

MEMORANDUM

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To: Local Planning Agency
From: Ian McDonald, AICP, Chief Planner
Through: Brian T. Sheahan, AICP, Director of Planning and Community Design
Date: November 6, 2008
Subject: New Ch. 163 Energy Conservation Requirements – Greenhouse Gas Reduction Program

BACKGROUND

On July 13, 2007, Governor Crist signed Executive Order 07-126, titled “Leadership by Example: Immediate Actions to Reduce Greenhouse Gas Emissions from Florida State Government”; Executive Order 07-127, “Immediate Actions to Reduce Greenhouse Gas Emissions within Florida”; and Executive Order 07-128, “Florida Governor’s Action Team on Energy and Climate Change.” Subsequently, the Florida Legislature took up the issue and passed amendment to Chapter 163 of the Florida Statutes requiring amendments to local comprehensive plans that address reduction of greenhouse gases.

In August 28, 2008, a letter from Mr. Charles Gauthier of the Florida Department of Community Affairs, was received by the County highlighting the recent changes to Chapter 163 (codified in 2008-191, Laws of Florida, effective July 1, 2008) which now require the five (5) issues below to be included in Comprehensive Plans.

The issues to be addressed are:

Issue 1) The Future Land Use Element shall address:

1. The discouragement of urban sprawl;
2. Energy-efficient land use patterns accounting for existing and future electric power generation and transmission systems; and
3. Greenhouse gas reduction strategies; (s.163.3177(6)(a))

Issue 2) The land use map or map series contained in the future land use element shall generally identify and depict energy conservation. (s.163.3177(6)(d))

Issue 3) The Transportation Element shall include strategies to address reduction in greenhouse gas emissions from the transportation sector. (s.163.3177(6)(b))

Issue 4) The Conservation Element shall include factors that affect energy conservation (s.163.3177(6)(d))

Issue 5) The Housing Element shall address:

- A. Energy efficiency in the design and construction of new housing.
- B. Use of renewable energy resources. (s.163.3177(6)(f))

STAFF ANALYSIS

Issue 1) The Future Land Use Element shall address:

- A. the discouragement of urban sprawl;***

The proposed Future Land Use Element adequately addresses urban sprawl. No changes are needed.

Issue 1) The Future Land Use Element shall address:

- B) energy-efficient land use patterns accounting for existing and future electric power generation and transmission systems***

The proposed Future Land Use Element does not directly address “energy-efficient land use patterns accounting for existing and future electric power generation and transmission systems.” As noted above, however, in addressing urban sprawl, the County has developed policies that guide land uses into energy-efficient patterns. Compact development and development in higher density, urban core areas facilitates the provision of electrical power to occupied properties. It also leaves open and available (relatively) isolated rural areas suitable for future power plant construction. There are, however, some prohibitions against power transmission or distribution facilities in a few of the County’s future land use categories. Power plants are specifically prohibited in the Green Swamp Area of Critical State Concern Ridge, Green Swamp Rural, Rural Conservation, and Core Conservation Future Land Use Categories. Power plants are allowed as a Conditional Use in Heavy Industrial. These prohibitions may conflict with the Power Plant Siting Act.

The Power Plant Siting Act (PPSA), ss. 403.501-.518, F.S., is the State’s process for the licensing of large power plants. A certification constitutes the sole license of the state and any agency as to the approval of the location of the site and any associated facility. The PPSA was designed to provide a streamlined process for the development of energy infrastructure, which is necessary for the health, welfare, and protection of the citizens of the state, while protecting the public and the environment from the impacts of the infrastructure. While most facilities need to get any number of permits or approvals from local and state agencies, large power plants in the State and their distribution systems are treated differently. All local and state permits or approvals are pre-empted, and only one license is issued, called a “certification”. However, all of the local governments or state agencies within whose jurisdiction the power plant is to be certified participate in the process, to assure that the issues normally subject to regulatory approval or other authorizations are addressed. Therefore, the PPSA is a centralized licensing process encompassing the permitting, land use and zoning, and property interests of all state, regional, and local agencies which have jurisdiction over an area where an electrical power plant is or potentially will be located. Therefore, the prohibitions mentioned above need to be revised to be consistent with State law.

The proposed Future Land Use Element in Horizon 2030 contains the following language with respect to electric utilities:

OBJECTIVE 7.12 Utilities

Utilities needed to support adopted Future Land Uses and zoning in the unincorporated area shall be provided.

Policy 7.12.1 Location of private or public electric utilities

Private or public electric utilities needed to support adopted Future Land Use and zoning may be permitted in all land use designations. All substations adjacent to neighborhoods or visible from a public roadway shall be reviewed by the County and required to provide landscaping and buffering to minimize visual and noise impacts.

NOTE: There appear to be internal conflicts with the language in the element. Policy 7.12.1 states that power plants are allowed in any land use category, but others specifically prohibit that use in the Future Land Use categories in the Green Swamp as noted above.

RECOMMENDATION: The following revisions should be made to the Future Land Use Element:

Policy 1.1.2 Economic Development Strategies

Economic development encompasses a broad range of strategies to substantially diversify the tax base of the County and its municipalities, increase the number of close-to-home jobs for residents, and create a vibrant environment for business.

These strategies include:

- Preparing of a strategic economic development vision and plan within twelve (12) months of adoption of this Comprehensive Plan;
- Ensuring the quality of life, including educational, recreational, and cultural opportunities, as a means to attract businesses and employment opportunities;
- Providing financial incentives to attract a diversity of businesses.
- Locating employment opportunities and employment based Future Land Use Categories near existing and planned residential areas;
- Coordinating with the Metropolitan Planning Organization and other agencies to identify infrastructure improvements necessary for employment areas;
- Promoting energy-efficient land use patterns, accounting for existing and future electric power generation and transmission systems;
- Providing for the most efficient use of existing public infrastructure; and
- Reducing the consumption of fuel and improving air quality.

Policy 1.4.9 Heavy Industrial (HI) Future Land Use Category

*** [Text omitted for brevity]

USES REQUIRING A CONDITIONAL USE PERMIT INCLUDE:

- Regional water and wastewater utilities.
- Bottling operations;
- Resource Extraction, including but not limited to Mines and borrow pits;
- Heliports and airports;
- ~~Coal, oil, natural gas and nuclear or biomass energy generation;~~
- Incinerators;
- Private landfills;
- Concrete and asphalt batch plants;
- Heavy industrial uses that could have an adverse impact on water quality or sensitive environmental resources; and

Policy 1.5.2 Public Service Facilities and Infrastructure (PSFI) Future Land Use Category

This Public Service Facilities and Infrastructure (PSFI) Future Land Use Category consists of uses needed to address public facility or infrastructure needs. The maximum intensity in this category shall be 1.0. The maximum Impervious Surface Ratio shall be 0.80 and building height shall be limited to 50 feet.

Uses:

- Government and civic buildings;
- Public safety facilities;
- Active and passive recreation facilities;
- Transportation facilities;
- Schools;
- Libraries;
- Electrical power generation and distribution facilities
- Linear facilities (electric transmission lines, gas pipelines, etc.); and
- Regional water and wastewater utilities.

Policy 4.2.4 Ridge Future Land Use Category

All land uses are allowed within the Ridge Future Land Use Category except the following land uses:

- ~~Power plants;~~

Policy 4.2.5 Green Swamp Rural Future Use Land Category.

All land uses are allowed within the Transitional Future Land Use Category except the following:

- ~~Power plants;~~

Policy 4.2.6 Rural/Conservation Future Land Use Category

• All land uses are allowed within the Rural/Conservation Future Land Use Category except the following land uses:

- ***

- ~~Power plants;~~

Policy 4.2.7 Core/Conservation Future Land Use Category

All land uses are allowed within the Core/Conservation Land Use category except the following land uses:

- ~~Power plants;~~

The proposed Future Land Use Element is generally adequate but not explicit in addressing “energy-efficient land use patterns...” With the changes recommended above, the proposed Future Land Use Element of Horizon 2030 will further the Legislature’s intent to improve energy efficiency and curb greenhouse gas emissions while eliminating inconsistent language.

Issue 1) The Future Land Use Element shall address:

C) Greenhouse gas reduction strategies

The proposed Future Land Use Element does not specifically address greenhouse gas reduction strategies, although many of the various objectives and policies indirectly affect greenhouse gas production and thus are, in effect, greenhouse gas reduction strategies.

RECOMMENDATION: The following changes are recommended to include greenhouse gas reduction strategies in Planning Horizon 2030.

Objective 7-14. GREENHOUSE GAS REDUCTION. The County shall seek to reduce Greenhouse Gases (GHG) produced in the County through compact land-use planning and developing strategies to reduce emissions in the transportation and construction sectors. Innovative approaches to implementing energy-efficiency measures in public and commercial buildings will be implemented wherever feasible. The intent of the objective is to:

- Generate financial savings in reduced utility and fuel costs to the County, businesses and citizens;
- Maintain and improve air quality, contributing to the general health and well being of the community;
and
- Stimulate investment, economic development and creation of new local jobs in locally produced energy products and services.

Policy 7.14.1 Encourage Trip-Capturing Development. Lake County shall encourage the development of mixed use, self-contained projects that promote shorter trip lengths and generate fewer vehicle miles. In areas of the County with an imbalance of employment, commercial development, or housing, the County shall encourage development which will complement the existing pattern of development and capture trips from nearby areas thereby reducing overall Vehicle Miles Travelled (VMT). Such balancing shall consider both built and approved but un-built projects to incorporate future conditions into the needs analysis.

Policy 7.14.2 Reducing Emissions from the Transportation Sector. The County shall reduce or stabilize vehicular emissions using, but not limited to, the following strategies:

- Require efficient land use patterns which decrease Vehicle Miles Travelled (VMT);
- Use access management standards to reduce VMT;
- Allow innovative site designs and roadway configurations to minimize the number of lane-miles needed while maximizing access;
- Require roads, access, and parking areas be designed to minimize turning movements, stopping, and other conflict points;
- Increase the number of roadway interconnections and intersections, where appropriate;
- Limit gated communities which prevent roadway interconnections;
- Require development along transit corridors and routes to accommodate mass transit and provide for park-n-ride areas, sheltered bus stops, and bus turnouts, as appropriate; and
- Discourage the use of single-occupancy vehicles by adopting reduced parking requirements in urban areas and by limiting roadway capacity on key roads to use congestion as a disincentive to travel.

Policy 7-14.3. County Facilities. All new facilities constructed by the County shall be designed and built according to the principles and practices promoted by the Leadership in Energy and Environmental Design (LEED), Energy Star, and Water Star programs, as appropriate and financially feasible.

Policy 7-14.4. Energy Audits. Energy efficiency is a priority, therefore, the County shall conduct audits of every County facility at least once every five years to determine electric power usage and the potential for energy and cost savings in, but not limited to, lighting, heating and cooling of air and water, equipment power usage, and potential alternative/renewable electric power generation sources. The County may create a central database, or other appropriate system, to track electric and other utility costs.

Policy 7-14.5. Greenhouse Gas (GHG) Reduction Program. The County shall consider instituting a GHG Reduction Program. Methodologies and tools have been developed and technical assistance is available through the International Council for Local Environmental Initiatives Cities for Climate Protection program. The GHG Reduction Program may consider evaluation of the costs and benefits of the following:

- An inventory and forecast of community and County greenhouse gas emissions;
- Establishment of specific GHG emission reduction goals; and
- Development of a strategic Greenhouse Gas Reduction Strategy Plan specifying the measures to be taken to achieve the emission reduction goal.

If the County establishes a formal GHG reduction program, it will consider membership in the Cities for Climate Protection program which is a performance-oriented campaign that offers a framework for local governments to reduce greenhouse gas emissions, improve air quality, and enhance livability within their communities.

Issue 2) The land use map or map series contained in the future land use element shall generally identify and depict energy conservation. (s.163.3177(6)(d))

The County will need some guidance from the Department on interpreting the legislative intent behind this requirement. The types of policies and programs promoting energy conservation in the Comprehensive Plan are county-wide and are not “mappable.” Energy production and transmission facilities, however, are mapped easily.

Issue 3) The Transportation Element shall include strategies to address reduction in greenhouse gas emissions from the transportation sector. (s.163.3177(6)(b))

The proposed Transportation Element does not address green house gas emissions specifically. Implementation of the County’s access management standards will reduce emissions from vehicular traffic by maintaining traffic flow, by reducing conflict points and turning movements, and improving connectivity. The promotion of mixed use projects and other “trip-capturing development” creates shorter trip lengths and reduced trip lengths equates to reduced vehicle emissions.

Objectives and policies addressing facilities for bicycle and pedestrian ways and the establishment of scenic roadways can go a long way to reduce green house gas emissions locally. Maintaining and improving levels of service on area roadways will maintain and possibly reduce per capita vehicle emission rates. The promotion of mass transit, passenger, and commercial rail should assist reduction of greenhouse gas emissions by providing cost-effective alternatives for moving people and goods.

The proposed Transportation Element of Planning Horizon 2030 furthers these programs and policies by including a series of Transportation System Management (TSM) strategies designed to preserve and increase traffic flow in a cost effective way and serve as an alternative to traditional capacity projects.

RECOMMENDATION: The proposed Transportation Element of Planning Horizon 2030 contains no specific language pertaining to a reduction in greenhouse gas emissions from the transportation sector and therefore does not meet the technical requirements of s.163.3177(6)(b). The following language will be proposed to the BCC prior to the transmittal hearing to address the requirement:

GOAL 1.0 TRANSPORTATION To facilitate a balanced multi-modal transportation system that encourages increased mobility options, and provides for efficient transportation alternatives while minimizing and reducing greenhouse gas emissions and other environmental impacts.

Policy 1.2.2 Encourage Trip-Capturing Development. Lake County shall encourage the development of mixed use, self-contained projects that promote shorter trip lengths and generate fewer vehicle miles. In areas of the County with an imbalance of employment, commercial development, or housing, the County shall encourage development which will complement the existing pattern of development and capture trips from nearby areas thereby reducing overall Vehicle Miles Travelled (VMT). Such balancing shall consider both built and approved but un-built projects to incorporate future conditions into the needs analysis.

OBJECTIVE 1.10 ENVIRONMENTAL IMPACTS Lake County shall consider the primary and cumulative impacts of proposed transportation improvements upon natural resources and promote the use of innovative design techniques and other strategies to ensure the protection of ecological systems and reduce greenhouse gas emissions from the transportation sector.

Policy 1.10.6 Support Quality of Environment Lake County shall consider public transit, para-transit and transportation demand management activities as a means of supporting the County's goals, objectives and policies to conserve natural resources, reduce greenhouse gas emissions from the transportation sector, maintain the quality of the environment, improve the aesthetic and sensory quality of the urban community and to maintain a clear delineation between urban and rural land uses.

Policy 1.10.7 Reduce Vehicular Pollutant Emission Levels The County shall develop strategies to reduce greenhouse gas emissions from the transportation sector. ~~should reduce or stabilize vehicular emission levels~~ These strategies may include, but are not limited to; by requiring air quality impact analyses be performed on all significant traffic generating development proposals such that, projects that are predicted to violate air quality standards shall be are required to pursue the implementation of traffic mitigation techniques (or down-scaling of the proposal to achieve compliance standards), as conditions in all development orders; requiring efficient land use patterns to reduce Vehicle Miles Travelled (VMT); using access management standards to reduce VMT; allowing innovative site designs and roadway configurations to minimize the number of lane-miles needed while maximizing access; designing roads, access, and parking to reduce turning movements, stopping, and other conflict points; increasing roadway interconnections and intersections, where feasible; requiring accommodation of transit; reducing and limiting parking, where feasible; and limiting roadway capacity.

Issue 4) The Conservation Element shall include factors that affect energy conservation (s.163.3177(6)(d))

The proposed Conservation Element of Planning Horizon 2030 adequately address the legislative requirement of s.163.3177(6)(d). No changes are needed.

Issue 5) The Housing Element shall address:

- **Energy efficiency in the design and construction of new housing.**
- **Use of renewable energy resources.** (s.163.3177(6)(f))

The proposed Housing Element of Planning Horizon 2030 contains no language pertaining to either energy efficiency or renewable resources and therefore does not meet the requirements of s.163.3177(6)(f). The following language will be proposed to the BCC prior to the transmittal hearing to address the requirements:

GOAL 1.0 HOUSING

Lake County will adopt standards, plans and principles and participate in partnerships that will provide energy efficient, decent, safe and sanitary housing for all current and anticipated future residents regardless of income.

Policy 1.1.5 Energy Efficient Housing Construction. The County shall provide opportunities for private and non-profit construction of energy efficient housing by establishing Land Development Regulations which encourage innovative and cost effective building techniques that minimize builders' and occupants' carbon footprints, minimize site disturbance, minimize water consumption, optimize the use of natural light and shade, and maintain affordability. The County encourages all new residential development to be built according to Leadership in Energy and Environmental Design (LEED), Energy Star, and Water Star certification criteria.

Policy 1.1.6 Renewable Resources. The County shall encourage the use of renewable resources and recycled materials to provide housing constructed with innovative, cost effective, and energy efficient building and site development techniques.

Policy 1.1.7 Alternative/Renewable Energy Sources. The County shall allow and encourage the use of alternative and renewable energy sources in the construction or renovation of housing throughout the County. Such alternative energy systems include, but are not limited to, solar water heaters, photovoltaic arrays, wind turbines, and other technologies that can allow a property to be self reliant or otherwise reduce dependence on traditional fossil fuels.

CONCLUSIONS:

New statutory provisions will require the County to address greenhouse gas reduction and energy efficiency. The evaluation above shows how the County's proposed Planning Horizon 2030 deal with these issues. The language recommended should address the letter and intent of the new law. Staff is recommending APPROVAL of the proposed language.