

Reducing Commercial Waste in Gainesville

Briefing Paper

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Executive Summary

According to a study from the UF College of Engineering, commercial generators produce about 53% of Alachua County's municipal solid waste (as of 2010)¹. The same study found that 60% of commercial municipal solid waste (not including multi-family residences) was recyclable or compostable (e.g. paper, plastic, and organics). In this case, commercial generators include office buildings, restaurants, retail stores, and other businesses.

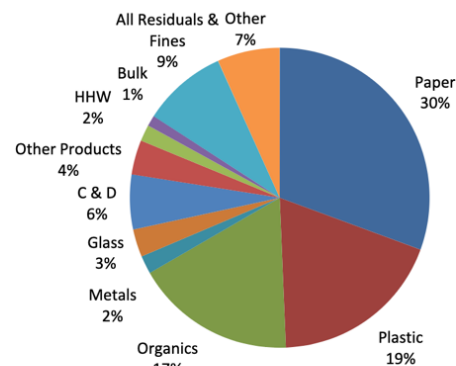


Figure 13 The Commercial Municipal Solid Waste Composition for Alachua County Based on the 2009 Study. Percents by Weight

Given the fact that commercial sources make up about half of all municipal solid waste, and given that so much of commercial municipal solid waste is recyclable or compostable, Gainesville would likely see a large increase in their waste diversion rates by making

¹ <https://studylib.net/doc/18842079/alachua-county-waste-composition-study>

commercial waste ordinances more efficient and streamlined. The following are ways to improve commercial waste diversion rates:

- Require Recycling of All Recyclables
- Commercial Compost and Food Donation Pilot Program
- Standardized Bin Color and Signage
- Require Businesses to Provide Recycling Bins
- Explore Franchise Zones for Commercial Waste Haulers
- Explore Creating Waste Districts in High-Density Areas

History/Background Information

Gainesville passed its current mandatory commercial recycling law in 1997. This law encompasses traditional businesses, construction and demolition waste, and multi-family residences. While this ordinance was well-suited and progressive for its time, it has now fallen far behind other cities', such as Portland, Austin, and Seattle, commercial recycling laws. These cities incorporate higher mandatory recycling levels and even mandatory commercial composting.

Gainesville has set diversion goals of 75% by 2020, 90% by 2030, and zero waste by the year 2040. The state of Florida also passed a law in 2008 which established a recycling rate goal of 75% by the year 2020². Gainesville's current commercial recycling rate varies widely by provider, but of the three largest providers, the average recycling rate is 8.3% (this includes apartment complexes, as well as businesses, office buildings, etc.).

By collaborating with local businesses, Gainesville can introduce a system that diverts more waste while ensuring our businesses continue to thrive, thus creating a cleaner and more sustainable city.

Preliminary Research and Findings

Require Recycling of all Recyclables

Gainesville's current mandatory commercial recycling law has not been updated since 1997. Under the current law, businesses are not required to recycle all of their recyclables; rather,

² <https://floridadep.gov/waste/waste-reduction/content/florida-75-recycling-goal>

they are only required to recycle those materials that compose 15% or more of the volume of their waste stream. The ordinance does not make it clear how it is evaluated whether a material is above 15% of the waste volume.

To make the recycling requirement more streamlined and environmentally friendly, the city should update this law to require businesses to recycle all recyclable materials used. The list of recyclable materials would come from the current list that the ordinance has in place. Rather than having to spend resources to measure out volumes, the city could enforce this by visually inspecting commercial trash receptacles. If there were recycling found in the trash receptacle, then the business would be in violation of the ordinance.

Businesses should not be held accountable for recyclables that are in garbage receptacles that are available to the general public, since they have no control whether or not patrons of their business choose to recycle. However, businesses should be required to provide recycling bins that are at least as convenient as any trash receptacles, to ensure Gainesville residents have the opportunity to recycle wherever they are. These recycling bins should follow the color and signage standardizations, as discussed later in this paper.

Several cities around the US have enacted similar policies. Portland, San Francisco, and Seattle are three cities with some of the highest waste diversion rates in the US (81%³, 80%⁴, and 56.9%⁵ respectively, compared to the national average of 25.8%⁶). All three of them require commercial entities to recycle 100% of recyclables. Portland and San Francisco go a step further in requiring businesses to compost.

Gainesville could also require businesses that use single-use plastic bags and polystyrene containers to provide receptacles for patrons to recycle these items. Many businesses, such as Publix and Target, already offer plastic bag recycling service at all of their locations. Requiring such receptacles could not only reduce the number of single-use plastic bags and polystyrene containers in our landfills and environment, but could also discourage businesses from these items.

³ <https://www.portlandoregon.gov/bps/article/592167>

⁴ <https://www.cnbc.com/2018/07/13/how-san-francisco-became-a-global-leader-in-waste-management.html>

⁵ <https://www.seattle.gov/Documents/Departments/SPU/Documents/2017AnnualRecyclingReport06292018Final.pdf>

⁶ <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>

To further work towards zero waste, the city could also require that all pharmacies provide receptacles for safe disposal of prescription drugs. The benefits of this extend far beyond reducing waste. It would allow for easy disposal of extra drugs, to discourage people from flushing extras down the toilet or sink, which can lead to drugs ending up in our waterways and disrupting wildlife, as well as potentially affecting human health through our drinking water.⁷ Additionally, creating a convenient place to throw away prescription drugs will help mitigate the risk that prescription drugs are misused or taken by children.

Compost and Food Donation Pilot Program

According to a study from the UF College of Engineering, organics compose 17% of commercial municipal solid waste (not including multi-family residences). When left to decompose in landfills, organics release methane, a greenhouse gas 25 times more harmful than carbon dioxide according to the EPA.⁸ This methane is a major contributor to climate change, a threat to people and the environment's wellbeing both in Gainesville and globally. However, when organic waste is composted, little to no methane is produced. Therefore, by requiring composting from all food-permitted commercial entities, Gainesville would not only move closer to its goal of zero waste by 2040, but would also greatly reduce the amount of methane released by the city's landfills. Gainesville should also require that, before composting, businesses try to donate their food to a local nonprofit. By doing so, the city would be both eliminating food waste and combating hunger in the community. A similar law was passed by France in 2016 and has largely been seen as a success.⁹

By beginning the commercial composting and food donation program as a pilot program, the city can evaluate the best way to expand city-wide. Furthermore, a pilot program will allow city officials to work in partnership with local restaurant and grocery store owners, in order to fine tune the program in a way that suits both commercial businesses and the environment. The pilot program should last no longer than one year, at which point a refined version of the program would begin to be rolled out across the city over three years.

⁷ <https://www.americanrivers.org/threats-solutions/clean-water/pharmaceuticals-personal-care/>

⁸ <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

⁹ <https://www.pbs.org/newshour/show/is-frances-groundbreaking-food-waste-law-working>

The following are examples of similar initiatives that have been implemented around the country:

The State of California

- The state implemented a law in 2016 requiring businesses that produce a certain amount of waste to compost.
- The law was designed to incrementally increase the number of businesses who qualify under the law, so that by 2017 all businesses were required to compost.¹⁰
 - When a business had to comply depended on how much organic waste they produced, with businesses with larger quantities complying first.

Seattle, Washington

- As of 2009, businesses in Seattle are required to divert organics from their waste stream (the only exception is made for multi-family residences).
- Seattle offers businesses who contract compost pick-up through the city a compost collection rate that is 32% lower than garbage collection rates¹¹.
- If a commercial entity violates this law, they must pay a \$50 fee per collection.

Austin, Texas

- Austin's law required all food permitted businesses to divert organic materials from the landfill.
 - Austin encourages its businesses to do this through a number of methods, including composting, donating food, educating employees, and reduce the amount of organics such as paper napkins and cardboard boxes purchased.
- Businesses are required to annually submit an online "Organics Diversion Plan."
- Austin implemented its organic diversion program by size of businesses, measured by square footage.
 - Larger businesses had to comply first, with smaller businesses being incorporated over the next two years.

¹⁰ <https://www.calrecycle.ca.gov/recycle/commercial/organics>

¹¹ <http://www.seattle.gov/utilities/businesses-and-key-accounts/solid-waste/food-and-yard/commercial-customers>

- The law was implemented in 2016, and by 2018 all food businesses were incorporated.¹²

There have also been many apps created to help businesses reduce their food waste. One example is “Food for All” in Boston and New York, which connects businesses with leftover food at the end of the night with customers who buy the food for a discount, or pay for a person in need’s meal. “Food Rescue Hero” in Pittsburgh and “Food Rescue US” both connect businesses with leftover food to hunger relief organizations. A similar app in Gainesville could help businesses more easily adapt to this new ordinance, while also helping those in need.

This ordinance would encompass several aspects that reduce organics and thus methane in our landfills. Businesses would be required to first try to donate unused food to nonprofits, then compost any remaining food. Should Gainesville pass this ordinance, it should include a pilot program with select businesses which lasts for one year. After the end of the one-year pilot period, ordinance requirements would be expanded to encompass food based businesses over two years. The method of expansion should be decided by the city commission at the end of the pilot program, with possibilities including Austin’s square footage measurement, or California’s waste production measurement.

Standardized Bin Color and Signage

By standardizing bin colors, the city will not only limit confusion and misplaced recyclables, but also create a city, county, and university partnership. As is the color scheme at UF and current single-family residences, the city should require that orange bins are for paper recyclables, blue bins are for bottles, cans, and cartons, black roll carts are for garbage, and green containers are for compost. The city could further clarify which bins are used for what by mandating clear and consistent signage or stickers on every bin and dumpster, stating what form of waste that receptacle is designated for.

Rather than requiring an immediate replacement of all receptacles, businesses could only be required to ensure that any new receptacles bought meet these standards. Although it would take longer for all bins and dumpsters to be standardized, this would allow for a less costly transition for businesses.

¹²https://austintexas.gov/sites/default/files/files/Resource_Recovery/Organics_Fact_Sheet_20160705.pdf

Require Businesses to Provide Recycling Bins

While businesses should not be held liable if patrons place recyclables in the garbage, patrons should at least have the option to recycle. Therefore, by requiring businesses to provide recycling bins that are at least as accessible as all garbage bins, Gainesville can ensure that residents are able to recycle both at home and in businesses. This would allow for another opportunity for waste diversion, especially in places such as restaurants and other establishments with high foot traffic. Both Portland and San Francisco have passed such laws. There should be a gap between passing this law and enforcing it, to give businesses ample time to both purchase recycling bins and find an adequate place to store them. These recycling bins should be clearly labeled with what sort of recycling should go into them, to lower contamination rates within recycling.

This aspect of the law should specify that this applies to public events as well, such as concerts, festivals, food truck rallies, etc. The University of Florida has seen great success with a similar program at Ben Hill Griffin Stadium, where both recycling and compost bins are placed throughout the stadium. At the end of 2013, the stadium had achieved a 78% landfill diversion rate¹³. By requiring all businesses to provide recycling bins, Gainesville could move one step closer to replicating the University of Florida's success.

Explore Franchise Zones for Commercial Waste Haulers

Rather than having every business independently contract with a commercial waste hauler, some municipalities divide their cities into "franchise zones." Each franchise zone is then serviced by one commercial waste hauling company. Haulers are typically selected through a bidding process. Supporters of franchise zones say that they give a greater incentive to companies to invest in things such as clean-fuel trucks and increased recycling and composting opportunities. Supporters also say by reducing the number of trucks on the road, these zones reduce wear and tear on roads and reduce the number of pedestrian and cyclist accidents involving these trucks. Reducing the number of trucks on the road would also reduce the amount of greenhouse gas emitted by trucks. The latter benefit would help the city achieve its Vision Zero resolution. Many cities in the US have such a system in place, including Portland, Seattle, and Santa Barbara. Gainesville itself already uses this system for single-family residences.

¹³ <https://floridagators.com/news/2017/9/6/football-sustainability-the-florida-gators.aspx>

Gainesville should explore the possibility of establishing franchise zones, including the potential cost changes to businesses, potential savings on vehicle repairs for waste haulers, and potential infrastructure savings for the city.

Explore Creating Waste Districts in High-Density Areas

In areas of Gainesville with high densities of restaurants, bars, etc. (such as midtown and downtown), trash containers are often left out on sidewalks. These containers not only block the right-of-way for pedestrians, but they are also an eyesore. To prevent this, the city should require businesses to place all trash in a dumpster, rather than allowing it to be placed onto a sidewalk. Because not every business could have their own dumpster, the city should explore creating “waste districts” in midtown and downtown. These districts would be zones that contain businesses that all have the option of buying in to central dumpsters, provided by the city or private businesses. These zones would be designed so that they are within walking distance of all contained businesses.

Pros and Cons of Potential Changes

Pros of Requiring Recycling of all Recyclables

- No foreseeable cost to the city
- Requirements for commercial recycling more streamlined
- Increased accountability for businesses in their waste diversion

Cons of Requiring Recycling of all Recyclables

- Businesses may say the new requirements are expensive or unreachable
- Currently unclear how great of an increase there would be in city-wide diversion rate

Pros of Compost and Food Donation Pilot Program

- Builds the framework for a future commercial composting program, while allowing the program to be fine tuned
- Not only diverts waste from landfill, but also prevents ensuing methane from contributing to climate change
- Diverts 17% of all commercial waste (not including multi-family residences) from landfill

- If businesses were permitted to donate food, this could create a partnership between local businesses and nonprofits that provide food to low-income residents

Cons of Compost and Food Donation Pilot Program

- Businesses may say the program is expensive
- Unclear at the moment which hauling service would pick up composting for businesses

Pros of Requiring Businesses to Provide Recycling Bins

- Builds a city culture of recycling both at home and in public
- Provides another point at which waste can be diverted from a landfill

Cons of Requiring Businesses to Provide Recycling Bins

- Businesses might say the bins cost too much or they do not have room for the bins
- Not clear how much additional waste would be diverted with this initiative

Pros of Exploring Franchise Zones for Commercial Waste Haulers

- Allows the city to gather more information as to whether this is a beneficial policy

Cons of Exploring Franchise Zones for Commercial Waste Haulers

- No foreseeable cons, since the recommendation is to just explore the option

Pros of Exploring Creating Waste Districts in High-Density Areas

- Allows the city to gather more information as to whether this is a beneficial policy

Cons of Exploring Creating Waste Districts in High-Density Areas

- No foreseeable cons, since the recommendation is to just explore the option

Costs of Potential Changes

Require Recycling of all Recyclables

- May have slightly decreased cost of monitoring commercial entities as expectations from businesses are now more clearly defined
- May be a source of revenue if businesses in violation have to pay a fee

Compost and Food Donation Pilot Program

- Will increase costs for businesses who must now contract with an organic waste hauler, however may offset these costs by reduction in garbage pickup

- Could increase costs to city

Require Businesses to Provide Recycling Bins

- Businesses will likely have to pay initial costs of purchasing increased recycling bins

Explore Franchise Zones for Commercial Waste Haulers

- Cost of staff time spent exploring this option

Explore Creating Waste Districts in High-Density Areas

- Cost of staff time spent exploring this option

Gainesville Proposals

- Require recycling of all recyclables
 - Replace the current “*de minimis* quantity” requirement to one that requires businesses to recycle all recyclable materials used, thereby streamlining both adherence and monitoring.
- Require businesses that use plastic bags to provide single-use plastic bag and polystyrene container recycling receptacles
 - Businesses that use either of these materials would be required to provide recycling receptacles in a convenient location for patrons.
- Require that all pharmacies provide receptacles for safe disposal of prescription drugs
 - There should be a gap of a few months between passing this ordinance and implementing it, to give pharmacies ample time to purchase such receptacles and find a place to put them in their stores.
- Implement a commercial composting and food donation pilot program as proposed
 - Food-related businesses would be required to first try to donate their unused food to a local nonprofit, then compost any remaining food.
 - This program would begin as a pilot program lasting for one year, then be rolled out to the entire city over the course of three years.
 - The method of expansion should be decided by the city commission, with possibilities including Austin’s square footage measurement, or California’s waste production measurement.
- Standardize bin color and signage as proposed

- Require that orange bins are used for paper receptacles, blue bins are for bottles, cans, and cartons, black roll carts are for garbage, and green containers are for compost.
- Require businesses to provide recycling bins wherever there is a trash receptacle
 - There should be a gap of a few months between passing this ordinance and implementing it, to give businesses ample time to both purchase recycling bins and find an adequate place to store them.
- Explore creating franchise zones for commercial waste haulers
 - City staff should research the potential cost of these changes to businesses, potential savings on vehicle repairs for waste haulers, potential infrastructure savings for the city, and increased landfill diversion
- Explore creating waste districts in high-density areas
 - City staff should research whether there are enough available locations in midtown and downtown to provide city-owned dumpsters for businesses, as well as contacting businesses to see whether they would participate in a buy-in program.