within the St. Johns River Water Management District *Applicant's Handbook: Management and Storage of Surface Waters* dated November 5, 2008. The County shall continue to direct applicants with proposals that affect wetlands regulated by the St. Johns River Water Management to the District to apply for the necessary permits. Locally significant wetlands are those wetlands that due to function, size, rarity or endangerment retain or provide benefits of local significance to the natural or human environment, regardless of ownership, but are not included within a regionally significant wetlands system. In particular, development that may impact locally significant wetlands by physically affecting the wetland through the inclusion of catwalks (boardwalks), docks and gazebos shall be directed by the following performance standards:

1 The structure and foundation system of a catwalk (boardwalk) or dock shall be designed so as not to impede, interrupt, or impound surface water flows.

2 Construction shall take place only during the dry season (usually October through May).

3 The use of heavy equipment shall be minimized. Any clearing of vegetation shall be confined to the immediate right-of-way of the catwalk or dock and shall not exceed a width equal to the width of the catwalk or dock plus five feet to either side.

4 There shall be no temporary filling of the wetland for construction or any other purposes except in those wetlands where filling is permitted.

5 All pilings shall be driven to the desired depth and shall not be jetted into the soil.

D Wetland Compatibility Criteria. For purposes of reviewing land use and land development applications which include the potential disruption of locally significant wetlands, no encroachment on such wetlands shall be acceptable except for construction of, or improvement of, public facilities that benefit the general public.

E The Seminole County Comprehensive Plan through this Policy, and the Land Development Code as implementer of this Policy, shall continue to require dedication to the County of all post-development wetlands as conservation easements.

Policy CON 7.5 Wetland Regulation-Size

Wetlands less than 0.5 acre in size that are not used by threatened or endangered species do not require mitigation by the St. Johns River Water Management District. This policy shall not apply to lands within the statutorily defined Wekiva River Protection Area.

Policy CON 7.6 Wetland Regulation-Classification

The County will classify wetlands using the Florida Land Use Cover and Classification System unless otherwise specified by the St. Johns River Water Management District for use in their permit application processes.

Policy CON 7.7 Wetland Regulation-Location: Urban

Urban wetlands still maintain functions that provide value to the community, therefore, pre-development hydrology/hydro-period in these wetlands shall be maintained. In addition, the ability of urban wetland systems to retain their existing functions shall not be compromised by development activities in Seminole County. These functions may include:

A HYDROLOGIC PROCESSES

1 - Storage of surface water

2 - Storage of sub-surface water

3 - Moderation of groundwater flow

4 - Dissipation of energy

B BIOCHEMICAL PROCESSES

1 - Nutrient cycling

2 - Contaminant removal

3 - Retention of particulates

4 - Carbon export

Policy CON 7.8 Wetland Regulation-Location: Rural

Wetlands in the Rural Areas also retain those functions listed above in Policy CON 7.7 Wetland Regulation–Location: Urban and, because of the existing mosaic of upland and wetland systems, provide additional functions and values related to the habitat component of wetlands. In conjunction with the Land Development Code update, scheduled for completion by 2010, the County will evaluate the need to require additional measures for protection of this habitat component. These additional measures of habitat protection will include a concentrated effort to sustain large tracts of intact wetland systems through acquisition, conservation easement, and the encouragement of comprehensive mitigation tracts.

Policy CON 7.9 Wetland Regulation-Mitigation

Seminole County will regulate wetlands within the urban and rural areas in order to protect and sustain their functions and values. In conjunction with the Land Development Code update, scheduled for completion by 2010, the County will evaluate the need to provide additional criteria which will allow for mitigation of impacts to wetlands caused by the development actions. The following framework will be used to create this wetland mitigation process:

A The County shall accept mitigation required by the St. Johns River Water Management District (District) for impacts that occur within the urban area as defined by *Objective CON 7 Comprehensive Protection of Wetlands*.

B For impacts to wetlands in the urban area, the County shall accept ratios that encourage mitigation projects to be conducted within the Wekiva River Protection Area, the East Rural Area, and the basins designated by the St. Johns River Water Management District as Special or Nested. As an incentive to mitigate in these areas, Seminole County may accept ratios within the lower-range of those accepted by the District.

C For impacts to wetlands in the Rural Area, the County shall create criteria that will rely upon mitigation that will be to the maximum extent possible to act as disincentive for impacting the high quality areas contained within the Rural Area. These ratios may be within the upper-range of the ratios accepted by the District.

D As additional protection, development activity (including the placing or depositing of fill within wetlands and the one hundred (100) year floodplain identified by FEMA), within the Wekiva River Protection Area shall be prohibited except in cases of overriding public interest. Where wetland values are degraded due to overriding public interest, mitigation efforts shall occur. Floodplain impacts will require compensating storage.

E Mitigation projects must take into consideration the type, quality, location, and size of the wetlands being impacted.

F Seminole County shall pursue agreements with the District that allow the brokerage of mitigation projects for impacts to Nested and Special Basins as fee simple dedications to the Seminole County Natural Lands Program.

G Creation, Enhancement, and Restoration projects proposed as mitigation shall be evaluated based on the type, quality, size, and location of the wetlands being impacted, and shall not be encouraged in lieu of Preservation and Upland Conservation and the establishment of a County-run comprehensive wetland mitigation program funded in part through the payment of fees in lieu of performing mitigation activities.

Policy CON 7.10 Wetland Regulation-Intergovernmental Coordination

Seminole County shall coordinate efforts with the St. Johns River Water Management District and the US Army Corps of Engineers to maximize the benefits of mitigation in the Wekiva, Jesup, and Econlockhatchee River Basins, and in the Rural Areas of the County.

Policy CON 7.11 Management of Publicly Owned Wetlands

Seminole County shall continue to coordinate with local, State, and federal entities that own land in the County to implement projects for the management of wetlands and other natural resources.

OBJECTIVE CON 8 ENERGY CONSERVATION

The County shall conserve and properly manage energy resources for existing and future generations by supporting efforts for achieving energy conservation and sustainability and by implementing energy conservation measures and practices.

Policy CON 8.1 Review of County Energy Measures

The County shall review, with each Comprehensive Plan Evaluation and Appraisal Report, existing Countywide energy conservation measures and practices, and, if necessary adopt additional Comprehensive Plan policies that further the goal of achieving measurable results in energy conservation. The review shall include an evaluation of the effect of County plans, programs, and policies and determine how to reduce energy impacts and make efficient use of energy resources. The review may also include the use of the International Council for Local Environmental Initiatives software, which provides a systematic framework for local governments to track energy and waste-related activities in a community, and to calculate the amounts of greenhouse gases produced by each activity and sector.

Policy CON 8.2 State and Federal Incentives

The County shall support incentives by the State and federal government to promote energy efficiency and conservation, including solar and other clean alternative energy sources.

Policy CON 8.3 Coordinated Energy Conservation

The County shall endeavor to coordinate with the municipalities to promote energy conservation and education.

Policy CON 8.4 Alternative Energy Sources

The County shall encourage the development of power generating facilities that are more energy-efficient and rely on clean alternative energy resources, such as natural gas, fuel cells, or solar energy.

Policy CON 8.5 Seminole County Energy Conservation Committee

The Seminole County Energy Conservation Committee shall develop a proactive approach to energy conservation, including creation of an energy mission statement, policy, and plan for the future.

Policy CON 8.6 Florida Energy Code and requirements of Florida Statute

The County shall continue to enforce the Florida Energy Code to ensure that construction meets or exceeds required energy conservation requirements and shall ensure that its Building Code complies with the energy conservation requirements of Florida Statutes for residential construction, as noted in *Policy HSG 11.1 Renewable Energy Resources in Residential Development*.

Policy CON 8.7 Coordination with Electrical Power Companies

The County shall provide growth projections and other data, as needed, to the power companies to coordinate better on estimating future energy consumption by new growth.

Policy CON 8.8 Use of Alternative Energy Sources

The County shall continue to use solar power, or other forms of alternative power, where available and feasible.

Policy CON 8.9 Energy Efficiency Measures in Fleet Services

The County shall endeavor to increase fuel efficiency in County fleet vehicles to an industry average of 35 miles per gallon by 2020, consistent with federal legislation approved in 2007.

Policy CON 8.10 Energy Conservation Measures in Leased Space

The County, when entering into contracts for leased space, will request energy conservation measures to be included in the contract from the leasing agency.

Policy CON 8.11 Energy Education Efforts by the County Extension Service

The County Extension Service will continue to provide energy related educational programs and energy conservation materials to County employees, the public, and for school age children.

Policy CON 8.12 Policy Review

The County shall review new policies, programs, and work plans for their affect on energy conservation and efficiency.

Policy CON 8.13 Promote Alternative Modes of Travel to Minimize Fuel Consumption

The County shall continue to support efforts put forth in the *County Transit, Pedestrian and Bicycle Multi-Modal Mobility Strategy and Quality/Levels of Service Mobility Strategy* of the Transportation Element *(Policy TRA 2.1.1)* and the *Energy Conservation Overlay* of the Future Land Use Element *(Policy FLU 5.17),* to increase mass transit ridership, use of SunRail commuter rail, bicycle and other alternative modes of travel as a means to minimize fuel consumption, and to encourage redevelopment in a more energy-efficient land use pattern that will enable more use of alternative modes of travel.

Policy CON 8.14 Continue the preservation of energy conservation features to discourage urban sprawl, reduce vehicle miles traveled and absorb carbon dioxide from the air

Seminole County shall continue its policies of acquiring environmental features, where financially feasible, while maintaining its existing network of preserved/managed lands, parks, treed roadways and enforcing wetlands rules. Benefits of preserved environmental features include a strong water recharge system, protection of the natural resources valued by those attracted to Seminole County, guidance of development away from more remote areas (thus reducing urban sprawl and vehicle miles traveled), reduction of heat effects in urban areas, and the absorption of carbon dioxide from the air.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

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CONSERVATION ELEMENT
COMPREHENSIVE WETLANDS MANAGEMENT STRATEGY

INTRODUCTION

Seminole County uses a multi-faceted system to direct incompatible land uses away from wetlands. To date, this system has managed to preserve most of the wetland acreage in the urban area; however, the function of impacted systems has been altered (Econ Basin Study, Soldier's Creek Basin Study 2001, J. Exum and C. Shadrix). There are three primary methods by which the County directs incompatible land uses away from wetlands, and several secondary methods, all of which are described in the following narrative.

Primary Methods of Directing Incompatible Uses Away from Wetlands

- **Identification of Environmentally Sensitive Lands.** The first of these is the identification of environmentally sensitive lands that are to be preserved during the development process. As stated in *Objective FLU 5 Future Land Use Map Foundation*, preservation, preservation of natural resources is one of the foundations of the County' Comprehensive Planning process, innovative planning techniques and land development regulations.
- **Land Acquisition.** The second primary means of protecting wetlands is reliance on land acquisition via the County's Natural Lands Program, the St. Johns River Water Management District, and the Florida Department of Environmental Protection. To date, there are over 18,000 acres of the County's 41,000 acres of wetlands in public ownership, which translates to roughly 43% (source: Seminole County Information Technology Services).
- **Special Areas**. The County and State have designated areas (Future Land Use Element) for special consideration to protect wetlands. These include the Wekiva River Protection Area and the Econlockhatchee River Protection Zone, as well as the special East Rural Area.

Secondary Methods of Directing Incompatible Uses Away from Wetlands

The secondary methods of directing incompatible uses away from wetlands are through the implementation and execution of the Comprehensive Plan's Future Land Use designations, and the Land Development Code of Seminole County.

- **Special Techniques.** For example, allowing clustering of development, or planned development, in exchange for preserving open areas, which protects natural resources from development.
- **The Environmentally Sensitive Land Overlay**. This method, which could be considered the cornerstone of wetlands protection techniques, limits the permitted uses on wetland properties.
- **The Urban/Rural Boundary**. This Boundary forms the foundation for both wetland regulation and for the land uses that are assigned throughout the County. The County's Comprehensive Plan includes criteria regarding the locational analysis component of Standards for Amending the Urban/Rural Boundary (FLU Element) that further protect wetlands.

Tertiary Methods of Directing Incompatible Uses Away from Wetlands

Tertiary methods of wetland protection included:

- Application of the Environmentally Sensitive Land Overlay through continued implementation of *Policies FLU 1.1 Environmentally Sensitive Lands, 1.2 Floodplain Protection, 1.3 Wetlands Protection, 1.4 Conservation Easements, 12.8 Compliance Agreements Between Seminole County and the Florida Department of Community Affairs, 12.9 Wekiva River Protection Area Environmental Design Standards*, and *Objective FLU 13 Protection of the Natural Resources of the Wekiva Study Area* and its policies used to protect wetlands from incompatible uses.

LAND ACQUISITION

The purchase of environmentally sensitive lands is perhaps the most significant tool used to protect wetlands. Three primary public entities have purchased thousands of acres of environmentally sensitive lands in Seminole County: the Seminole County Natural Lands Program, the St. Johns River Water Management District, and the Florida Department of Environmental Protection. Seminole County, which has adopted as its motto "Florida's Natural Choice", has long recognized the value of preserving its natural environment, not only for the sake of preservation, but also to achieve other important economic and community development goals. The Seminole County Comprehensive Plan was amended in 1987 and embraced the basic tenants of sustainable development. The Plan recognized the importance of balancing urban growth with the preservation of the County's pristine natural resources, including the St. Johns River, the Wekiva River, and the Econlockhatchee River, as well as over 55 listed species of plants and animals. In 1990, the voters of Seminole County approved a referendum that allocated $20 million dollars towards the purchase of ecologically valuable lands for the purpose of preservation and passive recreation.

The passing of the natural lands referendum presented more than just an opportunity for the County to preserve natural resources, it also represented an opportunity for the County to partner with State and federal agencies to purchase lands and provide a larger base from which to fund purchases. To date, over one-fifth of Seminole County has been set aside in public ownership. This was made possible largely due to the active support of the community, including land donations from property owners and developers. This program made it possible to try and protect some of the systems that together form a mosaic of high-quality wetlands and uplands that extend into other counties of the region, resulting in the protection to date of approximately 43% of wetlands in Seminole County. In 2000, the voters of Seminole County continued the commitment to preservation by approving an extension of five million dollars for purchase of additional natural lands and $20 million dollars for the development of greenways and trails that will connect these areas. The Exhibit *FLU: Conservation and Trails Corridors* clearly depicts the extent of publicly owned land in Seminole County to date.

FUTURE LAND USE MAP

Objective FLU 5 Future Land Use Map Foundation states "The County shall continue to develop and enforce innovative planning techniques and land development regulations designed to support the Central Florida Regional Growth Vision…and regionally significant natural areas. The Future Land Use Map series embodies strategies designed to build long term community value, discourage urban sprawl and ensure that public facilities and services are provided in the most cost-effective and efficient manner. This serves as one of the cornerstones for the form of development on the urban and rural landscapes, and clearly states as an objective that preservation of natural resources is a priority. *Exhibit FLU: Future Land Use Map* details the focus of land use in the County, which is notably dominated to the east by the areas assigned the Environmentally Sensitive Lands Overlay identification, illustrated by the use of a symbol imposed on top of areas with Future Land Use designations that include, but are not limited to, Rural 3, Rural 5, Rural 10, and Low Density Residential. From a view of this map, it is important to point out several items. First, there are the

Resource Protection Areas, illustrated on *Exhibit FLU: Resource Protection Areas*, and include the Wekiva River Protection Area, the Econlockhatchee River Basin, and the Geneva Lens Area, the latter of the two are contained within the designated East Rural Area. These areas are already receiving special protection from state and County regulations above and beyond that which is normally required. Second, it is also important to point out that the Wekiva River Protection Area (WRPA) has protection via the Wekiva Global Compliance Agreement (and subsequent amendment to policy by the Seminole County Comprehensive Plan) that allows no wetland impacts, and requires a 50 foot upland buffer around all wetlands in the WRPA, which is in addition to the St. Johns Water Management District Riparian Habitat Protection Zone (RHPZ) and protection zone requirements. The Econlockhatchee River also has a RHPZ requirement by both the County and the District. These areas are considered special areas in this process and described in greater detail below. With the exception of these special areas, only a small area within the designated urban area is the focus of discussion. This includes the portions of the County surrounding the cities of Altamonte Springs, Casselberry, and Winter Springs, and the area south of the City of Oviedo. There are relatively few wetlands in these areas compared to those in public ownership and those in the East Rural Area. Most of these wetlands are surrounded by intense development by the municipalities, although the predominant land use assigned by Seminole County is Low Density Residential, and Planned Development (see "Unique Planning Techniques").

SPECIAL AREAS

As stated previously, there are three special areas in the County that make up roughly 75% of the County's landform (unincorporated area): "The Wekiva River Protection Area", The Econlockhatchee River Basin, and the "East Rural Area," which includes much of the Econlockhatchee River Basin. *Issue FLU 11 Protection of Rural Areas* describes the protection of the Wekiva and Econlockhatchee areas. The "Wekiva River Protection Area" and "East Rural Area" represent two separate and distinct areas within Seminole County where the Comprehensive Plan sets forth specific policy guidance for the long-term maintenance of rural character.

In 1988, the Florida Legislature enacted the "Wekiva River Protection Act" for the purpose of protecting the natural resources and rural character of the "Wekiva River Protection Area" as defined in the Act. To comply with the Act, the County amended its Comprehensive Plan creating a set of Plan policies to ensure the maintenance of the rural density and character in the aggregate, protect natural resources, and ensure the long-term viability of the Wekiva River Protection Area (WRPA) (see *Objective FLU 14 Revitalization of Major Corridors* and the *Exhibit FLU: Future Land Use Map* of this Plan). In 1999, with assistance from the Florida Department of Community Affairs, various environmental groups and citizens, the County adopted a Plan objective and additional set of Plan policies, substantially based on the "1999 Wekiva Special Area Study", to provide greater protection for this area. The Comprehensive Plan also establishes that wetlands within the WRPA shall be protected, and a 50 foot upland buffer shall be required around all wetlands. As additional protection, development activity (including the placing or depositing of fill within wetlands and the 100-year floodplain identified by FEMA), within the Wekiva River Protection Area shall be prohibited except in cases of overriding public interest. Where wetland values are degraded due to overriding public interest, mitigation efforts shall occur. Floodplain impacts will require compensating storage.

The Wekiva and Econlockhatchee River Basins were also designated as Nested Basins by the St. Johns River Water Management District in 2000, meaning that most of the mitigation projects for wetlands in these areas are required to remain within the basin. This is in addition to the requirement for compliance with 550 foot Riparian Habitat Protection Zones for both basins. The Lake Jesup Basin was designated by House Bill 2365 as a Special Basin

unto itself during the 2000 session, which created additional requirements that exceed those with nested status.

In 1991, the County's Comprehensive Plan was amended, based on the "1991 East Seminole County Rural Area Plan" to create the "East Rural Area" of Seminole County (see *Objective FLU 11 Preserve Rural Lifestyles in Seminole County* and the *Exhibit FLU: Future Land Use Map* of this Plan). This Plan amendment created and assigned a set of Rural future land use designations (Rural-3, Rural-5, and Rural-10) and associated rural zoning classifications (A-3, A-5, and A-10) to properties within the East Rural Area. These land use designations and zoning classifications, together with Plan policies and Rural subdivision standards, were established to preserve and reinforce the positive qualities of the rural lifestyle of the East Rural Area. In 1999, the Comprehensive Plan was amended, based on the "1999 Chuluota Small Area Study" to further strengthen the rural character of the East Rural Area. The East Rural Area of Seminole County is distinguished from the County's predominantly urban area by the Urban/Rural Boundary (see the *Exhibit FLU: Future Land Use Map* of this Plan).

Policy FLU 11.1 Recognition of East Rural Area states, "The County shall continue to enforce Land Development Code provisions and land use strategies that recognize East Seminole County as an area with specific rural character rather than an area anticipated to be urbanized. It shall be the policy of the County that Rural Areas require approaches to land use intensities and densities, rural roadway corridor protection, the provision of services and facilities, environmental protection and Land Development Code enforcement consistent with the rural character of such areas." *Policy FLU 11.4 Rural Cluster Development* sets guidelines for cluster development in the Rural Area, and includes as an objective the protection of natural resources.

In addition to the studies cited above, the Board of County Commissioners approved the Seminole County 2006 Rural Character Plan. In summary, this Plan identifies issues and concerns affecting preservation of the East Rural Area and an evaluation of Comprehensive Plan policies and land development regulations. The Comprehensive Plan also attempts to provide a balance and thoughtful series of recommendations designed to maintain and protect the rural character of the East Rural Area. The Plan represents a collaborative effort between Seminole County and the citizens of the East Rural Area and includes recommendations for tools or strategies to preserve the rural character and lifestyle of the East Rural Area.

Urban/Rural Boundary

Having established that the East Rural Area contains a high-quality mosaic of valuable wetland and upland systems, it is important to recognize that the County has adopted a limited number of land use designations of very low density in the Rural Area to protect these resources. This entire program is detailed in the Future Land Use Element under the heading, "RURAL LAND USE CATEGORIES," which defines the criteria for the Rural-3, Rural-5, and Rural-10 Future Land Use designations. Seminole County requires an amendment to the Urban/Rural Boundary to allow for a land use change beyond these three designations, and has added protection of wetlands to the criteria for amendment of this boundary (see FLU Element, Standards for Amending the Urban Rural Boundary).

Unique Planning Techniques

An effective by-product of the Future Land Use designations is the application of unique planning techniques, such as clustering. Clustering is one of the most effective tools for preserving wetlands during development, when applied properly. Currently, clustering is encouraged in Planned Developments, the Wekiva River Protection Area *(Objective FLU 14 Revitalization of Major Corridors*) and the East Rural Area (*Policy FLU 11.4 Rural Cluster*

Development). There are demonstrated examples of the success of this technique in Seminole County (Alaqua Lakes, Magnolia Plantation).

Environmentally Sensitive Lands Overlay

Perhaps the most important component of wetland protection resulting from the Future Land Use Element is the Environmentally Sensitive Lands Overlay. The County uses this tool to regulate development and preserve environmentally sensitive areas including both wetlands and floodplains. By definition, the Environmentally Sensitive Lands area is an overlay that includes the extent of floodplains and wetlands in Seminole County. This information is consistently based on the most recent data provided by the St. Johns River Water Management District. These data are subject to the limitations of existing data from a variety of sources, including National Wetlands Inventory and US Geological Survey Data. In most cases, the extent of wetlands from a jurisdictional standpoint is determined via ground-truthing as part of an official wetlands survey. This is discussed as a process in the latter part of this section. The Environmentally Sensitive Lands Overlay is implemented for wetland protection via the regulation of development consistent with the provisions of the Land Development Code of Seminole County (LDC), and contains very specific criteria and performance standards that preserve wetlands to the maximum extent possible. In conjunction with the LDC update, scheduled for completion by 2010, the County will evaluate the need to provide a more comprehensive series of wetland regulations that includes the significance, type, land use, extent, development compatibility, and performance standards prior to County review and approval. In addition to these standards, dedication to the County of all post-development wetlands is required *(see Policy FLU 1.2 Floodplain Protection)*. In the past the County enforced a percent impact based program (i.e., where only 10% of wetlands on site were allowed to be impacted). Currently, the County enforces a mitigation based program which focuses maximum protection on the rural Area of the County along with the Wekiva River Protection Area. The specific mechanisms will be contained in the LDC; however, the intent of this narrative as policy is to identify the rationale that there are important functional differences of systems in the East Rural Area that are vital to the natural wealth of the County.

The Environmentally Sensitive Lands Overlay is used to identify where wetlands exist and is applied as one of the first steps in a developer's process of site evaluation. Typically, the developer is responsible for having on-site wetlands delineated and signed off by the jurisdictional agencies (US Army Corps of Engineers, Florida Department of Environmental Protection, St. Johns River Water Management District, and Seminole County's Natural Resources Officer). Once this is completed, the regulations apply to the jurisdictional wetland lines, and the other portions of the property are evaluated using the underlying future land use designations.

Contained within the Definition Section of the Future Land Use Element is a detailed description of allowable uses within areas identified as Sensitive Environmental Lands on the Future Land Use Map. These uses are determined by the County to be compatible with wetlands and passive in nature. This section of the Future Land Use Element also describes the previously mentioned process of verification of the jurisdictional lines of wetlands and floodplains, and describes in greater detail the special provisions associated with the Environmentally Sensitive Lands areas.

Zoning

Once the intent of the Future Land Use designation and the application of the Environmentally Sensitive Lands Overlay have been realized, zoning becomes yet another tier of compatibility. The Comprehensive Plan sets forth the long-range potential uses of property in the context of a lawful planning horizon, and provides for a wide array of potential zoning classifications

within each future land use designation. The compatibility of zoning districts is generally evaluated using *Exhibit FLU: Compatible Transitional Land Uses*. This application relates only to the future land use designations that are underlying any overlaid designations, such as Environmentally Sensitive Lands. A key point when speculating how zoning is applied, provides that a property owner is not entitled to all zoning classifications or the most potentially dense or intense zoning classification within a future land use designation. Numerous planning, timing, compatibility, public facility, and other generally acceptable planning issues affect the appropriateness of assigning a particular zoning classification or approving a particular future land use designation with regard to a particular parcel of property. *Exhibit FLU: Future Land Use Designations and Allowable Zoning Classifications,* provides a clear picture of the allowable zoning districts per future land use designation. All policies of the Future Land Use Element work to further this goal. FLU Policies 1.1-3.2 specifically address protection of natural resources and compatibility issues, which ultimately affect allowable zoning compatibility. Of importance is to reference previous discussion regarding the portion of the County that does not fall within a special area (within the urban area adjacent to the cities of Altamonte Springs, Casselberry, Winter Springs, and Oviedo). Most of these areas are adjacent to heavily urbanized areas, and the County has designated these areas predominately with the Low Density Residential Future Land Use designation with some having received the Planned Development Future Land Use designation. Planned Development allows for the Planned Development (PD) zoning classification, which encourages clustering. PD zoning is also allowed in other future land use designations, such as Suburban Estates and Low Density Residential to provide for clustering while maintaining the overall allowable density of the underlying future land use designation. These considerations notwithstanding, the Environmentally Sensitive Lands Overlay and process applies in some of these areas, as shown on the Future Land Use Map, as an additional layer of protection.

CONCLUSION

Seminole County continues to be a highly desirable place to work, play, live, and learn through the achievement of redevelopment, compact, mixed-use development, and the preservation of the natural resources upon which the logo “Florida’s Natural Choice” is based. The Comprehensive Plan provides a systematic approach to how the protection of wetlands is achieved, and when applied in accordance with this Plan, these components adequately serve to direct incompatible uses away from all wetlands and preserve the high-quality mosaic of interconnected wetland and upland systems that are of regional significance.