

A SOLID WASTE COLLECTION & DISPOSAL STRATEGY FOR UNINCORPORATED LAKE COUNTY¹

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Philosophy & Values

Most natural resources are finite. Current consumption rates of those resources are not sustainable indefinitely. We owe it to future generations, to the health of the planet, and to our own health, to preserve non-renewable natural resources to the greatest extent possible.

Strategy:

- 1. Educate the citizens about our limited natural resources, the damage to air, water, and human health caused by extraction, industrialization, consumption and disposal of those resources.**
- 2. Design programs for Lake County Solid Waste that are congruent with reducing the depletion and consumption of natural resources, AND make sense economically.**

Collection & Disposal

Collection:

The current system of collection, from an operations and customer satisfaction perspective, is quite satisfactory. From a conservation perspective, there is room for improvement.

If one goal is to reduce the quantity of refuse going to the WTE plant, or the landfill, and increase recycling of natural, and often times, nonrenewable resources, the introduction of Volume-Based Refuse Rates would be a good step. There is ample evidence² indicating Variable Refuse Rates reduces waste and increases recycling, and which are similar to utility bills in that the charge is based on the homeowner's usage. One possible approach would look like this:

¹ This is a work in progress, and elements are likely to change as further information is supplied and integrated.

² From *Waste Prevention, Recycling, and Composting Options: Lessons from 30 US Communities*, Chart 3.01, Per Capita Residential Waste Generation in Communities with Volume-based and Flat Refuse Rates

1. Refuse containers would come in three sizes, and residential customers would pay according to the size they choose. (Alternately, sizes could be the same, but number of barrels used would determine cost.)
2. Collection days would stay at three per week, but refuse would be collected one day, recycling one day, and "green waste" (yard waste and wet garbage) one day.
 - Current recycling rates for residential customers in Lake County are about 13%. The Florida State Legislature has set a goal of 75% by 2020. With education and a Variable Refuse Rate program, that rate should increase substantially.
 - The US EPA indicates "**green waste**" comprises **roughly 25% of residential waste** (Yard waste, 18%, food waste 8%, nationwide)³. With a combination of the backyard compost bin program that Emilio introduced, and the mulching and composting program at the landfill expanded substantially, that 25% could be subtracted from the refuse side of the equation, and added to the recycled side. A dedicated barrel and curbside pick-up of "green waste" are crucial to its success.
 - By standardizing collection in barrels supplied by the collector, to allow for mechanized barrel dumping, collection rates could possibly go down, based on increased labor savings⁴

One further recommendation I would make regarding collection. As much as I value the services of the current collectors and the excellent job they continue to do for county residents, as a small businessman, I think it's important to publicly announce that collection contracts are coming up for bid, and open the process to all qualified parties.

Disposal:

If the above-suggested collection system were put into place in a vacuum, without substantial changes in disposal, it would be chaos. Primarily, it seems we have three disposal systems available. (I

³ U.S. Environmental Protection Agency, *Characterization of Municipal Solid Waste in the United States: 1990 Update*, Office of Solid Waste, June 1990

⁴ Comments by Doug McCoy, Waste Management, inc., at the 11/15/10 meeting of the Solid Waste Alternative Funding Task Force, Lake County.

believe the high-tech, untested methods coming in the future, are best left to large, well-funded cities, and our time is best spent on proven systems that are available right now.)

1. The current system which uses the WTE plant, is our primary disposal method. While there are many things to like about this system, the current contract is not workable for the future. Unless a great deal of flexibility regarding tonnage per day at a reasonable cost, can be worked into a new contract, I think the relationship with Coventa may be threatened. I'd prefer to see the co-dependency end, and take a free market approach where Coventa competes with the landfill for tonnage. And, there is ample time left in the current contract for them to solicit more customers.
2. The county has a terrific asset in the current Astatula Landfill. By some accounts it's worth upward of \$40 million. I believe the land is underutilized, and much larger composting and recycling efforts should be undertaken there. Also, **in neighboring counties there are at least five Bioreactor Landfills that reduce landfill volume 10-30%, and reduce active monitoring of closed cells to 5-10 years.** Coupled with aggressive recycling and composting programs, and a flexible relationship with Coventa, the lifespan of this landfill goes out for many decades. From the figures I've seen, it is also by far the most economical and financially stable disposal choice available.
3. We have not heard much about exporting our solid waste to other communities who want it, although we have been told that is a viable option. Based on scant information, I don't feel qualified to have much of an opinion. I will say it feels like sloughing off responsibility for our solid waste, and more importantly, the county would be vulnerable to spiking fuel costs, making this choice financially less stable than the other two.

Regardless which option for disposal is chosen, if the collection plan above is pursued, substantial changes at the landfill would be required. The current mulching area would need to be expanded. The mobile recycling Material Recovery Facility (MRF) would probably need to give way to an enclosed building, with either single-stream or dual-stream MRF. There are many around the state to emulate. It is proven technology, and the costs are well known.

Possible improvements in waste diversion would need to be implemented at the transfer stations as well.

Desirable Further Education:

1. A presentation by the City of Gainesville on their transition to a Variable Refuse Rate system.
2. A presentation by a Solid Waste entity who has recently introduced a "green waste" collection and composting system.
3. A presentation by either Volusia, Alachua, Polk, Union, or Highlands counties on their Bioreactor Landfill projects.
4. A presentation by, possibly Pinellas or Lee Counties, of options for a Material Recovery Facility that could handle a substantial increase in recyclables, and about their experiences in doing so.

Bibliography & Further Reading:

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2. VARIABLE-RATE TRASH COLLECTION AND ITS ROLE IN WASTE REDUCTION Pay-As-You-Throw in Pennsylvania, PDEP
3. Variable Rates in Solid Waste: Handbook for Solid Waste Officials, Volume II(Washington, DC NTIS Document No. EPA 910/9-90-012b, June 1990)
4. Bioreactor.org *...the future of waste disposal* Hinkley Center For Solid and Hazardous Waste Management ©2006
5. BIOREACTOR LANDFILL OPERATION: A Guide For Development, Implementation and Monitoring
The Florida Department of Environment Protection and The Hinkley Center for Solid and Hazardous Waste Management
6. MATERIALS RECOVERY FACILITY FEASIBILITY STUDY:
INNOVATIVE WASTE REDUCTION & RECYCLING GRANT IG8-06
MRFing Our Way to Diversion: Capturing the Commercial Waste Stream, Pinellas County Department of Solid Waste Operations
September, 2009

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