

Organics and Florida's 75% Goal

Florida statute 403.706 mandates that the counties develop programs to achieve a 40% recycling rate by 2012, 50% by 2014, and 75% by 2020. It further mandates that counties implement a program to recycle construction and demolition debris. The statute *encourages* local governments to recycle yard trash and other solid waste into compost and *encourages* them to consider plans for composting or mulching organic materials.

According to the Florida Department of Environmental Protection (FDEP) 2009 Annual Report, Florida generates 28.8 million tons of municipal solid waste (MSW) annually. That year we landfilled 55%, combusted 16%, and recycled 29%.

Organic materials make up the third largest segment of total MSW collected in Florida. Only paper (26%), and construction and demolition debris (23%), surpassed organics (18%). Florida's organics are made up of yard trash (12%) and food waste (6%). (The 2009 Annual Report did not break out compostable paper.) Although we recycled 34% of yard trash in 2009, we recycled only 1% of the food waste we generated that year. With the repeal of the landfill ban last year, it is reasonable to assume that the recycling rate for yard trash will shrink in the coming years.

It is hard to see how counties and local governments will achieve the 75% recycling goal without the composting plans that the Florida legislature has *encouraged*.

In December 2009, a state funded study, The Greening of Florida: A Solid Waste Management Roadmap, was published. This report identified eight (8) "high performing" states (those with recycling rates 40% or higher) and analyzed their policies and programs for potential application in Florida. The report found that most of these states strive to increase organics recovery and processing

as part of their solid waste management programs.

In California, which mandates a 50% recycling rate and exceeds it (58%*), at least 14 cities and counties have residential organics collection programs. It has designed an integrated, multi-partner program to institutionalize the use of compost and mulch throughout their state DOT operation. It has encouraged development of the market for compost by adopting the U.S. Composting Council's (USCC) Seal of Quality Assurance program to certify that compost and mulch suppliers are marketing high quality products. The University of California has developed a best management practices manual for compost use in landscaping and environmental enhancement.

Maryland, with a 48% recycling rate, maintains a landfill ban on yard waste. Massachusetts currently bans the disposal of yard waste and is exploring a ban on food waste. It is also considering direct investment in the development of a regional organics processing facility. Massachusetts reports it recycles over 70% of its yard waste and achieves an overall

(continued on page 4)

*2007 reported rates



San Francisco 3 Bin Program

Spotlight on Florida Composting Facilities

Organics recovery programs need a processing infrastructure as well as collection capacity. Four Florida composting facilities are highlighted on the FORCE website www.floridaforce.org. A new facility begins full operations this September in Apopka.

The **VISTA Organics Recycling** facility is under construction at Waste Management's (WM) VISTA Landfill and is a joint venture of the Garick Company and WM. WM acquired a majority interest in Garick, LLC, a leading manufacturer, marketer, and distributor of organic lawn and garden products, last year. Ray Stamper, Operations Manager, is determined the VISTA facility will be "the premier composting facility in Florida." A sister facility is already in operation in Okeechobee.



Okeechobee Windrows

Operations will ramp up in two phases. Phase I calls for the facility to process 30,000 tons per year on a 12 acre site. Phase II will add an additional five (5) acres and process an additional 25,000 tons per year. Eventually VISTA will employ up to 10 workers.

VISTA will use the aerated static pile composting method with an in slab negative air system that pulls air out through biofilters to eliminate odors and VOC's. Piles will be turned using a loader.

The feedstock will be food waste (no protein) supplied by a major grocery chain. Woody yard trash will be used as the bulking agent. The facility will not accept manure or biosolids. Feedstocks will be mixed to a 2.5—1 C:N ratio.

The end product will be sold to the public, including nurseries, growers, golf courses, and landscape suppliers. At first the compost will be sold in bulk by the truck load; however, eventually it will be available in bags under a brand name and sold to big box stores such as Home Depot or Ace Hardware. Pricing is currently under development.



VISTA Under Construction

Solorganics (www.solorganics.org) is busy operating a pilot facility in Clermont, Florida to test a patent pending biosolids composting method. Look for more information about this facility in the next issue of FORCE Matters.

Is Plastic-Coated Paper Compostable?

Many U.S. food waste collection programs accept paper products that have come into contact with food, such as milk cartons, paper plates, and drinking cups. Most of us probably think that makes sense, as the paper will serve as a bulking agent and decompose along with the food waste. Many of us probably assume that products such as milk and juice cartons, and paper cups, are coated with a harmless wax to make them less water permeable while in use. Unfortunately, wax has not been used to coat cartons and cups in the U.S. for about 30 years. Although most paper plates are still coated with clay, approximately 10% are plastic coated. Today, most paper products are coated with a petroleum based plastic, polyethylene (PE) that does not biodegrade.

Plastic-Coated Paper Products



Larger fragments of PE can be screened out; however, screening, transport to a landfill, and fees to dispose of the plastic increase the cost of the composting facility.

Much smaller plastic particles called micro-plastics are shed from plastic coated products during composting and remain in the end product. A study* conducted by the Woods End Laboratories and Eco-Cycle (a large, nonprofit recycler headquartered in Boulder, CO) this year proved conclusively that micro-plastic fragments are shed from all plastic-coated paper products, whether single or double-coated. The plastic coating also inhibited the biodegradation of the underlying paperboard material. When the contaminated compost is applied to the soil, the micro-plastics enter the ecosystem. Concern is growing about what impact the accumulation of plastic is having on our environment.

What can be done? Some jurisdictions have moved to eliminate plastic coated paper products from their composting programs. As the issue becomes more widely recognized, we hope that more will follow suit.

ECO-CYCLE urges local governments and compost facilities to exclude these products from their collection programs. They suggest that only products that meet ASTM 6400, EN 13432 or BPI standards should be allowed in food waste collection programs. The organization encourages the recycling of milk and juice cartons for their highest and best use. They ask lawmakers to hold the packaging industry accountable and to support compostable standards.

We can all educate ourselves on this important issue and seek to develop and implement best practices in our programs and facilities, and promote only products that can be certified as compostable.

To learn more about the USCC's efforts to establish a standard for compostable plastics, visit: <http://compostingcouncil.org/compostable-logo-project/>



Micro-plastic particles do not degrade

*New Opportunities in Recycling and Product Manufacture Eliminate the Environmental Hazards Inherent in the Composting of Plastic-Coated Paper Products, Woods End Laboratories & Eco-Cycle, 2011

75% Goal (contd.)

60% recycling rate.

Washington state places emphasis on public/private partnerships to develop facilities for processing and composting organics. It, too, has adopted the USCC Seal of Quality Assurance program and uses compost and mulch throughout its DOT operations. It requires that new construction projects amend soil with compost in order to protect local waterways. At least 12 cities and counties have implemented residential organics recovery programs. Washington reports a 47% recycling rate.

As noted earlier, food waste collection and processing is limited in Florida at this time. Florida is best characterized as a yard trash processing state with very few composting operations, but this is starting to change. The Roadmap study recommended that Florida adopt several of the program elements that have been successful in the high performing states, including the expansion and enforcement of the yard trash disposal ban and a ban on food waste disposal by certain high volume generators (e.g. food manufacturers). These recommendations could be adopted by local governments as part of an organics recovery program.

Florida city and county policymakers can also look to their counterparts in California, Washington, and other jurisdictions who have implemented successful organics recovery programs. A good place to start would be the Report to Region 9 of the EPA "Beyond Recycling—Composting Food scraps and soiled paper" published in 2010. This report surveyed 121 communities in North America to explore the economics of program options, connections among various program components, operational implications of material volume and categories, and changes needed to increase composting capacity.

Florida can achieve its 75% goal, and join other high performing states if we include organics recovery as an integral part of our local solid waste management programs.

Upcoming Events

Great Southern Tree Conference

December 1 - 2, 2011

Gainesville, FL

<http://www.fnqla.org/events/great-southern-tree-conference/>

US Composting Council 19th Annual Conference & Tradeshow

January 17 - 20, 2012

Renaissance Hotel

Dallas, TX

<http://compostingcouncil.org/conference/>

Tropical Plant Industry Exhibition

January 18—20, 2012

Greater Fort Lauderdale/Broward County Convention Center.

Fort Lauderdale, FL

<http://www.fnqla.org/tpie/>

2012 SWANA Thinking Outside the Blue Box Conference

February 8—12, 2012

Austin, TX

<http://zerowaste.swana.org/>

25th SE Recycling Conference and Trade Show

March 11—14, 2012

Hilton Sandestin Golf Resort & Spa

Destin, FL

<http://www.southeastrecycling.com/>

Residential Recycling Conference

March 28 - 30, 2012

Gaylord Texan

Dallas, TX

<http://www.residentialrecyclingconference.com/>

26th Annual Biocycle West Coast Conference 2012

April 16—19, 2012

Red Lion Hotel on the River

Portland, OR

For more information on FORCE or organics recycling in Florida, please call/visit/email:

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