



*Zero Waste – Recommendations for the City to Move
Towards Zero Waste*



**Presented By:
Commissioner Hayes-Santos**

Summary of the Issue

Alachua County and the City of Gainesville were former leaders in recycling in the state of Florida; however, recent data shows a decrease in recycling and an increased dependence on landfills within the city and county. Where many cities are taking steps to create progressive policies on waste management, the City of Gainesville policies have remained stagnant.

Through the recommendations provided the city will have a plan to meet Florida's goal of 75% recycled solid waste by year 2020. In addition, this plan will aim for Gainesville to be a zero-waste city by the year 2040.

The General Policy Committee is being asked to hear a presentation on the status of waste management and the future of waste management within the city and determine whether to participate in future projects to become a zero-waste city.

Background Information

There are many cities throughout the United States that have understood the environmental importance of becoming a zero-waste city. Through progressive changes in solid waste management, many cities are on their way to zero waste and Gainesville should be one of them. In fact, over 50% of what is currently thrown in the trash is recyclable. In addition, 25% of every day waste is compostable. That suggests that 75% of current waste in landfills can be diverted. Waste in incinerators and landfill create greenhouse gas emissions. A study done by Eureka Recycling shows that 36.7% of all U.S. greenhouse gas is generated from waste.

By incentivizing composting and recycling the city will avoid greenhouse gas emissions, reduce the use of pesticides, improve the health of soil, save the Earth's resources and save energy.

As it currently stands Gainesville City Code only requires commercial properties to recycle.

There are five key areas of improvement within the city:

1. Commercial
2. Multi-family
3. Residential
4. Municipal
5. Construction and Demolition

Source: "Recycling, Composting and Greenhouse Gas Reductions in Minnesota" Eureka Recycling, 2008

http://makedirtnotwaste.org/sites/default/files/composting_recycling_greenhousegases_0.pdf

Case Studies

There are several cities and counties within the U.S. that have implemented programs and have set target goals to become zero waste. These cities have complex programs that take a holistic approach to municipal recycling. Through similar measures Gainesville can become a leader in Florida for zero waste goals.

- 1. Seattle, WA:** The City of Seattle has implemented numerous ordinances that address every aspect within the city. All residents, whether in single-family or multi-family structures are required to recycle. Construction and Demolition Waste recycling is required. All projects are required to separate concrete, bricks, asphalt paving, metal, cardboard, carpet, plastic film wrap, new construction gypsum scrap, untreated wood, and tear-off asphalt roofing shingles. Since adopting the ordinances in 2003, the city saw an 18% increase in recycling participation and was able to cut costs of transportation to landfills.

Source: www.seattle.gov

<https://www.epa.gov/transforming-waste-tool/zero-waste-case-study-seattle>

- 2. Lee County, FL:** Lee County's Ordinance establishes mandatory recycling to ensure that recyclable materials generated and accumulated by multifamily properties, commercial establishments, and construction and demolition activities be source separated and collected from the solid waste so that such recyclable materials are not deposited at a landfill, but are processed and reused.

Lee County requires that all businesses and multi-family properties in unincorporated Lee County must provide sufficient on-site recycling services. Under this requirement, business properties must continue to use the designated franchise hauler for refuse collection for their service area and choose a service provider and negotiate prices for recycling services. Multi-family properties utilize the designated franchise hauler for collection of recycling materials required under this Ordinance. Construction and demolition activities may select any service provider and negotiate prices for recycling services. Lee County's construction and debris ordinance is considered the gold standard in Florida.

The Recycling efforts made by Lee County has made them one of the top five recycling counties in the State of Florida with a 73% recycling rate.

Source: Lee County Ordinance No. 07-25

<https://www.leegov.com/bocc/Ordinances/07-25.pdf>

- 3. Portland, OR:** The City of Portland has a progressive multi-family ordinances that require multi-family complexes to set up a recycling systems that is convenient to tenants, for all materials that can be recycled in Portland's residential curbside system. The recycling containers at a multi-family complex are to be placed in a location convenient to tenants as the garbage receptacles, given space constraints. If it is not feasible to provide a central collection system for recyclable materials at a multifamily complex, the owner will provide a two-sort collection system that utilizes individual recycling roll carts for each tenant. Owners of multifamily complexes will distribute to all tenants at least once a year information about how to use the onsite recycling system. Owners are to provide new tenants with this information within 30 days of tenant move-in.

In addition, Portland has guidelines for business recycling and food composting. All Businesses are required to prevent total waste (including both trash and recycling) generated as measured by reducing weight, container sizes and/or frequency of collection. All businesses shall recycle all paper and containers. Food scrap generating businesses shall separate all food scraps from mixed waste and set out for collection (e.g. compost, animal feed, or where possible, human consumption).

One year after adopting their recycling program, Portland saw a 44% decrease in residential trash collected and a 12% increase in recycling collected.

Source: <https://www.portlandoregon.gov/citycode/?c=27430&a=294930>
<http://www.opb.org/news/blog/ecotrope/in-portland-44-percent-less-trash-at-the-curb/>

- 4. Davis, CA:** The City of Davis Recycling Program received a grant from the California Department of Conservation to purchase recycle bins for multi-family properties in Davis. With this program, each apartment received their own iBIN recycling container to collect recyclables. The iBIN Recycling Program provided each apartment unit with its own recycle bin. The iBIN (in-apartment recycling bins) made it easier for residents to collect and transport recycling from their apartments to the recycling carts in their community's trash enclosure.

Source: <http://cityofdavis.org/city-hall/public-works/solid-waste-and-recycling/multi-family-programs/ibin-recycling-program>

- 5. Cambridge, MA:** Cambridge instituted a plastic bag ban on March 31, 2016 with the purpose of reducing waste and protecting the environment. The ordinance impacts all retail establishments that provide a bag to customers and specifically prohibits plastic bags with handles. Businesses are allowed to provide customers with a reusable, paper or compostable bag for a charge of \$0.10/bag. Certain bags are exempted from the ordinance including produce bags, laundry, dry-cleaner and newspaper bags, and bags used to wrap meat or frozen foods. The city created a checklist for businesses to

help them comply with the new ordinance. They also did outreach via social media, news outlets, and billboards to prepare customers for the new requirement. Cambridge has seen a reduction in 50 to 80% reduction in single bag consumption and 95% reduction within businesses.

Source: <https://www.cambridgema.gov/theworks/ourservices/recyclingandtrash/curbsidecollections/aboutrecycling/Businesses/bringyourownbagordinance>

6. **Coral Gables, FL:** This past May, Coral Gables became the first city in the state of Florida to ban plastic bags after successfully banning polystyrene (Styrofoam) last year in a similar ordinance. Other cities including Palm Beach and St. Petersburg are planning on implementing similar ordinances. The ordinance currently states that no retail establishment shall provide to any customer a single use carry out plastic bag, with exception for prescription medication bags, garbage bags, newspaper bags, pet waste bags, laundromat clothing bags and bags for yard waste. As part of the ordinance the city is encouraging the use of reusable bags and compostable plastic bags.

Source: <http://coralgables.com/index.aspx?page=1346>

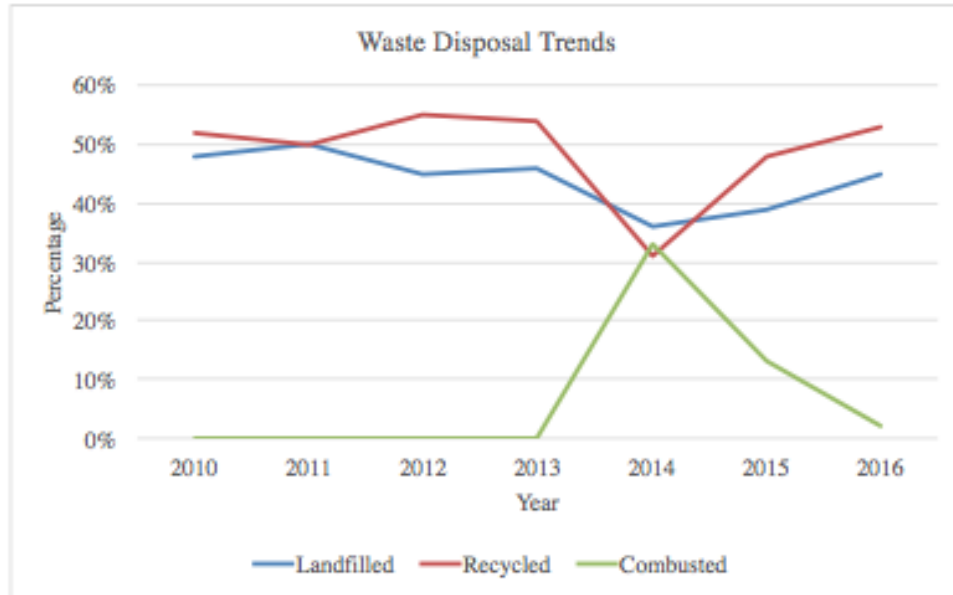
Local Analysis

The need for the city to improve sustainability efforts and become more environmentally conscious has been apparent in recent years. The City of Gainesville has been known to care and assist in efforts to making our community a healthier and happier place to live.

One of the core tenants of the City's Strategic Plan is Environment and Energy. In the year 2017 other progressive midsized cities in Florida and across the country have been taking steps to improve sustainability issues within their respective cities. If Gainesville wants to continue to be known as a sustainable and progressive city, it can no longer set aside environmental issues.

Currently, it is only mandatory for commercial and commercially-collected recycling. If the city continues with this approach we will continue to have stagnant or downward trends regarding recycling. In the past 8 years recycling rates in Alachua County have been steady at around 50%, reaching a low in 2014 with a 31% recycling rate. The highest recycling rate the county has seen is only 55%.

The graph below illustrates waste trends in Alachua County from 2010-2016, provided by the Alachua County Public Works Department.



If the city wants to meet the goals set out by the state to reduce waste by 75% by the year 2020 there must be changes and updates to the current solid waste management ordinance. These changes will promote a culture of recycling within the community and put Gainesville on the map as one of the more innovative cities for recycling.

With the assistance of the City and County Public Works department, the University of Florida's office of Sustainability as well as community groups, the city of Gainesville can take sustainable city policy to the next level.

Source: FDEP Solid Waste Management Annual Report

http://www.dep.state.fl.us/waste/categories/recycling/swreportdata/16_data.htm

What is Zero Waste?

Zero waste is a philosophy that focuses on eliminating waste in everyday life; it emphasizes reusing, recycling and composting while eliminating the need for landfills and incinerators. This sustainable strategy will redesign our current system to prevent wasteful and polluting practices by using natural resources to make new products. Becoming zero waste will transform the city's disposal and create new products out of it.

The potential benefits of zero waste include: protecting the health of residents; saving energy; prolonging the life of our landfills; composting can decrease local water use; improve air quality; reduce toxic products; protecting biodiversity; decreasing the need to extract resources

and the need for mining; creating a new ‘Green’ sector in our local economy that focuses on conservation and sustainable management; promoting already existing local businesses and local food.

Source: Zero Waste Associates, *Road to Zero Waste Plan*, Dec. 2013

http://www.fcgov.com/recycling/pdf/RoadtoZeroWasteReport_FINAL.pdf

Recommendations and Timeline

The primary recommendation of this proposal is for city staff to create a long term Zero Waste Strategic Plan with the goals to:

- Divert 75% recycled solid waste by 2020
- Divert 90% recycled solid waste by 2030
- Be a “Zero Waste” City by 2040

Another major goal is to find solutions that will minimize waste generated on per capita basis.

The following are specific recommendations within the five key areas the city may consider.

Commercial Recommendations

1. **Business Food Waste:** Require businesses that generate a certain amount of food waste to source separate and recycle/compost it. Food waste accounts for about 25% of landfill waste. Diverting the excess waste from restaurants and grocery stores will significantly improve recycling rates for the city.
2. **Reduce *De Minimus* Amount for Commercial Businesses:** Currently the minimum amount a commercial business can dispose each week is 15%, by reducing this number to 10% or lower it would require the commercial business to increase their individual recycling. Enforcement of commercial recycling should also be strengthened.
3. **Equip Dumpsters with Lids:** Require franchise haulers to equip dumpsters with lids that cannot be left open to catch tons of rainwater each year. This rainwater is counted as garbage and costs \$48/ton to landfill. Requiring all dumpsters to have lids will reduce the costs for both haulers and businesses.
4. **Small Business Collection:** Allow for small businesses in or near residential areas to use residential bins for collection. This will incentivize small businesses to improve their recycling and not require them to have an individual commercial dumpster.
5. **Uniform Messaging and Bin Colors:** Establish uniform messaging on dumpsters and recycling containers to assist individuals and businesses recycling. As well as

- creating a standardized color for the different bins. Currently, there is no regulation on bin colors letting many private companies use their own colors which may cause confusion for individuals attempting to recycle. By designing dumpsters and bins to have specific colors and with proper messaging, individuals will be more likely to participate.
6. **Prohibit Single Use Plastic Bag and Polystyrene (Styrofoam):** To reach zero waste goals the city must implement a plan to phase out the use of materials that cannot be readily recycled or biodegradable. These materials can take thousands of years to biodegrade in a landfill. Often plastic bags and polystyrene materials end up as litter on our roads and water bodies causing trash collectors extra work to keep our city beautiful. Many times, animals, especially marine animals see these materials as food and attempt to consume them. These actions will not only help Gainesville become zero waste; it will have many other positive environmental impacts.

Municipal Recommendations

7. **Uniform Public Recycling Receptacles:** Any publicly provided trashcan would have to be accompanied by an appropriate recycling receptacles. This allows individuals the option to recycle while out in public and will divert landfill waste.
8. **Municipal Recycling Culture Changes:** Establish waste reduction as a required behavior for city employees, hold managers and supervisors accountable for adhering to city waste reduction policies, emphasize waste reduction during new hire orientation to stress each employee's part in waste reduction within the city.
9. **Office of Sustainability:** Create an Office of Sustainability to oversee sustainability plans across GRU and GG and to continue pushing sustainability efforts. A specific office for sustainability will assist the city with inter-departmental sustainability efforts and make sure the city is using the most efficient and sustainable measures in all departments as well as keeping our residents informed on the city's sustainability issues.
10. **Education:** Create an educational program, that is updated annually, in the form of a flyer or text that can easily be printed on to recycling containers to educative homeowners and tenants about why it is important to recycle and how to properly do so.
11. **Collaboration:** For a zero waste policy to be successful there must be buy in from the whole community. Focus should be put on having consistent recycling and zero waste policies across the large public institutions in our community (UF, Santa Fe, Alachua County and School Board).

Residential Recommendations

12. **Pilot Residential Composting Program:** Establish a residential area within the city limits to implement a composting program to determine if providing a composting service would be affordable and well used by residents.
13. **Mandatory Residential Recycling:** Following the example of other cities leading the way to zero waste, the City should mandate that along with commercial recycling, residential recycling should be required.
14. **Pilot Bin Program:** Since Gainesville is a dual-stream recycling city, it would be beneficial for residents to have larger recycling bins with different colors to separate the paper recycling from plastic recycling.

Multi-Family Recommendations

15. **Require Multi-Family Recycling:** One of the areas that requires the most improvement with recycling is multi-family units. Currently Multi-family complexes only see 3-4% participation in recycling. By Requiring recycling to be as convenient as waste collection, it will encourage tenants to be more conscious about their waste disposal.
16. **Multi-Family Recycling Bin:** Require multi-family properties to provide each housing unit with a recycling bins that will allow them to separate paper and plastic recyclables as well as transporting the recyclables to the community dumpster in a more efficient manner.

Construction and Demolition Recommendations

17. **Incentivize Construction and Demolition Source Separation and Recycling:** Incentivize all construction and demolition activities and developers to source separated, reuse materials, as well as recycle the remaining waste. Often gone unnoticed but one of the largest areas of waste within a city is through construction and demolition. Gainesville should encourage on site recycling like many other cities that have goals to be zero waste. Gainesville should look to replicate Lee County's model.