



Board of County Commissioners
Leon County, Florida
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Workshop Item
Executive Summary

September 14, 2010

Title:

Solid Waste Issues Workshop Related to New State Mandated Recycling Goals

Staff:

Parwez Alam, County Administrator
Alan Rosenzweig, Assistant County Administrator
Tony Park, P.E., Public Works Director
Norm Thomas, Director, Solid Waste Management

Issue Briefing:

Conduct the Solid Waste Issues Workshop concerning the new state mandated recycling goals.

Fiscal Impact:

This item has no current fiscal impact; however, implementation of any or all of the options presented in the conceptual action plan will have a fiscal impact. As the Board considers various strategies over the next several years, fiscal impacts for each approach will be presented to the Board.

Staff Recommendation:

1. Direct staff to prepare an agenda item for consideration of an internal policy for waste reduction, reuse and recycling.
2. Authorize the County Administrator to approach the City on partnering in the implementation of the recycling goals through the renewal of the interlocal agreement and jointly bidding the curbside collection franchise agreements.
3. Direct staff to compile best practices and approaches being considered by other Counties and Cities and report back to the Board following the closure of the next legislative session.

Report and Discussion

Background:

On April 13, 2010 a Public Hearing was held to approve amendments to the Comprehensive Plan. There were a number of changes to the Solid Waste sub-element, including a new recycling goal equal to or greater than the state mandated goal. At the conclusion of the Public Hearing, the Board requested a workshop to address solid waste issues that relate to waste reduction, reuse and recycling.

Analysis:

During the 2010 Florida Legislative Session, the legislature passed HB 7243, Attachment #1, which establishes a 75% recycling goal for the State of Florida and mandates those counties with populations above 100,000, achieve the following recycling goals:

- 40% by December 31, 2012
- 50% by December 31, 2014
- 60% by December 31, 2016
- 70% by December 31, 2018
- 75% by December 31, 2020

While HB 7243 mandates affected counties to achieve the recycling goals, there are no punitive measures in the bill for those counties not achieving the goals. If counties are not achieving the goals within the designated time frames, the Florida Department of Environmental Protection (DEP) is to provide the legislature with statutory changes needed to achieve the goals.

The goals established are extremely aggressive and will require an extensive statewide commitment and effort to achieve. It is anticipated that over the next several years the goals may be revised or modified as the actions necessary to implement are evaluated.

HB 7243 Overview

The legislation changed what will count towards the recycling goal. For instance, solid waste used for the production of energy will now be counted towards the goal. The DEP will be developing new rules on how the recycling rates will be calculated. Leon County may receive recycling credits because of Springhill's 4.5 Megawatt landfill gas-to-energy project. The amount of recycling credit is unknown at this time.

In addition to the goals, the bill:

- Calls upon Enterprise Florida, Inc., to assist DEP in the creation of the Recycling Business Assistance Center to enhance and expand recycling markets in the state.
- Requires new multi-family developments to include space for recycling containers.
- Authorizes county governments to enact mandatory recycling ordinances.
- Requires all construction and demolition debris to be processed through a recycling facility before being disposed.

- Creates the Capital recycling area, requiring recycling of newspapers and beverage containers in the Capital, the House and the Senate. The amount of materials collected for recycling is to be reported to Leon County annually.

Current Recycling

Current viable programs include single family curbside recycling (both City and County), commercial cardboard and paper recycling, drop-off recycling at the Rural Waste Service Centers, recycling in all public schools and yard debris recycling. The County's public education program, dedicated to waste reduction, reuse and recycling plays a significant role in the community's recycling effort. In the last year, staff conducted 126 educational presentations and 35 facility tours, touching 6,082 residents.

These programs and activities combine to bring the entire County's current recycling rate to 33%, above the state's previous mandated goal of 30%.

Table 1 below provides a breakdown of waste and recycling tonnages for calendar year 2009.

Table 1: Leon County Waste Collected and Recycled, 2009

Generator	Tons Disposed	Tons Recycled	Tons Generated	Percent Recycled
City of Tallahassee				
Residential	39,900	5,483	45,383	12%
Commercial	70,324	4,074	74,398	5%
Total City	110,224	9,557	119,781	8%
County Residential				
Curbside	24,045	4,022	28,067	14%
Rural Waste	4,141	669	4,810	14%
Commerical	10,473	894	11,367	8%
Total County	38,659	5,585	44,244	13%
Soloman	14,720	2,118	16,838	13%
Crowder	13,289	47,145	60,434	78%
Marpan	26,226	41,044	67,270	61%
LC Transfer Station/ Self-Haulers	33,404	-	33,404	0%
Other	8,652	16,746	25,398	66%
Grand Total	245,174	122,195	367,369	33%

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Table 1 is divided into three distinct areas: City of Tallahassee, County and Other. The overall recycling rate is 33% for the entire County. Of note, is the 66% in the "Other" category. This consists of recyclables collected and processed independently of the City or County collection services. Examples include big box stores like Sam's and Wal-Mart and large grocery chains like Publix and Winn Dixie. C&D recycling from Marpan and others comprise a significant portion of this rate.

Conceptual Action Plan for Achieving the 75% Recycling Goal

To achieve the ultimate goal of 75%, the County will need to work closely with the City and a number of community partners. Staff has prepared a conceptual action plan; however, the elements contained should not be considered complete nor is the timeline definitive. The table provided is intended to be illustrative of the types of actions that could be needed to reach the goals.

As this is a statewide effort, a number of counties (population greater than 100,000) and cities around the state will also be working towards implementation. Over the next year, Leon County will reach out to other jurisdictions and the Florida Association of Counties (FAC) to evaluate other efforts that are being considered. Given the magnitude of the goal, all impacted local governments will need to work together to achieve the 75%.

After compiling all of the efforts of other jurisdictions and the legislature meets again, it is recommended that the Board convene a citizens group to help in evaluating more definitive action plan for Leon County. It is anticipated that this citizens group would be convened in the summer of 2011. Additional material will be provided to the Board at the appropriate time to effectuate this effort.

The conceptual action plan takes into account a number of recycling programs in place now that will help the county achieve the goals. One notable example is the Marpan Recycling Facility. The facility recycles bulky waste and construction & demolition debris (C&D debris). Statewide, C&D debris constitutes about 25% of the waste stream. In 2009, Marpan Recycling recovered 62% or 42,284 tons of the waste delivered to their facility. A copy of their annual report is attached, as Attachment #2.

Staff has identified a number of "Next Steps" in the conceptual action plan to move the community forward toward achieving the 75% goal. The steps are summarized in Table 2. A detailed discussion of each step follows the summary.

Table 2: Conceptual Action Plan for Leon County to Achieve the 75% Recycling Goal

	Next Steps	Timeline	Recycling
		calendar year	Goal
1	Lead by example - adopt an internal waste reduction/reuse/recycling policy for all Board agencies.	Early 2011	40% December 31, 2012
2	Conduct a waste composition study to determine what materials in the waste stream to target for recycling. The results of the study will be a basis for development of future strategies to increase recycling rates.	April & August 2011	
3	Implement an aggressive, on-going public education campaign to reinforce waste reduction, reuse and recycling behavior. The campaign will employ TV, radio and print.	October 2011	
4	Seek an interlocal agreement with the City of Tallahassee to develop a cooperative partnership in the development and implementation of the action plan.	2011	
5	Consider a joint bid with the City of Tallahassee that will result in a new franchise agreement for waste collection. Steps 6.a - 6.c are integral.	2012	
5 (a)	Consider mandatory collection in the urban area or entire unincorporated area. This step will provide all citizens the benefit of curbside recycling and may result in increased recycling rates. Rates should be lower than a subscription only basis. A joint bid with the city could lower rates even further.	2012	
5 (b)	Include Pay-as You-Throw in the new franchise agreement. Jurisdictions with PAYT see a reduction in the amount of waste generated and an increase in the amount of recyclables collected.	2012	
5 (c)	Explore the feasibility of single-stream recycling. Collier County reported more than a 50% increase in material recovery after converting to single-stream.	2012	
6	Ensure sufficient capacity for processing recyclables. Existing capacity is limited. Partner with private industry to handle increased types and tonnages of recyclables.	2013	
7	To reach beyond a 50% recycling rate, local markets for hard-to-recycle materials such as glass should be developed. Appoint a working group charged with the development and expansion of local recycling markets.	2014	
8	Implement disposal bans at the transfer station. Ban materials such as cardboard and yard debris if the above programs have proven not to be effective.	2014	
9	Implement mandatory commercial recycling. Lee County estimated the number of businesses recycling doubled from 40% to 80% since their mandatory ordinance went in to effect. Several larger businesses in Lee County reported the program saved them upwards of \$20,000 in disposal costs.	2015	60% December 31, 2016
10	Conduct a pilot project for food waste composting to evaluate the effectiveness of producing a marketable compost from food waste and yard debris. Siting and odor controls will be important issues to resolve.	2016	
11	Conduct a full scale-food waste composting program if the pilot project proves to be efficient and cost effective.	2018	70% December 31, 2018
12	Ban commercial food waste from the transfer station assuming the full scale food waste program is viable.	2019	75% December 31, 2020
13	Celebrate Goal Achievement	2020	

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Step 1. Lead by Example – mid FY 2011, 40% goal

Consider adoption of a Waste Reduction/Reuse/Recycling policy. Such action will lend authenticity to the Board's commitment to achieving the recycling goal, and encourage businesses and residents to follow suit. A draft policy has been developed for the Board's consideration and is attached, (Attachment #3).

The Waste Stewardship Model was used as a guiding principle in development of the proposed policy and is attached for review, (Attachment #4). The model depicts a hierarchy of waste management strategies beginning with Waste Prevention followed by Reuse, then Recycling and finally Disposal. Waste prevention is the most cost effective and sustainable strategy. Disposal is the most costly strategy and is the least sustainable. Note that recycling is less sustainable and less cost effective than waste prevention or reuse. Components of a Waste Reduction/Reuse/Recycling Policy:

Prevention and Reduction – *Actions or choices that prevent or reduce the production of waste.*

Reuse – *The process of using a product, material or packaging in its current form more than once.*

Recycling – *The process of separating and collecting, processing and marketing materials diverted from the waste stream for use as raw materials in the manufacturing of new products.*

The Board may wish to consider, as part of its recycling policy, requiring the use of recycled content in construction projects like roads, parking lots and sidewalks. Similar to the justification for the increased cost of constructing LEED certified buildings, the Board may grant paying higher prices for projects that include recycled content.

FDOT has developed asphalt specifications utilizing glass and crumb rubber aggregate. A Florida based construction company is using Filter Pave™, made from recycled glass, in the construction of parking lots and sidewalks. There are commercial pothole repair mixes made from recycled asphalt shingles. Recycled concrete can be used as the aggregate in road base materials, drainfields and in the manufacture of new concrete products.

Step 2. Conduct a Waste Composition Study – April and August, 2011, 40% goal

A waste composition study is an in-depth audit of the waste being delivered to the transfer station. The purpose of the study is to determine the types and amounts of waste that should be targeted for increased recycling efforts. Origin of the waste will be identified, such as commercial, institutional, city residential, unincorporated residential, universities and hospitals. Two studies will be done, one in April and a second in August when students return. The estimated cost of both studies is \$60,000 and is included in the FY11 budget request. A chart of the state-wide waste composition in 2007 is attached, (Attachment #5). **The results of the study will be the basis for developing future strategies to increase recycling rates.**

Step 3. Public Education Campaign – October, 2011, 40% goal

A robust, on-going public education campaign will build and reinforce a community-wide waste stewardship ethic over time. Paid advertisements and public service announcements via TV, newspapers and select radio markets will help citizens understand the benefits of reduce/reuse/recycle and increase participation in recycling programs. Collateral materials will be used to supplement media coverage. It is vitally important to form a unified message for community outreach among the various parties (COT, Leon, WM, Marpan, Sustainable Tallahassee, etc). Making sure we are communicating the same message in a similar manner will help to magnify all of our efforts of education. The suggested County budget for the campaign is \$50,000 per year.

Step 4. City of Tallahassee Interlocal Agreement – 2011, 40% goal

Seventy-two percent of the waste generated in Leon County is from the incorporated area. It is imperative that the effort to achieve the recycling goals be community-wide in order to be successful. Though the County has taken the lead in developing a preliminary action plan, the actual implementation will require cooperation and planning with the City. Central to the agreement is a joint partnership to fully implement the Action Plan.

Step 5. A Joint Bid for Waste Collection Services – 2012, 40% goal

The County's waste collection franchise terminates in March, 2013. Citizens in both the municipality and the unincorporated area could benefit from a joint bid for waste collection, with separate contracts for each jurisdiction. For the unincorporated area, the Board may wish to include three options in the franchise agreement, all designed to lower the overall system cost and increase recycling rates:

- a. Mandatory Collection, either in the Urban Services Area or county-wide.
- b. Pay-As-You-Throw (PAYT) in the mandatory area.
- c. Single-stream recycling.

The City may also wish to consider PAYT and single-stream recycling as a means to further increase recycling rates. Regardless, a unified system in the city and unincorporated area could prove to be beneficial by avoiding confusion between the two systems and presenting a single, community-wide public education message.

Each of these options will be discussed with the Board as part of future steps.

Step 5(a). Mandatory Collection – 2012, 40% goal

Mandatory collection in the urban area of the unincorporated county or county-wide, will also provide lower rates to those citizens currently on a subscription basis. Based on the current franchise agreement, subscribers would see a 9% decrease in collection costs. Mandatory collection may also increase recycling rates, as it appears from Table 1 that there is a greater recycling rate for curbside collection customers than those using drop-off recycling at the Rural Waste Service Centers. Mandatory collection is necessary for the implementation of Pay as You Throw (PAYT) should the Board wish to pursue that option. Mandatory collection is already required in the City.

Step 5(b). PAYT – 2012, 40% goal

PAYT is one of the most common financial incentives to encourage waste reduction and increase recycling rates. According to EPA, Alachua County, the City of Gainesville and Plantation are Florida jurisdictions that have implemented PAYT. Other notable jurisdictions include Lancaster, NH; Canterbury, NH; Boulder, CO and Lafayette, CO. Three States have Mandatory PAYT: Minnesota, Oregon, and Washington. A total of 7,100 communities have implemented PAYT

Other names for PAYT include variable rates, volume-based rates or pay-by-the-bag programs. According to the “Greening of Florida A Solid Waste Management Roadmap,” states that have mandated PAYT have seen a 25% to 50% decrease in the amount of waste generated and a 15%-20% increase in recycling rates. The Greening of Florida Executive Summary and selections from the entire document are attached for review, (Attachment #6). A pay-by-the-bag program can also be implemented for rural waste customers if the Board chooses to implement mandatory collection in the Urban Services Area only.

Using Alachua County’s volume-based system as an example, estimates for annual homeowner costs are \$220 for a 35 gallon cart, \$260 for a 64 gallon cart and \$330 for a 96 gallon cart, including disposal costs. Alachua County collects the fees via a non-ad valorem assessment. Note, these costs could change significantly with a new bid for waste collection. These estimates do not include any cost associated with the operation of the Rural Waste Service Centers.

This element of the Action Plan should be considered for inclusion in the interlocal agreement with the City.

Step 5(c). Single-Stream Recycling – 2012, 40% goal

Single stream recycling means that all recyclables are commingled in a single container and processed at a materials recovery facility (MRF) in one sorting line. Conventional, dual stream programs require the generator (the homeowner or business) to separate their recyclables into two streams, paper products in one stream, containers in another. Single stream recycling is reported by Kessler Consultant’s “Greening of Florida,” to increase recycling rates by 10% to 30%. According to Kessler, Collier County reported more than a 50% increase in recovery after converting to single stream recycling. Single-stream would not be implemented without a careful

benefit analysis. This element of the Action Plan should also be included in the interlocal agreement with the City.

Step 6. Ensure Future Processing Capacity – 2013, 50% goal

Most of the Class I recyclables (cans, paper, plastics) collected in Leon County are processed by Recycle Fibers at their facility on Springhill Road. Opportunities for future expansion at this site are severely restricted. Preliminary discussions with the County's existing Class III (construction and demolition) recycler, Marpan Recycling, indicate that Marpan Recycling has the ability to receive a significant amount of additional tonnage. This could be accomplished through the existing footprint of the facility or if needed through an expansion of the facility. At the appropriate time, the County will continue to pursue discussions with Marpan Recycling.

Step 7. Market Development – 2014, 50% goal

Some materials are either hard to recycle or must be shipped to distant recycling markets, driving up the cost. Waste tires and discarded glass containers are two examples. To reach beyond the 50% goal, the development of local markets will be needed. The Board should appoint a working group with the task of developing local markets for hard-to-recycle materials. Creating local recycling markets will have the added benefit of creating "green" jobs.

Step 8. Disposal Bans – 2014, 50% goal

Ban certain items from the transfer station. Cardboard, newspapers and yard debris can all be cost effectively recycled. Prohibiting these items from the transfer station will encourage the generators of these materials to separate them for recycling. An additional waste composition study during this time frame could be used to determine the effectiveness of disposal bans.

Step 9. Mandatory Commercial Recycling – 2015, 50% goal

If disposal bans are not successful in achieving the recycling goals, a mandatory commercial recycling ordinance can add substantially to the recycling rate. Since most commercial waste is generated in the City, mandatory commercial recycling should be envisioned in the interlocal agreement.

Kessler's "Greening of Florida" cites Lee County's mandatory commercial recycling ordinance. Since January 1, 2008, Lee County has required all businesses in the unincorporated area to have a recycling program. Three program components are required; each business must have: 1) a hauling contract for recyclables, 2) sufficient bins for collection of recyclables, and 3) an educational program for employees. Several of the larger businesses in Lee County have reported a savings on average of over \$20,000 per year in reduced garbage collection fees since implementation of the mandatory program.

Step 10. Pilot Food Waste Composting – 2016, 60% goal

Yard debris and food waste comprise about 16% of the waste stream statewide. Organic materials can constitute a much larger portion of the waste stream in some jurisdictions. The waste composition study (Step 2) will provide the data to suggest whether or not the pilot project

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has potential. The pilot project will test the feasibility of collection, processing of the waste and marketing of the compost.

Note that siting an organics compost facility with associated noise and odors will be difficult. A viable odor control component will be necessary. An important part of the public education campaign (Step 3) will be to garner public support of such projects. It is estimated that a very small scale project will cost \$486,000, excluding any revenue from the sale of the compost. This is based on a recent EPA Grant application prepared by staff.

Step 11. Full Scale Food Waste Composting – 2018, 70% goal

Should the pilot project prove successful, a full scale operation can be implemented. It may be advisable to have multiple or regional facilities rather than one large, centralized facility. A feasibility analysis of options will accompany staff recommendations. A full scale, centralized facility could cost upwards of \$2 million, excluding any revenue. A feasibility analysis would be performed before bringing the proposal to the Board.

Step 12. Disposal Ban, Commercial Food Waste – 2019, 70% goal

Ban all commercial food waste from the Transfer Station. This step assumes a successful full-scale food waste composting program is in place and fully functional.

Step 13. Celebrate Goal Achievement – 2020, 75%

Agreements

There are four upcoming solid waste related agreements that staff will bring before the Board in the near future:

- The Franchise Agreement for curbside collection. A joint bid with the City, with separate contracts, is recommended. This will be the time to reconsider mandatory collection, Pay-as-You-Throw and perhaps single-stream recycling. The current agreement terminates in March 2013.
- The Hauling and Disposal Agreement for transportation and disposal of waste from the transfer station. The Board currently enjoys a very competitive rate for these services. It is the Board's prerogative whether or not to continue the Agreement. The agreement terminates in May, 2013.
- The Interlocal Agreement with the City of Tallahassee for Solid Waste Services also terminates in 2013. This agreement requires the City to utilize the transfer station for disposal and requires the County to charge the City no more than any other user of the facility. The Board may wish to seek renewal of this agreement and incorporate it into a larger partnership aimed at achieving the 75% recycling goal.
- The County has an existing agreement with Renewable Fuels Tallahassee, LLC. The purpose of the agreement is to provide the County's Class I Solid Waste to Renewable Fuels Tallahassee, LLC if a facility is constructed. The agreement expires May 1st, 2011 if the facility is not under construction by this time, (Attachment #7).

Funding

The Solid Waste fund is not currently operating consistent with the County's adopted Guiding Principles, Attachment #8; as an enterprise fund, it should operate solely from revenues generated by its operations. However, the fund receives general revenue to support the unincorporated area disposal costs (which includes the operation of the rural waste collection centers).

As the county progresses toward the 75% recycling goal, the Solid Waste fund will experience even less tipping fee revenue. There will be fewer funds available to support solid waste programs such as recycling and education services and household hazardous waste. As part of the implementation of the Action Plan, the Board will need to consider funding mechanisms for these programs.

Options:

1. Direct staff to prepare an agenda item for consideration of an internal policy for waste reduction, reuse and recycling.
2. Authorize the County Administrator to approach the City on partnering in the implementation of the recycling goals through the renewal of the interlocal agreement and jointly bidding the curbside collection franchise agreements.
3. Direct staff to compile best practices and approaches being considered by other Counties and Cities and report back to the Board following the closure of the next legislative session.
4. Board Direction.

Recommendation:

Options #1 - #3.

Attachments:

1. HB 7243 – the 75% recycling goal
2. Marpan Recycling Annual Report
3. Draft Waste Reduction/Reuse/Recycling Policy
4. Waste Stewardship Model
5. Florida Waste Composition Chart, 2007
6. Greening of Florida, A Solid Waste Management Roadmap
7. Renewable Fuels Tallahassee Agreement
8. Guiding Principles

PA/AR/TP/nt