

**Board of County Commissioners
Leon County, Florida**

**Workshop to Review and Discuss the Status and Initiatives of Leon
County's Sustainability Program**

**December 8, 2009
1:30 p.m. – 3:00 p.m.**

**Leon County Board of County Commission Chambers
Leon County Courthouse, 5th Floor**

Board of County Commissioners

Workshop Item

Date of Meeting: December 8, 2009

Date Submitted: December 2, 2009

To: Honorable Chairman and Members of the Board

From: Parwez Alam, County Administrator
Vincent Long, Deputy County Administrator
Maggie Theriot, Sustainability Coordinator

Subject: Review and Discussion of the Status and Initiatives of Leon County's Sustainability Program

Statement of Issue:

This agenda item provides the Board an update on the status and initiatives of Leon County's sustainability program.

Background:

At the August 25, 2009 Board meeting, staff was given direction to schedule a workshop to review and discuss the initiatives of Leon County's Sustainability Program. It was proposed the Workshop would review efforts of community outreach, and updates on major initiatives, both complete and pending.

Analysis:

Given expansive detail described in the FY09 Third Quarter and Fourth Quarter Status Reports (Attachments 1 & 2), this meeting will provide a more detailed understanding for where the County's Sustainable initiatives are at this time. Staff from the Office of Sustainability will make a presentation to the Board at the workshop and provide time for any questions or discussion the Board may have about the Leon County sustainability program.

Options:

1. Accept the update on the Leon County sustainability program.
2. Direct staff to provide an agenda detailing the opportunities to host a community garden on County owned property.
3. Direct staff to provide an agenda detailing the opportunities to implement a rain water capture cistern at the Cooperative Extension facility.
4. Direct staff to provide an agenda detailing the opportunities to install solar on County owned facilities.
5. Do not accept the update on the Leon County sustainability program.
6. Board Direction.

Recommendation:

Options 1, 2, 3, & 4

Attachments:

1. The FY09 Third Quarter Status Report on the County Sustainability Program
2. The FY09 Fourth Quarter Status Report on the County Sustainability Program

PA/VSL/MT



Board of County Commissioners
Leon County, Florida
www.leoncountyfl.gov

Agenda Item
Executive Summary

August 25, 2009

Title:

Acceptance of the FY09 Third Quarter Status Report on the County Sustainability Program

Staff:

Parwez Alam, County Administrator
Vincent S. Long, Deputy County Administrator
Maggie Theriot, Office of Sustainability

Issue Briefing:

This item seeks Board acceptance of the status report on the activities of the County's Sustainability Program for the third quarter of FY09. The report contains a brief summary of community engagement and education efforts, and updates on major initiatives, both complete and pending.

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

- Option #1: Accept the FY09 third quarter status report on the County Sustainability Program.
- Option #2: Direct staff to cooperate with the City of Tallahassee to establish a joint Sustainability Task Force.

Report and Discussion

Background:

As part of the FY09 budget development process, the Board approved the Climate Action Plan which included funding for capital improvements, operating supplies, and a full-time sustainability coordinator position. The Office of Sustainability was established at the start of FY09, with the full-time position being filled February 2009.

Leon County's sustainability efforts are centrally coordinated through the Office of Sustainability. The office serves to lead internal government operations toward a more sustainable future and works to support sustainability efforts within the community. The Office of Sustainability provides leadership, education, policy analysis, project development, and measurement and accountability for the County's sustainability efforts.

The office is a resource for County operations and community residents for topics relating to; energy conservation, waste reduction and recycling, green building practices and products, greenhouse gas emissions (GHG), and more. These activities are primarily the responsibility of the Sustainability Coordinator, although the support and assistance of other County divisions is critical to the successful development and implementation of the Program's objectives. The following are examples of divisions which have made significant contributions over the past quarter; County Administration, Facilities Management, Fleet Management, Management & Information Systems, Public Information Office, and Solid Waste Management, which includes Recycling Services. Additionally, the assistance of multiple college-level interns has been utilized. These creative volunteers have contributed to research, data collection, and program development.

The Office of Sustainability provides the third quarter status report of activities occurring during the months of February through July of 2009. Due to the recent creation of the Program, this report is the initial quarterly status report, with regularly scheduled reports to follow.

Analysis:

This report serves as a tool to keep the Board apprised of the success and efforts of the County's Sustainability Program. The status information is arranged within three primary categories: 1) Resource Conservation & Green House Gas Monitoring, 2) Policy & Administration, and 3) Civic Engagement.

Resource Conservation & Green House Gas Monitoring

Energy conservation is a key function of the Office of Sustainability. Conservation not only reduces the emissions of GHG but also saves on operating and maintenance cost. Staff, is continuously working to remain educated on the latest technology and maintenance methods to operate County buildings, vehicle fleet, parks, and solid waste facility.

The following are some initiatives taking place with the intent of energy and resource conservation. As initiatives are implemented, the impact of each will be closely monitored for energy and resource savings as well as the reduction of GHG. The results will be included in future quarterly status reports.

- Heating Ventilating & Air Conditioning (HVAC) Assessment and Upgrade – Staff conducted an assessment of all existing HVAC units 5-tons and smaller to prioritize the units for replacement with more efficient air systems. Currently these units are approximately 10 SEER (efficiency rating). Generally, replacement units cost exponentially more as the efficiency only gradually increases. Thorough research was conducted to determine the highest efficiency possible while still providing for an investment resulting in a seven-year payback or less (as directed by the Board). The study revealed that 26 individual units qualified for replacement with an average payback period of less than seven years. Combined, these enhancements are anticipated to reduce operating energy costs by approximately \$9,600 annually and 123,504 pounds of GHG on an annual reoccurring basis. This enhancement is equivalent to the carbon sequestration of 1,436 seedling trees grown for 10 years (US EPA).

Additionally two larger 20-ton HVAC units were replaced at the Bank of America due to end of life failure. The failed units operated on a single compressor system which results in the system running at full capacity when ever in use. By replacing the units with a multi-stage compressor system, the units can ‘ramp up’ the capacity and force as demand requires. When full capacity is not required, only portions of the total system operate, resulting in significant energy savings by maximizing the efficiency. In addition to improved occupant comfort, together, the two units are anticipated to reduce energy costs by more than \$7,000 on an annual basis, resulting in rapid a project pay back of only 5.16 years.

- Grey Water Reuse – Recently, the limitations and opportunities for grey water reuse in County facilities have been explored. It was determined that no significant regulatory barriers exist. A site-specific analysis was conducted for the Solid Waste Transfer Station to capture rainwater from the roof and use it to rinse transfer trucks prior to exiting the facility. The estimated cost was determined to be approximately \$125,000, including design and permitting. As a result, this initiative was deemed an ineffective use of resources and not pursued. Despite the lack of implementation, this assessment served to educate staff of the potential opportunities for grey water reuse. Alternative uses will continue to be assessed for potential implementation such as toilet water or flower bed irrigation.
- Irrigation Upgrades – Moisture sensors have been installed at nine parks and athletic fields. In addition to the core purpose of reducing water consumption, the sensors will assist staff to easily maintain the athletic facilities. Moisture sensors provide only the necessary water to grass, promote proper growth, and help to limit disease.

In addition, staff is installing moisture sensors throughout the demonstration gardens of Cooperative Extension. The sensors will allow the irrigation system to only operate when necessary. This will avoid over-watering due to changes in temperatures or recent rain events. It is intended that all County irrigation systems will operate with moisture sensors, as well as programmable controls in the future.

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- Parks Recycling – Staff is working to introduce recycling to six County athletic park facilities (Canopy Oaks, Ft. Braden, J. Lee Vause, Chaires, Woodville, and Miccosukee) and five community centers (Woodville, Miccosukee, Chaires, Ft. Braden, Bradfordville). Each location will receive multiple receptacles known as ‘ClearStreams’ that have clear sides so others can view the recyclables. Staff has found that the visual impact of clear bins results in higher recycling rates and reduced trash contamination. Additionally, each athletic park facility will be outfitted with a large recycling collector bin for service by Solid Waste staff. It is anticipated that collection rates will be tracked and reported in future status reports.
- Park Athletic Field Lighting – A study of athletic field lighting is currently underway for four facilities (Canopy Oaks, Ft. Braden, J. Lewis Hall, Miccosukee). Each facility has multiple fields that are being examined and prioritized for energy-efficient lighting fixture upgrades and programmable controls.
- Bank of America (BOA) Lighting Upgrades – Where feasible, all building renovations are to incorporate efficient lighting standards, including both the fixture selection and the use of light. Recent renovations within the 5th floor of the Bank of America building have achieved a reduction of 2,149 watts of lighting load. This reduction equates to an annual savings of more than 4,000 kWh or \$630. The use of task lighting, combined with efficient T-8 fixtures, will not only contribute to energy reduction, but a more favorable work environment.
- LEED Certification of the Eastside Branch Library – As directed by the Board, the Eastside Branch Library will be designed and constructed to LEED standards. Staff is working closely with the architectural firm during the design phase to maximize the LEED attributes of the building. At minimum, the Library will be LEED Certified, with the likely result of LEED Silver. County staff is actively pursuing grant funding to enhance the building to LEED Gold. The building is intended to serve as a local demonstration center of creative and functional ways to build sustainably. With this in mind, staff intends to create interactive signage and information to educate visitors, inclusive of both Library patrons and members of the construction industry.

Monitoring

Each of the initiatives is anticipated to result in a reduction of both operating costs and GHG emissions. To ensure the green house gas emission reduction goals of the sustainability program are implemented effectively, it is important to develop systems for monitoring implementation, measuring results, keeping track of changing conditions, taking advantage of new information and ideas, and revising program targets and plans as needed. Tracking and measuring should be routine in order to demonstrate the progress being made and allow for strategy adjustments along the way. Accurate and reliable monitoring is a key factor to many of the federal and state stimulus program opportunities. Upon receipt of stimulus funds, staff will be required to provide accurate and transparent information on the reduction of GHG emissions. Additionally, monitoring of energy and GHG emissions is a part of ICLEI-Local Government for Sustainability’s (ICLEI) Milestone 1 (conduct baseline inventory and forecast) and Milestone 5 (monitor and verify emission reduction progress).

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A base line of data is necessary to understand the current impact of County operations toward energy consumption and the emission of green house gases. In order to gauge the effectiveness of these goals the measurement and verification must continue on a regular basis into the future.

Various databases will be used in order to track energy and emissions. Each of these will require significant data collection and input to initiate the database, and then, once established, require less effort and time. The following is a description of the tasks taking place for each database resource. A description of purpose and function for each database can be found in Attachment #1.

- Utility Manager – Staff is working to centralize the payment and processing of utility service invoices to a single source. Currently, multiple Divisions receive monthly utility statements and are responsible for processing the invoice, with no active effort to collect consumption data, such as kWh, demand charge, fuel costs, and water usage. The centralization will allow for more efficient processing and uniform collection of energy and water consumption data. Staff is coordinating with utility providers to produce a customized electronic file of all County account activity to be uploaded to Utility Manager.
- EPA's Portfolio Manager – Data for this program will come directly from Utility Manager once available. At that time, staff will determine which buildings may be eligible to become certified under EPA's Energy Star building program. Staff will pursue the certification of qualified buildings and work to enhance remaining buildings to also qualify. Each facility will continue to be monitored on an annual basis.
- Clean Air & Climate Protection (CACP) – Due to significant data loss and an updated software release, staff has begun the process of recalibrating the baseline emissions inventory and forecast for Leon County operations. This adjustment will take place parallel to the implementation of energy conservation initiatives and will not impede the progress of those activities. Once recalibration efforts are complete, results will be included in future quarterly status reports to represent the progress made towards the reduction of GHG within Leon County operations.
- Building Automation System (BAS) – Multiple County buildings currently have BAS capabilities, some of which were installed at the time of building construction and other systems and components have been added over time. Staff is working to assess the current capabilities and status of these systems, some of which have been disabled over the years or underutilized. Once the assessment is complete, staff will work with the BAS providers to validate that each system is fully functional and used by County staff to its maximum capabilities. The following phase will be to assess beneficial enhancements to the BAS and the cost and benefits associated.
- Fuel Management System – This tool will allow staff to track fuel consumption patterns with far greater accuracy. Upon installation of the system, the information will be assessed to identify under-performing vehicles and possible inefficiencies caused by the operator. This will be followed by targeted maintenance or employee education in efforts to improve the vehicle performance.

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Policy & Administration

Various efforts have contributed to laying the foundation of the sustainability program that will guide the program goals and funding into the future. Efforts include developing a mission statement (Attachment #2), a sustainability policy, and program goals. The sustainability policy is currently in draft form. Staff is working to finalize the proposed policy and present it to the Board for consideration in the near future. The policy will provide guidance for government operations to function more sustainably in areas such as procurement, building operations, and vehicle usage.

Policy and program analysis has included the assessment of solar opportunities for Leon and its citizens. An agenda was presented to the Board on May 12, 2009, regarding the evaluation of alternative revenue resources that can be generated from renewable energy. Staff is currently determining viable community incentive programs to support the proliferation of solar throughout Leon County. Efforts have included hosting a community meeting to identify barriers and opportunities that exist for solar in Leon County. The meeting was attended by nearly 50 representatives, including vendors, citizens, non-profit organizations, and other government employees. Staff continues to assist in the development of solar policy guidance for groups such as the Florida Association of Counties (FAC), Florida State University, Florida Legislators, and Sustainable Tallahassee. A summary of this analysis can be found in Attachment #3. Other involvement with policy analysis includes assisting the State to define "green jobs" that now serves as a national model.

As a member of the Climate Communities group, staff attended the Local Climate Leadership Summit, a gathering that included 200 local government climate leaders. The event explored economic stimulus and other federal resource opportunities. Innovative local government efforts in the areas of green buildings, alternative fuel vehicles, land use, and smart growth were also examined. Multiple members of Congress and the Obama administration shared their plans for energy policy, transportation legislation, and cap-and-trade. Summit events also included meetings with multiple members of the House and Senate, and a session with the White House Chair of the Council on Environmental Quality.

In the near future, a fully refurbished 'Growing Green' website for Leon County will be launched (www.leoncountyfl.gov/GrowingGreen). Staff has nearly completed a thorough overhaul of the site, making it an engaging and informative resource to the Leon County community. Visitors can learn how to live more sustainably, see highlights of County's initiatives and accomplishments, and view upcoming news and events. In addition, a rich selection of resources and documents will be made available.

On May 26, 2009 the Board requested an agenda item to consider the establishment of a task force. Staff has provided an Enabling Resolution to establish the Sustainability Task Force (Attachment #4). The task force will have ten members to help guide internal government operations and the community toward a more sustainable future through technical assistance and advice on energy conservation strategies, waste reduction and recycling, green building practices and products, and the reduction of greenhouse gas emissions. Membership would include a representative from the following agencies; the City of Tallahassee Utilities, Sustainable

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Tallahassee, FSU's Institute for Energy Systems, Economics, and Sustainability. The seven remaining members should possess demonstrated expertise or advanced training in the areas of:

- Urban and regional planning
- Civil, mechanical, electrical, or environmental engineering
- Architecture and design
- 'Green' building construction
- Environmental systems
- Solar energy systems
- Transportation systems

Additionally, the City of Tallahassee is also in the process of establishing a task force on sustainability. City staff are working to bring an agenda item before the City Commission in the near future. It is anticipated that the County task force will have a similar function and membership as the City task force. The related time line and purpose of each task force presents an opportunity to combine efforts into a joint City/County task force on sustainability. Additionally, in a letter to the City Commission dated August 11, 2009, Commissioner Akinyemi requests the City and County work to establish a "joint committee whose directive would be to focus on renewable energy and sustainability issues."

Anti-idling is another Board-directed task in which staff is actively pursuing. A resolution to recognize the importance of reducing vehicular idling will be presented to the Board at the August 25, 2009 meeting. Staff is also developing a County anti-idling policy for future Board approval.

Staff, as directed by the Board, is working to create a program for low-interest loans for weatherization of homes in unincorporated Leon County. The program will be based upon a \$1 million fund designed to provide non-income-based loans for improvements, such as insulation, energy efficient windows, and weather-stripping. An agenda item is anticipated for presentation during the September 8, 2009 Board meeting.

Additionally, per Board direction, staff is pursuing Green Government certification by the Florida Green Building Coalition. This is a program designed to recognize municipalities for outstanding environmental stewardship. A list of criteria is presented, and each is assigned a point value. A minimum total point value is set, and local governments, who incorporate sufficient criteria such that they meet or exceed the minimum total point value, are certified as a Green Local Government. In support of this initiative, staff plans to establish a Facilities Design Guideline for use by architects, engineers, designers, and construction personnel. These guidelines will assist professionals with the design, construction, and management of County facilities. Aspects of sustainability will be clearly present throughout the document.

Staff feels strongly that partnership and collaboration are keys to the success of the Leon County Sustainability Program. As a result, efforts are routinely made to reach out to others in the community and beyond. Many strong alliances and partnerships have been forged, with more being sought. Partnerships of various kinds have been developed with the following key stakeholders: Sustainable Tallahassee, City of Tallahassee Utilities, StarMetro and EPER, the Leon County School Board, Florida State University (FSU), Florida A&M University (FAMU),

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Sustainable Florida, solar vendors, Governor's Energy Office, Florida Energy & Climate Commission, FAC, and the Tallahassee/Leon County Economic Development Council. These partnerships will continue to provide synergy and position results.

As a part of the "stimulus response team," the Office of Sustainability has researched and tracked various stimulus-funding opportunities. The purpose and intent of the primary programs are described in Attachment #5, with an outline of staff's efforts and contributions as follows.

- Weatherization Assistance Program (WAP) - On April 21, 2009, staff sought Board authorization to proceed with development of a joint partnership between Talquin Electric Cooperative and Leon County to provide weatherization services to unincorporated citizens. On April 28, 2009, staff attended a public hearing held by the Department of Community Affairs (DCA) in Tampa, FL. During the public hearing, staff formally shared the intent to pursue stimulus-funding opportunities for the development of a weatherization program in Leon County. During an additional public hearing, DCA determined that the \$1.8 million in stimulus funding for Leon County would be distributed to the Capital Area Community Action Agency (CACAA). With this announcement, Leon County staff reached out to CACAA, offering partnership and support. Staff is currently working with CACAA to develop and implement the weatherization program for Leon County. A component of this partnership is the creation of a 'housing & weatherization coalition' to bring Leon County and CACAA together with community and construction representatives to spread knowledge and information on weatherization throughout the community.
- Energy Efficiency & Conservation Block Grant (EECBG) - Staff is currently awaiting release of the official policy and guidelines for the grant, which are anticipated by the end of 2009. It is known that the maximum award will be \$1.2 million. In anticipation of the formal program guidelines, staff hosted an EECBG brainstorm session with representatives in various County Divisions, such as Growth Management, Planning, Facilities, Public Works, MIS, Solid Waste, and Cooperative Extension. Together, this group reviewed the likely goals and purpose of the grant, and brainstormed creative and useful project initiatives. From these ideas, staff is now assessing each concept to determine which will have the most likely chance of successfully receiving the competitive grant funds. Currently, staff feels a proposal involving the Southeast Branch Library will serve as an ideal project candidate. The initiative would involve the investment of grant funds toward significant energy efficient improvements in the building. Enhancements, such as the incorporation of geothermal cooling system and solar panels, are not within the existing project budget. However, the additional EECBG grant funds could target these improvements, and others, resulting in the likely accomplishment of LEED Gold certification. It is anticipated that the Branch Library will then serve as a sustainable development demonstration center. Staff will provide its final recommendation to the Board upon receipt of the actual application guidelines.
- Climate Showcase Communities - Staff submitted a grant application for an opportunity known as Climate Showcase Communities by sponsor of the Environmental Protection Agency. The application was for \$476,647 of federal funds, with \$238,500 of required matching funds for a total of \$715,147. The project would turn nearly all community yard debris (bagged and unbagged), along with other organics, into compost. This compost would then be placed (with scientific methods) over the Solid Waste Landfill. After a few months,

the natural bacteria in the compost would "eat" at least 80% of the current methane emissions from the landfill. Florida State and others have done studies showing nearly 100% reduction is possible with this approach. Staff has formed a tentative partnership with both the Hinkley Center for Solid Waste and FSU to conduct the baseline and quarterly status studies to determine the methane reduction. The data would be collected through use of lasers rather than sample testing, resulting in greater accuracy. It is currently estimated that a reduction of 1,666 MTCDE (Metric Tons of Carbon Dioxide Equivalent) annually or more than 33,000 MTCDE over the 20-year active decomposition of the landfill could be achieved. To staff's knowledge, this has only been done in small testing sites, making Leon County the first to use this method on a large scale. Additionally, within three years, much of the compost would no longer be needed on the landfill, and could be offered to the community at little or no cost, thus supporting locally grown organic farms, as well as back-yard gardeners. Grant awards are anticipated by the end of 2009, at which time staff would request Board approval of the program and the necessary matching funds.

- Petroleum Reduction Technologies - The Leon County School Board has been actively pursuing grant funding for construction of a compressed natural gas (CNG) fuel filling station for use in their school bus fleet. A grant opportunity through the Department of Energy was identified for the project. However, the School Board was not considered a qualified applicant and, therefore, unable to compete for the Clean Cities program grant; whereas, County government was a qualified applicant. As a result, the County formed a partnership to formulate and submit the \$8.8 million grant request on the School Board's behalf. Notice of award is pending at this time.

Each of the aforementioned opportunities have involved various conference calls, public hearings, meetings with state and county officials, research and policy analysis, in order to position Leon County for successful receipt of funds.

Civic Engagement.

As a key resource for sustainable actions, both internally and in the community, the Office of Sustainability serves as a liaison to local, state, federal, and nonprofit groups. The Office partners with government entities, businesses, and individual citizens on a routine basis. This partnership is critical to the success of any sustainability quest. Staff has worked to make strides to cooperate and communicate with other governmental bodies, as highlighted in a previous section of this status report. Additionally, the Office collaborates with community groups, such as, Sustainable Tallahassee, Council of Neighborhood Associations (CONA), and Sustainable Florida, as well as individual citizens, to exchange experiences, knowledge, and program strategies.

Joining forces with the CONA, the Office assisted in the success of the Tallahassee Neighborhood Energy Challenge. The competition, hosted by CONA, occurs for a six-month period, during which Leon County residents compete to see which neighborhood can achieve the largest overall reduction in electricity usage. The Energy Challenge recently received the prestigious Best Practice Award from Sustainable Florida in which the County's Geographic Information Systems (GIS) team played a significant role. GIS created an interactive map for residents to register their neighborhood online. GIS' creative mapping solutions provided a platform for visitors to see which of their neighbors signed up and at what level of success.

The Office of Sustainability has participated as an active member in the Multi-County Extension Advisory Committee for Climate Change & Sustainable Living, hosted by the Leon County Cooperative Extension. One of the central tasks of the committee is to explore opportunities to expand the role of the Leon County Extension Center as a sustainable living demonstration center. Through collaboration of Leon County Extension, the Leon County Office of Sustainability, City of Tallahassee, and volunteers are working to develop a "Green Demonstration Center." Subjects that will be addressed include energy conservation, reduction of water consumption, rainwater reuse, composting, gardening best practices, green cleaning, and waste reduction.

In addition to the program development, staff has placed a strong focus on the importance of the community outreach. On a regular basis, the Office presents sustainability information to civic groups, participates in peer-to-peer exchanges, and hosts educational events. When possible, staff participates in community events, which provide a platform to engage and educate citizens. Examples include hosting a booth at the Spring Time Tallahassee Parade, Earth Day at the Capitol, and a booth at the first annual Earth Day Jam. The Board recognized Earth Day by presenting a Resolution, and the Main Library featured earth-related books for all ages. Staff appeared on the local news channel WCTV as the "Celebrity Chef" to highlight an easy way to incorporate locally grown vegetables into a meal. Additionally, staff has been a guest speaker for multiple events hosted by Sustainable Tallahassee. Outreach is not only limited to the Leon County community. For example, County staff were featured during the Southeast Regional peer-to-peer event hosted by ICLEI, in which discussion of struggles and successes were shared to help guide other municipalities toward sustainability. The Office has participated with the FAC's 'Energy Independence Workgroup' to provide insight towards what affirmative steps FAC can take to pursue positive changes in Florida's solar policies. Additionally, staff participated in the Florida Governmental Purchasing Conference sharing 'green purchasing' methods with government purchasing officers.

A team of County staff coordinated the "Leon County Solid Waste Spectacular." This event served as a community open house of the Leon County Solid Waste Management Facility. To many, this facility was thought of as simply a "landfill" or "dump". Through tours, demonstrations, lectures, and activities; families learned of the various services provided through the complex that extend far beyond a "landfill"; such as, electronic recycling, household hazardous waste for used items, such as oil and batteries, the recycling education center, and much more. The fun-filled atmosphere included snow cones and face painting for kids, and a free sustainable lunch, resulting in a huge success with over 150 people attending the first annual event. This effort has received public recognition throughout the nation as a model for other municipalities to follow. Publications such as NACo' County News, and American City & County (Attachment #6) have highlighted the event. A five-minute video segment will be available on the web as part of NACo's Green County Video Spotlight program, and aired on the County Channel 16 for continued community education.

The Office of Sustainability played an instrumental role in hosting the Symposium for Florida Leaders of Sustainability. The symposium provided one-day training for 45 attendees from around the State who were interested in implementing sustainable principles within their organization. Through partnership with Sustainable Florida, the Symposium provided a practical

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step-by-step process for creating sustainability plans, using necessary tools, conducting sustainability assessments, and facilitating one's sustainability journey.

As directed by the Board on February 12, 2009, the County sponsored the Sunshine State Renewable Energy Expo for \$1,000, hosted by the Florida Renewable Energy Producers Association (FREPA). Staff attended the event, together with approximately 50-75 other attendees. Commissioner Akinyemi was a featured speaker on the topic of the "Federal stimulus package, the role of government, policymakers and business leaders". As an honorary member of FREPA, staff recently made a presentation at a workshop group that included Representatives Alan Williams and Michelle Rehwinkel-Vasilinda, and others engaged in State energy policy.

The presentation focused on steps that Leon County has taken toward harnessing stimulus dollars. Particular interest was taken in Leon County's creation of partnerships with other government entities and environmental groups.

In just seven months after the establishment of a full-time Sustainability Coordinator, many valuable steps have been taken toward Leon County's goal of becoming a sustainable organization. The progress of these initiatives will continue to be highlighted through quarterly status reports to the Board.

Options:

1. Accept the FY09 third quarter status report on the County Sustainability Program.
2. Direct staff to cooperate with the City of Tallahassee to establish a joint Sustainability Task Force.
3. Adopt the Enabling Resolution Establishing the County Sustainability Task Force.
4. Do not accept the FY09 third quarter status report on the County Sustainability Program.
5. Board Direction.

Recommendation:

Option #1 & #2.

Attachments:

1. Description and Explanation of Database Systems.
2. Mission Statement of the Leon County Office of Sustainability
- 3.. Solar Policy Improvement Opportunities
4. Enabling Resolution to Establish the Sustainability Task Force
5. Program Description of Stimulus Grant Opportunities
6. Leon County Article - American City & County Publication

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Leon County, Florida
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Agenda Item
Executive Summary

December 8, 2009

Title:

Acceptance of the FY09 Fourth Quarter Status Report on the County Sustainability Program

Staff:

Parwez Alam, County Administrator
Vincent S. Long, Deputy County Administrator
Maggie Theriot, Office of Sustainability

Issue Briefing:

This item seeks Board acceptance of the status report on the activities of the County's Sustainability Program for the fourth quarter of FY09. The report contains a brief summary of community engagement and education efforts, and updates on major initiatives, both recently completed and pending.

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Accept the FY09 fourth quarter status report on the County Sustainability Program.

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Report and Discussion

Background:

Leon County's sustainability efforts are centrally coordinated through the Office of Sustainability. The office serves to lead internal government operations toward a more sustainable future and works to support sustainability efforts within the community. The Office of Sustainability provides leadership, education, policy analysis, project development, and measurement and accountability for the County's sustainability efforts. These activities are primarily the responsibility of the Sustainability Coordinator, although the support and assistance of other County divisions is critical to the successful development and implementation of the Program's objectives. The following are examples of divisions which have made significant contributions over the past quarter; County Administration, Facilities Management, Planning, Fleet Management, Cooperative Extension, and Solid Waste Management, which includes Recycling Services. Additionally, the assistance of multiple college-level interns has been utilized. These creative volunteers have contributed to research, data collection, and program development.

The Office of Sustainability provides the fourth quarter status report of activities occurring during the months of August through November of 2009. Due to the recent creation of the Program, this report is the second quarterly status report, the first of which was provided to the Board on August 25, 2009.

Analysis:

This report serves as a tool to keep the Board apprised of the success and efforts of the County's Sustainability Program. The status information is arranged within three primary categories: 1) Resource Conservation & Green House Gas Monitoring, 2) Policy & Administration, and 3) Civic Engagement.

Resource Conservation & Green House Gas Monitoring

Energy conservation is a key function of the Office of Sustainability. Conservation not only reduces the emissions of GHG but also saves on operating and maintenance cost. Staff, is continuously working to remain educated on the latest technology and maintenance methods to operate County buildings, vehicle fleet, parks, and solid waste facility.

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The following are some initiatives taking place with the intent of energy and resource conservation. As initiatives are implemented, the impact of each will be closely monitored for energy and resource savings as well as the reduction of GHG. The results will be included in future quarterly status reports.

- Rain Water Reuse – Recently, the limitations and opportunities for rain water reuse in County facilities have been explored. Assessment during the fourth quarter has focused on the Cooperative Extension building located at 615 Paul Russell Rd. The Office of Sustainability has participated as an active member in the Multi-County Extension Advisory Committee for Climate Change & Sustainable Living, hosted by the Leon County Cooperative Extension. One of the central tasks of the committee is to explore opportunities to expand the role of the Leon County Extension Center as a sustainable living demonstration center. Through collaboration of Leon County Extension, the Leon County Office of Sustainability, and volunteers are working to develop a “Green Demonstration Center.” Significant study has occurred in the area of rain water capture for reuse in irrigation of the gardens.

The team’s goal is to implement an underground cistern which could capture rainwater runoff from the roof and store it until the gardens require irrigation. It was necessary to determine the amount of rainwater able to be captured, the collection method and the disbursement volume of the water upon reuse. It is estimated that the Extension demonstration gardens utilize a total of 580,000 gallons of irrigated water annually. The roof was measured and using average rainfall statistics it is estimated that more than 400,000 gallons of rain fall onto the roof annually. With this information it was clear that by diverting the ‘wasted’ rainfall to storage, a large portion of the irrigation needs can be augmented by redistributing the stored rainwater when the gardens become dry.

Storage can occur in various containers such as concrete cisterns much like ones used for septic tanks. However, in efforts to make the project as sustainable as possible, a study was conducted to locate alternative storage units which could be used as a cistern. It was determined that the tanks used to store gasoline at a gas station would be a good size. Pending state policy requires that all single-lined underground gas tanks be replaced with double-lined tanks by December 31, 2009. As a result many single-lined tanks all over the state are being removed and replaced with updated units. The old tanks are largely being crushed and disposed of. The team determined a used tank could be slightly modified to serve as a rainwater cistern allowing for reuse of an item which was destined for disposal. The tanks are available in 5,000 gallon units. With a storage goal of 20,000 gallons, four tanks would be needed.

With the support of Facilities Management the property elevation was assessed to determine the ideal location for the rain water cisterns. The team has determined that the tanks could be obtained for free, however professional cleaning of each unit would be necessary to safely remove the petroleum remnants. Additional research is occurring to determine the

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cost of such work and to design the operation of the tank's water pumps. Staff will provide further updates as the assessment continues.

- Parks Recycling – Staff have completed their efforts to introduce recycling to six County athletic park facilities (Canopy Oaks, Ft. Braden, J. Lee Vause, Chaires, Woodville, and Miccosukee) and five community centers (Woodville, Miccosukee, Chaires, Ft. Braden, Bradfordville). Each location has received multiple receptacles known as 'ClearStreams' that have clear sides so others can view the recyclables. Staff has found that the visual impact of clear bins results in higher recycling rates and reduced trash contamination. Additionally, each athletic park facility has been outfitted with a large recycling collector bin for service by Solid Waste staff. It is anticipated that collection rates will be tracked and reported in future status reports.
- Park Athletic Field Lighting – A study of athletic field lighting is currently underway for four facilities (Canopy Oaks, Ft. Braden, J. Lewis Hall, Miccosukee). Each facility has multiple fields that are being examined and prioritized for energy-efficient lighting fixture upgrades and programmable controls. Initial review of fixture options reveals that new technology which is far more efficient is currently in development but not yet affordable and cost effective. It is anticipated that these new products will reach the market in 2012. As a result, staff will likely recommend moving forward on controls in the current fiscal year, but wait to pursue fixtures until the technology and cost evolves. Recommendations will be made at the completion of the study.
- LEED Certification of the Eastside Branch Library – As directed by the Board, the Eastside Branch Library will be designed and constructed to LEED standards. Staff is working closely with the architectural firm during the design phase to maximize the LEED attributes of the building. The building is intended to serve as a local demonstration center of creative and functional ways to build sustainably. With this in mind, staff is assessing the opportunity to design and implement a gazebo in which the roof will be made of solar panels to power the landscape lighting. With education in mind, a table could be placed in the gazebo in which a description of solar would be sealed into the surface to the tabletop.
- County Building Recycling – County staff is working towards a goal of implementing a uniform recycling program throughout all County facilities. The program would cover both paper and co-mingle (cans and bottles). The uniformity will allow for consistency of standard operating procedures and likely increase recycling participation rates. Efforts have begun in the Courthouse and are currently expanding into the Bank of America building. Additional buildings that will be targeted in the near future are Public Works and Amtrak. In addition to providing uniform collection bins, staff will implement 'Recycling 101' training to occupants in the targeted buildings. The training will cover the basics of what can and cannot be recycled and the proper methods in doing so. A test session was conducted with a group of County employees. The participants found the training very helpful and which is now evident through the improve recycling rates.

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- Agenda Packet Paper Reduction – On October 27, 2009 the Board approved an adjustment to the distribution of the Board agenda by reducing the production of printed paper copies. A reduction of 29 agenda packets became effective as of the November 10, 2009 Board meeting. Through the reduction of production costs an annual savings of approximately \$7,300 is anticipated as well as a reduction of lifecycle environmental impacts.

Monitoring

Each of the initiatives is anticipated to result in a reduction of both operating costs and GHG emissions. To ensure the green house gas emission reduction goals of the sustainability program are implemented effectively, it is important to develop systems for monitoring implementation, measuring results, keeping track of changing conditions, taking advantage of new information and ideas, and revising program targets and plans as needed. Various databases will be used in order to track energy and emissions. Each of these will require significant data collection and input to initiate the database, and then, once established, require less effort and time. The following is a description of the tasks taking place for the primary database resources needed to 'feed information' into other more broad reaching systems.

- Utility Manager – Staff is working to centralize the payment and processing of utility service invoices to a single source. Efforts are continuing to coordinate with utility providers to produce a customized electronic file of all County account activity to be uploaded to Utility Manager. A test data upload has been performed and the data is being finalized.
- Fuel Management System – This tool will allow staff to track fuel consumption patterns with far greater accuracy. A purchase order has been secured for the installation of approximately 200 units which is to occur over the coming months. Data will be reviewed as each unit is installed to begin efforts to identify under-performing vehicles and possible inefficiencies caused by the operator. This will be followed by targeted maintenance or employee education in efforts to improve the vehicle performance.

Policy & Administration

Various efforts have contributed to laying the foundation of the sustainability program that will guide the program goals and funding into the future. The sustainability policy is currently in draft form. Staff is working to finalize the proposed policy and present it to the Board for consideration in the near future. The policy will provide guidance for government operations to function more sustainably in areas such as procurement, building operations, and vehicle usage.

- Solar Implementation - Policy and program analysis has included the assessment of solar opportunities for Leon and its citizens. Staff is currently working to conduct an assessment of each County building and plans to identify the best candidates for solar as well as potential demonstration projects incorporating various forms of solar technology. The demonstration projects are currently being assessed for power production potential and cost analysis. The result of this study will be shared with the Board in the near future.

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- Growing Green Website - The County has launched a test version of a fully refurbished 'Growing Green' website for Leon County (www.leoncountyfl.gov/GrowingGreen). Staff has nearly completed a thorough overhaul of the site, making it an engaging and informative resource to the Leon County community. In efforts to provide the much needed interface quickly, staff has launch a 'mini version' of the site which incorporates the most critical aspects of the site. When fully launched visitors can learn how to live more sustainably, see highlights of County's initiatives and accomplishments, and view upcoming news and events. In addition, a rich selection of resources and documents will be made available.
- Sustainability Task Force - On May 26, 2009 the Board requested an agenda item to consider the establishment of a citizen task force to guide the County in topics relating to sustainability. In response to the Board's request, staff provided a draft enabling resolution and proposed task force format as part of the August 25, 2009 Quarterly Status Report on the County Sustainability Program. Within the agenda item, it was revealed that the City of Tallahassee was also working to establish a task force for much of the same purpose. The Board then directed staff to cooperate with the City of Tallahassee to establish a joint Sustainability Task Force. Per Board direction, County staff reached out to the City of Tallahassee in pursuit of exploring the formation of a joint sustainability task force. It was confirmed that the County task force will have a similar function and membership as the City task force, with the primary exception that the City task force will report directly to the City Manager. As communicated through City staff, the City Manager does not wish to pursue a joint task force. As a result, the City and County will form separate task forces both having analogous purpose and composition. In reaction to the inability to form a joint task force, staff is resuming its efforts to establish a County task force through an agenda item during the December 8, 2009 Board meeting.
- Vehicular Idle Reduction - Idle Reduction is another Board-directed task in which staff is actively pursuing. A resolution to recognize the importance of reducing vehicular idling was approved by the Board at the August 25, 2009 meeting. On November 10, 2009 Leon County participated in a news conference to launch the "Idle Free Tallahassee-Leon" Community Campaign. The goals of the Campaign are to educate the residents of Leon County about the adverse impacts of unnecessary idling of motor vehicles and equipment and to urge residents to reduce or eliminate unnecessary idling. The Campaign will be implemented and coordinated with the City of Tallahassee, State of Florida, Leon County Schools, Capital Regional Medical Center and a number of other community organizations and businesses. Commissioner Desloge and Commissioner Thaell, as well as many other community leaders, were in attendance.
- Weatherization Loan Program - Staff, as directed by the Board, is working to create a proposed program for low-interest loans for weatherization of homes in unincorporated Leon County. Through an agenda item during the December 8, 2009 Board meeting, staff requests Board consideration of deployment of a pilot weatherization revolving loan program. The pilot will provide for up to 100 home audits and assess the public interest for participation in a low-interest loan program to implement weatherization enhancements. If

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a minimum of 1/3 of the pilot participants express interest in pursuing the loan, staff will return to the Board for consideration to establish the revolving loan fund.

- Carbon Credits - On October 13, 2009 the Board approved the sale of carbon credits associated with the Landfill gas collection treatment system. The County can now earn carbon credits as the gas system destroys methane gas. In turn the credits will be sold on the open market at a profit of \$53,900 annually. Over a twenty year period the sale of credits will result in over \$1 million in revenue to the County. This proactive approach has gained the attention of many other landfill operators. Additionally during the same Board meeting a bid for yard debris management services was approved, providing for debagging, screening, grinding, and removal of debris and the Solid Waste Facility.
- Community Gardens – Per Board direction, staff has begun to explore opportunities to host community gardens on County owned properties. Several criteria were established in order to identify ideal property. Staff found that 22 sites met the minimal criteria established. From there the properties were narrowed to 13 which were deemed worthy of site visits. As a result of the on-site assessments, a few properties were ruled out due to environmental features or infrastructure obstacles. As a result, a needs assessment was conducted for the top three most suitable sites. It is envisioned that these sites may serve as a pilot program to determine community engagement and program success. This topic will be presented to the Board during the December 8, 2009 workshop on sustainability for further Board direction.

Staff feels strongly that partnership and collaboration are keys to the success of the Leon County Sustainability Program. As a result, efforts are routinely made to reach out to others in the community and beyond. Many strong alliances and partnerships have been forged, with more being sought. Partnerships of various kinds have been developed as reported in the prior status report. Additional partnerships have evolved with Tallahassee Community College, Knight Creative Communities Initiative (KCCI), the historic Willis Dairy, and LCSB Small Business Enterprise. These partnerships will continue to provide synergy among our mutual interests.

As a part of the “stimulus response team,” the Office of Sustainability has researched and tracked various stimulus-funding opportunities. An outline of staff’s efforts and contributions is as follows.

- Energy Efficiency & Conservation Block Grant (EECBG) - Staff is currently awaiting release of the official policy and guidelines for the grant, which are anticipated by the end of 2009. It is known that the maximum award will be \$1.2 million.
- Climate Showcase Communities - Staff submitted a grant application for an opportunity known as Climate Showcase Communities by sponsor of the Environmental Protection Agency. The grant would provide funding for the implementation of a compost biofilter to achieve a reduction of 1,666 metric tons of carbon dioxide equivalent from the landfill. This reduction would encapsulate methane which is not currently captured through the landfill gas collection and treatment system. Unfortunately the County was notified that the application

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was not selected for funding. Members of the stimulus response team then participated in a debriefing of the selection process with an EPA staff member. The justification provided during the conference call was limited in detail. However, staff has identified two areas of opportunity for improvement in future project applications. Staff will continue to seek grant funding opportunities for the compost biofilter.

- Petroleum Reduction Technologies - The Leon County School Board has been actively pursuing grant funding for construction of a compressed natural gas (CNG) fuel filling station for use in their school bus fleet. A grant opportunity through the Department of Energy was identified for the project. However, the School Board was not considered a qualified applicant and, therefore, unable to compete for the Clean Cities program grant; whereas, County government was a qualified applicant. As a result, the County formed a partnership to formulate and submit the \$8.8 million grant request on the School Board's behalf. Unfortunately the County was notified that the application was not selected for funding. The School Board will continue to seek grant funding opportunities for the CNG filling station, and County staff will assist as needed.

Each of the aforementioned opportunities have involved various conference calls, public hearings, meetings with state and county officials, research and policy analysis, in order to position Leon County for successful receipt of funds. Staff will continue to monitor various other grant funding opportunities.

Civic Engagement

As a key resource for sustainable actions, both internally and in the community, the Office of Sustainability serves as a liaison to local, state, federal, and nonprofit groups. The Office partners with government entities, businesses, and individual citizens on a routine basis. This partnership is critical to the success of any sustainability quest. Staff has worked to make strides to cooperate and communicate with other governmental bodies, community groups and individual citizens to exchange experiences, knowledge, and program strategies.

In addition to the program development, staff has placed a strong focus on the importance of the community outreach. On a regular basis, the Office presents sustainability information to civic groups, participates in peer-to-peer exchanges, and hosts educational events. When possible, staff participates in community events, which provide a platform to engage and educate citizens.

- Green Living Expo - Through Board approved sponsorship of the Green Living Expo hosted by Tallahassee Builder's Association, the County was allotted a display booth at the event. County staff used the opportunity to promote our recycling program, including household hazardous waste and electronic recycling. Given the location of the event was in the Costco's parking lot, the event drew many curious onlookers who were not aware of Expo. This provided a fantastic opportunity to reach out to many citizens who were new to the concept of 'green living'.
- America Recycles Day - America Recycles Day is the only nationally recognized day dedicated to encouraging Americans to recycle and to buy recycled products. Leon County

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and the City of Tallahassee teamed up to celebrate America Recycles Day with the annual "Cans for Cash" collection event. Residents brought aluminum beverage cans and were be paid \$0.30 per pound. Schools competed for the most cans collected.

- Focus The Nation - The FSU Environmental Service Program hosted a 'Focus the Nation' discussion panel on global climate change to educate students, community members, and local lawmakers on the issue of global climate change. County staff participated along side Representative Michelle Rehwinkel-Vasilinda in dialog on the opportunities to impact climate change on a local and state level.
- North Florida Fair – A new attraction was added to the 2009 fair, the Green Living building. This was an opportunity for community groups to participate in a booth expo. Leon County participated throughout the fair utilizing staff from the Recycling program, Household Hazardous Waste and the Office of Sustainability to host the booth. Staff answered questions regarding sustainability and recycling and promoted our programs as well.
- Sustainable Communities Summit 2010 - In efforts to build upon our successful County efforts from the 2008 Climate Action Summit, the Sustainable Communities Summit 2010 is intended to educate attendees of the benefits and necessity for developing and maintaining a sustainable community. Staff is proposing a summit in the first week of May 2010. Local sustainable food and sustainable economic development are anticipated to be the main topics of the 2010 Summit. The format will be similar to that of the 2008 Climate Action Summit consisting of an opening general session, breakout sessions, and a luncheon with a keynote speaker. When feasible, aspects of the Summit will be hosted in a sustainable way. Additional status reports will be provided to the Board as plans for the Summit progress.

In less than a year after the establishment of a full-time Sustainability Coordinator, many valuable steps have been taken toward Leon County's goal of becoming a sustainable organization. The progress of these initiatives will continue to be highlighted through quarterly status reports to the Board.

Options:

1. Accept the FY09 fourth quarter status report on the County Sustainability Program.
2. Do not accept the FY09 fourth quarter status report on the County Sustainability Program.
3. Board Direction.

Recommendation:

Option #1

PA/VSL/MT