

8. Waste Management and Resource Consumption

Goal

Ensure high quality waste management services to Alachua County residents and minimize the amount of waste directed towards landfills and the environment.

Introduction

Solid Waste and Climate Change

A significant way we impact the environment and climate change on a daily basis is through overconsumption and unsustainable waste management practices. Municipal solid waste is a large source of greenhouse gas emissions, primarily due to the contributions from landfills and waste collection systems. Emissions from landfills are the result of decomposing organic materials that release carbon dioxide (CO₂) and methane (CH₄). According to the Environmental Protection Agency (EPA), “municipal solid waste (MSW) landfills are the third-largest source of human-related methane emissions in the United States....”. Another consideration are the emissions generated as part of solid waste collection and transportation. Efforts aimed at reducing the amount of solid waste generation can have a significant impact on addressing climate change.

Solid Waste in Alachua County

In 1998, Alachua County closed the Alachua County Southwest landfill, located at 19401 SW Archer Rd, Archer, FL. Upon closure, the County determined it was in the best interest of the community to outsource landfill disposal. The County currently contracts to dispose of solid waste at the New River Regional Landfill in Raiford, Florida. The current contracts expire in 2028.

Prior to disposal, collected solid waste is transported to the Leveda Brown Environmental Park, located at 5115 NE 63rd Avenue, Gainesville. Materials are screened for prohibited waste and hazardous materials before being compacted and transported to the New River Landfill, located 35 miles from the Environmental Park. The County transports an average of 775 tons of solid waste per day, which translates to 33 trips per day.

LEVEDA BROWN ENVIRONMENTAL PARK



Solid Waste Transfer Station



Materials Recovery Facility (Recyclables)



Hazardous Waste

Figure 8.1: Leveda Brown Environmental Park

Residential Collection

Waste collection for residents within the County varies based upon location. The County provides weekly waste and recycling collection within the designated mandatory curbside collection area. Garbage cart sizing is currently a Pay-As-You-Throw (PAYT) rate structure with annual costs ranging from \$203.89 /yr. (20-gallon) to \$330.00 / yr. (96-gallon) (Figure 8.2). Recycling is collected utilizing a dual stream system in orange and blue 18-gallon bins to separate recyclables (Figure 8.3). Educational programs and materials are provided through the County’s Solid Waste and Resource Recovery Department. County residents outside the mandatory curbside collection area may subscribe to curbside pickup through private services with any of the franchises waste haulers in the County or utilize the Rural Collection Centers (RCCs) or the Leveda Brown Environmental Park.



Figure 8.2. Pay-As-You-Throw (PAYT) rate structure

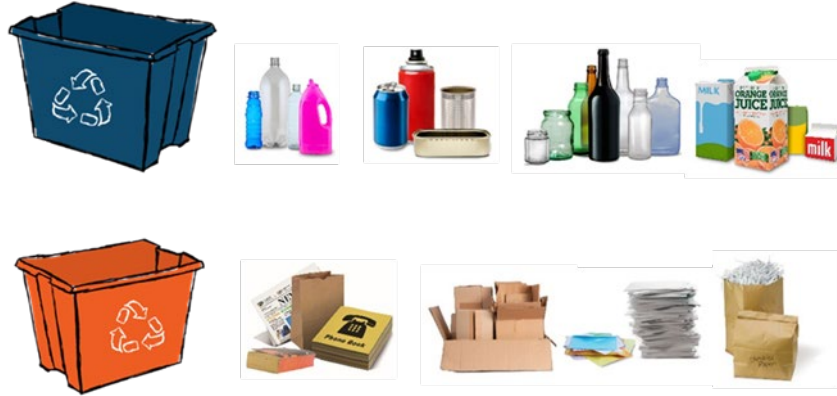


Figure 8.3: Dual Stream Recycling System

The five RCCs positioned throughout the County offer recycling (plastic, metals, glass, mixed paper, cardboard), household hazardous waste disposal, yard waste recycling, bulk material disposal, and garbage waste disposal. The Leveda Brown Environmental Park accepts recycling (plastic, metals, glass, mixed paper, cardboard), scrap metal, tires, yard waste, and household hazardous waste; garbage disposal, and provides further educational outreach to the community.

RURAL COLLECTION CENTERS

Locations

Disposal

- Garbage
- Recycling
- Yard Waste
- Scrap Metal
- Hazardous Waste

Reuse Area

- Lightly used items
- Paint

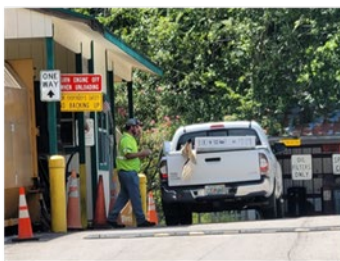
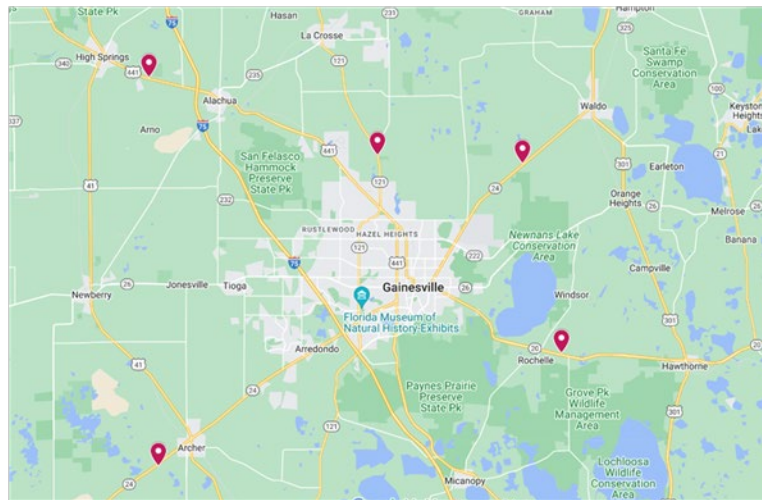


Figure 8.4: Rural Collection Centers

Commercial Collection

Commercial solid waste collection is provided by the County as part of an exclusive franchise agreement. Recycling collection services are provided by an open franchise system. Businesses in the County are required to recycle the following materials: steel cans, aluminum cans, glass containers, plastic containers, magazines, newspapers, office paper, and corrugated cardboard.

Hazardous Waste Collection

The Hazardous Waste Collection Program provides a county-wide system for the proper disposal, reuse, and recycling of hazardous materials; automotive fluids, household chemicals, unwanted pharmaceuticals, waste vegetable oil, latex paint and electronic waste materials generated by households and small businesses. Materials are collected primarily at the Hazardous Waste Collection Center, located at the Leveda Brown Environmental Park. Additional drop off sites are located within each of the five Rural Collection Centers. Through a grant from the Florida Department of Environmental Protection (FDEP), Hazardous Waste Management also conducts hazardous waste collection events in Baker, Bradford, Columbia, Dixie, Gilchrist, Lafayette, Nassau, Putnam and Union counties.

Equity

An equity concern in the waste sector is the lack of access to **composting**. In Alachua County, there are drop-off locations for composting provided by Beaten Path Compost, the UF Student Compost Cooperative, UF Field and Fork Gardens, and the Gainesville Giving Garden. There are limited options for those who do not live in the Gainesville area, do not have access to a car, are of limited mobility, or do not have the ability to compost at home. Because composting is one of the primary ways individuals can reduce their waste, efforts should be put into providing more composting services for Alachua County residents.

Past and Current Efforts

Comprehensive Plan 2019-2040

The solid waste element of the County's Comprehensive Plans contains the policies designed to provide for the clean, efficient, economical, and environmentally sound management of solid waste resources in the County. The following are several policies and objectives within the Plan that directly address solid waste and resource recovery practices:

Policy 1.2.5. Incinerator and mass burn facilities will not be included in the County solid waste system. The use of tires, plastics or plastic derived materials as a fuel source or as feedstock for a waste to energy facility is prohibited in the County solid waste system (Solid Waste Element).

Objective 1.5. The County shall develop and implement a waste reduction strategy that includes waste prevention, source reduction, reuse, recycling, and biological disposition, resulting in a reduction of solid waste disposed per capita.

Policy 1.5.6. The County shall provide coordination and assistance to all local municipalities, and institutions to maintain effective and efficient recycling programs.

Policy 1.5.9. The County shall improve the yard trash management program and shall encourage the public to increase efforts to utilize landscape and yard waste at home through backyard mulching and composting programs.

Policy 1.5.11. The County shall continue to investigate other methods of waste management and alternatives to landfill disposal of solid waste, including source reduction.

Objective 1.7. The County will continue to provide safe and economic disposal and recycling of household hazardous waste (HHW).

Zero Waste in Alachua County

In 2021, Alachua County and the City of Gainesville approved a [Joint Zero Waste Strategy Report and Implementation Plan](#). The Report includes key findings from the analysis, potential zero waste strategies accompanied by their associated review from the community during stakeholder engagement, as well as the final implementation plan recommended for adoption.

The movement towards Zero Waste in Alachua County has been active for several years and continues to gain momentum from the public, private, and non-profit sectors. The City of Gainesville has set a goal to divert 90% of its waste by 2040 and established a Zero Waste Subcommittee to assist in driving initiatives. In addition, Zero Waste is a forefront topic for the County and City's Joint Water and Climate Committee. Both the County and City have begun implementation of Zero Waste policies to reduce single-use items and promote waste reduction strategies within their daily operations.

In Alachua County and the City of Gainesville Zero Waste is defined as:

The conservation of all resources by means of responsible production, consumption, reuse and recovery of products, packaging, and materials by minimizing discharges to land, water, or air that threaten the environment or human health.

Additionally, the definition is supported by five guiding principles for evaluating Zero Waste strategies to increase material recovery rates and foster reuse throughout the community. They are as follows:

- Keep Resources Local
- Foster Job Growth
- Emphasize and Support Upstream Solutions
- Mitigate Climate Change
- Address Environmental Justice and Create Equity of Service

A key principle within Zero Waste is the establishment of a **Circular Economy**. Circular Economy is a whole-system approach based upon repositioning disposal and reuse opportunities. Through this process, less raw materials are consumed for production, more manufactured materials remain in use, and commodities are recycled to continue to maximize the value of material. This concept allows resources to have a continuous life cycle through multiple uses and purposes, rather than limiting their life space to simple production that results in waste.



Figure 8.5: Circular Economy

Source: U.S. Public Interest Research

The Joint Zero Waste Strategy Report and Implementation Plan includes a list of recommended zero waste strategies. The strategies are divided into three categories: General Recommendations, Organic Materials Recovery, and Recyclables and C&D Recovery. Additionally, the recommendations are listed in three different phases for implementation. Below is a description of the Phase I strategies and a brief status update.

Future Strategies and Action Items

Establish a Solid Waste Reduction Goal and Formalize by Adopting a Resolution on Zero Waste

The first step towards Zero Waste in Alachua County is ensuring that local governments are willing and able to participate in Zero Waste initiatives. Intergovernmental collaboration will be necessary to tackle such a large-scale goal.

Table 8.1 Establish a Solid Waste Reduction Goal and Formalize by Adopting a Resolution on Zero Waste

Action Plan Components	Jurisdiction	Pros	Cons
Develop a template Zero Waste resolution for use by the County and municipalities	County, Local Governments	Establishes a formalized commitment and foundation for Zero Waste initiatives in the community.	Funding requirements to fulfill goal. Public support for initiative. Requires intergovernmental coordination.
Increase coordination with all municipalities (City of Alachua, City of Archer, City of Hawthorne, City of High Springs, Town of La Crosse, Town of Micanopy, City of Newberry, and City of Waldo) to ensure governments adopt a resolution to address Zero Waste and the final recommendations in the forthcoming Alachua County Zero Waste Strategic Plan.	County	Ensures commitment from policy leaders in making Zero Waste a priority for the community.	Funding requirements to fulfill goal. Public support for initiative. Requires intergovernmental coordination.

Establish Public-Private Relationships between Alachua County and Private Entities to Facilitate Zero Waste Goals

The private sector plays a large role in the amount of waste Alachua County and its residents accumulate, indicating a need to foster more public-private relationships with them. The private sector holds a lot of potential to meet our Zero Waste goals.

Table 8.2 Establish Public-Private Relationships between Alachua County and Private Entities to Facilitate Zero Waste Goals			
Action Plan Components	Jurisdiction	Pros	Cons
Foster the implementation of the EcoLoop Business Plan by continuing to build public and private partnerships and acquire new tenants in the recycling and recycling-related manufacturing industries.	County	Encourages innovation, utilizes existing infrastructure, and incorporates Zero Waste planning into the Eco-Industrial Park Business Plan.	Will require political buy-in, support, and potential funding.
Engage the private entities in developing a comprehensive reuse program to increase the level of material recovery for Alachua County and City of Gainesville.	County, City of Gainesville	Large waste reduction impacts based upon case study programs. Fosters circular economy. Generates job growth. May be more financially advantageous than disposal fees.	Requires private sector interest, capital, and warehouse or infrastructure for the collection of salvaged materials and storefront for sales. Requires political support. May require altering of current collection contracts to ensure appropriate Designated Facility for receipt of materials or allow for the

			infrastructure for salvaging of materials to be co-located at the facility.
Address waste diversion in the procurements of collections and processing contracts and include future opportunities for organics collection and other materials (e.g., performance linked renewals and extensions, additional payments for achieving targeted waste reduction, inbound tip fees).	County, City of Gainesville	Can lead to higher diversion rates and the ability to meet established goals. Allows the County and City greater control of their procurements and may be linked to educational and outreach programming to increase public awareness.	County exclusive franchise includes provision to allow for organics collection once feasible in area. Curbside yard waste processing agreement going out next year with goal of using a composter.

Phase Out Organics from Waste

As mentioned previously, composting is not accessible to many in Alachua County. Several of the following suggestions aim to tackle this issue by expanding the composting abilities of Alachua County, including compost pickup.

Table 8.3 Phase Out Organics from Waste			
Action Plan Components	Jurisdiction	Pros	Cons
Implement a two phased approach for reducing organic materials from the waste	County	Will ensure adequate feedstock for any future organics processing facility. Will allow for a	May require revisions to collection contracts. Plan will need political and public support and buy-in to be viable.

<p>stream. Phase I to limit or encourage diversion as compost facility infrastructure is established. Phase II to include the ban of organics from refuse based on use sector (residential, commercial, and operational).</p>		<p>comprehensive assessment of requirements to ensure a viable and successful organics processing facility.</p>	<p>May require changes to customer collection programs including new containers or new setout procedures.</p>
<p>Encourage the coordination of pick-up and delivery of edible food from food service vendors and partner with Florida Organics Growers and Consumers to encourage “Gleaner” volunteer groups to harvest surplus for food banks.</p>	<p>County</p>	<p>Fosters partnerships among different sectors of the community. Increases awareness of hunger and poverty initiatives within the County and City. Redirects excess food to those within the County and City in need. Reduces organic materials in need of reprocessing or disposal.</p>	<p>May require new resources for transporting materials. May require incentives or social marketing campaigns to increase participation of food service vendors.</p>
<p>Incentivize material diversion through backyard composting. Incentives may be linked to existing PAYT programs and could be advertised and marketed to residential customers.</p>	<p>County, Local Governments</p>	<p>Builds upon an existing program and infrastructure. Reduces the collection and processing burden on the communities by having materials processed at the source.</p>	<p>Program participation may already be maxed. Incorporating incentives may not have an adequate return on investment.</p>

<p>Increase organics diversion rates by developing or fostering the development of a community-wide organics processing facility to transition materials into a compost commodity.</p>	<p>County, City of Gainesville</p>	<p>Current processing of organic materials is limited to yard waste. Establishing an organics processing facility will allow for the diversion of over 20% of materials from the County and City’s solid waste stream and foster partnerships.</p>	<p>Will require planning, space, and adequate funding. Financial sustainability of the processing facility will require adequate materials collected to process (feedstock). Feedstock will be needed to ensure adequate operations and to leverage any potential private sector interest.</p>
<p>Utilize existing collection methods for recyclable materials (i.e. curbside collections, drop off sites, etc.) to build or purchase the infrastructure for collecting organic materials for processing.</p>	<p>County, Local Governments</p>	<p>Allows for greater diversion of organic materials. Can foster partnerships with the private sector and interlocally. Allows for consistent messaging and branding to encourage greater participation and stability.</p>	<p>Infrastructure may require staffing or operational changes to resource recovery centers, carts, or other collection bins, as well as a collection fleet. May additionally require modifications to solid waste ordinances. Significant public education and outreach to inform customers of programmatic changes and to improve diversion potentials</p>

Recycling

Recycling is the main method by which we can achieve our Zero Waste goals. Efforts should be put into increasing the recycling capacity of Alachua County and educating citizens and the private sector on best practices.

Table 8.4 Recycling

Action Plan Components	Jurisdiction	Pros	Cons
<p>Build upon existing ordinances to include waste stream audits to evaluate compliance and establish a maximum waste contamination of recyclable materials for businesses, institutions, and multi-family complexes.</p>	<p>County</p>	<p>Audits will present clear data on compliance for commercial and multi-family recycling.</p>	<p>Maximum contamination levels may be controversial. Policy changes will require political buy-in and support. Inspection and enforcement will be required to implement effectively.</p>
<p>Develop uniform multi-family recycling to increase diversion rates through collections services, materials accepted, and education and outreach promotion.</p>	<p>County, Local Governments</p>	<p>Will strengthen the recycling program and increase diversion rates by providing uniformity and simplifying educational programming.</p>	<p>Will require ordinance revisions and political support. Multi-family materials typically have high contamination levels, requiring significant outreach and education efforts, as well as potential carts or equipment for units to recycle effectively.</p>
<p>Build upon results from an analysis of the existing fee structures to identify necessary changes for</p>	<p>County, City of Gainesville</p>	<p>Provides the County and City with a clear picture of fees associated with municipal solid waste disposal to</p>	<p>Will require staffing and/or funding to perform.</p>

<p>utilizing cost factors as a deterrent for landfilling material (i.e. providing lower customer rates for reuse and recycling rather than landfill or thermal disposal, negotiating lower tipping fees in hauler and processor contracts, etc.).</p>		<p>evaluate potential areas for deterring landfill material. Can be utilized as a financial foundation for numerous Zero Waste strategies.</p>	
<p>Coordinate educational programming for businesses and define target goals for fostering recycling among the private sector. Include education on contamination and residue.</p>	<p>County, Local Governments</p>	<p>Toolkit already developed. Easy strategy to implement.</p>	<p>Will require staff time. May have minimal impacts to diversion levels. May not be suitable for all municipalities depending upon their own ordinances, policies, and programs</p>
<p>Assess composition of collected hard to recycle and hazardous items for County and City to determine industries to target and implement “Take-Back” programs.</p>	<p>County, City of Gainesville</p>	<p>Requires businesses to take-back difficult to manage items such as batteries and lightbulbs and reduces the County and City’s need for processing or providing proper disposal.</p>	<p>Will require political buy-in and support. Compositional analysis will require staff time, partnerships, and/or funding to determine appropriate industries to target.</p>

<p>Require reuse and recycling for the construction industry by integrating into existing policies and codes and provide contractor education. If linking to Green Building Ordinances, consider incentivizing to include streamlined permit review, permit fee reductions, flexibility in parking requirements, adaptive reuse for historic buildings, etc.</p>	<p>County, Local Governments</p>	<p>Supports infrastructure investments by ensuring necessary feedstock.</p>	<p>Requires political buy-in and support. May be challenged by the building community. May impact the costs of construction and new development</p>
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What Can You Do?

To provide the community with thorough, transparent information regarding where their waste goes, county staff created [Alachua County Recycles](#). This site provides information on the County’s solid waste programs and accurate data on the number (in tonnage) of recyclables collected and the processing facilities they went to.

Similar to Alachua County Recycles, the City of Gainesville’s [Zero Waste Wizard](#) provides information on recyclable goods, specifically what can and cannot be recycled and specific bins that recyclables go in. Residents can look up hundreds of different items and the site will tell you how and where to dispose of those items properly.

Below is a list of Zero Waste resources in Alachua County. The original list is included in the Joint Zero Waste Strategy Report and Implementation Plan.

Name	Items Accepted
Alachua Habitat for Humanity ReStore	Clothing, Household Goods, Furniture, Appliances
Batteries Plus Bulbs	Batteries Plus Bulbs
Battery Land	Rechargeable Batteries
Battery Source	Rechargeable Batteries
Best Buy	Electronics, Batteries, Wires, Cords, Cables, Plastic Bags
Bj's Thrift Shop	Clothing, Household Goods, Electronics
Cartridge World	Printer Ink Cartridges and Toners
CMC Recycling of Gainesville	Aluminum Cans and Scrap, Auto Parts, Bikes, Brass, Cookware, Copper, Ferrous Metals, Garden Tools, Hardware, Lawnmowers, Metal Clothes Hangers, Metal Tags, Musical Instruments – Metal, Nonferrous Metals, Pipes, Radiators, Scrap Metal, Stainless Steel, Tools, Zinc
Entenmanns Gainesville Thrift	Clothing, Household Goods
eco ATM	Smartphones, Tablets, Cell Phones
Flashbacks Recycled Fashions	Clothing

Gainesville Junk Removal	Furniture, Appliances, Misc. Scrap Metal
Goodwill	Clothing, Household Goods
Haven – Attic Resale	Clothing, Household Goods
Home Depot	Light Bulbs, Rechargeable Batteries
Humane Society of North Central Florida Thrift Store	Clothing, Household Goods
JCPenney	Plastic Bags #2 and #4
Kohls	Plastic Bags #2 and #4
Lowes	Plastic Bags #2 and #4, Cell Phones, CFLs, Lead-acid Batteries, Lithium-ion Batteries, Nickel-cadmium Batteries, Nickel-metal Hydride Batteries, Nickel-zinc Batteries, Plastic Plant Materials (No Single-use Batteries)
Melody’s Memories	Clothing
Office Depot	Ink and Toner Cartridges
Office Max	Ink and Toner Cartridges
Outreach Thrift	Clothing, Household Goods
Plato’s Closet	Clothing

Publix Super Markets	Plastic Bags #2 and #4, Plastic Egg Cartons, Paper Bags, Plastic Film #2 and #4
Recycling Services of America	Office Paper, Cardboard, Bottles, Cans
Salvation Army	Clothing, Household Goods
Sam's Club	Plastic Bags #2 and #4, Car Batteries, Marine Batteries
Sandy's Savvy Chic Resale Boutique	Clothing
Sound Ideas	Small Electronics
Sprint Store	Cell Phones
St. Patrick's Thrift Shop	Clothing, Household Goods, Furniture
St. Vincent De Paul Thrift Shop	Clothing, Household Goods, Furniture
Target	Plastic Bags #2 and #4, Cell Phones, Inkjet Cartridges, MP3 Players
T-Cellular	Cell Phones
The ARC of Alachua County	Clothing, Household Goods
The Heart of Gainesville Thrift Store	Clothing, Household Goods, Furniture
The Repurpose Project	Clothing, Household Goods, Furniture, Appliances

Tools for Schools	Office / Classroom Supplies
Trademark Metals Recycling	Ferrous and Non-ferrous Metals, White Goods, and Appliances
Uniquities Consignment Shop	Furniture, Home Goods, Clothing
Walmart	Plastic Bags #2 and #4, Car Batteries, Marine Batteries
Watson C&D	Aluminum Scrap, Asphalt, Brass, Brick, Carpet, Carpet Padding, Ceiling Tiles, Ceramics
Whole Foods	Batteries, Corks, Plastic Bags, Brita Filters, Yogurt Cups and #5 Plastics
WeeCycle of Gainesville	Clothing, Furniture, Household Goods

Note: List is subject to change and may not be all inclusive.

Table 8.5: Zero Waste Resources