

Florida and the 2020 75% Recycling Goal Final Report



Prepared by the Florida Department of Environmental Protection

Introduction

The modern era of recycling in Florida began with the Florida Legislature's passage of the Solid Waste Management Act (SWMA) of 1988, which included a 30% recycling goal. Over the past 30 years, the goal and methodology used to calculate the recycling rate have been revised to reflect the changes in the waste stream, legislation, and technology. In 2008, the Legislature reasserted the importance of recycling and established incremental, interim goals culminating in a recycling rate of 75% to be achieved by 2020.

Florida achieved the interim goals established for 2012 and 2014; however, the 2016 interim goal of 60% was not met and the statewide recycling rate has exhibited a general decline since that time. Florida's 2020 recycling rate was 50%, falling short of the 2020 recycling goal of 75%. An overview of recycling and waste reduction in 2020 is provided as Appendix A.

Section 403.706, Florida Statutes, (F.S.), directs the department to provide a report to the Legislature that identifies additional programs or statutory changes needed to achieve the recycling rate goals when those goals have not been met. As directed, the department provided reports following the interim goal years of 2016 and 2018 and presents this final report for the 75% goal year of 2020.

The department has suggested ways to potentially increase recycling in Florida, as recommended in the 2016 and 2018 reports. These include options for focusing on markets, construction and demolition debris recycling, organics recycling, commercial recycling, and education and outreach. Details on these focused efforts are provided in Appendix B. Even though these actions have had some success and three counties met the 2020 75% goal, impactful changes to the statewide recycling rate will likely not occur without programmatic and legislative changes.

The current practices in Florida are not expected to significantly increase the statewide recycling rate. However, through partnership with Florida recycling stakeholders, there is an opportunity to transform Florida recycling from an aspirational goal into a program that incorporates source reduction, diversion of waste, recycling, and consideration of the full environmental impact of materials used from cradle to grave.

The following three sections in this report provide recommendations for changes to Florida's recycling program. Supporting documentation, as referenced in the report, follows in Appendices A through E.

Looking Beyond the 75% Goal

Many of the challenges we currently face with recycling have occurred as a result of changes in collection methods, recycling markets, and the types and quality of materials acceptable for recycling. Additionally, the 75% recycling goal is a weight-based goal that pushed counties to recycle heavier materials while giving less focus to traditional materials, such as metal cans and plastic bottles. There is a consensus in Florida's recycling industry (as well as other states and at the federal level) that using a weight-based goal does not result in efficient or effective recycling. Incorporation of source reduction and/or sustainable materials management concepts into a comprehensive statewide recycling program is needed.

Florida is fortunate to have a diverse group of stakeholders that have taken an active role in looking beyond the 75% goal. Specifically, the two groups below conducted outreach and research and presented ideas and recommendations to the department.

- The **Florida Recycling Workgroup (FRW)**, comprised of Florida businesses, organizations, associations and governmental entities, including DEP, was created by the Florida Recycling Partnership with the mission to educate policymakers, business leaders and the public about the benefits of recycling. The FRW developed a white paper that includes recommendations for a new set of recycling goals that take into consideration what is environmentally and economically sustainable.

FRW evaluated weight-based, waste reduction/diversion and sustainable materials management goals and offered suggestions based on their findings. The white paper also emphasizes the need for recycling education, support for market development, and incentives to encourage the purchase of items made with recycled content. The Florida Recycling Workgroup white paper can be found in Appendix C.

- Similarly, a group of **local governments** met a number of times over the summer and prepared a report titled *County Coordinated Guidance on a New State Diversion Goal and Benchmarks*. The report recommends a five-part approach for an attainable state waste diversion goal. The report also includes a collection of ideas from Florida solid waste directors and recycling coordinators that focuses on markets, education and funding, as well as 14 letters of support from participating counties and municipalities. These letters and the report can be found in Appendix C.

There are key similarities among the ideas and recommendations provided in the two submittals, including:

- Replace the weight-based, 75% goal.
- Transition to a goal or set of goals that are better indicators of program performance (recycling success) and desired environmental and economic outcomes.
- Focus on three strategies - development of markets for recycled materials, education and outreach, and funding and incentives to support local government recycling efforts.

These ideas and recommendations are consistent with previous suggestions made by the department and form the basis for the plan outlined below.

Development of a Comprehensive Waste Reduction and Recycling Plan

If the 2022 Legislature determines appropriate, the department will convene a technical assistance group (TAG) that will include the two stakeholder groups above and any other interested parties. The TAG's objective will be to develop a comprehensive waste reduction and recycling plan for Florida. The plan will:

- Identify a set of recycling goals using both sustainable materials management (SMM) and waste diversion concepts:
 - **Sustainable Materials Management** - Alternative approaches that recognize the differences among waste components with respect to environmental and resource outcomes are referred to as sustainable materials management (SMM). SMM is a systematic approach to using and reusing materials more productively over their life cycles. SMM has become critical due to both an increased global demand for finite resources and an overall shift in production toward countries unable to sustain this effort without further harming their environment. By advancing SMM initiatives in Florida, we ensure the availability of resources and more efficient use of energy, water and materials as well as a reduction in the volume and toxicity of waste.
 - **Waste Diversion** - Waste diversion (or waste reduction) is already an integral part of Florida's MSW management system. It can be defined as the amount of material that is reduced, reused, prevented and/or recycled, per capita and can be measured based on the amount of waste not being disposed of in a landfill. In developing a waste diversion goal, it is important to determine if the goal should be at a state level, local level or both; the percentage reduction expected; and the base year, so that the amount of waste disposed over time can be compared.

- Develop objectives and propose a three-year plan to implement the following strategies:
 - **Recycling Materials Market Development** - There must be markets for finished goods that are manufactured from recycled materials in order for the recycling industry to operate efficiently and to provide for reasonable returns on investments. When the markets for these finished goods increase, the demand for recycled materials will increase, driving up profitability and sparking increased investments in the collection, sorting, processing and manufacturing sectors. In developing the plan, consideration will be given to:
 - Tax incentives for usage of recycled materials as feed stocks in manufacturing processes.
 - Tax incentives and credits to support materials recovery plant upgrades.
 - Public/private partnerships to invest in new processing technologies.
 - Investments in expansion of Recycling Business Assistance Center activities.
 - End-user purchase rebate for Florida Certified Compost.
 - Preference programs to use and purchase products made from recycled content material.
 - **Recycling Education and Outreach** - Educating and training the public in recycling is one of the most important components of all successful recycling programs. Recycling programs are city/county specific and vary greatly across the state. The types of services available, how materials are collected, and what materials are accepted often differ from county to county and, in some cases, from county to city. Public education should be tailored to the local recycling programs. The TAG will propose an approach to education and outreach that evaluates statewide solutions that can be customized for local needs, such as an application for mobile devices that provides recycling information and education based on location.
 - **Local Government Recycling Assistance** - The Solid Waste Management Act (SWMA) of 1988 was created to address the growing costs and environmental problems associated with solid waste disposal in Florida. The act required counties to initiate recycling programs and set forth specific types of solid waste to be recycled. To assist counties, the Legislature established the Recycling and Education Grant Program. Counties were awarded grants for initial capital costs, operations, recycling education, market development and special projects. The Recycling and Education grants program sunset in 2001. The TAG will evaluate the benefits and challenges of the previous grant program and make a recommendation to reinstate the program or consider other means of providing recycling assistance to local governments.
 - Propose statutory language to implement the revised recycling goals and the strategies.

Conclusion

There have been significant challenges to meeting the 75% weight-based goal that emphasized the need to recycle a larger volume of material to increase recycled tons. This led to the collection of unwanted materials and poorly sorted recyclables, resulting in the contamination of recycled materials. Challenges also occurred due to changes in collection, shifts in the recycling markets, and growth in new and different types of packaging and products. The goal pushed counties to recycle heavier materials while giving less focus to traditional materials such as metal cans and plastic bottles. Although the goal compelled Florida to look beyond traditional recycling it also impeded progress of recycling our traditional recyclables.

Has recycling improved in Florida? The statewide overall recycling rate, which includes renewable energy recycling credits, decreased from 52% (2019) to 50% (2020), falling short of the 2020 recycling goal of 75%. The statewide traditional recycling rate, which excludes renewable energy recycling credits, remained unchanged at 42% (2019 and 2020). Prior to the implementation of the 75% recycling goal, Florida's recycling rate, which was calculated based on recycling traditional materials, was 30%. If that same methodology was applied to 2020, the recycling rate would be 25%.

The current practices in Florida are not expected to significantly increase the recycling rate. However, through partnership with Florida recycling stakeholders, there is an opportunity to transform Florida recycling from an aspirational goal into a program that incorporates source reduction, diversion of waste, recycling, and consideration of the full environmental impact of materials used from cradle to grave.

The department respectfully recommends development and implementation of the Comprehensive Waste Reduction and Recycling Plan outlined above.

APPENDIX A
WASTE REDUCTION AND RECYCLING OVERVIEW

2020 Waste Reduction and Recycling Overview

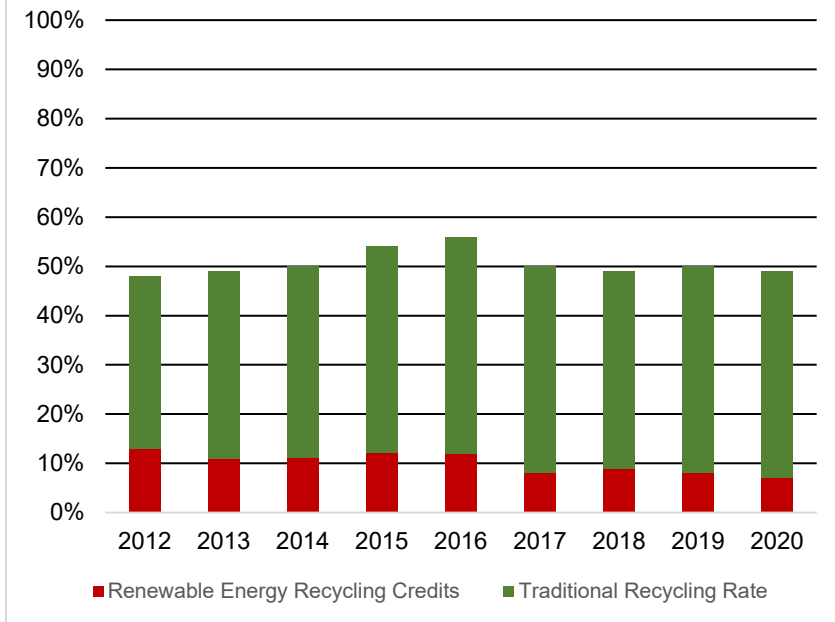
In 2020, Florida residents and tourists generated municipal solid waste (MSW) equivalent to over 2 tons per resident per year. This is above the national average of roughly 1 ton per resident per year, since Florida's calculated generated MSW per resident does not count the number of tourists, as measured by the U.S. Environmental Protection Agency (EPA) and other states. Likewise, Florida's recycling efforts are not easily compared to those of other states as there is no universal methodology used for measuring progress toward recycling goals.

Florida's recycling goal is a MSW goal, meaning that waste from industrial, agricultural and mining operations, as well as sludge from wastewater treatment, is excluded from the calculations. DEP has revised the methodology for calculating the recycling rate in response to legislative changes to Section 403.706, F.S. Beginning in 2012, a recycling rate could be calculated using the production of renewable energy from solid waste combustion. Since that time, the methodology has been further revised to consider disposal of yard trash at Class I landfills that make beneficial use of landfill gas; MSW used as landfill cover; MSW reused or returned to use as fuel or fuel substitutes; MSW processed and used as lake or land fill; and an expansion of the uses of construction and demolition (C&D) debris materials.

The following list shows the relative contribution for each category to the state's 2020 recycling rate of 50%:

- Renewable energy recycling credits – 8%.
- Yard trash disposed in a landfill beneficially using landfill gas – 1%.
- Landfill cover recycling credits – 35%.
- Fuel or fuel substitutes – 0%.
- Construction and demolition debris used as lake or land fill – 5%.
- Construction and demolition debris (asphalt and concrete from roads and bridges) – 3%.

**Figure 1
Florida's Recycling Rate
(2012 - 2020)**



In 2011, prior to implementation of the revised methods and criteria used to calculate the recycling rate, Florida's recycling rate was 30%.

If the same methodology was applied to the 2012-2020 data, Florida's Recycling rate would be as follows:

- 2012 – 30%
- 2013 – 31%
- 2014 – 32%
- 2015 – 33%
- 2016 – 33%
- 2017 – 27%
- 2018 – 25%
- 2019 – 26%
- 2020 – 25%

Figure 1 illustrates Florida's progress toward meeting the 75% recycling goal. In addition, the chart distinguishes between the different recycling credits received. The traditional recycling rate excludes renewable energy recycling credits and recycling credits received for yard trash disposed in a landfill beneficially using landfill gas. In 2020, Florida's traditional recycling rate was 42%. Renewable energy recycling credits and the recycling credits for yard trash disposed in a landfill beneficially using landfill gas accounted for 8% of the overall recycling rate of 50%. See Appendix E for a summary of the recycling rates.

In addition to the revised methodology and criteria established in 2012, Section 403.706(2)(d), F.S., provides that large counties (over 100,000 in population) that do not meet the recycling goals may be directed to develop a plan to expand recycling programs to existing commercial and multifamily dwellings, including, but not limited to, apartment complexes. The county plans can be found in Appendix D

In 2020, 33 of the 36 large counties did not reach the recycling goal of 75%. Pinellas, Charlotte and Lee were the only three counties that successfully met the 75% recycling goal. Recycling credits received for renewable energy and C&D debris were the primary factors in their success. Pinellas and Lee achieved the goal using both renewable energy and C&D debris credits. Only Charlotte County achieved the rate without inclusion of renewable energy credits.

Waste Reduction

Tracking waste reduction is already an integral part of Florida's MSW management system. Waste reduction can be defined as the amount of material that is reduced, reused, prevented and/or recycled per capita and can be measured based on the amount of waste not being disposed of in a landfill.

In 1993, the Legislature attempted to change the recycling goal to a waste reduction goal. However, the final revised statutory language was somewhat unclear as to whether there was still a recycling goal or if it had been replaced by a waste reduction goal. The statute gave no base year from which to measure waste reduction progress, and it did not specify if it should be on a per capita basis. Consequently, starting in 1993, DEP asked counties to start reporting their waste reduction (diversion) per capita progress.

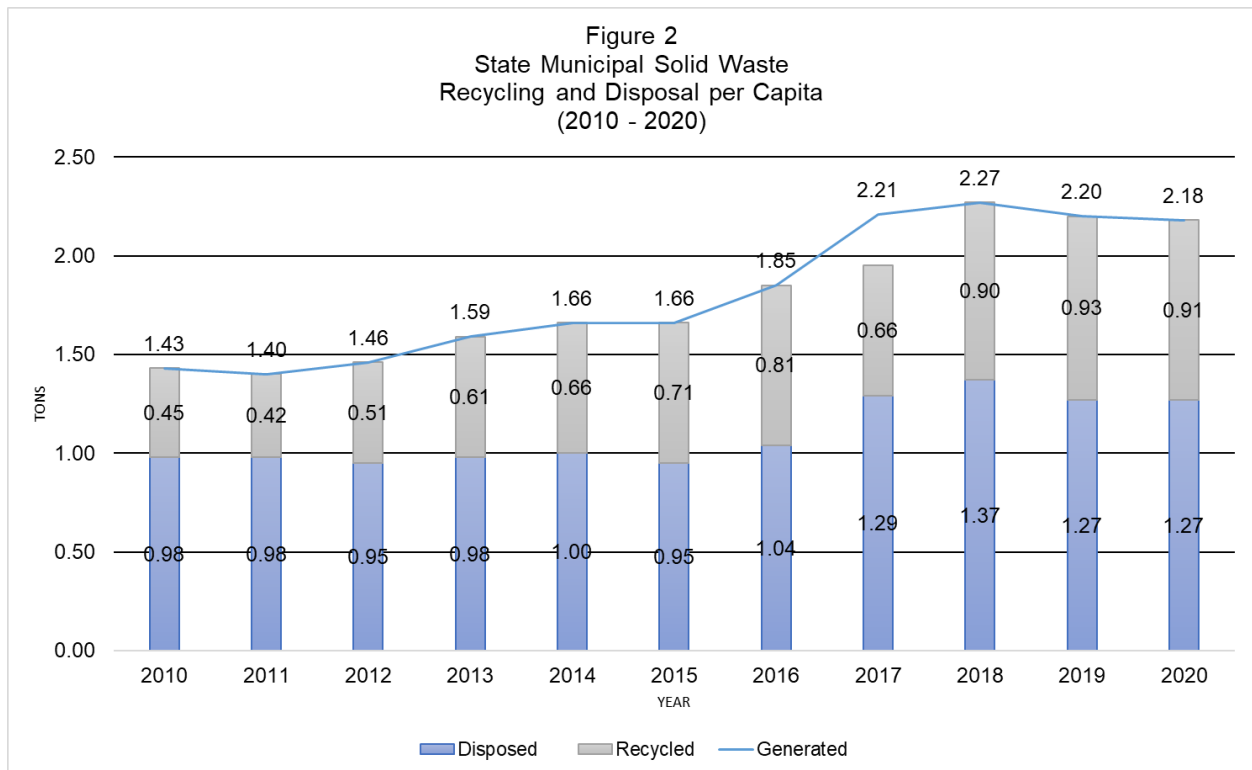


Figure 2 shows that the tons of MSW per capita disposed in Florida have generally increased since the inception of the 75% goal. The figure also shows that the amount of recycled materials and total MSW managed per capita have been generally increasing.

Table 1 shows the relative progress of the state toward reducing the amount of MSW disposed per capita. The table compares the 75% goal year of 2020 to the years 2010 through 2019.

Year	Population	Total Tons MSW Disposed	MSW Per Capita	Overall Change from 2010 to 2020
2010	18,801,310	18,518,094	0.98	-29.25%
2011	18,907,759	18,568,668	0.98	-29.63%
2012	19,074,434	18,199,239	0.95	-33.42%
2013	19,259,543	18,866,781	0.98	-29.95%
2014	19,507,369	19,584,473	1.00	-26.80%
2015	19,815,183	18,802,494	0.95	-34.16%
2016	20,148,654	21,004,996	1.04	-22.11%
2017	20,452,079	26,354,012	1.29	1.21%
2018	20,729,288	28,456,033	1.37	7.27%
2019	21,200,241	26,894,641	1.27	-0.35%
2020	21,596,068	27,492,024	1.27	

Note: A negative number indicates that there has been an increase in the MSW disposal rate per capita. The overall percent of waste reduction is calculated using the following: $[(\text{Year 2010 Per Capita} - \text{Current Year Per Capita}) / \text{Year 2010 Per Capita}] * 100$

APPENDIX B

DEP RECYCLING PROGRAM FOCUS AREAS

Markets

Construction and Demolition Debris Recycling

Organics Recycling

Commercial Recycling

Education and Outreach

Markets

Recycling is important to Florida's economy. The material captured in recycling programs becomes feedstock for manufacturers in Florida who rely upon recycled material in the production of consumer goods. Increasing the demand for recycled material is the primary focus of current market development efforts in Florida. DEP has focused on areas of market development that have impacted markets. These areas can be divided into three categories: service, location and commodities. The service contracted or provided by municipalities (e.g., single stream recycling) to collect the recyclable material is necessary to ensure the constant flow of recyclable material for collectors, haulers, processors and end users. Location is focused on determining optimal placement of infrastructure in order to minimize expenses needed to bring material from where it is collected to where it is sold. This could be domestic markets that may be either local, regional or national plus export markets located beyond the boundaries of the United States which are referred to as export markets. Commodities refer to an individual market for a specific type of recyclable material collected. Market conditions for recycling in Florida are primarily based on the ability of local programs to cover operating costs with profits received from selling recyclable materials. Keeping local recycling programs economically sustainable remains a challenge because, with the exception of a few isolated locations in South Florida, the overall cost of recycling statewide is greater than the cost of landfilling or incinerating recyclables.

Single Stream Recycling

While single stream recycling programs have been successful in increasing residential participation, they have not yielded positive results for recycling markets. Contamination within single stream recycling programs, caused by the collection of unwanted materials and poorly sorted recyclables, has led to decreased commodity values in foreign and domestic markets.

As a result of contaminated commodities, foreign export markets such as China instituted policies that effectively shut down all recycling imports. This resulted in local recycling programs removing materials that are no longer cost-effective to recycle. Over the last few years, recycling haulers and material recovery facilities compensated for this change by creating partnerships with state and municipal programs to focus on eliminating contamination and by shifting overall commodity sales toward domestic markets. The following data from Waste Management reflects how the markets responded.

In 2018 the average price for mixed recyclables that were commonly collected was \$60/ton. In 2020, the average price for mixed recyclables was \$47/ton. While average price over a two-year period may have reflected a 21% decrease in the value of mixed recyclables, the price rebounded from a low of \$31.48/ton in quarter four of 2019 to \$56.13 in quarter four of 2020 due to an expansion of domestic markets.

Economic Impact of Recycling

During each stage of the recycling process from collection to manufacturing, economic activity is generated that benefits the Florida economy. Healthy markets create demand for recyclable materials and economic development through high paying jobs and growth of the existing tax base.

According to figures from the Institute of Scrap Recycling Industries, the economic impact of the scrap recycling industry in Florida is \$5 billion with over \$600 million generated in taxes. The industry also sustained over 27,000 jobs generating over \$1.4 billion in wages.



COVID-19

Although data collected in Florida's 2020 Solid Waste Management Report may not reflect a noticeable impact from the COVID-19 pandemic, local recycling programs across the state have been struggling to maintain pre-pandemic service levels. Highlands County, for example, suspended its curbside program when a service provider closed its recycling facilities for the safety of staff. Hillsborough County suspended its curbside program due to a service provider's lack of drivers and then resumed at a service level of every other week rather than weekly.

The Circular Economy

Growing consumer awareness of the need to address climate change has led to an accelerated demand for products made from recycled material. Industry has responded by making commitments to increase the recyclability and the use of recycled content in their products as a step toward implementing an overall strategy referred to as the circular economy.



A circular economy uses remanufacturing and recycling to create a closed loop system to minimize the use of virgin materials and improve productivity by keeping products, materials, equipment and infrastructure in use longer.

The first two states to pass laws implementing the changes needed to create and sustain a circular economy are Oregon and Maine. Measuring their success will be key to establishing a circular economy nationwide that encourages industry accountability through targeted policy.

The policy approach used by both states is extended producer responsibility (EPR). EPR is a policy used to support the circular economy by making manufacturers and importers of products bear a financial responsibility for the environmental impacts from the use and disposal of their products. This money is then used to upgrade recycling infrastructure and education to meet the increasing demand for recyclable material.

DEP continues to support the development of healthy markets for recyclable materials through the following programs.

Recycling Business Assistance Center - In July 2010, the Legislature created the Recycling Business Assistance Center (RBAC) within DEP. RBAC's goal is to assist in the development of markets for recyclable materials to support achievement of the 75% recycling goal. The core mission of RBAC is to develop new markets and expand existing markets for recyclable materials locally, regionally and globally.

RBAC provides assistance to recycling businesses at all levels of the supply chain, as well as potential partners, the Legislature and the public. RBAC also provides guidance to help increase recycling markets, create connections within the industry, and increase awareness of services provided by DEP. RBAC continues to consult with businesses and individuals interested in Florida recycling opportunities.

Florida Recycling Loan Program - The Florida Recycling Loan Program was created in 1995 through a one-time legislative infusion to provide funding for the purchase of equipment and machinery to expand recycling capacity in Florida. The program offers long-term, fixed-rate loans of up to \$200,000 at interest rates up to 2% below prime. The program is limited to for-profit small businesses that are legally licensed and operating in Florida, credit-worthy startup companies or out-of- state firms considering expansion into Florida. Eligible recycling companies must have a net worth of less than \$6 million and fewer than 100 employees.

Since its inception, the Recycling Loan Program has executed 42 loans to 36 companies totaling over \$5.8 million. The equipment purchased has ranged from extruders and conveyors to optical sorters. The program is self-funded through the interest paid on the loans. There are currently 12 active loans.

Southern Waste Information eXchange - Since its inception in 1981, the Southern Waste Information eXchange, Inc. (SWIX) has encouraged and facilitated sound environmental and cost-effective alternatives to the landfilling, incineration or treatment of solid waste through direct interaction with waste generators in both the public and private sectors. To facilitate this objective, SWIX maintains a toll-free hotline (800- 441-SWIX) that is used to assist generators with their waste management needs, with an emphasis on the recycling and reuse of waste materials. SWIX is a free resource that can be used directly by the thousands of public and private waste generators and end users in the Southeast.

Construction and Demolition Debris Recycling

Construction and demolition debris consists of materials that are generated from residential and commercial construction, renovation and various types of demolition. C&D debris includes wood, metals, brick, concrete, asphalt, wallboard, rocks, soil, tree remains and other vegetative matter. Only those materials that are non-water soluble and non-hazardous can be considered C&D debris.

C&D debris waste may be disposed of at permitted C&D disposal sites or permitted landfills. C&D disposal sites do not have to meet the more stringent construction and operating requirements of Class I and Class III landfills; therefore, the disposal costs (tip fee) per ton at C&D disposal sites are generally less than those at Class I and III landfills. Demographics also play a role in C&D debris recycling efforts. Tip fees at landfills and C&D disposal sites in South Florida are considerably higher than in Central and North Florida, creating an incentive for more C&D debris recycling to occur in the southern region. In central and north Florida, it costs less to dispose of C&D debris at landfills than to recycle. In addition to lower tipping fees, the lack of recycling infrastructure in Central and North Florida is another deterrent to recycling. Limited markets for certain materials such as treated wood, sheetrock/drywall and roofing materials inhibit recycling of those materials.

According to the county recycling reports submitted to DEP for 2020:

- C&D debris constitutes 35.22% of Florida's MSW waste stream or 16.6 million tons (see Appendix E).
- Currently, 57% (9.4 million tons) of Florida's C&D debris is recycled.

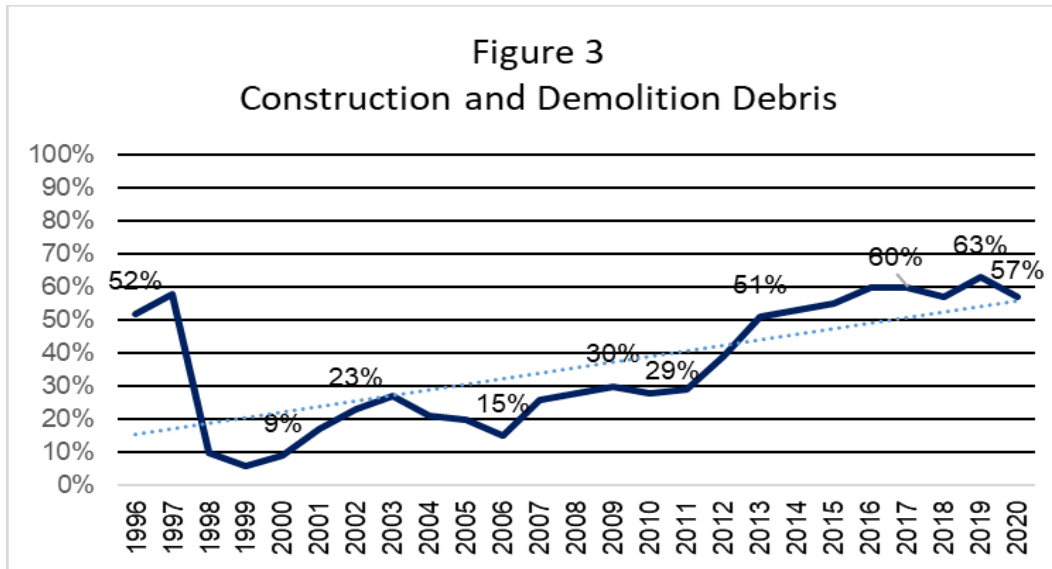


Figure 3 illustrates the trend for recycling of construction and demolition debris.

Organics Recycling

Organics, which includes food waste, yard trash and paper, is one of the largest fractions of waste, by weight, generated in the state. Of the 47 million tons of MSW generated in 2020 (see Appendix E), organics accounted for 36% of Florida's waste stream. Proper management of organics is essential if Florida is to reach its full potential for increasing the state's recycling rate. In the past, the focus for diverting organics has been on composting; however, the reduction and diversion of wasted food should also be considered when developing strategies to reduce organic waste. The EPA estimates that more food waste reaches landfills and incinerators in America than any other single material in our everyday trash. Harvard Law School Food Law and Policy Clinic estimates that approximately 40% of food produced in the United States each year is never consumed, resulting in 62.5 million tons of food going to landfills.

Organics recycling has many environmental benefits including diverting organics waste from incineration and landfilling, treatment of pathogenic organisms, and stabilization of nutrients and organic compounds. With 17 million tons of organic waste generated in Florida in 2020, properly managing organics is essential to increasing the state's overall recycling rate. Figure 4 shows various management methods and practices for organic waste materials.

Figure 4	
Solid Waste Management Hierarchy	Organic Materials Management Practices
Reduce	<ul style="list-style-type: none"> • Landscaping to eliminate yard trimmings • No-bag grass mowing • Eliminate food waste
Reuse	<ul style="list-style-type: none"> • Leftovers to food banks • Leftovers to animal feed
Recycle	<ul style="list-style-type: none"> • Home composting • Centralized composting • Anaerobic digestion
Energy Recovery	<ul style="list-style-type: none"> • Anaerobic digestion • Waste to energy • Alternative technologies (pyrolysis & gasification)
Disposal	<ul style="list-style-type: none"> • Landfill
	*Kessler Consulting

DEP promotes organics diversion and composting through public/private partnerships and programs. The recycling of organics - specifically food waste - occurs on many levels, including composting at large scale centralized facilities, backyard composting and community composting. The following resources and programs support the recycling of organics in Florida.

Composting/Yard Waste

The focus of Florida organics recycling has been on the production and use of compost made from solid waste and materials handled in source-separated organic processing facilities (SOPFs). The materials in SOPFs include yard trash, manure, animal byproducts and vegetative wastes.

In 2020, Florida had approximately 300 SOPFs processing over 3.4 million tons of organics that were diverted for beneficial use. Most of these facilities managed yard waste only. The definitions for compost and compost related processes and materials can be found in Rule 62-709.201 Florida Administrative Code (F.A.C.).

DEP has opened Chapter 62-709, F.A.C. – Criteria for Organics Processing and Recycling Facilities – for updates. Proposed changes include new definitions, revised definitions, tier registration/permitting, operations plan requirement, and the addition of new organic feedstocks under the registration program including sargassum seaweed, liquid beverage wastes, compostable products (Biodegradable Products Institute – Certified) and domestic pet waste.

Community Composting

Community composting is an effective program developed at the local level to adopt a food strategy plan that focuses on source reduction of food waste in the residential and institutional sectors. With community composting, the flow of organic material stays within the community from the source to the compost site, where material is processed into a mature compost and is used in the same community. Community composting occurs in a neighborhood or at a school or university, a municipality, and other institutions. In Florida, community composting yields many benefits: less hauling distance and cost; an increase in local jobs; community engagement; environmental awareness; and the use of organic fertilizers in the community.

Food Diversion and Recovery

DEP has been working in partnership with federal, state and local governments, industry and non-governmental organizations (NGOs) to raise awareness and assist Floridians across the commercial and residential spectrum in adopting practices that will reduce the amount of both edible and unedible food that ends up in landfills.

DEP commissioned the Department of Environmental Engineering Sciences at the University of Florida (UF) to summarize and quantify food donations transferred throughout the state. The 2020 Food Donation Report catalogs current tools for recording and transferring food donations and determines the extent of the environmental benefits of food recovery. The report from UF also provided recommendations for DEP to improve food donation documentation including increased education for county recycling coordinators, inclusion of food waste as a recoverable material, and increased communication between food donation stakeholders.

FORCE

DEP contracts with Kessler Consulting to continue the [Florida Organics Recycling Center for Excellence \(FORCE\) website](#). FORCE provides a framework and clearinghouse to promote organics recycling, food diversion and research in a statewide effort to streamline compost processing, research, demonstration, marketing and education in Florida. It also provides a map of Florida composting facility locations, community composting locations and yard trash processing facility locations. Resource pages have been added specifically for the following:

- The Florida Department of Transportation (FDOT) for the use of compost.
- Schools for the reduction of food waste.
- Retailers for purchasing and disposing of bio-based products.

Commercial Recycling

Florida's commercial sector generates 56% of MSW, almost twice the amount generated by the single-family residential sector. This offers one of the greatest potentials for expanded recycling in Florida. The commercial sector currently has a recycling rate of 50%. The 2020 data suggests that even if the residential sector were to recycle 100% of the MSW generated, the 75% recycling goal could not be achieved without increasing recycling from the commercial sector.

Education and Outreach

Educating the public about recycling is an important component of all successful recycling programs. In a state as large and diverse as Florida, education most effectively occurs at the local level. Recycling programs are local government specific and vary greatly across the state. Public education regarding collection methods and materials accepted may vary from county to county and from county to city. For this reason, DEP is working to increase recycling rates through educational opportunities tailored to fit the local recycling programs.

Food Waste Reduction

In 2020, DEP established a partnership with the Florida Department of Agriculture's Food Nutrition & Wellness Division and Food Conservation Alliance to develop the inaugural [Florida Food Waste Prevention Week](#). The five-day virtual event took place April 4-8, 2021, and included engagement with local municipalities, universities, national food recovery networks and the hospitality industry to raise awareness of the benefits of reducing food waste in Florida.

Campaign for Clean Recyclables

DEP continues to work with counties and municipalities across the state by offering phase three of its ["Rethink. Reset. Recycle."](#) campaign to assist local curbside recycling programs in reducing single stream contamination rates and boosting residential participation. Phase three focuses on providing counties and municipalities with a variety of customized digital products. The products illustrate correct preparation of recyclables prior to placing them in the bin, such as breaking down cardboard boxes and removing liquid from plastic bottles.



Away from Home Recycling

Often, food and beverages are consumed on the go as members of the public enjoy Florida's outdoor resources. DEP has begun efforts to improve recycling participation statewide focusing on increased recycling opportunities for visitors and in-state guests through "Away from Home" recycling. DEP has partnered with Florida State University's Sustainability Fellows Program and the Tallahassee Parks & Recreation Department to oversee an away-from-home recycling project in which selected students collect recycling and waste data in order to inform local park leadership of opportunities to improve recycling education and infrastructure. The project - which has provided recommendations for 4 parks - includes assistance from the Florida Beverage Association for funding of infrastructure improvements through its "Every Bottle Back" initiative.

DEP has begun an initiative to update Florida State Park recycling infrastructure and develop consistent messaging throughout all state parks. The pilot location is Bill Baggs Cape Florida State Park located on the southern end of Key Biscayne. Initial data collection has been completed and DEP is currently in the evaluation phase for recycling infrastructure improvement. Next steps include implementation of recommendations in partnership with Florida Beverage Association's "Every Bottle Back" initiative and follow-up data collection to measure success.

Recycling Recognition Program

Pursuant to Section 403.7032, F.S., DEP developed the Recycling Recognition Program to encourage private businesses, institutions, schools, organizations and the public to increase recycling. Organizations and individuals that met or exceeded interim goals as well as the current recycling goal of 75% have been recognized for their outstanding recycling efforts. DEP has recognized nearly 70 Florida participants through the Recycling Recognition program.



APPENDIX C
STAKEHOLDER SUBMITTALS

Florida Recycling Workgroup

Florida Recycling Workgroup Recommendations for Recycling Beyond 2020 (Revised 6/15/21)

The Florida Recycling Workgroup (FRW) consists of Florida organizations, associations, governmental entities, and other stakeholders interested in ensuring that recycling is environmentally and economically sustainable in Florida. Florida has a goal to recycle 75% of municipal solid waste by weight by 2020. The Florida Department of Environmental Protection (FDEP) has acknowledged that the state will not reach this ambitious and voluntary goal, and the FRW is working to recommend a new, realistic set of goals based on Sustainable Materials Management (SMM) principals. In SMM decisions concerning the entire life cycle of a material are prioritized. Policy makers following SMM will determine how to manage their materials based on the approach that is most economically, socially, and environmentally advantageous. SMM can also be used to measure sustainability and create goals. The plan will also consider economic and environmental benefits to the state.

There are three parts to recycling – reduce waste, reuse when possible, and recycle materials into new products. However, the most environmentally beneficial approach is to prioritize waste prevention (or source reduction) and reuse materials. Our draft proposal encourages waste reduction, especially of food, and encourages reuse programs. We also seek to encourage companies to locate in Florida that utilize recycled content in their manufacturing process and encourage residents to buy products made from recycled content.

From the Beginning ...

The conversation began in 2018 on how to encourage and increase recycling in an environmentally and economically sustainable way. The FRW was created by the Florida Recycling Partnership, a coalition of top Florida companies and associations with the mission to educate policy makers, business leaders and the public about the benefits of recycling.

The original group consisted of representatives from the Florida Recycling Partnership, Florida Department of Environmental Protection, Hinkley Center for Solid & Hazardous Waste, Keep Florida Beautiful, University of Florida and Southern Waste Information eXchange, Inc. Once this group agreed upon a basic framework and scope of work, FRW was expanded in December 2019 to include additional stakeholder groups. The FRW currently consists of professionals in the recycling industry; local governments; academic researchers; corporations; and associations. (Attachment A)

After months of meetings, the FRW focused on the following areas:

The workgroup considered the following definition changes:

Source Reduction: In keeping with the EPA Waste Management Hierarchy (Attachment B), the FRW supports including a new definition for Source Reduction and Reuse in Florida Statute. EPA uses the following definition and FRW believes it would be sufficient for Florida.

- *Source reduction, also known as waste prevention, means reducing waste at the source, and is the most environmentally preferred strategy. It can take many different forms, including reusing or donating items, buying in bulk, reducing packaging, redesigning products, and reducing*

toxicity. Source reduction also is important in manufacturing. Lightweighting of packaging, reuse, and remanufacturing are all becoming more popular business trends. Purchasing products that incorporate these features supports source reduction.

The other definitions currently in Florida Statutes relating to recycling and composting are adequate.

Recovery: With regards to Recovery, the FRW discussed the following definitions. The first definition is used by EPA and is appropriate for Florida. However, FRW also suggests the second definition to expand the EPA definition.

- *Energy recovery from waste is the conversion of non-recyclable waste materials into usable heat, electricity, or fuel through a variety of processes, including combustion, gasification, pyrolysis, anaerobic digestion and landfill gas recovery.*
- *A conversion process, e.g. chemical and/or biological, by which a material is altered in shape or makeup such that the result decreases net landfill disposal and provides some tangible benefit (energy, fuel, raw commodities, polymer reformation) from the conversion process.*

Below are the key concepts for consideration:

- 1. Weight-based recycling goals:** The current weight-based recycling goals for municipal solid waste in Florida have been useful in driving recycling programs to-date. However, this quantity over quality approach to recycling often leads to inefficient, expensive, and confusing outcomes.

Weight-based recycling goals are not the most effective way to measure material conservation and environmental metrics. As we reset the recycling goals for Florida, we have an opportunity to transition to better, smarter indicators of program performance and desired environmental and economic outcomes based on the EPA's SMM tenets.

- 2. Sustainable Materials Management:** Dr. Tim Townsend and Dr. Malak Anshassi at the University of Florida (UF) have been studying the EPA's SMM protocols for several years. SMM is a systemic approach to using and reusing materials productively. It looks at a product's entire lifecycle to reduce environmental impacts, conserve resources, and reduce costs.

Dr. Townsend and his team completed a study for FDEP, *State of Solid Waste in Florida*. The study mapped the flow of waste across all 67 counties for residential, commercial, yard trash, and C&D debris and estimated the GHG emissions footprint, energy footprint, and cost of waste management in Florida in 2016.

The study evaluated alternative management approaches (e.g., recycling ordinances, new WTE facilities) to identify their impact on recycling rates. They found that under no one approach would the state reach the 75% recycling rate.

Dr. Townsend and his team used an assessment of the SMM method for goal and priority setting. The SMM method looks more closely at the environmental footprint of recycling certain materials, where tools like life cycle assessment (LCA) were used. In LCA the environmental footprint of a material manufactured, recycled, and landfilled can be quantified. Using SMM and LCA, the UF

research Team created an alternative to the mass-based recycling rate that consisted of weighting the recycling rate by environmental impacts (e.g., greenhouse gas emissions, energy use).

The study also showed that reuse and source reduction should be prioritized to reach overall sustainability goals.

- 3. Waste diversion or Waste reduction:** FRW discussed how to measure waste diversion or waste reduction. One of the suggestions was to establish the concept of confirmed waste. Once materials are delivered to a permitted cell for disposal or designated holding area for conversion or incineration (e.g., waste pit), they are confirmed to be wastes (Confirmed Wastes – CW) and no longer have the opportunity to be recycled (returned to the stream of commerce) or composted, digested, or recovered. Certain conversion strategies yield materials from the CW that can be recovered and recycled as the conversion process did not alter the material recovered. Metal recovery from combustion ash at a WTE facility is one such example. Lastly, the reduction in volume of CW was considered as a benefit of conversion technologies and is discussed in the following text.

In measuring diversion, a suggestion was to use a Confirmed Waste Reduction Index (CWRI) identifying the amount of CW on a per capita basis. This index would be a metric that encompasses all changes and improvements to waste reduction, recycling and reuse.

Note, mining commodities from landfills was acknowledged to be a desirable outcome to recover previously Confirmed Wastes, but no attempt has been made at this time to integrate landfill mining into the CWRI performance metric under consideration.

Florida has strong, factual data provided by the solid waste and recycling industry and should be used as the basis for measurement. This data is free of estimation and most often collected through state certified scale systems.

Definitions for Diversion: Currently Florida does not have a definition for diversion. There are two opportunities in the EPA hierarchy to measure diversion. One option is to measure only CW delivered and disposed. Any materials that are cycled back into the stream of commerce (either as a commodity feedstock for manufacturing or an organic product from composting or digestion or energy recovery) prior to landfill disposal comprise the definition of diversion.

Another second option was to include CW that is delivered to processing facilities such as waste-to-energy facilities, as well as landfilling, in the definition of diversion. The primary difference with the second option is that this option does not give any recognition to the volume reduction prior to landfilling that process technologies may yield.

The FRW acknowledged that either methodology could be valid and that both could be utilized where certain counties have and do not have recovery technologies as part of their solid waste systems. The FRW did not determine that either was more beneficial, just different points in the EPA hierarchy for measurement of CW (e.g. CW – Recovery vs CW – Landfill).

Measurements: The FRW discussed the possibility of having different measurements and goals for different levels of government

- State-level – should be based on verifiable weight-based facility reports

- County-level – maybe the same as the state
- Potential local goals discussed

With the issue of local goals, the FRW discussed the possibility of having each county determine their own goal especially since counties have different programs. For example, if county “Y” has a current metric calculated to be 45% they would determine what their next goal would be as approved by FDEP.

Other points for consideration ...

Education: The FRW agreed that ongoing education is the key to successful recycling. One suggestion was to conduct behavioral research to identify changes needed to guide the public to recycle appropriately and incorporate those changes in the overall strategic recycling policy and a statewide education campaign.

Support Market Development for Recycling Material End Market Companies: Recycling requires an end market for recycled material. Therefore, Florida should incentivize companies in our state or perhaps other new companies that will use recyclable materials in their manufacturing process.

Purchase items with recycled content: It is important to encourage the public, companies, and governmental entities to purchase items with recycled content whenever possible. One suggestion was for the governmental procurement process to award additional points for products made with recycled content and potentially extra points for locally source recyclable content.

Many of the recommendations need additional attention so that they can be easily understood in policy and FDEP rules. It is recommended that a TAG (Technical Advisory Group) be created to help FDEP with appropriate language.

It is important to note that a new goal will not make sense if it is not aligned with education, market development and innovation. Proposed goal legislation will not move the needle alone as there needs to be legislative/state supported actions implemented to meet these goals.

Nationally ...

In November 2020, the U.S. Environmental Protection Agency announced a voluntary goal to achieve a 50% national recycling rate by 2030. <https://www.epa.gov/americanrecycles/us-national-recycling-goal#:~:text=The%20National%20Recycling%20Goal%20is,is%20managing%20materials%20more%20sustainably>

<https://www.epa.gov/newsreleases/epa-releases-draft-national-recycling-strategy>

In a recent report by EPA, new data showed the national rate dropping to 32.1% in 2018.

Former EPA Administrator Andrew Wheeler provided details of the draft strategy's three key objectives:

- 1. Reducing Contamination in the Recycling Stream** – This ensures that clean recyclable materials can be processed and made into new products. "The idea is to go back to the basics, recycle empty and dry cans, paper and clean cardboard and keep food and liquids out of the

recycling bins," Wheeler said. "No plastic bags or wrapped plastic film should be in recycling bins. They should instead have separate recycling bins at participating grocery and retail stores."

2. Increasing Processing Efficiency - This will be achieved through improvements and updates at MRFs and at the collection level. "We need to invest in new equipment upgrades and expand access to curbside recycling for more Americans," he stated.

3. Strengthening Markets for Recycled Materials - "This will help ensure manufacturers make more products using recycled materials to bolster public demand," he indicated.

With a focus on those three areas and an overarching goal, Wheeler anticipates a shift in the nation's recycling ecosystem should a collective effort be made.

Note – the Florida Recycling Partnership Foundation will have a webinar with EPA Region 4 about the new National Recycling Strategy Plan in August.

Conclusion

The Florida Recycling Workgroup recommends that changes to the 75% recycling goal should be made to reflect the environmental and economic realities of recycling and to improve and increase recycling in our state.

Set New Realistic Recycling Goals That Are Environmentally and Economically Sustainable

The current goal to recycle 75% of municipal solid waste by 2020 was not quantified or realistic. FDEP has acknowledged that it will not be met. Therefore, Florida should set new, thoughtful, realistic recycling goals that take into consideration what is environmentally and economically sustainable. Using the EPA's SMM model will help Florida determine and prioritize which materials should be recycled based on environmental metrics and market availability.

Set Goals for Recycling with understanding of SMM principles:

- Incorporate SMM's lifecycle analysis to determine the costs and benefits of recycling specific materials. This shifts the focus from broad weight-based metrics to more particular measurements of materials.
- Use SMM to guide what materials to prioritize; set weight-based recycling goals for these specific materials.
- Research and calculate the true "Value of the Bin" (i.e., collected recyclable materials) in order to make both environmental and economic-based decisions.

Align Florida's Waste Management with the EPA Hierarchy

The most preferred way to handle waste is through waste reduction and reuse. Therefore, Florida should incorporate the following:

- Encourage Waste Reduction programs and efforts
- Encourage Food Reduction programs and efforts

- Encourage Reuse programs and efforts
- Add a new definition for Source Reduction and Reuse in Florida Statute
 - *Source reduction, also known as waste prevention, means reducing waste at the source, and is the most environmentally preferred strategy. It can take many different forms, including reusing or donating items, buying in bulk, reducing packaging, redesigning products, and reducing toxicity. Source reduction also is important in manufacturing. Lightweighting of packaging, reuse, and remanufacturing are all becoming more popular business trends. Purchasing products that incorporate these features supports source reduction.*
- Add a new definition for Recovery in Florida Statute
 - *Energy recovery from waste is the conversion of non-recyclable waste materials into usable heat, electricity, or fuel through a variety of processes, including combustion, gasification, pyrolyzation, anaerobic digestion and landfill gas recovery.*
 - *A conversion process, e.g. chemical and/or biological, by which a material is altered in shape or makeup such that the result decreases net landfill disposal and provides some tangible benefit (energy, fuel, raw commodities, polymer reformation) from the conversion process.*

Support Market Development for Recycling Material End Market Companies

Recycling requires an end market for recycled material. Therefore, Florida should incentivize companies in our state or perhaps other new companies that will use recyclable materials in their manufacturing process.

- Encourage market development for recycling material end market companies through tax incentives or tax credits
- Encourage use of recycled content in manufacturing
- Encourage Florida's residents and businesses to buy products made from recycled content
- Encourage state and local governments to incentivize the purchase of materials made from recycled content in the procurement process
- Foster the development of recycling markets for the targeted materials that are chosen in the overall state recycling goals
- Foster efficiency in recycling collection and processing by reducing contamination or "non-recyclable material" in the inbound recycling stream

Education

Every Team discussed education and how important it is to improve and increase recycling in Florida. Suggestions were to:

- Conduct behavior research to identify changes needed to guide the public to recycle appropriately and incorporate those changes in the overall strategic recycling policy and a statewide education campaign.
- Foster recycling education to guide public to recycle appropriately and to convey the reasons why.

Measurements

- Use available data to create strategies. Measurements should be based on verifiable data that is largely free of estimation and the use of generic conversion factors by the reporting party.
- It is acceptable and appropriate to have different measurements that focus on different endpoints for waste materials.
 - Diversion of generated materials from landfill such that those materials are cycled back into the stream of commerce (either as a commodity feedstock for manufacturing or an organic product from composting or digestion or energy recovery).
 - Diversion of end-of-life materials into processing facilities such as waste-to-energy facility to extract energy and reduce the waste volume prior to landfilling as well as landfilling.
 - Have different measurements and goals for different levels of government.
 - State-level – should be based on verifiable weight-based facility reports
 - County-level – maybe the same as the state but look at option to have county set its goal based on current level and future plans

Statutory Changes ...

Florida and the 2020 75% Recycling Goal: 2019 Status Report Volume 1 by FDEP includes several of our recommendations. The following recommendations would require statutory changes.

Single Stream Recycling

- Create a Recycling Equipment Grants Program that allows local governments to purchase infrastructure for initiation or expansion of commercial recycling efforts
- Florida Department of Economic Opportunity and/or Enterprise Florida to increase recycling market development

Markets:

- Identify specific goals/milestones for recycling market development in the state's economic development agencies
- Fund new technology grant or loan programs for targeted materials
- Investments in expansion of Recycling Business Assistance Center activities
- Offer tax incentives for usage of recycled materials as feed stocks in manufacturing processes

- Offer tax incentives and credits to support materials recovery facility (MRF) plant upgrades
- Offer tax incentives for recycling businesses to relocate to Florida
- Create Public/Private partnerships to invest in new processing technologies

Next step ...

Work with FDEP on creating a Technical Advisory Group (TAG) to begin working on creating legislation to reflect proposed recommendations.

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Attachment A

List of Florida Recycling Workgroup Members

- ▶ Enterprise Florida – Tim Johns & Mason Henson
- ▶ Florida Association of Counties – Susan Harbin & Jeff Scala
- ▶ Florida Beverage Association – Liz DeWitt & Steve Lezman
- ▶ FDEP – Karen Moore & Kim Walker
- ▶ Florida League of Cities – Rebecca O’Hara & Tara Taggart
- ▶ Florida Recyclers Association – IRSI – Jim Magill
- ▶ Florida Recycling Partnership – Keyna Cory
- ▶ Hinkley Center for Hazardous & Solid Waste – John Schert
- ▶ Keep Florida Beautiful – Mary Jean Yon & Savanna Christy
- ▶ NWRA FL Chapter – Dawn McCormick
- ▶ Orange County Solid Waste – David Gregory
- ▶ Recycle Florida Today – Heather Armstrong & Carmen Bruno
- ▶ SWANA – Keith Howard
- ▶ SWIX – Gene Jones
- ▶ Tammy Kaleel, Tammy Kaleel Consulting, LLC
- ▶ UF – Dr. Tim Townsend & Malak Anshassi

Attachment B

EPA Waste Management Hierarchy

<https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy>



Local Governments

County-coordinated Guidance on a New State Diversion Goal and Benchmarks

The [*Florida and the 2020 75% Recycling Goal: 2019 Status Report Volume 1*](#) states:

While no one single goal can measure the full environmental impact of the materials used from cradle to grave, multiple goals can be set, based upon the environmental attribute(s) that are most important to the state.

5-part recommended approach for an attainable state waste diversion goal

1. A state landfill diversion goal, with an increase by a certain percentage over a set period of time (time constraints and percent-increase structure to come through rule making)
 - a. Calculated as total tons of municipal solid waste (MSW) generated within the county minus total tons of MSW generated within the county sent to an in-county or out-of-county landfill then divided by total tons of MSW generated within the county
 - i. Data derived from what is submitted for the Florida Department of Environmental Protection (FDEP) annual report with an emphasis on reporting accuracy
 - ii. Starting percentage for each county is taken from their latest FDEP submitted data
 - iii. Starting percentage for the state is taken from the overall FDEP data submitted by each county
 - b. Each county is to be measured against its previous year's percentage with the goal of achieving the determined structured percentage increase year over year
 - i. Counties that have a population under 100,000 are encouraged to develop a regional approach to administering and coordinating their waste management plans and efforts
 - c. Encourages a combination of tactics to achieve the county-specific landfill diversion goal including but not limited to recycling, source reduction, waste to energy and reuse as a source of materials for, including but not limited to, energy, beneficial use at a landfill, composting and anaerobic digestion, to save landfill space
 - d. State diversion rates for all counties from 2016-2019 from the FDEP annual report is:
 - i. 2016 state diversion rate – 55.9%
 - ii. 2017 state diversion rate – 52.1%
 - iii. 2018 state diversion rate – 50.29%
 - iv. 2019 state diversion rate – 51.4%
 - e. County-specific diversion rates for 2016-2019 can be obtained from the FDEP annual report data in a separate spreadsheet (included with this email)
2. County-specific annual recycling benchmarks will be based on selected identified priority recyclable commodities outlined through sustainable materials management (SMM) criteria
 - a. Individual county annual goals are based on improving their own data/efforts on those SMM identified commodities by a certain percentage each year and not in comparison to a goal that applies to all counties
 - b. Each county, no matter the population size or per capita taxable value will participate to the extent possible
 - c. These benchmarks will be included in the solid waste management plan referenced in point 5
3. Residential recycling remains non-mandatory
4. Businesses are encouraged to recycle as processing and end markets are available
5. All counties are encouraged to have a solid waste management plan that is updated as necessary and outlines how the landfill diversion and recyclable commodity or commodities annual benchmark(s) will be addressed

Background and supporting points

County responsibilities

Counties are charged with implementing and paying for recycling programs in their jurisdictions through sections [403.702\(2\)\(n\)](#) and [403.702\(2\)\(p\)](#), Florida Statutes:

(n) Require counties to develop and implement recycling programs within their jurisdictions to return valuable materials to productive use, to conserve energy and natural resources, and to protect capacity at solid waste management facilities.

(p) Require counties, municipalities, and state agencies to determine the full cost for providing, in an environmentally safe manner, storage, collection, transport, separation, processing, recycling, and disposal of solid waste material, and encourage counties, municipalities, and state agencies affected to contract with private persons for any or all such services in order to assure that such services are provided on the most cost-effective basis.

Section [403.706\(1\)](#), Florida Statutes, reinforces that charge:

The governing body of a county has the responsibility and power to provide for the operation of solid waste disposal facilities to meet the needs of all incorporated and unincorporated areas of the county.

State 75% goal

The [Florida and the 2020 75% Recycling Goal: 2019 Status Report Volume 1](#) (FDEP 2019 Status Report) states:

The modern era of recycling in Florida began with the Florida Legislature's passage of the Solid Waste Management Act (SWMA) of 1988, including a 30% recycling goal. Over the past thirty years, the goal and methodology used to calculate the recycling rate has been revised to reflect the changes in the waste stream, legislation and technology.

The Florida Legislature, through the Energy, Climate Change and Economic Security Act of 2008, established a statewide weight-based recycling goal of 75% by 2020. Florida achieved the interim goals established for 2012 and 2014; however, Florida did not meet the 2016 interim goal of 60% and the recycling rate has continued to decline since that time.

In 2018, only four of the 36 large counties met the 70% interim recycling goal. The primary factors for their success were the recycling credits received for renewable energy and C&D debris. The 32 counties that did not meet the recycling goal have developed and submitted plans to DEP to expand current recycling programs to existing commercial and multifamily dwellings.

With the recycling credits growing to include non-traditional recycling numbers such as C&D and waste to energy credits, a transition to a simpler measure of landfill diversion, with the opportunity to incorporate some traditional recycling measurements to follow state priorities through SMM criteria, would be seamless.

State and federal recycling plans

The [FDEP 2019 Status Report](#) outlines three strategies in which the focus should be placed by DEP and the Legislature:

- 1) Recycling materials market development
- 2) Recycling education and outreach
- 3) Local government recycling assistance

The USEPA proposes a [National Recycling Strategy and Framework for Advancing the US Recycling System](#) that identifies three strategic objectives and subsequent actions needed to create a stronger, more resilient, and cost-effective U.S. municipal solid waste recycling system:

- 1) Reduce contamination in the recycling stream
- 2) Increase processing efficiency
- 3) Improve markets

Supporting points from the survey and meetings

The information in this document is a culmination of ideas from survey responses, three virtual conference call meetings, written and electronics comments, and research on state and federal recycling programs with the county solid waste directors and recycling coordinators who wanted to or were able to participate.

- Struggles counties face
 - Competing priorities with for-profit waste companies. For instance, C&D and glass are heavy items that can be recycled, but also bring landfill tip fees
 - Recycling programs are location specific across the state
 - The types of recycling services available, how recyclable materials are collected, and what recyclable materials are accepted often differ from county to county and, in some cases, differ from county to city
 - Recycling tip fees and processing fees set by private MRFs

- Businesses

- From the *FDEP 2019 Status Report*:

Florida's commercial sector generates 68% of MSW, twice the amount generated by the single-family residential sector. This offers one of the greatest potentials for expanding recycling in Florida. The commercial sector currently has a recycling rate of 49%. The 2018 data suggests that even if the residential sector were to recycle 100% of the MSW generated, the 75% recycling goal could not be achieved without increasing recycling from the commercial sector.

The focus of recycling programs implemented by local governments over the last two decades has been primarily on the residential sector with very few municipalities and counties mandating commercial recycling.

- Lack of end markets to drive commercial recycling
 - Encourage bars to recycle glass bottles, aluminum bottles and cans, and cardboard, as processing and end markets are available. This could be done through local ordinances supporting Section [403.706\(2\)\(c\)](#), Florida Statutes
 - Incentivize C&D recycling so the heavy weight doesn't get sent to the landfill
- Education
 - Public education should to be tailored to the local recycling programs. From the *FDEP 2019 Status Report*:
Recycling programs are county/city specific and vary greatly across the state. The type of service available, collection methods and materials accepted often differ from county to county and in some cases, differ from county to city.
 - Standardized messaging is encouraged
 - [Rethink.Reset.Recycle.](#)
 - [WRAP](#) Retail plastic film take
 - [The Recycling Partnership](#) can help you standardize your campaign
- Funding
 - Funding should be prioritized to counties with under 110,000 population, but available to all counties
 - State grant programs for coordinated and consistent educational efforts
 - Create a new grant program to provide for education and outreach activities to encourage participation in current recycling programs and increase awareness in the correct materials that residents should be recycling in their curbside carts.
 - Fund the system of grants established in Section [403.4131\(3\)](#), Florida Statutes, for municipalities and counties to implement litter control and waste prevention programs.

- Reinvest in the Recycling and Education Grant Program, which sunsetted in 2001, to award grants for initial capital costs, operations, recycling education, market development and special projects.
 - State grant programs for improvements to government-owned processing facilities and for assistance with constructing publicly-owned processing facilities
 - Create a Recycling Equipment Grants Program that allows local governments to purchase or expand recycling efforts.
 - Reinvest in the Innovative Grant Program, which until 2008, was funded annually with 10% of the Solid Waste Management Trust Fund and was used to award grants to local government programs that demonstrated effective expansion, efficient operations and advancement of technologies within their programs.
 - State grant programs to incentivize recycle processing or end markets to establish in Florida
 - Reinvest in the Recycling Business Assistance Center as outlined in Section [403.7032\(5\)](#), Florida Statutes, to ensure the duties are able to be accomplished.
 - Establish funding for the development of a Recycled Materials Market Development program to stimulate markets that are produced using materials recovered from the waste stream as recycled materials. These funds would be used for new end users, and processor and manufacturer activities, such as:
 - Tax incentives for usage of recycled materials as feed stocks in manufacturing processes.
 - Tax incentives and credits to support materials recovery plant upgrades.
 - Public/private partnerships to invest in new processing technologies.
 - Investments in expansion of Recycling Business Assistance Center activities.
 - End-user purchase rebate for Florida Certified Compost.
 - Through any new State grant programs established by the Florida legislature
- Legislative changes/updates
 - Define “diversion” in Section [403.703](#), Florida Statutes, as used in this case
 - Remove Florida’s labeling requirements in Section [403.708\(7\)](#), Florida Statutes, from the chasing arrows symbol to something different and more apparent that it is the resin used in creating the product, and not the product’s recyclability. The chasing arrows (recycle symbol) seems to be the cause of resident confusion.
 - Update Section [403.7032\(2\)](#), Florida Statutes, to include the 5-part recommended strategy outlined above
 - Update other sections referencing the 2020 recycling goal
- Markets
 - Actively seek local end markets and increased processing options by offering incentives to bring businesses to Florida
- Increased coordination and partnership with haulers (* >50% responses from the survey results)
 - *Notification of routes or locations/neighborhoods with continual recycling contamination
 - *Partner in resident recycling education
 - *Train staff for identifying and reporting recycling contamination
 - Incentivize a program to offer suggestions on improvement measures
- Increased coordination and partnership with materials recovery facility or recovered materials processing facility operators (* >50% responses from the survey results)
 - *Notification of trucks with continual recycling contamination
 - *Track recycling tons

- *Send photographic images of rejected loads
- *Partner in resident recycling education
- *Train staff for identifying and reporting recycling contamination
- Mandatory recycling – Multifamily and Business
 - Strengthen Section [403.706\(2\)\(c\)](#), Florida Statutes, so this is more closely reviewed and followed up on:
 - (c) In accordance with applicable local government ordinances, newly developed property receiving a certificate of occupancy, or its equivalent, on or after July 1, 2012, that is used for multifamily residential or commercial purposes, must provide adequate space and an adequate receptacle for recycling by tenants and owners of the property. This provision is limited to counties and municipalities that have an established residential, including multifamily, or commercial recycling program that provides recycling receptacles to residences and businesses and regular pickup services for those receptacles.
 - Encourage local governments and municipalities to enact ordinances per Section [403.706\(21\)](#), Florida Statutes, to capture more recyclables:
 - (21) Local governments are authorized to enact ordinances that require and direct all residential properties, multifamily dwellings, and apartment complexes and industrial, commercial, and institutional establishments as defined by the local government to establish programs for the separation of recyclable materials designated by the local government, which recyclable materials are specifically intended for purposes of recycling and for which a market exists, and to provide for their collection. Such ordinances may include, but are not limited to, provisions that prohibit any person from knowingly disposing of recyclable materials designated by the local government and that ensure the collection of recovered materials as necessary to protect public health and safety.
- Markets
 - Actively seek local processing options and end markets by offering incentives to set up businesses in Florida
 - This could be done though strengthening Section [403.7032\(5\)](#), Florida Statutes, to give more ability to the FDEP's Recycling Business Assistance Center
 - Increase diversion options for recyclable materials
- Producer responsibility to help with recyclability
 - Change resin symbol from chasing arrows and number to a triangle with alphabet code (as outlined under "Labeling")
 - Produce packaging that is all recyclable, meaning bottle, wrap and other packaging elements are made from the same resin, i.e. stop using multiple resins to create the package
- Small county/Large county
 - Not all counties are able to have similar or robust recycle programs. Take this into account so all counties can participate in a landfill diversion and an attainable recycling goal
 - Local governments benchmark against themselves

**APPENDIX D
COUNTY PLANS**

Alachua County

Alachua County Recycling Program Plan for Meeting Florida’s Recycling Goals

September 2021

Alachua County currently offers recycling for glass, metal, plastics, OCC, mixed paper and cartons. These items are collected both curbside and at the 5 rural collection centers. Additionally, yard waste collected curbside is recycled into mulch. Concrete is also processed by a local private business.

Recycling and waste reduction is promoted heavily through a contract with a local advertising firm which produces both print and film content. The Alachua County Office of Waste Alternatives also promotes through social media and traditional public education efforts. Alachua County was also one of the first counties in Florida to implement a Pay-as-you-throw-system which allows residents to reduce their garbage cart size and incentivizes recycling.

2020 MSW is generated by the following groups:

Generator Type	Collected Tons	Percent Total Tons	Traditional Recycled Tons	Traditional Recycling Rate
1. Residential Single Family	56,058	10%	19,436	35%
2. Residential Multi-Family	45,865	8%	15,271	33%
3. Commercial	458,112	82%	171,018	37%
4. County Totals	560,035	100	205,725	37%

Multifamily units currently fall under the mandatory commercial recycling ordinance and is enforced in the unincorporated areas of Alachua County. County inspectors have no Jurisdiction in the municipalities, which can pose a problem as most of the multi-family units are located within the City of Gainesville.

Construction and demolition debris recycling is currently one of our problem areas. There is no C&D MRF in the area and most of the C&D haulers own their own landfills and incur no costs to dump at their own facilities. These two factors limit the lengths that these haulers will go to recycle C&D. We are currently looking at options to include C&D in the mandatory commercial recycling ordinance.

Meeting the goal of 75% recycling may not be possible without a combination of mandatory C&D recycling and adding a waste-to-energy component. Currently the county’s comprehensive plan prohibits the burning of garbage within Alachua County.

Alachua County and the City of Gainesville contracted Kessler Consulting to develop a Zero Waste Plan for both entities. The plan addresses organics recycling, C&D Recycling and enhancing the mandatory commercial recycling ordinance. These measures should get us closer to the goal.

Bay County



Bay County Solid Waste
11411 Landfill Rd.
Panama City Beach, Florida 32413
Telephone: (850) 236-2212
Fax: (850) 233-5053

October 5, 2021

Board of County
Commissioners

www.baycountyfl.gov

840 WEST 11TH STREET
PANAMA CITY, FL 32401

COMMISSIONERS:

TOMMY HAMM
DISTRICT I

ROBERT CARROLL
DISTRICT II

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DISTRICT III

DOUGLAS MOORE
DISTRICT IV

PHILIP "GRIFF" GRIFFITTS
DISTRICT V

ROBERT J. MAJKA
COUNTY MANAGER

Tim Barr, P.G., Director
Division of Waste Management
Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Request for Development and Submittal of County Recycling Program Plans

Dear Sir:

In response to your letter dated August 31, 2021, subject as above, the following is provided:

Summary of Recycling Services and Materials –

- Bay County currently recycle appliances and other scrap metals that are dropped off at the Steelfield Road landfill.
- Bay County also processes yard debris into mulch and uses it at the landfill for erosion control and daily cover. This reduces the need to utilize soil.

Analysis Municipal Solid Waste (MSW) generated -

- An estimate of percentages of MSW generated is as follows: single-family homes 18%; multi-family homes 18%; and commercial MSW (includes C&D) 64%.

Analysis of any existing recycling programs –

- Bay County has historically relied upon the Bay County Waste-to-Energy facility as the primary means of recycling within the county from 1987 to the beginning of this year. Escalating operational cost and maintenance cost made continued operation of the facility impractical. The facility ceased operation in January of 2021. The waste stream previously processed at the Waste-to-Energy Facility is now sent directly to the landfill. The closure of the Waste-to-Energy facility and the increased reliance on the landfill allowed a \$20.73 per ton reduction in the tipping fees paid by the residents at businesses within Bay County.
- In addition to the Bay County Waste-to-Energy facility, Bay County previously operated numerous recycling drop off centers that were located at various

locations around the county. These facilities were closed in the fall of 2018, as a result of the devastation of Hurricane Michael. Prior to the hurricane, Bay County was paying a local vendor to \$42.20 per ton process the recyclables collected from the recycling drop off centers. The vendors facility was destroyed during the hurricane and the vendor has chosen not to re-build do to the current low market value for recyclables.

The only other local vendor accepting recyclable materials is a cardboard and paper product processor. They are currently still in business but because of the depressed market conditions, they are no longer accepting newspaper or other paper products other than cardboard. Additionally, they are not accepting materials from any new commercial accounts.

Construction and Demolition Debris Recycling -

- The recycling of Construction and Demolition Debris within Bay County is market driven. Recycling efforts within Bay County are voluntary and are limited to those actions which the private C&D processors deem to be profitable. Currently the market for recyclables is poor. Mandating construction and demolition debris recycling will increase operational costs and subsequently, the fees charged by C&D disposal facilities and processors. This additional cost will be borne by construction and related industries.

Bay County is located in the northern part of the Florida panhandle, relatively close to the Alabama state line. It is a region where C&D disposal cost are relatively low. There is no flow-control. If the recycling of C&D is mandated within Bay County, companies will in all likely-hood, seek cheaper disposal options out of county or out of state.

Yard Trash/Vegetative Waste –

- Bay County currently operates the yard trash processing operation for materials generated from residential pickup by the municipalities and from commercial landscapers. This material is ground into mulch and used within the landfill for cover and erosion control. The mulch generated by the grinding process is also offered to the public at no charge.

Discussion of Challenges to Achieving Statewide Recycling Goal –

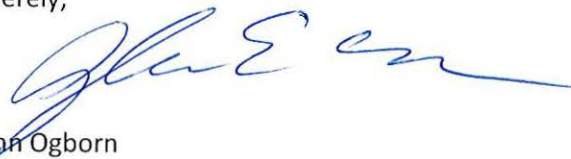
- Construction and Demolition Debris accounts for as much as 50%, sometimes more, of the waste generated within Bay County. Without financial incentives to recycling C&D or the mandating of C&D recycling, achieving a 75% recycling rate will be impossible.
- The depressed market for recyclables makes the development of a long-term strategy to increase the percentage of recyclables difficult. Most recyclables, other than scrap metals, currently have a negative value. Their market value is less than what it cost to collect and process them. Without an economically viable market for recyclable materials it will be extremely difficult to achieve the state 75% recycling goal, even if the recycling of C&D is mandated..

Long-term Strategy for Achieving Recycling Goals –

- Current Course - It is Bay County intention to continue to implement our scrap metals recycling and yard debris processing operations. Additional recycling programs for other materials may be enacted in the future as it becomes economically feasible to do so.
- Landfill Gas Extraction - For most of its almost 34 years of operation, the Bay County Steelfield Road landfill has been primarily utilized as a repository for ash residue from the Bay County Waste-to-Energy Facility. As a result, the bulk of the waste landfilled within the facility is non-putrescible type waste that does readily produce landfill gases. With the closure of the Bay County Waste-to-Energy facility, the composition of the waste landfilled has drastically changed. The bulk of the waste now being landfilled is typical municipal solid waste (MSW) which will produce landfill gas. Eventually, the quantities of landfill gas, specifically methane will be sufficient to warrant landfill gas extraction and reutilization.
- Landfill Mining - Long-term, the landfill itself presents recycling opportunities. In addition to the normal materials that show up in a traditional waste stream, the waste-to-energy ash residue that is housed within the landfill contains significant quantities of ferrous, non-ferrous and precious metals. There is the possibility to extract and recycle these metals via a landfill mining operation, pending FDEP approval. In prior years, Bay County has been approached by several vendors to discuss the feasibility of the mining process, but the ability to implement this, like most issues concerning recycling is dependent on market conditions.

Please let me know if you need any additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Glenn Ogborn". The signature is fluid and cursive, with a long horizontal stroke at the end.

Glenn Ogborn
Bay County Solid Waste Division Manager

Brevard County



BOARD OF COUNTY COMMISSIONERS

Solid Waste Management Department

2725 Judge Fran Jamieson Way
Building A, Room 118
Viera, Florida 32909

September 21, 2021

Tim Bahr, P.G., Director
Division of Waste Management, FDEP
2600 Blair Stone Road MS #4500
Tallahassee, FL 32399

Regarding: Brevard County Recycling Program Plan

Dear Mr. Bahr:

This report has been prepared at your request. It is based on Section 403.706(2)(d) Florida Statutes.

Brevard County's past interim recycling goals are shown in the below table:

Calendar Year	Interim Recycling Goal	Brevard County Recycling %
2012	40%	48%
2014	50%	57%
2016	60%	61%
2018	70%	57%
2020	75%	60%

Until 2018 Brevard County was on pace to continue meeting projected recycling goals as they increased year to year. The challenge that Brevard County and other like entities is facing is a steady percentage of contamination. Recycling rates continue to be affected by these levels of contamination.

All Brevard county residents have single-stream curbside collection services, these services include:

- Mixed paper
- Sorted Residential Paper
- Corrugated Cardboard
- Aluminum Cans
- Steel Cans
- PET
- HOPE Natural
- HOPE Colored
- Mixed Plastics 3-7
- Mixed Glass

Bulky curbside collection services include:

- Yard Trash
- Scrap Metal
- White Goods

- Tires

Residents are also able to drop-off the bulky items listed above at one of three locations in the County.

Analysis of the percentage of the county's MSW generated by the commercial, multi-family, and residential single-family sectors are as follows:

- Commercial = 49.9%
- Residential = 50.9%
- We do not separate multifamily from single family residential when identifying waste sources.

We have conducted an analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors.

This analysis concluded that the total commercial businesses being serviced for recycling in Brevard County is 2,962 with one hauler not reporting. All businesses have to pay for recycling services creating a participation rate of 100%, with all having at least once a week pick up. Commercial businesses have the opportunity to choose their hauler.

Brevard County currently recycles any clean concrete brought into our facilities by using it on our own Solid Waste properties or other County property. Scrap metal and white goods are collected separately on our property and recycled through a metal recycler. We have cardboard bailers at two of our three citizens drop off sites which allows our employees to pull out cardboard from the stream to bail and send to a recycler. Due to economic restraints surrounding C&D construction we will not be expanding recycling options in this area.

All residents receive curbside yard waste collection once a week. Yard waste can also be brought into one of our three drop off sites free of charge if it comes from a residential property. All yard waste brought to our sites is mulched and used for landfill cover. It is also available for residents to take for use on their property at no charge.

Our recycling outreach team has added new presentations to their offerings with the purpose of connecting with a broader range of grade levels. These new presentations coupled with the new FDEP recycling education curriculum will allow us to work with all grades K-12 except for 3rd grade.

Brevard County, in an effort to tackle food and organic waste in the landfill is working with local Keep Brevard Beautiful to develop an organic waste composting program. This will allow for community involvement and citizen science opportunities in waste auditing and reduction.

We have had an on-going educational program for schools, civic groups, Home Owners Associations and other community events for many years. We have increased our visibility through advertising in various means (busses, billboards, print and digital news) and continue to explore various advertising outlets to get the message out to our residents.

Sincerely,



Thomas Mulligan, PE, Interim Director

Broward County



Public Works Department

SOLID WASTE AND RECYCLING SERVICES

1 N. University Drive, Suite 400 • Plantation, Florida 33324 • 954-765-4999 • FAX 954-577-2391

September 30, 2021

Jennifer L. Simmons
Permitting & Compliance Assistance Program
Florida Department of Environmental Protection
Division of Waste Management
RE: Request for Development and Submittal of County Recycling Program Plans

Dear Ms. Simmons,

Please find the attached 2020 Recycling Program Plan for Broward County as requested by Tim Bahr, P.G., Director, Division of Waste Management, Florida Department of Environmental Protection dated August 31, 2021.

The report outlines efforts by Broward County to achieve the State of Florida recycling goal of 75%.

If you have any questions, please contact Steve Kasselakis at 954-474-1826.

Sincerely,

Notosha Austin, Assistant Director
Solid Waste and Recycling Services

BROWARD COUNTY 2020 RECYCLING PROGRAM PLAN

Broward County, with a population of approximately 1.9 million residents, is comprised of 31 municipalities and the Broward Municipal Services District (unincorporated areas). The County currently provides residential solid waste and recycling services solely for the Broward Municipal Services District, areas that encompass a population of approximately 15,000. While municipalities utilize contracts for recycling services independently, Broward County recognizes significant benefits are gained through regional collaboration and is currently working towards a comprehensive solid waste management system.

Some notable highlights and historical solid waste management actions include:

- In 1986, an Interlocal Agreement (ILA) was executed between Broward County and twenty-six municipalities to establish the Broward Solid Waste Disposal District. The collective group developed a resource recovery and solid waste disposal system that included two waste-to-energy facilities, a materials recovery facility, residential drop-off centers, and a robust public education program.
- In 2009, single-stream recycling was introduced within the ILA communities to enhance recycling participation and convenience.
- In 2011, Broward County and the Broward Solid Waste Disposal District implemented a \$20 million recycling grant program for ILA communities to be used for acquiring carts and other transitional resources for single-stream recycling.
- In 2013, the ILA expired and Broward County and its municipalities began contracting for solid waste and recycling services independently. Additionally, one of two privately owned waste-to-energy facilities ceased operations.
- In late 2018, a Solid Waste and Recycling Issues Study was completed examining options to increase recycling and enhance waste diversion.
- In 2020, a consortium of municipal representatives and Broward County formed a Solid Waste Working Group to examine the feasibility of a regional solid waste and recycling district.

Current Efforts

Broward County and local municipalities continue to provide residential recycling services independently. The majority of curbside recyclables are delivered to recovered materials processing facilities, sorted and sold as commodities. Ongoing market volatility, contamination issues and increased costs have led several municipalities to cease residential recycling services. While negative impacts from decreased services on overall recycling tonnages remain isolated, effects on participation rates continue to be monitored. Building upon strategies identified in the

2018 Solid Waste and Recycling Study, discussions for a cohesive approach to improve diversion rates and increase participation have gained considerable traction. Formal discussions on the formation of a singular entity utilizing system-wide assets to expand recycling, processing, and disposal options have begun. To that end, the Solid Waste Working Group is examining options to establish a unified entity providing collaborative governance over future facility partnerships, programs, and resources. A summary of recycling program plans and ongoing challenges to increase recycling are further discussed below.

Recycling Services and Materials

The Broward Municipal Services District's recycling program allows for the recovery of a variety of materials including cardboard, newspapers, office paper, plastic bottles, glass containers and aluminum, steel or tin cans. Similar materials are widely accepted as part of single-stream recycling services throughout many local municipalities. As previously noted, several municipalities ceased curbside recycling and currently send recyclables to a Waste-to-Energy facility. While renewable energy credits are realized from materials sent for incineration, future expectations are to leverage economies of scale to divert as much recyclable material to processors and obtain full recycling credit.

Analysis of Recycling Generation and Composition

Nearly half of the 800,000 residential units are considered multi-family within Broward County. Additionally, commercial properties generate the majority of material collected and recycled by weight. To gain broader insight into material management among these various sectors, the County is actively engaging with local municipalities to procure consultant services to derive weight-based generation rates and conduct waste characterization studies on residential and commercial properties. The County anticipates this information will add clarity to future solid waste diversion goals, operational needs and possible revenue sources.

Construction and Demolition Debris

Broward County continues to seek out information on construction and demolition debris (C&D) materials used for various construction, road development and land reclamation projects. While C&D generation and management remains largely driven by private sector forces, it remains one of the predominant material types collected and recycled by weight. Reduction in the number of local C&D processors has detracted from the County's overall recycling rate over the last several years. Recent increases in land reclamation projects provided a slight increase in recovery rates for 2020; however, overall recycled tonnages for C&D have declined substantially over the past five years.

Strategies for Expanding Diversion Programs

As noted, the County and municipalities have begun working collaboratively to address solid waste and recycling issues as a singular district. The current fragmented approach to county-wide recycling has impacted overall waste diversion efforts from the lack of program uniformity, inconsistent education messaging, varying processing fees, and diminutive revenue

apportionment. Additionally, the cessation of one of the two Waste-to-Energy plants has resulted in reduced energy renewal credits. Broward County is encouraging several waste diversion strategies including yard waste and organic reuse opportunities, promoting recycling at parks and governmental facilities, connecting food recovery efforts with redistribution opportunities, and expansion of recycling drop-off locations. Earnest discussion continues between the County and municipalities on improving the management of recoverable materials and examining increased capacity at the Waste-to-Energy plant resulting in supplemental energy credits. Broward County is committed to promoting localized initiatives and working towards challenges that are critical to implementing future strategies to achieve the recycling goal of 75%.

Citrus County

Citrus County Central Landfill

230 West Gulf to Lake Highway

Lecanto, FL 34460

WACS ID: 39859

2021 Recycling Plan

INTRODUCTION

In Calendar Year 2012, Citrus County held a Traditional Recycling Rate of 25%, below the rate of 40% as stated in the Florida Statutes. In 2013, this rate rose to 33%, which was still below the 40% Interim Recycling Goal. Calendar Year 2014 saw Citrus County's rate climb to 45%, which was still below the 50% Interim Recycling Goal. In 2015, Citrus County's recycling rate soared to 51%, surpassing the 50% Interim Recycling Goal. Citrus County maintained that rate for Calendar Year 2016, but it was not sufficient to meet the new Interim Recycling Goal of 60%. In Calendar year 2017 Citrus County's recycling rate was 48%, below the rate of 60%. In Calendar year 2018 Citrus County's recycling rate dropped down to 39%, well below the 70% recycling goal. In the calendar year of 2019, Citrus County's recycling rate dropped to 37%. In 2020, Citrus County's recycling rate dropped further to 27%, well below the 75% recycling goal.

On August 31, 2021, Tim Bahr, P.G., Director of the Division of Waste Management with the Florida Department of Environmental Protection, penned a *Request for Development and Submittal of County Recycling Plans*, which was sent to identified counties which failed to meet the 75% Interim Recycling Goal for Calendar Year 2020. Said request is for those counties to submit, in writing, to the Department of Environmental Protection, by September 30, 2021, their plan for increasing their recycling rate. Those counties include: Alachua, Bay, Brevard, Broward, Citrus, Clay, Collier, Duval, Escambia, Flagler, Hernando, Highlands, Hillsborough, Indian River, Lake, Leon, Manatee, Marion, Martin, Miami-Dade, Okaloosa, Orange, Osceola, Palm Beach, Pasco, Polk, Santa Rosa, Sarasota, Seminole, St. Johns, St. Lucie, Sumter, and Volusia.

At a minimum, the county recycling program plans should include:

- Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper and yard trash;
- Analysis of the percentage of the county's MSW generated by the commercial, multifamily, and residential single family sectors;
- Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors;
- Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris;
- Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses;

- Strategy (including general timeframes) for expanding your county's recycling programs, or for creating new programs if needed, as part of your county's efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.; and
- Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the statewide goal of 75%.

Mr. Bahr's letter is attached as Appendix A for reference.

CURRENT RECYCLING PROGRAM

Throughout the years considered in this document, the population of Citrus County has hovered in the 140,000 range. During this time, in addition to private businesses offering recycling of various metals, papers, plastic, and construction and demolition debris, Citrus County has had its own recycling program, offering recycling to its residents for the following materials:

1. Newspaper
2. Old Corrugated Containers (OCC)
3. Mixed papers
4. Office paper
5. Glass bottles and jars
6. Aluminum cans and foils
7. Steel cans
8. Plastic bottles
9. Plastics #1 through #7
10. Scrap metal
11. Tires
12. Waste Vegetable Oil (WVO)
13. Waste motor oil
14. Antifreeze
15. Rechargeable batteries
16. Automotive and Small Lead Acid Batteries
17. Yard trash
18. End-of-life electronics
19. Spent fluorescent lamps
20. Asphalt millings

Items 1 - 9

Recyclables are dropped off by residents at the County's two single-stream recycling centers; these sites limited hours are set by when the Landfill is open to the public. A private business, contracted by the County empties the eight-yard containers, and takes the recyclables to a Material Recovery Facility for processing. Curbside recycling is not currently widely available to the residents of the unincorporated areas of Citrus County, only to residents within the cities of Crystal River and Inverness.

Item 10

Scrap metal is collected at the Central Landfill, and two to three ninety-cubic-yard loads are recycled per week by a private company contracted by the County. In addition, the County's contractor also has roll off containers, for the collection of scrap metal, at the Utilities and at the Fleet complex.

Item 11

Tires from the Central Landfill are transported and shredded for recycling by a private business contracted by the County.

Item 12

Waste vegetable oil (WVO) is collected at the Central Landfill, and recycled by a private company, converting it into biodiesel.

Items 13 - 14

Waste motor oil and used automotive antifreeze are recycled as used commodities by an environmental recycling company contracted by the County.

Item 15

Rechargeable batteries are collected at the Central Landfill and shipped to a private company for reuse of the metals and various chemicals.

Item 16

Lead-acid batteries are collected at the Central Landfill and recycled by a contractor for their non-ferrous metal content.

Item 17

Yard trash is collected at the Central Landfill, ground, and screened by a private contractor into mulch for use by citizens, businesses, and government.

Item 18

End-of-life electronics are collected at the Central Landfill and turned over to a private contractor for reuse of the various components and proper disposal.

Item 19

Spent fluorescent lamps are brought to the Central Landfill where they are pulverized in a bulb crusher, for recycling of the glass, metal and mercury contained therein.

Item 20

Recovered asphalt millings, from County Road resurfacing projects, are recycled and the tonnage reported to the Solid Waste Management Division for inclusion in the Annual Municipal Solid Waste and Recycling Report to FDEP.

A copy of the 2020 County Annual Solid Waste Management Report for Citrus County is attached as Appendix B for reference.

TRANSITION FROM PRESENT TO FUTURE OF RECYCLING IN CITRUS COUNTY

One of the goals for Citrus County is to inform its citizens and businesses the benefits of Citrus County's recycling program. Promoting this program throughout the County should increase the recycling rate. We intend to create and share an informative video of the proper way to recycle to yield the most benefits. This informative video will be aimed at the citizens and businesses within the County to reduce the waste generated, reduce waste put into a landfill, and encourage the recycling of applicable materials. When the county decides whether or not we are going ahead with Universal curbside collection is when we will begin the planning stages of the informational video and decide to what direction we are pushing the video, whether or not it will be for curbside collection or at the current drop off sites.

There have been bigger challenges in meeting the 75% recycling goal this past year compared to prior ones. The recycling rate dropped significantly, and we mainly correlate this with the ongoing pandemic. The Pandemic has put a strain on the recycling aspect of the County primarily due to the ways that the County currently handles its recycling program. The recycling numbers that other businesses normally report was also much lower due to closures, staffing, etc. Also, the Citrus County Central Landfill will no longer be recycling concrete due to the footprint needed in order to expand the current cell. The Landfill will strongly recommend to its users that they take the concrete elsewhere in the County for recycling as it will be a cheaper and more environment friendly option. Glass has also become a net loss for the Landfill and as such will soon be temporarily removed from the recycling program until a more viable option can be found.

Citrus County Board of County Commissioners, following a lengthy study, had decided to start a three-year clock in May 2019, to give Citrus County Private Haulers notice that Franchising may be implemented here in Citrus County. At the end of this three-year period, the Board of County Commissioners will vote on transitioning to franchised universal collection, or leave it as is. The concept is that this will provide for curbside collection of trash, yard waste, and recyclables at each household in the unincorporated areas of Citrus County. (The incorporated cities of Inverness and Crystal River already provide this for their residents.) Curbside collection of commingled recyclables will be available to each and every household, both single-family and multi-family, county-wide. Making curbside recycling available to all Citrus County citizens will result in a substantial increase in the County's recycling rate. Further, by providing collection of yard waste recycling curbside, this will be a viable alternative to many residents simply burning their yard debris. Citrus County has its yard waste ground and screened and the resulting mulch is provided, free of charge, back to the citizens and local businesses for beneficial uses. As a result of countywide curbside collection of this material, there will be a resultant increase in the amount of material recycled, thereby also increasing the recycling rate. A decision should be made whether or not the County will implement this program by the end of calendar year 2021. The decision of implementing Curbside recycling in our County would greatly help our County get closer to the 75% recycling goal. However, if this is decided against then it would make it harder to reach the 75% recycling goal.



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Interim Secretary

TO: Solid Waste Directors of Large Counties (over 100,000 population)

FROM: Tim Bahr, P.G., Director, Division of Waste Management *TD Bahr*

RE: Request for Development and Submittal of County Recycling Program Plans (Identified Counties Only)

DATE: August 31, 2021

In 2008, the Florida Legislature set a statewide municipal solid waste (MSW) recycling goal of 75% by the year 2020. In 2010, the Legislature further directed that the goal be primarily applied to counties with a population of greater than 100,000. In addition, the Legislature set these interim goals for those counties:

Calendar Year	Interim Recycling Goal
2012	40%
2014	50%
2016	60%
2018	70%
2020	75%

Section 403.706(2)(d), Florida Statutes (F.S.), states that if a county does not achieve an interim recycling goal, the Florida Department of Environmental Protection (DEP) "may direct the county to develop a plan to expand recycling programs to existing commercial and multifamily dwellings, including, but not limited to, apartment complexes." In addition, 403.706(2)(b), F.S., that counties implement a program for recycling construction and demolition debris as part of their efforts to attain the recycling goals noted above.

The purpose of this memorandum is to identify those large counties that are directed to submit a plan (your recycling program plan) to expand or otherwise implement their recycling programs to attain the recycling goals established under 403.706(2), F.S. These plans will provide the DEP with valuable information and input during the upcoming year. The statewide recycling rate for 2020 was less than 75%, therefore, the DEP will be incorporating your information into a strategic plan that will be submitted to the President of the

Senate and the Speaker of the House of Representatives by December 1, 2021 pursuant to 403.706(2)(e), F.S.

Attached is a table showing the 2020 recycling rates of all the large counties (i.e., with populations greater than 100,000). Counties without shading on the table have already achieved the 75% recycling goal. For counties with gray shading, we are requesting the following:

- Counties who did not reach the 75% recycling goal, based on their 2020 calendar year recycling rates, are requested to submit a recycling program plan to the DEP by **September 30, 2021**.
- Consequently, the following counties must submit a plan: Alachua, Bay, Brevard, Broward, Citrus, Clay, Collier, Duval, Escambia, Flagler, Hernando, Highlands, Hillsborough, Indian River, Lake, Leon, Manatee, Marion, Martin, Miami-Dade, Okaloosa, Orange, Osceola, Palm Beach, Pasco, Polk, Santa Rosa, Sarasota, Seminole, St. Johns, St. Lucie, Sumter, and Volusia.

At a minimum, the county recycling program plans should include:

- Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper and yard trash;
- Analysis of the percentage of the county's MSW generated by the commercial, multifamily, and residential single-family sectors;
- Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors;
- Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris;
- Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses;
- Strategy (including general timeframes) for expanding your county's recycling programs, or for creating new programs if needed, as part of your county's efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.; and
- Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the statewide recycling goal of 75%.

As a reminder, please note that the rule establishing the method for determining the county's recycling rates in Rule 62-716.480, Florida Administrative Code (F.A.C.), became effective Dec. 17, 2013. This rule establishes the criteria and types of materials for consistently determining each county's recycling rate. Also, for purposes of the requested plan, the term "commercial" includes governmental and institutional establishments.

For those counties that are directed to submit their plans, we look forward to receiving your input and perspective, and we recommend that you reach out to the counties that have met the recycling goal to see if there are any practices that might work in your county. We appreciate the opportunity to collaborate in identifying and supporting strategies for meeting the statewide recycling goals. Please email your plan to Jennifer Simmons at Jennifer.L.Simmons@FloridaDEP.gov by the date indicated.

If you have questions, please contact Jennifer at 850-245-8706 or at the email address above or Suzanne Boroff at 850-245-8933 or by email at Suzanne.Boroff@FloridaDEP.gov

TB/js

Counties Over 100,000 Population (2020)
(in descending population)
 (shaded counties must submit report)

County	Population	Traditional Recycling Rate	Overall Recycling Rate
Miami-Dade	2,832,794	19%	27%
Broward	1,932,212	31%	42%
Hillsborough	1,478,759	49%	64%
Palm Beach	1,466,494	45%	74%
Orange	1,415,260	30%	34%
Pinellas	984,054	51%	78%
Duval	982,080	53%	55%
Lee	750,493	57%	76%
Polk	715,090	31%	31%
Brevard	606,671	60%	62%
Volusia	551,588	49%	49%
Pasco	542,638	37%	57%
Seminole	476,727	33%	35%
Sarasota	438,816	47%	48%
Manatee	398,503	64%	65%
Collier	387,450	70%	74%
Osceola	387,055	35%	35%
Marion	368,135	40%	41%
Lake	366,742	23%	31%
Escambia	323,714	35%	38%
St. Lucie	322,265	42%	43%
Leon	299,484	60%	63%
Alachua	271,588	37%	45%
St. Johns	261,900	28%	28%
Clay	219,575	19%	19%
Okaloosa	203,951	11%	13%
Hernando	192,186	31%	36%
Charlotte	187,904	77%	78%
Santa Rosa	184,653	0%	11%
Bay	174,410	18%	18%
Martin	161,301	46%	46%
Indian River	158,834	53%	53%
Citrus	149,383	27%	27%
Sumter	141,422	49%	53%
Flagler	114,173	44%	44%
Highlands	104,834	29%	29%

COUNTY ANNUAL SOLID WASTE MANAGEMENT REPORTS

ANNUAL | 2020

Citrus County Solid Waste Management Division

County Population [a]: *

149,383

Municipal Solid Waste Collection and Recycling

MATERIAL	COLLECTED TONS	DEP CERTIFIED #'S	NON-CERTIFIED RECYCLING #'S	TOTAL RECYCLED TONS (DEP CERTIFIED #'S + NON-CERTIFIED RECYCLING #'S) [b]	% RECYCLED
Newspaper [c]	1,516	0	0	0	0
Glass [c]	4,973	574	5	579	12
Aluminum Cans [c]	1,159	41	50	91	8
Plastic Bottles [c]	3,306	110	1	111	3
Steel Cans [c]	1,051	33	0	33	3
Corrugated Paper [c]	10,661	1,832	2,236	4,068	38
Office Paper [c]	1,643	11	383	394	24
Yard Trash [c]	22,953		13,029	13,029	57
Other Plastics	12,912	58	489	547	4
Ferrous Metals [d]	21,172	11,611	3,810	15,421	73
White Goods [d]	4,403		2,212	2,212	50
Non Ferrous Metal	2,640	204	2,306	2,510	95
Other Paper	19,068	862	0	862	5
Textiles	4,011	0	0	0	0
C&D Debris	78,105	11,722	2,766	14,488	19
Food	13,495		0	0	0
Miscellaneous	18,284		4,399	4,399	24
Tires	1,358		1,101	1,101	81
Process Fuel [e][f]		0	0	0	
Total Tons MSW Collected	222,710	27,058	32,787	59,845	

MSW Management

Landfilled (including Landfilled Combustor Ash): *	162,865 <i>tons</i>
Gross Combusted (WTE Input): *	0 <i>tons</i>
Landfilled Combustor Ash [g]: *	0 <i>tons</i>
Combustor Material Recycled [h]:	0 <i>tons</i>
Renewable Energy (other than WTE) [ww]:	0 <i>tons</i>
Net Combusted Tons: <i>Combuster Material Recycled</i>	0 = <i>(Gross Combusted + Renewable Energy - Landfilled Combustor Ash - Combuster Material Recycled)</i>
Recycled Tons [b]:	59,845 <i>tons</i>

Tons MSW Collected

Total Tons MSW Collected	222,710 <i>(Landfilled + Recycled + Net Combusted + Stockpiled)</i>
--------------------------	---

Recycling Credits for Landfill Cover [j]

Select the material(s) used to receive landfill cover recycling credits:

- Yard Trash used as landfill cover
- Treated Contaminated Soil (must meet approved levels)
- Other MSW used as landfill cover (excluding yard trash)

Recycling Credits for Yard Trash used as Landfill Cover

	NAME OF LANDFILL	DISPOSED COUNTY YARD TRASH (TONS) [k]	TOTAL DISPOSED YARD TRASH AT LANDFILL (TONS) [l]	YARD TRASH DISPOSAL RATIO [m]	TOTAL YARD TRASH USED AS LANDFILL COVER (TONS) [n]	YARD TRASH/LANDFILL COVER RECYCLING CREDITS FOR COUNTY (TONS) [o]
1	Citrus County Solid Waste	9,771	9,771	1.000000	9,771	9,771.00

Total Recycling Credits for Yard Trash used as Landfill Cover [u]:
9,771.00

Recycling Credits for Renewable Energy

Select the method/s used to receive renewable energy recycling credits:

- Waste-to-Energy
- Landfill Gas Used to Generate Electricity

Renewable Energy (other than WTE)

Recycling Credits for Landfill Gas Used to Generate Electricity:

Yard Trash Only

Other MSW - not including Yard Trash

Yard Trash Receiving Landfill Gas (Generating something Other than Electricity) Recycling Credits

The information provided below will be used to determine recycling credits from yard trash used or disposed in a class I landfill beneficially using landfill gas for something other than the generation of electricity.

The following information must be provided on a per landfill basis.

Yard Trash used or disposed in a Class 1 landfill beneficially using landfill gas for something other than the generation of electricity.

	NAME OF LANDFILL	DISPOSED COUNTY YARD TRASH (TONS) [nn]	TOTAL DISPOSED MSW AT LANDFILL (TONS) [oo]	YARD TRASH DISPOSAL RATIO [m]	MWH EQUIVALENT OF BENEFICIAL USE [pp]	MWH EQUIVALENT FROM YARD TRASH [qq]
1						

Total Recycling Credits for Landfill Gas used to Generate Something Other than Electricity [ss]:

Fuel or Fuel Substitute Recycling Credits

MSW (excluding yard trash, wood and paper) used as fuel or fuel substitute.

Fuel or Fuel Substitute Recycling Credits

	NAME OF FACILITY	GROSS MSW TONS USED AS A FUEL OR FUEL SUBSTITUTE	TOTAL TONS BYPRODUCT WASTE DISPOSED	TOTAL TONS BYPRODUCT RECYCLED	NET MSW TONS USED AS A FUEL OR FUEL SUBSTITUTE [mm]
1					

Total Net MSW Ton used as a Fuel or Fuel Substitute:

Recycling Credits for Process Fuel

Waste Processed at Facility

NAME OF FACILITY	TONS PROCESSED

Total Waste Processed at Facility [rr]:

Recycling Credits for Tires

A. Tires Collected (tons) [rr]	506
B. Recycling Credits:	
i. Energy Use:	0 <i>Used as a supplemental energy use by WTE facilities. This tonnage should have already been included in the Waste-to-Energy Recycling Credits section.</i>
ii. Recycling:	506 <i>Crumb rubber applications and civil engineering uses. This tonnage should have been included in the MSW Collection and Recycling Section.</i>
iii. Other:	0

Land/Road Reclamation Projects

(ex: road base, fill materials)

Processed C&D Used for Land/Road Reclamation Projects (Tons): 0 *This tonnage should have also been included in the C&D and/or Miscellaneous categories in the MSW Collection and Recycling Table.*

Treated Contaminated Soil Used for Land/Road Reclamation Projects (Tons)

- Thermally Treated
- Aerated
- Other

Collection and Recycling by Generator Type

The information requested in this section ask about participation in the recycling services available.

Participating means availability and usage of recycling services. For example, if 500 out of a total 1000 homes have curbside collection service available to them, the availability rate is $(500/1000) \times 100$, or 50%.

Continuing with that example, if 300 homes actually use the service during the month of June, the usage, or participation rate is $(300/500) \times 100$, or 60%.

Residential Single Family

Total Units in County: *	71,211
Residents Per Unit [tt]: *	2.00
Collected Tons from Residential Single Family Units [uu] *	155,897
Recycled Tons from Residential Single Family Units *	41,891
Total Tons MSW Collected	222,710
Total Recycled Tons	59,845

Residential Single-Family Participation in Recycling

Select the service(s) that are available to county units: *

Curbside Collection

Drop-off Stations

Mobile Drop-off

Buy Back Centers

Curbside Collection: *	55,000 # units with service available
Curbside Collection: *	45,000 # units participating in available service
Drop-off Stations: *	71,211 # units with service available
Drop-off Stations: *	6,000 # units participating in available service
Buy Back Centers: *	71,211 # units with service available
Buy Back Centers: *	6,500 # units participating in available service

Residential Multi-Family

Total Units in County: *	2,184
Residents Per Unit [tt]: *	4.00
Collected Tons from Residential Multi-Family Units [uu] *	22,271
Recycled Tons from Residential Multi-Family Units *	5,984
Total Tons MSW Collected	222,710
Total Recycled Tons	59,845

Residential Multi-Family Participation in Recycling

Select the service(s) that are available to county units: *

Curbside Collection

Drop-off Stations

Mobile Drop-off

Buy Back Centers

Curbside Collection: *	2,000 # units with service available
Curbside Collection: *	1,800 # units participating in available service
Drop-off Stations: *	2,000 # units with service available
Drop-off Stations: *	150 # units participating in available service
Buy Back Centers: *	2,184 # units with service available
Buy Back Centers: *	700 #units participating in available service

Commercial

Total Units in County: *	2,126
Collected Tons from Commercial Units [uu] *	44,542
Recycled Tons from Commercial Units *	11,970
Total Tons MSW Collected	222,710
Total Recycled Tons	59,845
Scheduled Recycling Service Collection: *	2,126 # units with service available
Scheduled Recycling Service Collection: *	400 # units participating with available service
On Call Recycling Service Collection: *	2,126 # units with service available
On Call Recycling Service Collection: *	100 # units participating with available service

Generator Totals

Total Tons Collected:	222,710 (Single-Family + Multi-Family + Commercial)
Total Tons Recycled:	59,845 (Single-Family + Multi-Family + Commercial)

County Average Solid Waste Disposal Fees (dollars per ton) (vv)

Select the material(s) and/or services that are collected or provided in your county.

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Class 1 | <input type="checkbox"/> WTE Facility | <input checked="" type="checkbox"/> Yard Trash |
| <input checked="" type="checkbox"/> White Goods | <input checked="" type="checkbox"/> C&D | <input checked="" type="checkbox"/> Passenger Tires |
| <input checked="" type="checkbox"/> Asbestos | <input type="checkbox"/> Out of County | <input checked="" type="checkbox"/> Petroleum Contaminated Soils |

Class 1: *	30.00 Dollar per ton
Yard Trash: *	22.50 Dollar per ton
White Goods: *	0.00 Dollar per ton
C&D: *	60.00 Dollar per ton
Passenger Tires: *	95.00 Dollar per ton
Asbestos: *	90.00 Dollar per ton
Petroleum Contaminated Soils: *	90.00 Dollar per ton

Did you...

Remember to:

- Include the landfill cover recycling credits for the county in the Municipal Solid Waste Collection and Recycling Table?

- Include the tons used as fill materials in the Municipal Solid Waste Collection and Recycling Table?
- Complete the Recycling Credits for the Tires section (if applicable)?

- [a] Official Governor's Office population estimates. This data is not available until April each year (e.g. 2012 data is not available until April 2013). DEP will add the data to county reports.
- [b] Total Recycled Tons= DEP Certified Numbers + Non-Certified Numbers.
- [c] The Legislature established a goal of recycling a "significant portion" of at least four out of these eight materials.
- [d] To establish ferrous tonnage, subtract known white goods tonnage from Certified ferrous tonnage (White Goods + Ferrous Metals = Certified Ferrous.) If white goods tonnage is not known, use 16% of the Certified Ferrous tonnage for this figure.
- [e] The total can count towards no more than one half of the recycling goal for each county.
- [f] Process fuel (yard, wood and paper waste used in process boilers) should not be included in total county tons collected, as they are accounted for in other material categories. They should be counted in total county tons recycled.
- [g] Tonnage of incinerator byproducts (i.e. ash and filtered material) disposed in landfill.
- [h] Tonnage of materials recovered at the incinerator that is recycled (i.e ash and ferrous metals.)
- [i] MSW that has been stored for less than a year and has not been landfilled, recycled nor combusted.
- [j] Recycling credits from landfill cover shall be limited to the amount required for the particular category of cover on a given landfill. Any amount beyond that will be considered disposed MSW and therefore may be eligible to receive landfill gas recycling credits.
- [k] Yard trash tons of the reporting county disposed in a landfill.
- [l] Total tons of yard trash from all counties disposed at the landfill.
- [m] Yard Trash Disposal Ratio = Disposed County Yard Trash Tons divided by Total Disposed Yard Trash Tons at Landfill.
- [n] Total tons of yard trash used as landfill cover at the disposal facility.
- [o] Landfill Tons Attributed to County = Multiply Yard Trash Disposal Rate and Total Yard Trash Tons used as Landfill Cover.
- [p] Disposed MSW tons (excluding yard trash) from the reporting county being sent to a landfill using processed MSW as landfill cover.
- [q] Total tons of MSW disposed at the landfill.
- [r] Disposal Ratio = Disposed MSW Tons (County Tons only) divided by Total Disposed MSW tons at Landfill.
- [s] Total amount of MSW tons used at the disposal facility as landfill cover.
- [t] Landfill Cover Tons Attributed to County = Multiply Disposal Ratio and Total Tons used as Landfill Cover
- [u] Total Landfill Cover Tons Attributed to County (Yard Trash Only) = Total from all landfills using the reporting county's yard trash tons as landfill cover.
- [v] Total Landfill Cover Tons (excluding yard trash) Attributed to County= Total from all landfills using the reporting County's MSW (excluding yard trash) as landfill cover.
- [w] Gross combusted tons from the reporting county received at the Renewable Energy facility.
- [x] Total MSW combusted at Renewable Energy Facility.
- [y] Gross Combusted Tons Ratio = Gross Combusted Tons (County Renewable Energy Input) divided by Gross Combusted Tons at Facility.
- [z] Total Gross Mwh generated at Renewable Energy Facility during reporting calendar year.
- [aa] Gross Mwh Attributed to County = Multiply Gross Combusted Tons Ratio and Gross Mwh Generated at Facility.
- [bb] Yard trash tons of the reporting county disposed in a class I landfill beneficially using landfill gas. Include excess yard trash tons not eligible to receive landfill cover recycling credits.
- [cc] Total tons of MSW disposed at the class I landfill beneficially using landfill gas for the generation of electricity.
- [dd] Total Gross Mwh generated during reporting calendar year at the Class I landfill beneficially using landfill gas for the generation of electricity.
- [ee] Gross Mwh Attributed to County = Multiply Yard Trash Disposal Ratio and Gross Mwh Generated at Landfill.
- [ff] Total tons of MSW disposed at the class I landfill beneficially using landfill gas for the generation of electricity.
- [gg] Total Tons of MSW, excluding yard trash, disposed at a Class I landfill that is beneficially using landfill gas for the generation of electricity.
- [hh] Disposal Ratio = County Landfill tons (not including yard trash) divided by Total Disposed Tons at Landfill.
- [ii] Gross Mwh Attributed to County = Multiply Disposal Ratio and Gross Mwh Generated at Landfill.
- [jj] Total Gross Mwh Attributed to County from all WTE facilities receiving waste from the reporting county.
- [kk] Total Gross Mwh Attributed to County = Total from all landfills receiving yard trash from the reporting county and beneficially using landfill gas for the generation of electricity.
- [ll] Total Gross Mwh Attributed to County from from all landfills receiving MSW from the reporting county and beneficially using landfill gas for the generation of electricity.
- [mm] Fuel Substitute Recycling Credits = Gross MSW Tons used as a fuel or fuel substitute - Total Tons of Byproduct waste disposed and Total Tons Byproduct Recycled.
- [nn] Yard trash tons of the reporting county disposed in a class I landfill beneficially using landfill gas for the generation of something other than electricity.
- [oo] Total tons of MSW disposed at the class I landfill beneficially using landfill gas for the generation of something other than electricity. Also considered Process Fuel.
- [pp] Mwh equivalent methodology to be determined by the county and approved by DEP.

[qq] Mwh equivalent from yard trash = Multiply Percent County Yard Trash Tons and Mwh Equivalent of Beneficial Use

[rr] Amount automatically displayed based on information entered on Tables 1 and 2.

[ss] Total Mwh Equivalent from Yard Trash = Total from all landfills receiving yard trash from the reporting county and using landfill gas for something other than the generation of electricity.

[tt] The Residents per Unit figure for Residential Single Family and Multi-Family can be acquired from the County Planning Department.

[uu] Total Collected Tons= Recycled + Landfilled + Combusted

[vv] If using a range, specify an average value.

[ww] MSW combusted at a renewable energy facility (other than WTE facility) being used for the generation of electricity.

[xx] Total Gross Mwh Attributed to County from all Renewable Energy (other than WTE) facilities receiving waste from the reporting county.

Response created on: May 6, 2021 at 07:24 AM CDT by Joshua.Younce@citrusbocc.com

Response last updated on: May 10, 2021 at 08:47 AM CDT by Joshua.Younce@citrusbocc.com

Clay County



Environmental Services

3545 Rosemary Hill Road
Green Cove Springs, FL
32043

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County Manager
Howard Wanamaker

Commissioners:

Mike Cella
District 1

Wayne Bolla
District 2

Jim Renninger
District 3

Betsy Condon
District 4

Kristen Burke, DC
District 5

www.claycountygov.com



September 29, 2021

Jennifer L. Simmons
Permitting and Compliance Assistance Program
Division of Waste Management
2600 Blair Stone Road, MS4550
Tallahassee, FL 32399-2400

RE: Clay County Recycling Goals Plan

Dear Ms. Simmons,

As stated in the August 31, 2021 memorandum from FDEP to solid waste directors of large counties, the Florida recycling goal of 75% by 2020 includes interim goals for counties with a population greater than 100,000. These interim recycling goals for large counties are 40% by 2012, 50% by 2014, 60% by 2016, 70% by 2018, and 75% by 2020. Clay County (the County) is the twenty-fifth most populated county in Florida, with an estimated population of 219,575 (BEER 2020). FDEP has directed counties that did not meet the interim recycling goal of 75% for 2020 to submit a recycling program plan.

The following is submitted in response to the FDEP memorandum dated August 31, 2021 requesting Clay County's future recycling program plans in accordance with 403.706(2)(d), F.S.

1. Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper, and yard trash.

Clay County utilizes a universal collection program that serves all households within the unincorporated area of the county. Residential services include weekly collection of household garbage, recyclable materials, and yard trash. The county's four municipalities, City of Green Cove Springs, Town of Orange Park, Town of Penney Farms, and City of Keystone Heights also provide curbside recycling collection. These county and municipal residential recycling programs utilize a two-bin, dual-stream collection system. Clay County also provides six residential drop off locations throughout the County that accept recyclable materials. The opportunity to recycle is available to all residents of Clay County through collection these programs. The following recyclable materials are accepted:

Containers:

- Glass Bottles and Jars
- Metal Cans and baking tins (aluminum, steel, tin)
- Plastic containers #1-7 (including clamshells and CD cases)
- Food and beverage cartons

Paper Products:

- Newspaper, catalogs, magazines
- Junk mail, office paper, envelopes, paper bags
- Pasteboard (cereal boxes, drink cartons)
- Books, workbooks, textbooks (including hard back)
- Paper bags, pet food bags
- Corrugated cardboard

The County also provides for the separation and collection of recyclable materials at offices and facilities of Clay County, the Library District, and the Sheriff. Clean corrugated cardboard is accepted for recycling from commercial entities at no charge. Clay County's Rosemary Hill Solid Waste Management Facility includes a: materials recovery facility (MRF), Class I transfer station, construction and demolition debris (C&D) transfer station, yard trash processing facility, large metal recycling facility, and a household hazardous waste facility. Recyclable materials are segregated at the County's MRF and transported to various vendors for further processing. Yard Trash is collected separately and delivered to the Rosemary Hill Solid Waste Management Facility for processing.

2. Analysis of the percentage of the County's MSW generated by the commercial, multifamily, and residential single-family sectors in Clay County for 2020.

22% Residential Single Family

6% Residential Multi Family

71% Commercial

3. Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors.

Drop-off recycling is available to all multifamily dwellings. Commercial and multifamily recycling collection services are available via private hauling companies. We estimate 71% of recycling collected is from commercial customers and 6% is collected from multifamily customers (estimated only).

4. Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris.

Clay County currently does not have plans to process and recycle construction and demolition debris (C&D). There are several private sector companies within the county's area that are recycling selected C&D (concrete, asphalt, shingles, etc.). A long-term hauling and disposal agreement for C&D is in place and the county does not plan on any changes at this time.

5. Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses.

Clay County operates a yard waste processing facility at the Rosemary Hill Solid Waste Management Facility. All curbside yard waste collected within the county is brought to this facility. Commercial yard waste is accepted. All yard waste received at this facility is processed, ground, and transported to the Chesser Island Landfill to be used as intermediate cover and soil stabilization. Yard Trash accounts for 50% of the County's recycling percentage.

6. Strategy (including general timeframes) for expanding you county's recycling programs, or for creating new programs if needed, as part of county's efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.; and

Clay County coordinates collection and management of materials and recyclables from single-family residences in the unincorporated area, whereas each municipality controls its own waste collection program. The County has an exclusive franchise agreement for collecting waste from single-family residences of the unincorporated area of the County. The contractor is required to deliver all solid waste, recyclable materials, and yard trash collected under the agreement to the county owned and operated Rosemary Hill Solid Waste Management Facility (SWMF). The Town of Orange Park and City of Keystone Heights also utilize a contractor for residential collection, whereas Green Cove Springs and Penny Farms utilize city personnel and collection equipment. All waste and recycling collected from the municipalities is also delivered to the Rosemary Hill SWMF. All the Class I and C&D received at the Rosemary Hill SWMF transfer stations is transported to a Georgia landfill, owned and operated by Chesser Island Road Landfill, Inc., a subsidiary of Waste Management, Inc.

The waste generated by multifamily residential units and the commercial sector from the unincorporated areas of the County is collected by non-exclusive franchised waste haulers, which are overseen by the County. As with the residential waste collection, the municipalities manage their commercial waste collection using either a single waste hauler or a non-exclusive franchise system. Orange Park and Penney Farms granted exclusive franchises for commercial collection. Green Cove Springs recently implemented a non-exclusive franchise system for commercial services and Keystone Heights allows for an "open market" for its commercial waste collection.

C&D in the unincorporated areas is collected by franchised haulers. The county's franchised haulers are required to deliver wastes collected within the County to the Rosemary Hill SWMF. Yard waste collected from residences throughout the county and its municipalities is delivered to the Rosemary Hill SWMF, where it is ground into a mulch material.

Clay County employs a dual-stream recyclables collection system for all the single-family residences in the unincorporated areas of the County; participation in the program is voluntary. The unincorporated area single-family recyclables are collected and transported to the Rosemary Hill SWMF. Clay County also operates four Environmental Convenience Centers (ECCs) where recyclables are collected from residents. Residents are also able to drop off recyclables at the Rosemary Hill facility and at a location in the Town of Penney Farms. Clay County's residential recycling program includes newspapers and all inserts, telephone books, hardback and paperback books, magazines, mixed office paper, junk mail and catalogs, shredded paper, corrugated cardboard, paperboard, all household use plastics (#1 through #7), CDs and CD cases, milk/creamer cartons, soup and broth cartons, juice boxes, steel and aluminum beverage containers. Prior to September 2014, recyclables were processed at the county's MRF. In October 2014, the County discontinued its sorting lines and has since been selling the mixed recyclables to private entities for further processing and recovery. This change allowed the County to expand the acceptable materials list for recycling to include plastics #3-7 and CD cases. Based on a participation rate study conducted by the county's hauler, approximately 40% of the unincorporated area single-family residents actively participate in the residential curbside recycling program.

Clay County also collects waste tires, used motor and cooking oils, batteries, e-waste, and white goods at the four ECC's and at the Rosemary Hill SWMF. The County does not control recycling programs and practices at multifamily residences and commercial establishments, their participation is voluntary. Some multifamily developments in the County provide recycling programs through private entities who offer such services.

Clay County controls the flow of a significant portion of the waste generated in the County as a majority of the waste is generated in the unincorporated areas of the County subject to county ordinance. Clay County's solid waste ordinance and county franchise agreements require delivery all of the waste to the County's designated facility. The municipalities primarily use Clay County franchised haulers meaning that most municipal waste, though not under county control, is delivered to the county's facility.

The County recognizes the need to improve its recycling rates for Class I and C&D waste generated from commercial and residential sectors to achieve an overall recycling rate of 75%. The County envisions progressive evaluation and implementation of strategies to gradually increase the overall recycling rate from 20% to the goal of 75%. The County foresees significant challenges in achieving a 75% recycling rate by 2020. The total of recycled materials for Clay County

does not include C&D materials processed by source-segregated debris processing facilities. These facilities, unlike C&D processing facilities, are not required to report quantities of materials processed and recycled. The amounts, if accounted for, may have a significant impact on the overall recycling rate. The County realizes there will be challenges in tracking the amount of C&D processed by these facilities. In addition, the County sees a challenge in accounting for the recycled tonnages from entities that manage less than 600 tons per year of recovered materials and are not required to report their waste stream to the FDEP. This results in underestimation of the recycled tonnage. The County realizes that the lack of a waste-to-energy (WTE) facility near the county negatively impacts the County's ability to increase its recycling rate by obtaining RERCs. The nearest WTE facility (Lake County) is over 100 miles from the Rosemary Hill SWMF. The waste transport cost in combination with a relatively high tipping fee at WTE facilities limits the County's ability, economically, to increase the recycling rate with RERC-associated waste combustion for energy recovery. Several of the proposed options, such as mixed waste processing and C&D recyclables recovery facilities are expected to involve significant capital investment and operating cost, and will therefore significantly increase the materials management cost for the County. The County foresees a significant challenge in obtaining funding for these efforts.

7. Discussion of any additional steps, initiatives and any anticipated challenges the county foresees would be critical for implementing your strategies to achieve the next interim recycling goal of 70% percent in 2018, and ultimately statewide goal of 75% by the end of 2020.

The County is considering implementing multiple strategies to increase the recycling rate while realizing that reaching the 75% recycling goal from the current recycling rate of 20% within 1 year is a nearly impossible challenge. The County is envisioning a progressive increase in the recycling rate of various materials. The County has added public information and social media staff who have and are developing promotional materials, media releases, social media posts, etc. to raise public awareness about the importance of, and benefits to materials recycling. Clay County understands that it will be unable to meet the 75% goal by 2020 without recycling a majority of C&D and significantly more materials from the commercial MSW waste stream. To do so would require construction of a C&D processing facility, and market development for the product materials. This is not currently economically feasible for the county. Increasing amounts of source separated recyclable materials from commercial and institutional entities, depends upon the ability of each to incur additional collection costs. The County encourages such voluntary recycling programs and requires its franchisees to offer recycling service. Currently, there is not support for a mandatory recycling requirement.

After talking to several peers, Recycling Coordinators and staff, it is clear the state is not going to meet the 75% goal and there are more pressing local demands on many recycling programs in the state right now. There should be a discussion among all participants and more realistic goals should be identified.

Sincerely,

Jamey Wilkes
Operations Manager

Collier County



Collier County
Public Utilities Department
Solid & Hazardous Waste Management Division

September 21, 2021

Florida Department of Environmental Protection (FDEP)
2600 Blair Stone Road
Tallahassee, Florida 32299-2400

Re: Collier County Recycling Program Plans

The following information is submitted in response to your memorandum dated August 31, 2021 requesting Collier County future recycling program plans in accordance with Florida Statue Section 403.706 (2)(d).

- 1. Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass bottles, cardboard, office paper and yard trash.***

Collier County services are provided within the boundaries of Everglades City, Marco Island, and the unincorporated areas of Collier County.

Collier County Service Program Recyclable Materials

Steel and Tin cans

Includes steel, tin and aerosol cans, bi-metal containers, and lids composed primarily of whole iron or steel. Paper labels are acceptable. Aerosol cans containing household hazardous waste are not acceptable.

Aluminum

Includes aluminum beverage containers, food trays without food residue and flexible containers.

Glass

Clear (flint), brown (amber) and green food and beverage jars and bottles. Paper labels on glass containers are acceptable. Metal lids should be removed and included.

PET Plastics (No. 1)

Examples included but are not limited to: Plastic soft drink, water, sports drinks, beer, mouthwash, ketchup, and salad dressing bottles. Peanut butter, pickle, jelly, and jam jars. Oven-able prepared food Trays

HSPE Plastics (No.2)

Example includes but are not limited to: Milk, water, juice, cosmetic, shampoo, dish and laundry detergent bottles, yogurt, margarine tubs. Motor oil bottles are not acceptable.

V Plastics (No. 3)

Examples include but not limited to PVC products such as clear food and non-food packaging

LDPE Plastics (No. 4)

Examples included but are not limited to dry cleaning, bread and frozen food bags, squeezable bottles

PP Plastics (No. 5)

Examples include but not limited to compact disc jackets, food service applications, grocery store meat trays, egg cartons, aspirin bottles, cups, plated and cutlery.

Other Plastics (No. 7)

Examples include but are not limited to: Three- and five-gallon reusable water bottles, some citrus juice and ketchup bottles. Preparation of plastics, glass, and metal containers: Remove organics, other contents, and plastic caps, but the inclusion of organics, caps, rings, and labels will not be reason for rejection of Program Recyclables.

Paper Recyclables

Paper Recyclables consist of the following materials, commingled together, except aged, yellowed, or sunburned paper or water saturated paper.

ONP

All loose newsprint is acceptable, including all paper which is distributed with or as part of general circulation newspapers.

OCC

All loose old, corrugated cardboard containers that are flattened and either cut down or folded to size, no more than 3 feet by 3 feet. Staples and tape with water-soluble glues do not have to be removed. Wax-coated corrugated cardboard is not acceptable.

Paper Bags

All loose paper sacks. May be used to hold mixed paper.

Chipboard/Fiberboard/Paperboard

All product packaging materials, such as cereal boxes, packaged food boxes, shoe boxes, and small manufactured item packaging.

Telephone Books

Old telephone directories.

Magazines

Old magazines, including small catalogs and similar printed material with glossy pages.

Mixed Paper

Mixed paper, including shredded paper, including but not limited to the following: junk mail; high-grade paper; white and colored ledger; copier paper; office paper; laser printer paper; computer paper, including continuous-formed perforated white bond or green bar paper; book paper; cotton fiber content paper; duplicator paper; form bond; manifold business forms; mimeo paper; note pad paper (no backing); loose leaf fillers; stationery; writing paper; paper envelopes; carbonless (NCR) paper; tabulating cards; facsimile paper; and manila folders. Paper with metallic, carbon, ammonia or non-soluble glue is not acceptable.

Even though the franchise agreement speaks to some plastic bags and plastic film packaging acceptable materials we are helping in changing the message to take back to your local store for plastic bag and plastic film packaging reuse and recycling options.

Collier County Residential Curbside Collection Service:

- Residential garbage collection is provided two times each week.
- Yard trash is collected curbside at least once a week.
- Program recyclables are collected curbside once a week. Program recyclables includes paper, metal, and glass, and plastic (#1-6, & #7). Program Recyclables are detailed further below.
- Bulk waste (i.e. furniture) is collected curbside at least once a week.
- White Goods are collected curbside once each week. Requests for white goods collection must be made at least forty-eight (48) hours in advance of the next regularly scheduled day for the collection.
- Tires and lead acid batteries and electronic equipment are collected curbside once each week and are limited to (4) four tires and (2) two lead acid batteries per month from any residential customer. A request for this collection service must be made at least forty-eight (48) hours in advance of the next regularly scheduled day for the collection.

Multi-Family Collection Service:

Customers occupying Multi-family residences receive residential collection service or commercial collection service. The type of service is determined if the unit pays the County's special assessment for residential waste collection or commercial rates for collection.

Any multi-family that receives commercial service for garbage is provided commercial recycling services in accordance with County Ordinance 2009-56.

Any Multi-family that receives residential garbage services also receives residential recycling services, as described above.

Commercial Collection Service

Commercial collection service for garbage is provided by the Franchisee for that area in accordance with our franchise agreement that requires commercial customers and the Franchisee to enter a contract for the collection of commercial waste. Rates for garbage collection services are established by the County. Franchise agreement requires a minimum collection frequency for commercial customers be one time per week, with collection not more than seven (7) calendar days apart, except for Holidays.

All businesses within Everglades City, Marco Island and the unincorporated areas of Collier County are required to recycle under the Recycling Ordinance 2009-56. Commercial recycling is a free market.

County owned and operated Recycling Drop-off Centers

Collier County Solid & Hazardous Waste Management Division owns and operates six (6) Recycling Drop-off Centers and one (1) Household Hazardous Materials Collection Center. These strategically located and convenient Recycling Drop-off Centers allow residents to drop off source separated such as, metals, tires, white goods, e-waste, cardboard etc. Monday through Saturday, from 8:00 a.m. to 4:00 p.m. These Centers also allow commercial businesses to drop of certain items, such as cardboard.

1. Tim Nance Recycling Drop-off Center
2. Naples Airport Recycling Drop-off Center
3. Marco Island Recycling Drop-off Center
4. North Collier Recycling Drop-off Center
5. Carnestown Recycling Drop-off Center
6. Immokalee Recycling Drop-off Center
7. Household Hazardous Materials Collection Center

Collier County has two (2) new programs, one being that every recycling drop-off center now has lock boxes for residents to dispose of paper to be shredded at a future date, as well as a paper-shredding event that is held the first Saturday of each month at every recycling drop-off center.

The other new initiative is the polystyrene recycling program. This initiative allows residents to bring all clean polystyrene, excluding packing peanuts to all County owned and operated Recycling Drop-off Centers. This program was initiated after a successful 3-month pilot resulted in (October 2020 – January 1, 2021) over 3000 pounds of foam from over 1400 customers. We continued to advertise our new service and on Jan 1, 2021, we began accepting foam at all our drop off centers. Since then, we have collected over 10,000 pounds of foam from over 8,000 customers. We continue to process the foam at our North Collier Recycling Drop off Center.

The Recycling Centers and household hazardous materials collection center accepts a significant amount of material for diversion such as, but not limited to, mercury devices, batteries, latex and oil-based paints, household chemicals and cleaners, pool chemicals, solvents, glues, paint strippers, waste oil, used oil and filters, antifreeze gasoline, diesel, propane tanks, flares, ammunition, fire extinguishers, electronics, cables, cooking oil, and fertilizers for environmentally safe recycling and disposal.

2. Analysis of any existing recycling programs for the commercial and multi-family sectors including estimated customer participation rates and recycling rates.

Collier County ensures public health, safety, and preservation of natural resources by utilizing a customer -oriented, environmentally sound, and cost-efficient operational approach that provides best value service for approximately over 132,000 residential curbside collection accounts and 5,500 commercial accounts. Collier County has a tourism and part-time resident population. Based upon the number of tons recycled, the Waste Reduction and Recycling Section estimates a very high participation from visitors, patrons, and residents and businesses in Collier County.

Existing Recycling Programs include public education to homeowner associations and education outreach at Commissioner events, public events, and a business award Program (WRAP) to recognize business leaders in the community. The Waste Reduction and Recycling (WRR) Section is also active with the Public-School Curriculum and provides tours of the landfill, recycling centers, provides presentations to all grades.

Collier County's recycling program includes a commercial recycling ordinance 2009-56, which requires businesses to segregate and recycle as many designated recyclable materials as possible, requiring multi-family properties to provide collection customer and recycling services to residents, establishing educational programs concerning educate, and provide incentives programs that will make recycling more attractive. The Waste Reduction and Recycling Section aids businesses, communities, and residents for recycling efforts.

Further analysis of current recycling programs includes partnering with the Franchisee for recycling audits, as well as business audits. The Business audits conducted indicate a high participate level and the WRR section dedicates time and resources for businesses in need of recycling assistance and/or recycling ordinance compliance.

Multifamily residences receive residential collection service or commercial collection service, depending on many factors. A customer occupying a Multi-family residence shall receive residential collection service if the customer pays the County's special assessment. Residential service includes residential recycling services as listed above. It is typical that all units in the community or building receive the same service.

Multifamily units that do not pay the County's solid waste assessment for residential services receive commercial service for garbage collection and recycling services from the Franchisee. Both the garbage and multi-family recycling rates are established by the County.

Businesses in Everglades City, Marco Island and the unincorporated areas of Collier County are required to recycle under the Recycling Ordinance 2009-56. To increase the participation rate of commercial recycling, reduce the recycling contamination rate, and achieve the State of Florida 75% recycling goal staff must complete audits. Waste Reduction and Recycling team provides a comprehensive commercial and multi-family recycling program that requires continuous inspection and audits, multilingual education outreach, presentations, distribution of educational resources and enforcement to approximately 1,000 commercial businesses and 400 multi-family units annually per team member.

There are several challenges to recycling in multi-family and commercial sectors. Messy disposal areas cause litter issues, confusion as to what to be recycled, and insufficient space for recycling containers could lower the amount of material that is getting recycled. To address these issues, the County and Franchise hauler are working together to provide onsite visits, one on one discussions with property managers, attending meetings, providing presentations, and offer educational materials. Collier County plans on enhancing the commercial business recycling program to enhance awareness with conducting business recognition programs in recognizing business that implement innovative approaches to enhance recycling rate by showcasing on County website in addition to being recognized for the waste reduction award program during board meetings.

3. Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris.

Collier County requires the Landfill Operating Contractor to recycle or reuse at least 80% of what is brought in as construction and demolition (C&D). Further, Collier County Landfill crushes and repurpose C&D materials as road base at the landfill and utilizes this material for swale alignment.

The Waste Reduction and Recycling Section is planning to coordinate efforts with the other County agencies, such as permitting to find more businesses engaged in activities, as well as benchmark other County construction and demolition recycling programs. The WRR Section will develop relationships with building contractors, processors, and franchised haulers to encourage the development of strategies to enhance and capture recovery of wood, roofing, concrete, etc.

4. Description of efforts or opportunities to encourage recycling of yard trash and other organic materials or mechanically treated solid waste, into compost or mulch that may be available for agricultural and other acceptable uses.

Currently all residential yard waste is collected from franchisee and reused as cover material in the landfill or processed into mulch for reuse. Per the FDEP report, yard waste calculates to 98% collected and recycled. Collier County captures an abundant of yard waste from external non-certified vendors which repurpose into mulch and composting.

Collier County has discussed working with private and public schools to implement source segregation food scraps in school cafeterias and composting of source segregated organics. Collier County has also started discussion with supporting local University of Florida Extension IFAS in Collier County to expand options for residents to reduce and reuse their waste. Composting is a beneficial way of diverting yard waste and food scraps from the landfill to reduce disposal fees and save valuable airspace. Founded in 2019, there was an external business that helps educate homes that are interested in starting their own backyard composting site. They are striving to serve the SWFL community and normalize composting. We are hoping they strive to possibly partner one day with educational services to the commercial and residential sectors.

5. Strategy (including general timeframe) for expanding your county's recycling programs, or to creating new programs if needed, as part of your county's efforts to achieve the statewide recycling goals set forth in 403.706 (2) F.S

Collier County strategy for achieving the statewide recycling goals set forth in 403.706 (2) F.S. with a timeframe aimed for the next reporting season include:

- Capturing non-certified numbers from vendors such as C&D (aggregate, asphalt millings), food banks, clean concrete & yard waste being used for fill during the land-grading process
- Increase public education through various marketing avenues and with use of educational campaigns directed at commercial recycling and reducing over-all contamination
- Enhance presence in the existing Public-School Program and Engage with private schools.
- Develop multi-lingual marketing campaigns aimed at reducing contamination and general program guidance for curbside and recycling drop-off centers.
- Develop and implement simplified messages and consistent logos to offer existing participants easy to remember methods for recycling and provide others a convenient option for recycling.
- Develop Market strategies that include updating the Division's website, and other forms of media.

The Solid and Hazardous Waste Management Division has recently began utilizing social media for campaigning and marketing solid waste programs, that include recycling. Further, the Division began accepting paper for shredding for free up to 20 pounds once a month, with the additional in fiscal year 2021 everyday up to 5 pounds. This has been a highly participated event. The County also initiated a clean polystyrene (excluding packing-peanuts) at all Recycling drop-off Centers. This program has been a success and resulted in Collier County Receiving the Recycle Florida Today Environmental Sustainability Award. Lastly, the County will continue to keep Recycling Center Drop-off Centers free for residents to encourage the commodity driven market awareness for this critical service.

6. Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the statewide recycling goal of 75%.

Collier County achieved a recycling goal of 74%, an increase of 6% from the previous year, by taking steps to engage with business leaders and communicate in the business industry. Initiatives are inclusive of those mentioned above and will focus on maintaining outreach to the public and focusing on the business industry participants. The largest challenge is overcoming the stigma associated with the cost and efforts of recycling, and communication with the public and businesses. The message needs to be consistent including what materials are accepted and how they need to be separated. Key elements of an effective public education campaign include pre-planning, targeting the audience and stakeholders, branding, messaging, utilizing technologies such as social media developing public relations and media utilization plans and expanding the community involvement and visibility. Recently updated recycling handouts to list common items we do not want in the recycling cart, top contaminants. Include working with external community partners such as Keep Collier Beautiful, local community colleges and universities, public and private schools, neighborhood newsletters, environmental groups, cooperative extensions etc.)

The Collier County feels that there are still opportunities to raise our recycling rate through traditional recycling and do not have reasons to pursue new renewable energy options as waste to energy facilities. Instead, the County will continue its efforts to raise the recycling rates by focusing on outreach and educational efforts to encourage voluntary participation in the recycling program. With actions outlined above we hope to reach the 75% recycling rate and continue to rise in overall recycling as we reach out to the residential and business sectors to implement and capture the non-certified tonnages with commercial entities.

Lastly, the implementing key elements learned at the Recycle Florida Today Conference, allows us to learn new techniques and approaches to achieve the state recycling goal of 75%. By increasing public-private partnerships through organizations and collaborations with schools, club, and non-profits. Knowledge to focus on more than just recycling and include other forms of sustainability such as restoring, reviving, and replenishing. It is essential to market toward all the different types of demographics using different mediums. Research is key to marketing and mass communicating to the public. Recycling is a behavioral change and to be successful at promoting it, there must be a scalable goal. Overall, the information that we learned is extremely valuable and will be implemented into messaging and education pertaining to waste reduction, recycling, and sustainability.

Duval County



ONE CITY. ONE JACKSONVILLE.

City of Jacksonville, Florida

Lenny Curry, Mayor

Department of Public Works
Solid Waste Division
1031 Superior Street
Jacksonville, FL 32254
(904) 255-7500
www.coj.net

September 30, 2021

Ms. Jennifer L. Simmons
Florida Department of Environmental Protection
Permitting & Compliance Assistance Program
Division of Waste Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**Reference: Duval County Recycling Plan
Calendar Year 2020 Recycling Rate**

Dear Ms. Simmons:

Attached please find the FDEP County Recycling Plan for Duval County as required to be submitted per Section 403.706(2)(d), Florida Statutes. The plan is being submitted because Duval County did not achieve the interim recycling goal of 75% by end of year 2020.

If you have any questions, please contact the undersigned at (904) 255-7500.

Sincerely,

**CITY OF JACKSONVILLE
PUBLIC WORKS DEPARTMENT, SOLID WASTE DIVISION**

Eric B. Fuller
Environmental Programs Manager

Cletus Kuhn
Solid Waste Specialist



DUVAL COUNTY RECYCLING PLAN

DUVAL COUNTY, FLORIDA

September 30, 2021

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DUVAL COUNTY RECYCLING PLAN DUVAL COUNTY, FLORIDA

1.0 INTRODUCTION

On behalf of Duval County, the City of Jacksonville has completed this County Recycling Plan for Duval County as required to be submitted per Section 403.706, Florida Statutes. The plan is being submitted because Duval County did not achieve the interim recycling goal of 75% by year end 2020. For calendar year 2020, Duval County had a recycling rate of 55%.

In 2008, the Florida Legislature set a statewide municipal solid waste (MSW) recycling goal of 75% by the year 2020. In 2010, the Legislature further directed that the goal be primarily applied to counties with a population of greater than 100,000. Additionally, the Legislature set interim recycling goals as follows: 40% by year 2012; 50% by year 2014; 60% by year 2016; 70% by 2018; and 75% by year 2020. The recycling rate for Duval County over the past five years has been as follows: 52% in year 2016, 60% in 2017, 59% in 2018, 59% in 2019 and 55% in year 2020.

On August 31, 2021, the Florida Department of Environmental Protection (FDEP) sent a memorandum to large counties that did not meet their 2020 interim recycling goals and requested that they submit a county recycling plan to FDEP by September 30, 2021.

2.0 SOLID WASTE MANAGEMENT AND SUMMARY OF RECYCLING SERVICES

Duval County consists of five cities including the City of Jacksonville, the City of Atlantic Beach, the Town of Baldwin, the City of Jacksonville Beach and the City of Neptune Beach. All waste generated in Duval County that requires disposal in a Class I solid waste disposal facility is flow controlled to the City of Jacksonville-owned Trail Ridge Landfill per City of Jacksonville Ordinance Code Section 386. The City of Jacksonville maintains inter-local agreements with the other cities within Duval County for the disposal of their Class I waste. There is no flow control within Duval County for other forms of waste such as construction and demolition debris or recyclable materials. Each city within Duval County is responsible for the collection of their waste and recyclables. The management of solid waste facilities within Duval County is under the purview of the City of Jacksonville per Ordinance Section 380, Part 1. The City of Jacksonville prepares and submits the annual recycling report to FDEP on behalf of Duval County.

Significant efforts and expense have been undertaken by the cities within Duval County to recycle municipal solid waste (MSW). Currently, all cities within Duval County offer single stream recycling for Duval County residents that is picked up at least every other week. Single stream curbside recycling includes materials such as office paper, newspaper, magazines, paper bags, cardboard, plastics # 1-3, 5 and 7, milk containers, juice boxes, glass (green, brown or clear), aluminum cans and steel cans. Traditional curbside recycling (excluding yard trash) represents approximately 3-5% of all Duval County recycling tonnage. Due to COVID-19 pandemic conditions and labor shortages amongst waste haulers, effective October 4, 2021, the City of Jacksonville will be temporarily suspending its curbside recycling collections and opening 14 recycling drop off centers spread throughout the City. The program recyclables accepted at these drop off locations will be the same as those collected as part of the curbside program. Curbside recycling collections within the City of Jacksonville shall resume once waste haulers are able to be sufficiently staffed to collect garbage, yard trash and recyclables on all regularly scheduled routes.

The majority of residential yard trash generated in Duval County is collected curbside from residents and taken to Trail Ridge Landfill where it is currently mulched and used as daily cover in accordance with the landfill's permit conditions. The usage of mulched yard trash for cover material has historically accounted for approximately 5-10% of Duval County's overall recycling tonnage.

Tires are collected from City of Jacksonville residents at curbside at no additional charge. The tires collected are taken to Trail Ridge Landfill's tire storage area and eventually transported to where they are recycled in a variety of ways which count as recycling credit. In addition, tires that are hidden in loads that are dumped at the working face of the landfill are pulled off the landfill, placed in the tire storage area and transported for recycling. During the years 2014-2019, the City of Jacksonville held a tire buyback event where Duval County residents could bring in waste tires and receive payment for each tire. This tire buyback event was held in order to encourage residents to clean up the County of waste tires, reduce the blight caused by tires and reduce breeding grounds for mosquitoes. The City of Jacksonville funded this effort and it was scheduled to occur in 2020 and 2021; however, the event was cancelled due to the COVID-19 pandemic. This event has averaged the collection of over 21,645 tires per year which were previously taken to Ridge Generating Station for incineration and Duval County recycling credit.

The City of Jacksonville offers free pick-up of appliances at curbside for its residents. The appliances that are collected curbside are taken to a metals recycler which ultimately provides additional recycling credits for Duval County.

The City of Jacksonville offers free drop off of household hazardous wastes to all Duval County residents. Household hazardous wastes accepted includes gasoline, motor oil, cooking oil, antifreeze, electronic wastes, batteries, paints, pesticides, herbicides, fluorescent bulbs, and pool chemicals. The City of Jacksonville has a household hazardous waste facility that is open year-round, five days a week and eight hours each day. In addition to the stationary facility, the City of Jacksonville holds 12 remote collections events at various areas of the County for residents to bring in their household hazardous wastes. Many of the household hazardous wastes that are collected are ultimately recycled.

3.0 ANALYSIS OF MUNICIPAL SOLID WASTE GENERATED

The vast majority of MSW generated in Duval County originates in the City of Jacksonville. The percentage of MSW generated for each city within Duval County for the year 2020 was estimated as follows: City of Jacksonville 95%; City of Atlantic Beach 1%; Town of Baldwin <1%; City of Jacksonville Beach 3%; and the City of Neptune Beach 1%.

A further breakdown of the MSW generated by the various commercial, multi-family and single-family residential sectors for the year 2020 was estimated as follows: residential single family 19%; residential multi-family 4%; and commercial 77%. The percentage of overall recycling attributed to the various commercial, multi-family and single-family residential sectors for the year 2020 was estimated as follows: residential single family 34%; residential multi-family 9%; and commercial 62%.

City of Jacksonville Ordinance Section 380, Part 5 makes residential recycling mandatory. Seven compliance inspectors and officers oversee the curbside collection efforts by the City and its three subcontract residential haulers. The City has made a significant investment to maximize the curbside recycling effort by entering into contracts with all three subcontract residential haulers to use automated collection efforts and equipment. The effort has resulted in an approximate doubling of the tonnage of recyclable materials that are collected at residential curbsides over the past several years. The City has invested in this effort by authorizing the subcontract haulers to

purchase new automated collection trucks and 96 and 64 gallon recycle containers as part of their contracts. The City has also directly invested in this effort by purchasing new collection trucks and recycle containers for its core service area. This investment by the City literally represents millions of dollars pledged to increase recycling rates to meet the state's recycle goals. It is currently estimated that approximately 60% of the county residents participate in recycling. Recycling participation rates amongst residents appear to vary based on geographical and economic areas of the county. Recycling rates in the core city area and in the more rural areas of the county tend to have the lower participation rates while the suburb areas have the higher participation rates.

Commercial/multi-family recycling is currently done on a voluntary basis and is not mandated by ordinance. Small commercial establishments that receive city service have high participation rates but services are only offered to small commercial establishments. Participation and recycling rates amongst the commercial/industrial sector that handles yard trash and construction and demolition debris (particularly concrete) appears high, especially with favorable economic conditions. The commercial recycling market for metals and cardboard appear to be steady but many other commercial recycling markets are depressed.

4.0 SOLID WASTE MANAGEMENT FACILITIES AND RECYCLING

Duval County has one of the most comprehensive solid waste management facilities program in the state of Florida. City of Jacksonville Ordinance Section 380, Part 1 outlines the duties of the City in regulating solid waste management facilities within Duval County. All solid waste management facilities are required to have a Certificate of Public Convenience and Necessity ("CON") issued by City Council in order to operate. This certificate covers all different types of solid waste management facilities including landfills, construction and demolition debris (C&DD) recycling facilities, concrete recycling facilities, vegetative debris/yard trash mulching/recycling facilities, biomedical waste sterilization facilities and incineration facilities. Each of these facilities is required to weigh all incoming and outgoing materials and provide monthly reports to the City of Jacksonville's Solid Waste Division. The operation of these solid waste management facilities results in a large portion of the commercial recycling percentage within Duval County.

4.1 Landfills

The landfills located within Duval County follow the FDEP's procedure on recycling materials that are economically feasible to do so. Because the recycling market is currently depressed, the recycling of materials that are taken to the County's various landfills do not represent much in the way of recycling based on incoming waste streams. Landfills do, however, provide opportunities for recycling by utilizing mulched yard trash as daily cover and the opportunity for collection of landfill gas (discussed in Section 5).

4.2 Construction and Demolition Debris

There are numerous C&DD recycling facilities located within Duval County including three full C&DD recycling facilities and ten concrete/clean debris recycling facilities. Concrete recycling facilities typically recycle over 98% of all incoming materials.

4.3 Yard Trash/Vegetative Debris

The City of Jacksonville currently regulates six yard trash/vegetative debris facilities within Duval County. The facilities are spread over various areas of the county which provides disposal/recycling opportunities for companies performing land clearing operations, landscape maintenance and similar type activities. The recycling rate for these facilities is in excess of 98%.

Recent challenges of finding facilities which accept mulched vegetative debris for use as boiler fuel has put a strain on the economic viability of these facilities. Many facilities which historically used vegetative debris as boiler fuel are looking to natural gas as a fuel source. Additionally, Alachua County's energy facility in north-central Florida has operated intermittently which has further reduced the choices of mulching facilities to find end users of their recyclables.

5.0 WASTE TO ENERGY

The City of Jacksonville's existing Trail Ridge Landfill has a waste to energy (WTE) plant that utilizes the landfill gas for the production of electricity by six (6) engines that use landfill gas as the fuel source. This is the primary source of Duval County's renewable energy recycling credits. The City of Jacksonville has a three party agreement with Trail Ridge Landfill, Inc. (a.k.a. Waste Management) as the operator of the landfill, a private energy company which operates the WTE plant, and the City which is the permit holder for the Title V air permit and owner of the landfill. The three party agreement details the responsibilities of the parties as it relates to the operation of the landfill and gas destruction via the electric-generating engines. The City receives \$193,500 per year for the sale of the gas and spends hundreds of thousands of dollars per year on expanding the gas system as waste is placed both horizontally and vertically within the disposal units. The three party agreement allows the WTE plant to install up to six additional engines for a total of twelve (12) engines that can convert the landfill gas to electricity. The plant currently produces enough electrical output to power a little over 5,000 homes and would increase if additional engines are added. Each of the engines can produce 1.6 megawatts of power for a total of 19.2 megawatts of power. The landfill infrastructure has a house load of approximately 0.5 megawatts which would allow the WTE plant to produce approximately 18 to 18.7 megawatts of power at full engine capacity. The City of Jacksonville recently invested over three million dollars in the replacement of gas collection wells, headers, manifolds and ancillary piping including pumps and condensate sumps to maximize gas flow to the plant. Trail Ridge Landfill's newest disposal unit is currently in the process of installing a gas collection system into this area which will collect landfill gas and use it to power a new leachate evaporator system planned for the site.

6.0 RECYCLING ANALYSIS AND STRATEGIES FOR INCREASING RECYCLING RATE

6.1 Traditional Recycling

An analysis of Duval County's recycling statistics verses those of other counties with higher recycling rates was conducted. Traditional recycling rates of other counties' commodities were very similar to Duval County with the exception of the commodities of yard trash and construction and demolition debris. Generally speaking, the traditional recycling rates of other counties that had high recycling rates had commodity recycling percentages of their total traditional recycling that were no more than 3% higher than Duval County with the outliers of corrugated paper, food, miscellaneous, yard trash and construction and demolition debris. As indicated previously, Duval County is one of the few counties in Florida that actually independently regulates solid waste management facilities in their county and requires them to weigh their materials on an incoming and outgoing basis. Other counties rely on estimated cubic yard or tonnage amounts of yard trash and construction and demolition debris. Weights of yard trash and C&D material vary widely by content of load which can lead to a significant variance in cubic yard to tonnage conversion rates for these materials. Based on this analysis of traditional recycling commodities, it does not appear that other counties with higher recycling rates are ahead of what Duval County is currently doing. Further, it would appear that other counties with higher rates may have had large construction projects in their area or had high estimates/used high conversion factors for their yard trash and construction and demolition debris recycling

tonnages. It is worth noting the significant variance of yard trash tonnage collected per capita in FDEP's recycling reporting by county. Whereas Duval County has a reported population of 982,080 people with a collected yard trash tonnage of 298,188 tons, an approximate 3.3:1 ratio, Charlotte County has a reported population of 187,904 people with a collected yard trash tonnage of 250,645 tons, an approximate 0.75:1 ratio. Other counties have reported yard trash tonnages approaching a 1:1 ratio or 2:1 ratio of population to ton of yard trash which in many cases, correlates to a high recycling percentage for those counties largely based on yard trash totals. The variance of yard trash collected tons per capita is likely related to the conversion factors and cubic yard estimates of this waste stream. Examination of these numbers, along with C&D debris estimates, becomes an important factor when considering what recycling goals are realistic for the counties/state.

6.2 Waste to Energy/Renewable Energy Recycling

Two out of the three large counties in Florida that are currently making their 75% recycling goal are doing so based on high renewable energy credits. These high renewable energy credits provide some large counties with up to 27% of their recycling total. The renewable energy recycling credits for these counties are received based primarily on the incineration of their trash. Not all Florida counties have readily available resources to establish high renewable energy credits. Duval County currently has a city-owned landfill that has permitted capacity for approximately another 25-30 years. The cost of landfilling is significantly less expensive than the incineration technology currently available. Investing in waste to energy technology through trash incineration would require significant capital investment for Duval County and does not appear feasible at this time. Duval County regularly monitors the cost of waste to energy processes and meets with vendors to discuss their products when new technologies are identified. As previously discussed in Section 5 of this report, Duval County has recently invested a considerable amount of money in increasing the landfill gas production at Trail Ridge Landfill to bolster our county's renewable energy credits. We have also examined the possibilities of implementing landfill gas collection systems at older disposal sites; however, economic conditions (including the low price of natural gas) have made this pursuit not economically viable.

6.3 Strategies for Increased Recycling

Duval County currently provides an extensive amount of recycling opportunities for the residents of Duval County. Curbside single stream recycling, appliance recycling, tire recycling and household hazardous waste collection and recycling are all provided. Recycling is not a revenue generating activity based on current markets and these programs should be viewed as a substantial effort and commitment by Duval County to recycling. Residential recycling is mandatory per City of Jacksonville ordinance; however, recycling participation rates are estimated to be around 60%. The City of Jacksonville has been conducting outreach and education methods to increase participation rates and reduce recycling contamination amongst residents. The City of Jacksonville has participated in FDEP's Rethink, Reset, Recycle media program as well as going on local television to discuss the City's recycling program. Further, the City's subcontract recycling facility, Republic Services, Inc., has also done outreach into the community, including appearing on local television news stations to discuss recycling. The City of Jacksonville is in the process of entering into a grant agreement with The Recycling Partnership with an over \$550,000 City match of funds. The relationship with The Recycling Partnership will seek to improve the quality and quantity of the City's recyclables and will include inspections of curbside recycling carts at all premises to determine cart composition and contamination, public education and outreach and an in-depth analysis of the City's recycling stream.

Multi-family and commercial recycling is not currently mandated within Duval County. The City of Jacksonville provides collection service to a small number of multi-family units and small commercial establishments but many of the multi-family and commercial units throughout the county rely on the private owners to provide any sort of recycling services. Market conditions are currently the main driver of such recycling services and this mostly means an additional cost to owners of commercial properties. The City is examining the potential to require mandatory recycling for multi-family units or for newly permitted/constructed facilities to have a dedicated space for recycling dumpsters to serve their residents. Recycling in the commercial/industrial sector for yard trash and construction and demolition debris appears steady but there may be opportunities for increased recycling amongst commercial office facilities and small businesses. The City of Jacksonville is examining policy for ways to promote, incentivize and/or mandate recycling within the commercial sector.

Waste to energy/renewable energy recycling credits are currently provided to Duval County through collection of landfill gas and subsequent conversion to energy at Trail Ridge Landfill. The City of Jacksonville has worked toward maximizing the gas collection at the landfill and hence maximizing our available renewable energy credits. Limited opportunities currently exist for Duval County to increase renewable energy credits without significant capital expenditures toward incineration technologies. Duval County will continue to monitor and track technologies for cost effectiveness of waste incineration technologies.

7.0 STATEWIDE OPPORTUNITIES FOR REPORTING AND INCREASED RECYCLING

In examining ways for increased recycling potential and opportunities statewide, several possibilities were identified that could be provided to assist counties in reaching their goals. Below are some suggestions for consideration:

- The FDEP currently requires registered vegetative debris facilities to provide their annual tonnage amounts in July for the previous year. Changing the reporting requirements of these facilities to a time period earlier in the year (say February or March) would allow this information to be included on county recycling reports.
- Consideration of counting vegetative land clearing debris (specifically trees not planted for silviculture) taken to a lumber mill as eligible recycling.
- Providing recycling credit for used oil recycling and have FDEP provide counties with the amounts (gallons or tons) of used oil recycled by county.
- Providing recycling credit for vehicular (car/boat/truck, etc.) batteries and have FDEP provide counties with the amounts (tons) of batteries recycled by county.
- Provide greater enforcement and availability of the reporting of textile recycling by county. It appears that many facilities required to report their textile recycling to FDEP are not providing this information.
- FDEP reviews all county recycling reports and may be approving various recyclables/recycling methods available but not utilized by many counties. If these alternant sources of recycling credit are available, it is suggested that FDEP provide these recycling methods (and others) to all counties so that they may also utilize these methods of reporting.
- Provide regulatory incentives and benefits for waste to energy technologies to potentially expand this market in terms of tire and shingle incineration to create energy.

- Consider providing renewable energy recycling credits for counties utilizing solar power for electric generation. Credits could be established based on the tonnages of coal burning residuals (waste) that would not be generated by utilizing solar power.

8.0 CONCLUSIONS

Duval County has expansive recycling programs currently in place offering county-wide single stream recycling of a large variety of recoverable materials, tire recycling, appliance recycling and household hazardous waste collection and recycling. Analysis of Duval County's traditional recycling verses other large counties that are currently achieving the state goals indicates that Duval County matches up well with these other counties except in the areas of yard trash and construction and demolition debris. Duval County has a comprehensive solid waste management system for the tracking of yard trash and construction and demolition debris tonnage – perhaps the most comprehensive system in the state. It would appear that other counties with higher rates may have had large construction projects in their area or had high estimates/high cubic yard to tonnage conversion rates of their yard trash and construction and demolition debris recycling tonnages. Weights of yard trash and C&D material vary widely by content of load which can lead to a significant variance in cubic yard to tonnage conversion rates for these materials. Since Duval County requires actual weighing of these materials at County solid waste management facilities, there is greater assurance of the accuracy of reporting related to these waste streams. Examination of per capita generation of yard trash and C&D indicate large variances between Florida counties. One of the four large counties making the FDEP's interim recycling goal has reported collecting greater than a one ton of yard trash per person. Several other counties with high recycling rates also have a high per capita yard trash collection rates of 2:1 or greater. It would appear that Duval County's apparent lower collection and recycling of yard trash and/or C&D debris is likely more of a function of other county's cubic yard estimates and tonnage conversion rates.

Other large counties currently achieving their state goals are doing so based largely on high renewable energy credits from the incineration of trash. Not all Florida counties have readily available resources to establish high renewable energy credits. Duval County currently has permitted landfill space of another 25-30 years which is more economical than incineration. Duval County has invested heavily in the gas collection system at the City's Trail Ridge Landfill to increase the amount of gas collected and subsequent energy creation.

The City of Jacksonville and Duval County have conducted media outreach efforts along with our subcontract recycling contractor in order to increase the quantity and quality of recyclables. The City of Jacksonville is in the process of entering into a grant agreement with The Recycling Partnership with an over \$550,000 City match of funds. The relationship with The Recycling Partnership will seek to improve the quality and quantity of the City's recyclables and will include inspections of curbside recycling carts at all premises to determine cart composition and contamination, public education and outreach and an in-depth analysis of the City's recycling stream.

There are significant hurdles to achieving a 75 plus percent recycling rate including a depressed recycling market, cross-contamination of single-stream recyclables, capital costs for implementing programs and the current economic practices and policies of foreign market end users of bulk recyclable materials. Without "new" recycle methods and materials (or a changing of rules as to what counts as recycling), it will be extremely difficult for counties such as Duval that rely more on traditional recycling for the majority of its credits to reach the state's ultimate recycling goals. Duval County has identified several suggestions for FDEP to consider that may be a benefit to all counties in increasing their recycling percentages. It is also suggested FDEP

review if these current interim recycling goals are realistically and economically achievable for the majority of counties which do not engage in trash incineration and, in doing so, examine reported per capita waste generation for yard trash and C&D debris to ensure some consistency and accuracy. Duval County will continue to look at ways of providing an efficient and cost-effective solid waste management system that includes an emphasis on recycling.

Escambia County



Patrick T. Johnson, Director
Waste Services Department

Escambia County Recycling

On August 31, 2021 Escambia County Waste Services Department received notification from the Florida Department of Environmental Protection (FDEP) concerning the interim recycling goal of 75% by 2020. It is understood FDEP may request from counties who fail to meet interim goals a plan to expand recycling within their jurisdictions. Escambia County received 38% recycling rate. The state's recycling rate for 2020 is 50%. During this period, we experienced COVID-19 and Hurricane Sally resulting in more waste generation however, recycling commodity markets declined resulting in many recyclables being landfilled. Consequently, more waste generated and less recycled.

Escambia County's recycling programs are volunteer and include the following:

- Residential/Commercial Collection
- Yard Waste Composting
- Yard Waste Grinding/Screening
- Vegetation Grinding
- Recovered Materials Processing Facility (RMPF)
- E-waste Recycling
- Waste-to-Energy (LFG)
- Concrete Crushing
- Two Citizen Recycling Drop Off Sites
- Waste Oil Recovery
- Oyster Shell Collection
- Organic Waste Screening
- Re-blended Paint
- Scrap Metal
- Contracted recyclables collection for County owned facilities
- Various large retail recyclers e.g., Walmart, Publix, etc.
- Battery recycling
- Household Hazardous Waste Regional Roundups
- Commercial Solid Waste Collection Franchise Agreement

Large volumes of Construction and Demolition Debris (CDD) including land clearing debris continue to be landfilled primarily due to inexpensive disposal options. This trend is likely to continue due to a permitted Class III facility in neighboring Santa Rosa County.

CDD, multi-unit dwelling and vegetation recycling are areas for improvement for Escambia County. Compared to Escambia County, counties with higher CDD multi-unit and vegetation recycling rates typically have mandatory recycling programs, large waste incinerators, higher disposal rates and/or a combination of each.

Escambia County has invested significant time and money to pursue technology to improve recycling. Projects were deemed cost prohibitive due to the risk and high cost to taxpayers.

As requested, please accept the following as it pertains to Escambia County:

• Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper and yard trash;

Volunteer residential curbside collection of recyclables is offered in the incorporated and unincorporated areas and two Drop Off Centers strategically located throughout the county. These materials are typically processed through one publicly owned/operated RMPF. Additionally, residential and commercial yard trash is collected curbside and composted or beneficially reused.

• Analysis of the percentage of the county’s MSW generated by the commercial, multifamily, and residential single family sectors;

For Escambia County, the percentage of MSW generated from the commercial sector is approximately 56%, MSW generated from residential sector approximately 30%, MSW from multifamily is approximately 14%.

• Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors;

Existing privately operated recycling programs are economically driven. In addition to typical scrap processors, Emerald Coast Utilities Authority (ECUA) offers recycling for the commercial sector which accepts a large menu of items processed at a publicly owned/operated MRF. Private Commercial participation rates are minimum. Participation and recycling rates are as follows:

- Estimated customer participation rate for commercial sector is approximately 17%. Data required for this estimate extremely difficult to obtain from the private sector.
- Estimated customer participation rate for multifamily sector is approximately 10%.
- Estimated customer recycling rate for commercial sector is approximately 42%.
- Estimated customer recycling rate for multifamily sector is approximately 30%

• Description of the county’s implementation, including any planned changes for your program for recycling construction and demolition debris

No changes are currently planned. Due to the low cost of CDD disposal in our region, processing appears not economically viable.

• Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses

Currently there are three vegetation processing operations and one organic materials processing operation in place. Escambia County has permitted LCD disposal facilities with inexpensive disposal rates. Low disposal rates are often much less expensive than vegetative processing costs.

• **Strategy (including general time frames) for expanding your county’s recycling programs, or for creating new programs if needed, as part of your county’s efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.**

Strategic goals to be implemented calendar years 2021/2022:

- Goal is to maintain existing programs.

• **Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the statewide goal of 75%.**

Significant challenges critical to achieving the recycling goal are:

- Obtaining data from private sector operations that is typically deemed proprietary by the companies.
- With limited staff, it is very difficult to conduct labor intensive research efforts for new waste diversion activities in our community with a result of very low increases in the recycling rate.
- Based on informal rate surveys of CDD processors in Florida, it is apparent CDD landfilling in this region is much less expensive than processing. Also, there has been significant private investment made into a permitted, unopened CDD landfill located in Escambia County as well as neighboring Santa Rosa County.
- The requirement that all wastes need to be accounted for in the County tonnage, yet certain wastes are excluded from non-certified recycling numbers based on origin (e.g., bio solids mixed with compost).
- Unstable market for sale of commodities.
- The current recycling credit calculation method appears to not allow credit for positive impacts to reducing carbon footprint resulting from recycling

On behalf of the Escambia County Waste Services Department, I would like to thank FDEP and staff who have been very helpful assisting Escambia County along with other counties, through education and outreach activities. Their commitment and dedication to share best management practices and promote recycling across the state are greatly appreciated.

Regards,

Patrick Johnson, Waste Services Department

Flagler County

General Services

1769 E. Moody Blvd, Bldg. 5
Bunnell, FL 32110



www.flaglercounty.org

Phone: (386) 313-4020

Fax: (386) 313-4120

September 21, 2021

Flagler County Recycling Plan

Prepared by: Tishia Peterson

Flagler County has a two-part recycling program. Part one is our residential curbside collection which includes yard waste and is offered to any county resident with trash collection services. Part two is our community drop-off locations.

The recycled materials collected include Newspaper, aluminum cans, plastic bottles, steel cans, corrugated boxes, office paper, yard trash, other plastics, ferrous and non-ferrous metals, white goods, other paper, textiles, C&D debris, and tires.

Flagler County's generated 2020 MSW is:

Residential Single-Family: 46%

Residential Multi-Family: 32%

Commercial: 22%

Current efforts in Flagler County are focused on residential recycling. Fifty percent of our residents utilize curbside recycling services, and fifteen percent use drop-off locations. All recycling in Flagler County is entirely voluntary. C&D is picked up by our contracted solid waste collector, transported to the nearest transfer station located out of the county, and then sorted and recycled. Also, residents can personally take their C&D material to any transfer station location of their choice to dispose of it at their convenience.

The commercial businesses that recycle use a dumpster at their place of business, which is also collected by our contracted solid waste collector. Yard waste is also collected by them and taken to an in-country location, where it is turned into mulch and reused for various projects.

The goal of Flagler County would be to meet the recycling percentages in the time frame set by the legislature or work as diligently as possible to reach that goal promptly. At the same time, we are keeping in mind our residents and the effort to keep the financial impact on them very minimal as we try to achieve our recycling goals.

To achieve this goal and get our residents to recycle more, we continue to work with our contracted solid waste collector to educate our residents on recycling. Together, we agreed that more recycling education is essential to meet that goal. Our contracted solid waste collector distributes literature to our residents in the form of recycling books and

Andy Dance
District 1

Greg Hansen
District 2

David Sullivan
District 3

Joe Mullins
District 4

Donald O'Brien, Jr.
District 5

flyers that lists the benefits of recycling, all recycling particulars, and the services available to them in our community.

Even with more education on recycling, we feel that without a mandatory recycling program within our county, it will be challenging to obtain the state goal of 75% in 2021.

If you have any questions about our steps or goals, please call my director or me.

Thank you,

Hernando County



DEPARTMENT OF SOLID WASTE

SOLID WASTE ♦ RECYCLING ♦ SW CODE ENFORCEMENT ♦ FINANCE ♦ HOUSEHOLD HAZARDOUS WASTE

14450 LANDFILL RD ♦ BROOKSVILLE, FLORIDA 34614

P 352.754.4112 ♦ F 352.754.4118 ♦ W www.HernandoCounty.us

September 3, 2021

Jennifer L. Simmons
Florida Department of Environmental Protection
2600 Blair Stone Road MS 4550
Tallahassee, Florida 32399-2400

Re: Hernando County Solid Waste and Recycling
Recycling plan

Dear Ms. Simmons:

Hernando County continues to maintain a two-part approach to recycling; a residential curbside collection program and community drop off containers.

The curbside collection program is offered at no additional charge to any county resident that has curbside trash service. The curbside program includes one day per week collection of dual stream materials and one day per week collection of yard waste. The dual stream collection includes paper products, paperboard, white paper, newspaper, corrugated cardboard, rigid plastics containers, tin cans, and aluminum cans.

The community drop-off containers serve both residential customers and commercial users that do not have recycling collection services or have larger quantities of material. The materials collected include paper products, paperboard, white paper, newspaper, corrugated cardboard, rigid plastics, tin cans, and aluminum cans. The drop-off program also includes yard waste at select locations.

The County also provides drop off centers for metal, tires, paint That are also reused or recycled.

Hernando County has worked with Republic Services, the local residential hauler, to increase single family curbside recycling. The curbside collection program has grown from four full time routes in 2015 to nine in 2021. Currently, Republic is now using two split body collection vehicle that offer more cargo space to meet the growing needs of residents.

The County is also in the process of permitting a bio-solids/yard waste composting operation to be located at the Northwest Landfill. Material produced by the composting operation will be offered for sale bagged or for bulk pick-up.

The goal of the County is to work as diligently as possible to produce positive results in a timely fashion. The county is committed to using a mix of existing and emerging methods that are well suited to our community, while minimizing the financial impact to our citizens

Sincerely,

Scott Harper
Solid Waste Services Manager
Hernando County

Cc: Gordon Onderdonk
Carmen Bruno

Highlands County



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ENGINEERING**

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September 30, 2021

Tim Baer, P.G. Director
Division of Waste Management
Florida Department of Environmental Protection
2600 Blair Stone Road
MS #4500
Tallahassee, FL 32399-2400

RE: HIGHLANDS COUNTY RECYCLING PROGRAM PLAN

Dear Mr. Baer,

The following information is submitted in response to your letter dated August 31, 2021 requesting Highlands County's future recycling program plans in accordance with Florida Statutes Section 403.706(2)(d).

Background and Regulations

In 2008, the Florida Legislature set a statewide municipal solid waste (MSW) recycling goal of 75% by the year 2020. In 2010, the legislature further directed that the goal be primarily applied to counties with a population of greater than 100,000 with interim goals as follows:

Calendar Year Interim Recycling Goal

2012	-	40%
2014	-	60%
2016	-	70%
2018	-	70%
2020	-	75%

Highlands County just within the last couple years exceeded the 100,000 - population threshold thereby requiring the county to meet the interim recycling goals. Highlands County did not meet the 2020 recycling goal.

This report is being submitted to satisfy the requirements of Florida Statutes Sections 403.706(2)(b), 403.706(2)(d), and 403.706(2)(e) as follows:



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403.706 (2)(b) F.S.: Directs that counties implement a program for recycling construction and demolition debris as part of their efforts to attain the recycling goals noted above.

403.706(2)(d) F.S.: States that if a county does not achieve an interim recycling goal, the FDEP “may direct the county to develop a plan to expand recycling programs to existing commercial and multifamily dwellings, including, but not limited to, apartment complexes.”

403.706(2)(e) F.S.: States that if the State does not achieve an interim recycling goal, the FDEP will provide a report to the President of the Senate and the Speaker of the House of Representatives. The report shall identify those additional programs or statutory changes needed to achieve the recycling goals.

Summary of Recycling Services and Materials

Switch from Single Stream Recycling to a Recycling Drop of Center Program

Highlands County approved a contract with Waste Connections for waste collection and disposal services in June, 2016 and implemented as part of that service a curbside single stream recycling program in April, 2017. That program offered recycling of aluminum and steel cans, mixed paper, cardboard and plastic containers #1-7. Each resident was provided with a maximum 65 gallons recycling can as part of the curbside recycling collection program which was offered as part of the annual non-advalorem assessment for curbside garbage service to approximately 38,000 single and multifamily residences in the unincorporated areas of Highlands County. The curbside program included one day per week garbage collection, one day per week collection of single stream recycling materials and alternating weekly collection of yard waste and bulk waste. As part of the solid waste and recyclable materials collection contract, the contractor, Waste Connections, constructed a recycling transfer facility (RTF) that is owned and operated by the contractor at the Highlands County Solid Waste Management Center (HCSWMC). The contractor would transport and dump the single stream recyclables at the RTF where they would then be loaded into live bottom trailers that transported the materials to processing centers in either St. Petersburg or Miami, Florida.

After struggling with high rates of contamination with the curbside recycling program and failure of all attempts of recycling education and instruction to reduce contamination Highlands County approved a modification to Waste Connections contract on August 17, 2021. This modification included ending the curbside recycling program and implemented the establishment of three (3) manned recycling drop of centers in the county that would be operated by Waste Collections. The drop off centers will be positioned in each of the three (3) municipalities, City of Avon Park,



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City of Sebring and Town of Lake Placid. Approximately 24% of Highlands County's population is located within the three (3) municipalities and none of the municipalities have a recycling program or have discontinued their recycling programs due to cost and poor revenue markets for the recyclable materials. Placement of the drop off center sites within the municipality limits and combining municipality and county efforts to establish the sites will provide the ability for both residents within the municipalities limits as well as the residents of the unincorporated areas of the county to recycle at the recycling drop off centers. Businesses will also be able to use the recycling drop off centers which hopes to bring back a large volume of recycling that has been lost when the residential curbside recycling program was initiated. When curbside recycling was implemented the County also ended their commercial cardboard recycling program by removing all the commercial cardboard recycling containers throughout the county and created an open market for commercial cardboard recycling vendors. However, drastic drops in the material market value occurred that required the vendors to charge the business for setting a bin, transporting the material to their processing centers and processing thereby making it cheaper for businesses to just throw the cardboard in the trash than pay to have it recycled.

The recycling drop off centers will also be manned and only cardboard, plastic bottles, jugs and jars, and steel and aluminum cans being acceptable materials. Manned operation of the drop off centers will drastically reduce contamination by controlling the placement of materials into the recycling bins thereby creating much a cleaner and acceptable materials product for processing.

County Government Facility and School Recycling

As part of the County's contract with Waste Connections, enclosed roll-off containers were placed at county government facilities and all schools, colleges and school board administration offices in the county for the collections of same recyclable materials collected in the County's recycling program. When the containers are full the contractor hauls the materials to the RTF where they are mixed with other recycled materials. Additional education and instruction to school administration, teachers, custodial and food service staff has led to a decrease in contamination and a cleaner and more acceptable product for processing.

Yard Waste Recycling

As part of the curbside collection service yard waste in the unincorporated area of the County is picked up once every other week and brought to the HCSWMC where it is ground and recycled by mixing it in a 50/50 ratio with sand to produce a blend material that is used as daily cover in the County's Class I and C & D landfills.



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C & D recycling

The County's construction and demolition debris recycling program includes taking clean concrete, concrete blocks, bricks, tile, asphalt and shingles at no cost and recycling those materials by grinding and re-purposing them for use as alternative cover and for maintenance of landfill roads. Scrap ferrous and non-ferrous metals from the MSW and construction and demolition materials are also recycled and taken to a scrap metal dealer.

Tire Recycling

As part of the curbside collection service each residence in the unincorporated area of the county is entitled to have up to six (6) tires collected at no additional cost and residents can bring tires up to 20" radius to the HCSWMC at no cost. All tires are shipped out and ground by a contractor and returned to the landfill to be reused as stabilization of landfill roads and dump areas of the landfill. The ground tires are also used as alternative to stone as backfill around leachate and gas collection piping within the landfill.

Asphalt Recycling

Highlands County is also the only county in the state of Florida that owns and operates their own Asphalt plant that is located at the HCSWMC. The county uses millings and reclaimed asphalt from within the county and processes the materials to be used to produce asphalt for the construction and maintenance of county roads. The county can also divert methane gas to the asphalt plant to use as a fuel source in the production of asphalt.

Other Recycling

Highlands County also offers several other countywide voluntary programs to encourage recycling:

- **Used Oil:** Residents (not businesses) may drop off used oil and other automobile fluids at the Highlands County Recycling Center at 6000 Skipper Road, Sebring.
- **Residential Electronics Recycling:** Residential Electronics are accepted at the Highlands County Recycling Center at 6000 Skipper Road, Sebring free of charge from residential households. The electronics recycling program is available to all County residents for E-scrap generated in a home.
- **White Goods Recycling:** White goods (appliances) are accepted at the HCSWMC for recycling. Properly prepared white goods are recycled by a scrap metal dealer.



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- **Battery Recycling:** Residents may drop off lead acid batteries and rechargeable batteries at the Highlands County Recycling Center at 6000 Skipper Road, Sebring free of charge. Lead acid batteries are recycled by a battery recycling contractor for their non-ferrous metal content and the rechargeable batteries are sorted, packaged and shipped to a private company for reuse of the metals and various chemicals.
- **Used Cooking Oil Recycling:** Residents may drop off used cooking (vegetable oil) at the Highlands County Recycling Center at 6000 Skipper Road, Sebring that is recycled by a private company converting it into biodiesel.

Analysis of MSW by Sector

The tons of MSW generated by the various sectors delineated by FDEP terminology are calculated using FDEP certified and noncertified tons listed in the 2018 annual solid waste management report for Highlands County.

MSW Figures for 2020

Generator Type	MSW Collected Tons	MSW Percent Tons
Residential Single Family	74,604	51%
Residential Multi-Family	12,407	9%
Commercial	58,346	40%
Total Tons	145,357	100%

Analysis of Recycling Programs for Commercial and Multifamily

Currently, multifamily residences shall receive Residential service or Commercial collection service. As of the August 17, 2021 Board decision to end curbside recycling and establish recycling drop off centers a customer occupying a Multi-family residence shall receive residential collection service for garbage and can bring their recycling to one of the drop off centers to be established if the customer pays the county's assessment for the multi-family unit. If the multi-family unit is larger and is serviced by a dumpster they are considered to be receiving commercial collection service for garbage which is arranged between the commercial customer



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and the County's hauling contractor. Commercial customers shall enter into a contract with the contractor and pay the County's established rates with the contractor for their collection service. The contractor will no longer be offering to provide recyclable materials collection service and all recyclables can be brought to the drop off centers. Recycling is not mandatory and prior to August 17, 2021 there was a charge for recycling service so most multi-family residences, apartments and condo management companies receiving commercial collection did not recycle because to do so would have added recycling costs to already high rents and condo fees for the recycling collection service. There are also several challenges to recycle in the multi-family sector such as messy disposal areas that can cause litter and varmint issues, confusion as to what to be recycled, and insufficient space for recycling containers. Now multifamily residents as well as commercial will be able to recycle by bringing their recyclable materials to recycling drop off centers.

Highlands County does not currently have a mandatory Commercial recycling ordinance or a Commercial recycling program in place. When the curbside single stream recycling collection program was implemented in 2017 the County closed it's material processing center, which included the removal of all free service commercial cardboard recycling containers set at businesses throughout the county and created an open market for commercial cardboard recycling vendors within the County. The County's contracted hauler reached out to those businesses that were receiving the free service from the County for cardboard recycling to see if they still wanted to receive the service but now at a cost. Most of the businesses receiving the free service from the county did not want to pay a vendor to recycle their cardboard. The current market requires the vendors to charge the business high costs for setting a bin, transporting the material to their processing centers and processing to cover their costs due to the current value of materials and contamination. Commercial businesses have found it cheaper to just throw the cardboard in the trash than pay to have it recycled. However, with the end of the curbside recycling program and the decision to open recycling drop off centers in 2021/2022 multifamily and commercial businesses will be able to recycle acceptable program materials.

Description of Implementation and Any Planned Changes for C & D Recycling

Highlands County does not have any immediate plans for any type of ordinance mandate for recycling C & D debris. The county's current C & D recycling program consists mainly of taking clean concrete, concrete blocks, bricks, tile, asphalt and shingles at no cost and recycling those materials by grinding and re-purposing them for use as alternative cover and construction and maintenance of landfill roads. The County tries to sort scrap ferrous and non-ferrous metals from the MSW and construction and demolition materials and takes the materials to a scrap metal dealer for recycling. Most of the C & D material that comes to the HCSWMC is disposed of in the C & D landfill. The county continues to try and capture ferrous and non-ferrous metals from C & D materials disposed of in the C & D landfill. On a tonnage basis, C & D debris offers one



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of the greatest opportunities to increase the County's recycling rate. Highlands County will investigate the cost towards equipment that can sort and separate certain C & D materials to determine if it is an economically feasible investment to generate additional C & D recycling. However, the equipment and associated maintenance costs can be a costly investment and may not be able to be supported within the landfill budget. The County plans to research the possibility of excavating the C & D landfill to recycle metal, wood and other products and reuse the dirt for landfill cover. This could provide both renewed disposal space as well as an increase in the amount of C & D materials recycled. As part of the research process additional options to increase material recovery from the C & D debris stream will be evaluated.

Description of Yard Debris and Other Organic Material Recycling

Yard waste in the unincorporated area of the County is picked up once every other week and brought to the HCSWMC where it is ground and recycled by mixing it in a 50/50 ratio with sand to produce a blend material that is used as daily cover and to stabilize side slopes on the County's Class I and C & D landfills. Highlands County also captures an abundant amount of yard waste from landscaping vendors which is also ground to be used as blend material. The ground mulch is also available at no charge to residents to use on their property.

Strategy for Expanding County's Recycling Program

Highlands County approved a modification to Waste Connections contract on August 17, 2021 which included ending the curbside recycling program and implemented the establishment of three (3) manned recycling drop off centers in the county that would be operated by Waste Collections. This change may reduce the amount of participation in recycling due to the convenience that curbside recycling program offered but with such high contamination rates most of the recycling was unacceptable. Establishment of the manned recycling drop off centers will ensure a higher volume of acceptable recycling. The County and collections contractor will work together to develop a comprehensive, ongoing public education and outreach campaign to ensure clean, acceptable recyclable materials will be collected at the drop off centers. Highlands County does not have a local television media market therefore the county's campaign needs to focus on radio, newspaper, social media, advertising, billboards, town hall public meetings, direct mailers and events. Highlands County has updated its website to be more user friendly, informative and ADA compliant.

The county will continue to work together with the hauling contractor to increase public education awareness campaigns aimed at educating the public on the materials that can be recycled at the recycling drop off centers. The manned drop off centers will also be able to eliminate plastic bags from the recycling stream. The following public education will be provided to the county by contractor:



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Office (863) 402-6877 Fax (863) 402-6548 www.highlandsf.gov

- Locations will be identified at parks, other public facilities and at special events where the contractor will set up recycling carts and “Drop-off containers” for recyclables.
- An outreach program will be implemented in the county school system where the contractor will provide elementary, middle and high school students with the benefits of a recycling program at school and at home and will supply a recycling representative at the schools and Chamber of Commerce events at least ten (10) times per year.
- An annual recycling notice will be published in all local newspapers describing the new recycling drop off center program. The notice shall contain definitions of the recyclable materials that will be accepted at the centers.
- The contractor produces and distributes an annual magnet to the residents which describes materials collected.
- Contractor will provide the County with monthly recycling tips to be included on the County’s website.

In October, 2019 Highlands County added an additional Public Information Officer position that has been involved with public education to help increase the awareness of proper recycling.

Placement of the drop off center sites within the municipality limits and combining municipality and county efforts to establish the sites will provide the ability for both residents within the municipalities limits as well as the residents of the unincorporated areas of the county to recycle at the recycling drop off centers.

County staff will keep researching the county for additional non-certified recycling centers and businesses to capture their recycling materials as recycling credits as well as those companies that have no waste diversion activities.

The decision to end curbside recycling and open recycling drop off centers in 2021/2022 will provide multifamily and commercial businesses with the opportunity to recycle acceptable program materials adding to the volume of recycling in the county.

Discussions of Additional Steps, Challenges, and Strategies

Highlands County’s recent transition from a small county to a county above the 100,000-population threshold has created many new demands and challenges that the county did not have to face before. Implementing strategies to meet these new demands and challenges all come with additional economic costs that the county must carefully research to determine which new programs would bring the highest increase and most immediate results in the county’s recycling rate versus the monetary investment in new programs.



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There are several challenges that the County faces in terms of reaching the 75% state recycling goal, including:

- The contamination rate in the curbside recycling program led to failure the failure of the program. The county is now in going through the transition to a recycling drop off center program and difficulties getting the public to change to a different process of recycling. There will be a challenge to get the public to voluntarily bring their recyclables to a drop off center after having the convenience of just having to put their mixed recyclables in a can at the curb. We expect a decrease in the participation in the drop off recycling program but an increase in acceptable product that can be recycled. The higher costs for processing and lower return for commodities has changed recycling programs and has forced contracted haulers and processors to eliminate cost sharing programs with counties and pass the increase in costs off to the county's and its residents. Programs that generated revenue are now costing contractors to maintain the same programs and most residents do not want to pay additional assessments or fees to maintain recycling programs. Many counties are facing serious issues with their recycling haulers and processors based on new contamination standards, current markets and economies that has led towards discussions of discontinuing or temporarily stopping recycling programs.
- Recycling markets are depressed due to the economic policies of foreign markets and have only recently shown slight increases in value that would return a higher profit.
- Recycling in Florida, the Unites States and the world has changed significantly over the last 10 years. Many of the challenges the County currently faces with recycling have occurred because of changes in collection methods, shifts in the recycling markets, stricter contamination requirements and new and lighter weight packaging. The improvement, reduction and elimination of measurable recycling packaging materials may be beneficial in some ways but is detrimental to the goal of reaching the statewide recycling goal of 75% by the end of 2020 since it reduces the amount and weight of measurable recyclable commodities. These factors make achieving the 75% goal challenging and quite simply unattainable for many counties in the current market.
- The County does not have a waste-to-energy facility nor the capital to invest in such infrastructure.
- Most of the county's C & D debris is disposed of in the County owned C & D landfill at the HCSWMC and even though materials such as clean concrete, bricks, concrete blocks, tile, asphalt and shingles are recycled from disposed debris materials there are many materials that are currently not being recycled or cannot be economically removed without major changes in C & D material separation and disposal policies and ordinances in the county and substantial costs in the investment of equipment and machinery to perform more thorough removal of materials from the C & D landfill.



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There are significant hurdles to achieving a 75% recycling rate including a still depressed market, capital costs for implementing programs, and the current economic practices and policies of foreign markets and end users of recyclable materials. Without additional funding programs, development of new recycling methods and materials, and changes in the markets, foreign policies and standards it will be extremely difficult if not impossible for counties such as Highlands to reach the state's ultimate recycling goals.

Highlands County would like to see the state accept that the goals established by Florida Statute 403.706 are unattainable and that the population threshold for counties that must meet the goals be increased or that the recycling percentage be re-evaluated and lowered to a more attainable goal of 50%. Smaller counties such as Highlands do not have the funding or personnel to provide a recycling program that's capable of achieving the 75% recycling rate goal without making both residential and commercial recycling mandatory and increasing solid waste assessments in the unincorporated areas of the county to fund the programs necessary to achieve that goal.

Highlands County's will be diligent in their efforts to produce positive increases in their recycling rate in a timely fashion. The County is committed and will continue to look at improving existing recycling methods as well as introducing new methods of providing an efficient and cost-effective solid waste management system that has the best chance at attaining the 75% recycling goal while minimizing the fiscal impact to our citizens.

If you have any questions, please contact me at (863) 402-6877.

Sincerely,

Clinton Howerton, Jr. P.E.
County Engineer

Cc: Randy Vosburg, County Administrator
Laurie A. Hurner, Assistant County Administrator

Hillsborough County



**Hillsborough
County Florida**

SOLID WASTE MANAGEMENT

PO Box 1110, Tampa, FL 33601-1110
813-612-7718

September 27, 2021

Tim Bahr, P.G.
Director of Waste Management Division
Florida Department of Environmental
Protection
2600 Blair Stone Road, MS4550
Tallahassee, FL 32399-2400

Division of Waste Management,

Hillsborough County is submitting this correspondence in response to the Florida Department of Environmental Protection's request for a recycling plan pursuant to *Florida Statutes Section 403.706(2)(d)* in light of the fact the County only achieved a recycling rate of 64% in 2020, which did not meet the State's goal of 75%. In 2020, Hillsborough County attained a traditional recycling rate of 49% and received an additional 15% in renewable energy recycling credits contributed from Hillsborough County's Falkenburg Resource Recovery Facility and the City of Tampa's McKay Bay Waste-to-Energy Facility.

Hillsborough County offers a variety of comprehensive recycling services to approximately 303,000 households within our statutorily defined service area as part of an integrated solid waste management system. Households receive once a week curbside collection of single-stream recyclables, once a week curbside collection of yard trash, and twice a week curbside collection of municipal solid waste. There are two waste-to-energy facilities located within the County equipped with metal recovery systems which help contribute to the County's overall recycling rate. The County also has contracts in place for the recycling of yard trash collected curbside via three yard waste processing facilities operated by the County. Excess municipal solid waste and non-processable waste are disposed of at the County's Southeast Landfill. Waste-to-energy ash and processed yard waste turned into mulch are used for daily landfill cover, contributing to additional recycling credits for the County.

The County also operates five Community Collection Centers and three Household Hazardous Waste Collection sites in order to allow convenient recycling and disposal of materials not collected in the curbside collections program such as scrap metals, electronics, paint, and bulky items. Four of the Community Collection Centers also offer drop-off recycling containers to provide a recycling option for residents who live in multi-family apartments or condominiums without access to curbside recycling. The curbside and drop-off recycling collection programs accept the following targeted materials: newspaper, office paper, mixed paper, paperboard, aluminum and steel cans, glass containers, plastic bottles and containers, cardboard, and cartons.

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George Cassidy

The County requests annual recycling tonnage data from the three incorporated municipalities: City of Tampa, City of Plant City, and the City of Temple Terrace. Additionally, the County contacts private companies, yard trash processing facilities, and construction and demolition sites located within the County and in adjacent counties in order to identify and incorporate recycling tonnage data into the County's overall solid waste management report towards achieving the State's 75% recycling goal.

Hillsborough County developed a Solid Waste Master Plan (SWMP) in 2017 that identifies several means of increasing the County's recycling rate and maximizing waste diversion for the landfill. Hillsborough County is also currently developing a variety of new policies and initiatives designed to help maximize waste diversion from the landfill and advance the County's sustainable materials management goals. These new efforts in addition to the existing services described above and our existing SWMP constitute the County's plan for achieving the State's 75% recycling goal. Below is a summary of new and planned initiatives along with implementation timelines:

Public Education and Outreach: The County continues to make public education and outreach regarding waste reduction and recycling a primary focus of our program. In 2021 the County made improvements to our existing "What Can I Recycle" webpage (www.HCFLgov.net/Recycling) and also published a new webpage focused on Waste Reduction as a means of informing residents about steps they can take to reduce waste generation in order to help foster a cultural shift towards more sustainable consumption (www.hillsboroughcounty.org/en/residents/sustainability-and-green/reduce-your-waste).

In 2021 the County also relaunched and expanded the existing www.ReduceYourUseTampaBay.org campaign which is focused on celebrating businesses that have voluntarily taken efforts to reduce the use of single-use plastics within their operations and encouraging residents to reduce their use of single-use plastics as many of these materials cannot currently be recovered by existing Material Recovery Facilities (MRFs) and which are more likely to contribute to marine debris and litter within local waterways. The campaign was strengthened, and the scope expanded by adding the City of St. Petersburg, Pinellas County, and Keep Pinellas County Beautiful as new campaign partners in addition to the existing partners of Hillsborough County, City of Tampa, and Keep Tampa Bay Beautiful.

Increasing contamination rates continue to be one of the primary challenges facing the County's recycling program and the programs of our incorporated cities and adjacent municipalities. In order to help cut through resident confusion, the County developed and continues to support a regional outreach approach to have a unified voice within the Tampa Bay Region focusing on common problem contaminants such as plastic bags, bagged recycling and other "tangles". The regional www.TampaBayRecycles.org campaign has garnered statewide attention and is being replicated in other regions of Florida such as in Central Florida via <http://centralfloridarecycles.org>.

In 2021, the Solid Waste Division developed a new partnership with the Code Enforcement Department and the Office of Neighborhood Relations to help provide recycling outreach to residents in new ways. Code Enforcement staff will distribute recycling focused door hangers when canvassing neighborhoods as part of future Fight the Blight efforts, and the County will be leveraging neighborhood contacts to email information about recycling to a broader audience via direct email with community leaders. The County also continues to pursue traditional advertising campaigns focused on recycling correctly and has made an effort to garner free earned media appearances on local TV stations to promote recycling properly.

Developing Recycling Material Search Tool- County recycling staff are partnering with the County's Information and Innovation Office to develop a new public education and outreach tool that will enable residents and businesses to utilize a search bar on the County's website to search for how to properly reuse, donate, recycle, compost, or dispose of materials. Staff are currently working to develop the knowledge articles that will provide preferred means of recycling or disposing of items based on the Environmental Protection Agency's waste management hierarchy. This new search tool is anticipated to be launched in January of 2022.

Expanding Backyard Composting- Hillsborough County has also recently expanded our existing partnership with the UF/IFAS County Extension to promote backyard composting. The new program now offers virtual classes in addition to in-person composting training to residents, an increase in the number of classes offered from 10 to 22 this year, and we have also increased the number of participants allowed to attend training sessions. This has led to an increase in participation. More information can be found at: sfyl.ifas.ufl.edu/hillsborough/lawngarden/composting/.

Expanding Composting Operations- In February of 2020, Hillsborough County completed the transfer of operations from a pilot scale composting operation to a newly constructed full scale composting operation utilizing yard waste and wastewater biosolids as feedstock to produce a STA Certified Compost product that is sold to a single contractor. This project is estimated to result in an annual County net revenue increase of approximately \$1.2 million due to saving over \$700,000 per year in biosolids transportation costs, reducing yard waste disposal costs of nearly \$200,000, while also generating an estimated annual revenue of approximately \$300,000 from the sale of finished compost. The County is continuing to expand the composting operation to process higher volumes of material and anticipates production of up to 35,000 tons of compost in 2021. The County is also evaluating the potential to develop another composting operation adjacent to the existing facility in order to start accepting pre-consumer food waste which would provide much needed infrastructure within the County to help increase food waste recycling.

Procuring a New Recycling Processing Agreement: Hillsborough County is currently working to procure a long-term recycling processing contract with a private vendor in order to help ensure more stability with recycling processing costs and to ensure a higher amount of recyclables can be recovered from the waste stream. The County intends to offer County owned property adjacent to our Resource Recovery Facility to a private MRF operator via a long-term low-cost ground lease in order to leverage the value of the property and its proximity to the waste-to-energy facility as a means of soliciting lower recycling processing costs. The procurement is also being structured to have strong piggy backing provisions that will allow the County's incorporated cities of Tampa, Plant City, and Temple Terrace to utilize the MRF at the same cost per ton while also providing for increased commercial and multi-family recycling.

Amending Solid Waste Chapter of the Comprehensive Plan- In order to better promote waste reduction and recycling, the County is in the process of updating the Solid Waste Chapter of the Comprehensive Plan. The update is designed to provide a long-term framework for the County to be a leader in sustainable solid waste management. Incorporating the integrated hierarchy of waste management, the updated language proposes additional policy related to waste reduction, reuse, and recycling, leveraging waste as a resource, sustainable and resilient siting practices, and strategies for the County to lead by example. The plan amendments are going through the required public input process and are anticipated to be adopted by the Board of County Commissioners in December of 2021. A draft of the amendment will be

provided to FDEP along with this summary in order to provide more detailed information regarding specific objectives and policies pertaining to increasing recycling.

Developing Sustainability Action Plan- Hillsborough County's Division of Solid Waste Management is also actively involved in developing the County's first Sustainability Action Plan via collaboration with all County departments and several community stakeholders. Waste reduction, recycling, and other sustainable materials management concepts will feature prominently in the plan and will drive further policy development and initiatives designed to maximize waste diversion from the landfill. The draft plan has been in the works for several months and is anticipated to be reviewed and approved by the Board of County Commissioners in late 2021 or early 2022. Below are some of the relevant draft policy proposals:

- 90% of generated waste to be diverted from the landfill by 2040.
- Increase organics waste diversion
- Increase construction and demolition debris recycling
- Develop countywide environmentally preferred purchasing and disposal standards
- Continue to transition to paperless systems
- Evaluate banning the use and sale of certain hard to recycle items on County property and events
- Require recycling at all County facilities
- Evaluate a phased approach to implementing a universal recycling ordinance
- Evaluate emerging technologies for converting waste into energy
- Increase the beneficial use of waste-to-energy ash

Amending Land Development Code- Based on historical analysis, commercial waste has traditionally made up the largest share of the County-wide waste stream. In order to help increase recycling recovery rates from the commercial and multi-family properties, the County is currently undergoing the process to amend portions of the Land Development Code to require new commercial and multi-family developments to provide adequate enclosure space for garbage and recycling receptacles and to have at least one recycling receptacle in place. These amendments in addition to the proposed policies in the forthcoming Sustainability Action Plan will increase commercial recycling, reduce litter, further the County's sustainable materials management goals and ensure the County complies with Florida Statute 403.706(2)(c). The proposed amendments have already started going through the required public outreach and internal review processes and are anticipated to be adopted by the Board of County Commissioners in October of 2021.

Offering Free Commercial and Multi-family Recycling Consultations- The County continues to offer free consultations with businesses and multi-family properties regarding waste reduction principles, guidance on how to conduct a waste audit to identify targeted recyclables, and assistance with developing, launching, and improving commercial recycling programs.

Pursuing a Request for Information for Innovative Waste Processing- Despite Hillsborough County's focus on enhancing recycling programs, the recent rapid pace of population growth and new development over the past several years along with projected growth will require the County to pursue other sustainable waste management strategies to avoid sending more waste to the landfill. The County's existing Resource Recovery Facility is at capacity meaning that new population growth will contribute to increasing amounts of municipal solid waste being landfilled unless the County makes strategic investments in alternative waste management approaches. To help ensure the County maximizes material

recovery and beneficial use of waste, the County is developing a Request for Information (RFI) to identify and evaluate a wide array of innovative waste processing technologies that would target the municipal solid waste stream and other waste streams where higher rates of recycling can be achieved such as with construction and demolition debris, disposed tires, food waste, etc. The RFI will be structured to solicit participation from a wide array of existing and emerging waste management technologies that will then enable the County to better target which technologies are most appropriate for the County to pursue via subsequent targeted procurements.

In addition to the County's current and planned actions detailed herein, Hillsborough County would welcome efforts by the State Legislature and the Florida Department of Environmental Protection to attract more recycling end markets within the State to help build domestic demand and jobs within the industry and to pursue further assistance policies designed to assist municipalities with supporting and expanding recycling and composting programs. The County also supports redefining source separated food waste as a "recovered material" under state statute in order to help spur private sector investment in composting and anaerobic digestion infrastructure which would greatly increase recycling rates across the state. Hillsborough County also supports FDEP's efforts to promote statewide recycling education via initiatives such as the Reset, Rethink, Recycle public awareness campaign and the development of the updated recycling curriculum for K-12 schools.

Please feel free to contact me should you have any further questions about the current status of Hillsborough County's recycling programs and our future plans.

Best Regards,

Travis Barnes, MPA
Recycling Coordinator
Hillsborough County
Phone: 813-209-3085
Email: BarnesT@hillsboroughcounty.org

Indian River County

INDIAN RIVER COUNTY, FL RECYCLING PROGRAM PLAN September 2021



Submitted to:

Jennifer L. Simmons
**Permitting & Compliance Assistance
Program**
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Jennifer.L.Simmons@dep.state.fl.us

Submitted by:

Indian River County
1325 74th Ave SW
Vero Beach FL 32968

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Susan Flak
Recycling Education and Marketing Coordinator
Solid Waste Disposal District
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Section 1

Introduction

This document is submitted in response to the September 1, 2021 memorandum from Jennifer L. Simmons at the Department of Environmental Protection (DEP). As requested in the memorandum, Indian River County (County) did not reach the 75% interim recycling goal in 2020 and is therefore submitting a recycling plan to DEP to provide valuable information that can be incorporated into their strategic plan for the upcoming year. The plan provided herein summarizes the current recycling programs in the County, as well as opportunities and plans to expand our recycling programs as well as how we are addressing single stream contamination which is challenging our overall County recycling rate as was the drastic tonnage reduction of construction and demolition material due to COVID-19.

Section 2

Current Recycling Program

2.1 Summary of Recycling Services and Materials

Indian River County did not achieve the 75% recycling goal for 2020 and we had a reduction in our recycling rate.

Since October 2015, residential recyclables are collected in a carted single stream recycling program. Every resident is delivered a 64 gal. recycling cart. All recyclable materials are combined into one container and acceptable items include newspaper, office paper, cardboard, aluminum cans, steel cans, glass, and plastics #1-7 (with a few exceptions). The County does not accept Styrofoam, plastic bags/films, bottle caps or shredded paper in our curbside recycling program. All single-stream recyclables are shipped offsite and processed at the St. Lucie County Solid Waste Bailing and Recycling Facility (St. Lucy County).

The County operates five Customer Convenient Centers (CCC) where residents can self-haul waste, yard trash, bulk waste, and recyclables. In addition to the recyclables collected curbside, the County also accepts tires, white goods/metals, household hazardous waste (HHW), expanded polystyrene, and electronic waste at the CCCs and the main landfill.

The various types of recyclables are managed as follows:

- Single-stream recyclables are delivered to the SWDD facility, and then transported and processed through a contract with St. Lucie County .
- Waste tires received at the landfill and CCCs are stored in the waste tire storage area at the landfill. The County currently contracts with Liberty Tire to remove and process the tires.
- White goods and scrap metal are accepted at the landfill or removed from incoming waste loads. They are stored separately and, once the refrigerant has been removed, marketed to Trademark Metals for processing.
- Expanded polystyrene collected at the landfill and CCCs is processed at the landfill using a foam densifier acquired from RecycleTech through a state-funded innovative grant. Most recently, the condensed polystyrene ingots were sent to Ronson Recycling for recycling purposes.
- Household Hazardous Waste (HHW) & electronics (E-Waste) are accepted at the landfill and CCCs. A private vendor, US Ecology, is contracted to properly consolidate, package, and transfer HHW to a permitted out-of-county facility for recycling and disposal. US Ecology also operates a Small Quantity Generator program for small business waste generated within the County on a fee basis.

Businesses are responsible for arranging transport and disposal services with US Ecology directly. Stream Recycling is contracted to transfer and recycle the E-Waste.

- Used oil and oil filters are accepted at the landfill and CCCs. The County contracts with Cliff Berry, Inc. to remove and process them.
- Used cooking oil is also accepted at the landfill and the CCCs. The County contracts with Banyon Biofuels to remove and process it.
- Propane Tanks are accepted at the landfill and CCCs. The County contracts with Pargas to remove and process them.

The County and municipalities collect segregated yard trash from residents on a weekly basis. The County contracts with Atlas Organics to provide yard waste services to create compost material. Some of this material is utilized as a 50/50 mix for landfill cover.

A large portion of Indian River County's recycling rate is due to the recycling data from various C&D debris companies in the private sector. In contrast, 100% of the C&D material that came to the County landfill was disposed. We are considering a new C&D recycling facility; however, it is financially not feasible at this time. Clean concrete is segregated from C&D at the landfill where about 75% of the clean concrete is continually stockpiled. The remaining percent is recycled as landfill road base material, which is utilized in and on the active site to facilitate various traffic patterns.

Section 2

Expanding the Recycling Program

2.1 Expanding Multi-family and Commercial Recycling Programs

At this time, the Indian River County Commission does not feel that a mandatory commercial recycling mandate is right for Indian River County. Instead, the County will continue to focus its efforts on visiting multi-family communities and commercial businesses.

We have initiated an extensive educational outreach program to multi-family communities to encourage the residents to recycle and to recycle right. This is accomplished through various community meetings and direct outreach to residents. Residents are given reusable bags to help them transport recyclables from their apartment/condos to the centralized recycling containers.

For commercial businesses, recycling pickup services are part of the open market and haulers are competing for customers. Our goal is to educate commercial business participants of the opportunities to "right size" and the subsequent potential for them to save money in the long-run by recycling right. This intense program requires individual contact with each business as they all have their own unique obstacles. This year we have gotten 7 commercial businesses to commit to the recycling program and we continue to reach out to others on a regular basis.

2.2 Expanding School Recycling Programs

The County and the School District of Indian River County have partnered to establish a unified campus-wide recycling program at all of the schools. At this time all 25 facilities have been completed and are running successful recycling programs. The program provides a well-developed plan for staff and students, a robust cafeteria recycling program, and recycling containers in each of the classrooms. In the fall of 2020

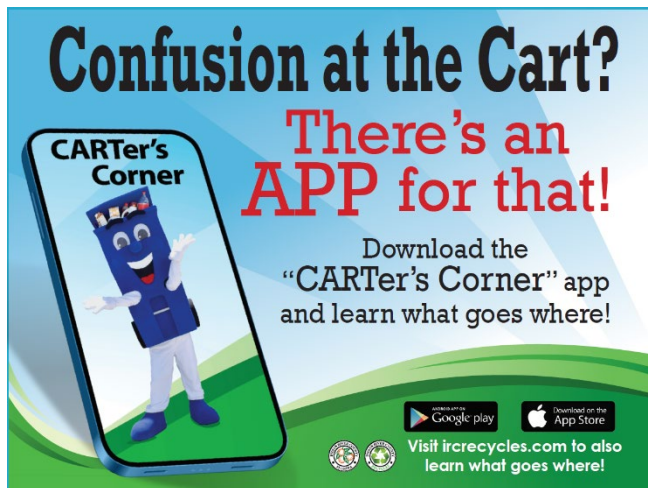
SWDD used grant monies received from a grant of \$2,500 from Waste Management to implement the same program at all 5 Charter schools in the County. They are also all running successful recycling programs.

2.3 New Education Programs

The importance of education cannot be stressed enough. The purpose of the County’s educational efforts are 3-fold: 1) to encourage recycling participation through positive and consistent messaging, 2) to direct residents where to go to get more information, and 3) to minimize contamination by making residents aware of what materials are acceptable and what is not. In addition to traditional print and radio advertisements, the County expanded its outreach efforts to include a poster at a local movie theatre and a 30 second video commercial air

The County’s online presence has been amplified by updating the website, sending recycling messages in an online weekly newsletter, adding our events to online calendars, and running pop-up advertisements on the website for the Vero Beach Chamber of Commerce.

Educational efforts have continued this year to target single stream contamination and increase the overall quality and sustainability of the recycling program. In an effort to give cart confusion more clarification, we have designed a mobile app called CARTer’s Corner which allows residents to punch in an item they are questioning and they will get information about the item within seconds. The app will also give residents information on drop off locations if items are required to be taken there. So far we have over 3,000 customers who have accessed the app in request for information. We will also receive data that lets SWDD know which items are most commonly in question so that we can better target our educational outreach to target those specific items.



2.4 New Cart Lock Program

SWDD and the County expanded recycling efforts by implementing a new cart lock program throughout all County beaches and parks in an effort to reduce contamination. Our goal was to place 48 locked carts at each of the beaches and parks. Through various audits on a quarterly basis, our data showed a significant reduction in contamination across all locations in the County. In collaboration with the Parks and Recreation Department, we have successfully maintained and monitored the carts. We have now started to expand the program to multi-residents communities and replacing a majority of their unlocked carts with locked carts. We will continue to collect data and contamination reduction.



2.5 Plastic Film Recycling Program

In January of 2019, the Indian River County Solid Waste Disposal District (IRC SWDD) joined the statewide Wrap Action Recycling Program (WRAP) Campaign. The WRAP initiative aims to build greater public awareness and participation in plastic film packaging recycling at grocery stores and other retail locations, as well as reduce the amount of film packaging inappropriately placed in curbside recycling bins. In April of 2019, IRC SWDD placed loose film collection containers at all 5 of the CCCs and the Main County Landfill. We also started a marketing campaign by creating and generating tip cards to be distributed at the CCCs, all public events, and presentations. Marketing also included media outlets and other promotional items. Approximate marketing costs are about \$2,000. We have expanded the program to 17 new commercial businesses and recently collaborated with Coastal Connections to include 4 beachside hotels to the list. The program has been extremely successful.

RECYCLE

empty, clean & dry plastic bags & wraps

at one of the 5 Customer Convenience Centers or the Main Landfill.

PLEASE DO NOT BAG RECYCLABLES.

Plastic bags get entangled in the machinery at the sorting facility.

Thank you for your cooperation!

NO Chip Bags • Frozen Food Bags
Rigid Plastics • Food Containers
Packing Peanuts

NOT in Curbside Recycling:

Carryout Bags	Newspaper Bags	Product Wrap	Retail Bags	Bubble Wrap
Produce Bags	Bread Bags	Product Overwrap	Dry Cleaning Bags	Case Wrap

ROLL With Us...RECYCLE!

For more info visit ircrecycles.com or call 226-3212

Section 4

Conclusion

The Indian River County Board of County Commissioners has stressed that all programs must be economically viable and in the best financial interest of the County. The Board feels that there are still opportunities to raise our recycling rate through traditional recycling methods and Indian River County will not pursue new renewable energy options at this time. Instead, the County will continue its efforts to raise the recycling rates by discontinuing the stockpiling of vegetative waste, pursuing options to recycle our C&D material, and focusing on outreach and educational efforts to encourage voluntary participation in the recycling program. With the actions outlined above, we hope to see a continual rise in our overall recycling rate as we reach out to the residential and business sectors to implement recycling programs. Indian River County will continue to strive towards the 75% recycling goal; however, the economic feasibility of pursuing aggressive recycling options and costly technologies will continue to be a challenging factor in achieving this goal.

Lake County



Public Works Department, Operations Division/Solid Waste Program
P.O. Box 7800 • 13130 County Landfill Road, • Tavares, FL 32778

September 22, 2021

Florida Department of Environmental Protection
Jennifer Simmons, Division of Waste Management
2600 Blairstone Road
Tallahassee, FL 32399-2400

Re: Lake County Recycling Plan 2021

Dear Ms. Simmons,

In response to the Department's September 1, 2021 request, please find enclosed the Lake County 2021 Recycling Plan. It is our understanding that this information will be incorporated into the Department's report due to the legislature prior to the start of the 2022 session.

Please feel free to contact Brad Russ, Solid Waste Program Manager at 352-253-1670 or bruss@lakecountyfl.gov or myself at 352-253-6006 or mhamilton@lakecountyfl.gov.

Sincerely,

Mary Hamilton
Operations Director

Enclosure

cc: Brad Russ, Solid Waste Program Manager

P 352.253.6000 • F 352.253.6016

Board of County Commissioners • www.lakecountyfl.gov

Douglas B. Shields
District 1

Sean M. Parks, AICP, QEP
District 2

Kirby Smith
District 3

Leslie Campione
District 4

Josh Blake
District 5

LAKE COUNTY 2021 RECYCLING PROGRAM PLAN

Lake County is a political subdivision of the State of Florida that is over 938 square miles in area and contains 14 municipalities that are independent of the jurisdiction of the Board of County Commissioners (BCC). Additionally, the Constitutional offices of the School Board, Sheriff, Property Appraiser's & Tax Collector's offices are funded by the BCC, but operate independently.

According to the April 1, 2020 census, the population of Lake County was 383,956. As of September 1, 2021, there were 73,580 units assessed in unincorporated Lake County with an average of 2.55 persons/unit, which equates to a population of 187,629 (representing 48.9% of the total County population).

Historic Summary of services offered by Lake County Solid Waste:

1. Lake County entered into a 25 year commitment with the Waste to Energy (WTE) Facility in 1990, wherein all processable solid waste was required to be delivered for incineration. The County continued a basic recycling program, while meeting the WTE contractual requirements.
2. In 1993, Lake County established mandatory MSW disposal through Exclusive Franchised Haulers and offered recycling collection with 18 gallon bins. The recycling program collected only newsprint, plastic food containers, aluminum cans and clear glass.
3. In 2003, Lake County instituted Universal Collection throughout the unincorporated areas of the County offering weekly curbside collection of household MSW, recycling materials, yard waste along with on-call bulk furniture pick up. Collected recyclable materials consisted of all paper products, cardboard, all plastic containers with a recycling logo, aluminum, steel, tin cans, clear and colored glass containers.
4. In 2010, A Citizens Solid Waste Alternative Funding Task Force was established by the Board of County Commissioners to evaluate existing programs/options and make recommendations for future solid waste operations including; single stream recycling, recycling education, increase reuse of yard waste and mulching.
5. On October 6, 2014, Lake County instituted a once a week, automated curbside collection system with single stream recycling. Every unincorporated County resident was issued two rolling carts with the default size of 95 gallon for garbage and 65 gallon for recycling.

Summary of Materials Recycled:

- All paper / fiber products (junk mail, newsprint, magazines, corrugated cardboard, boxboard)
 - All household plastic containers with a recycling symbol #1-7
 - Aluminum containers
 - Steel cans
 - Tin cans
 - All clear & colored glass

Analysis of MSW generated by commercial, multifamily and single family sectors:

Lake County only collects data for the unincorporated, residential, single-family units and the new program has not provided enough data for an accurate analysis.

Analysis of any existing recycling programs for commercial and multifamily sectors with participation rates & recycling rates:

This information is not gathered at this time.

Description of implementation of C&D recycling and any planned changes:

The Lake County Landfill Facility is no longer a multi-use facility. As of October 2016, the Class I, Incinerator ash and C&D disposal were placed into intermediate status and no longer accepted material. Yard Waste processing is still conducted with the mulched material hauled off at no cost to the County. This material is used for composting at a private company. The recycling collection of metals & other recyclable materials at intake are processed and/or disposed of according to EPA regulations. The County is currently reviewing its 20 year Master Plan and is pending Board approval before any implementations can be made.

Efforts to encourage yard trash, other organic waste and/or mechanically treated solid waste into compost or mulch for agricultural or other acceptable uses:

As described above, Yard waste is mulched and delivered to a privately operated compost facility.

Strategy (incl. timeframes) for expanding your county's recycling programs:

Lake County entered into a contract amendment on December 18, 2019 for a period ending September 30, 2027 that keeps collection and disposal as is. Haulers still own recycling once collected at the curb and continue to process at approved, permitted facilities.

Discussion of any additional steps, initiatives and any anticipated challenges the county foresees to be critical to achieve the next interim goal, and ultimate statewide recycling goal of 75% by the end of 2020:

The County will look into methods of achieving a higher recycling rate with its Master Plan; however, there are a number of challenging factors that come into play. Including, but not limited to, those listed below:

- It appears the initial recycling rate set by the State Legislators is not an attainable goal considering the current state of the recycling industry and market conditions.
- As the environment of curbside collection has changed to an automated system, this has led to an increased contamination rate. Lake County averages about a 40% contamination rate for curbside recycling.
- The 14 municipalities manage their own waste collection and management program. Achieving a County-wide rate is challenging due to the County's lack of control over the municipalities waste streams as well as the commercial sector.
- The recycling rate for the County is also dependent on the private/commercial industry which is not required to provide information to obtain an accurate recycling rate.
- There are limits as to what is counted for towards our recycling rate and limited processing facilities. The limited facilities results in using the waste-to-energy facility (Covanta).
- There currently is no funding available to provide education for residents or employ a full-time recycling coordinator.

Leon County

Leon County Recycling Program Plan

This report has been prepared for the Florida Department of Environmental Protection on behalf of Leon County, in compliance with Section 403.706(d) of the Florida Statutes. It was submitted on October 4, 2021.

I. Summary of Recycling Services and Materials

Leon County (and the City of Tallahassee) offer single-stream recycling to all residents and businesses. Recyclable materials include paper, cardboard, aluminum cans, steel cans, glass, plastic bottles and containers. Yard waste is collected curbside by both the City and County's collector, Waste Pro, as are bulk items. Yard debris is mulched at the Leon County Solid Waste Facility. Leon County also offers Household Hazardous Waste collection at the Solid Waste Facility, where items such as batteries, light bulbs, electronics, paints, oils, and chemicals are accepted. Leon County also operates four Rural Waste Service Centers in strategic parts of the County. Unincorporated residents may drop off recycling, trash, bulky items, yard debris, and HHW at all rural waste sites. In 2019, the Leon County Board of County Commissioners made access and drop off to the rural waste sites free for unincorporated residents. Additionally, Leon County offers in-person and virtual recycling education, rentable recycling bins for events, and as of spring 2021, a composting drop-off site at the Solid Waste Facility.

II. Analysis of MSW by Sector

In 2020, 86% of the County's recycling tonnage was C&D, 9% was yard debris, and the remaining 5% tonnage was single-stream recycling from commercial and residential. Curbside single-stream tonnage only accounted for 5% of the overall tonnage.

25% of MSW is residential, and 75% is from the commercial sector.

III. Analysis of Recycling Programs for Commercial and Multi-family

Recycling is available for all commercial businesses and multi-family residents, in unincorporated Leon County and within the City of Tallahassee. In unincorporated Leon County, all recycling and MSW goes through Waste Pro. Commercial units must pay an additional fee for a recycling bin and service, but it is roughly half the cost of trash disposal. In the City of Tallahassee, the city operates commercial and multi-family recycling. Although the County and City have single-stream recycling, the City provides paper/cardboard-only bins for businesses that request them. The City also provides free single-stream barrels for small businesses. 60% is the estimated residential recycling participation rate for the County (including the City), 5% for multi-family, and 25% for commercial.

IV. Construction & Demolition Recycling

Marpan Recycling, the main regional recycling facility does accept construction and demolition debris from private contractors and projects. Two other smaller recycling facilities, Crowder and Solomon, also provide services for Leon County. Unfortunately, most C&D that is brought to Crowder and Solomon is thrown in a pit which has greatly impacted Leon County's recycling rate as it is calculated by weight. For example, in 2019, there was a notable decrease in construction and demolition debris from a single contractor which reduced Leon County's recycling rate by 5%. In 2021, research was been conducted on the implementation

of a Mandatory C&D Recycling Ordinance using counties such as Lee and Alachua as examples. At this time here is not a plan to change how construction and demolition debris are collected in Leon County.

V. Yard Debris and Organics Recycling Opportunities

Leon County has demonstrated commitment to providing services that recycle yard waste and other organic materials through composting and mulching. Yard waste is regularly picked up by Waste Pro and the City of Tallahassee then sent to the Solid Waste Facility where it is turned into fine or course mulch. Every 4-6 weeks, a contractor turns the collected yard debris into either course or fine mulch. The contractor retains 90% of the course mulch produced which is then sent to a powerplant to be turned into Biofuel. Leon County retains the other 10% of the course mulch and 100% of the fine mulch produced that is available for free pick-up at the Solid Waste Facility to Leon County Residents. Over the course of the last fiscal year (10/01/20 – 9/30/20) 9152.96 tons of yard debris has been collected and mulched.

In Spring 2021, Leon County's Office of Sustainability launched a composting drop-off pilot at the Solid Waste Facility. Leon County residents can drop-off their kitchen scraps for free. At the drop-off site, there are six large yard composters where kitchen scraps can be deposited. Leon County's Office of Sustainability monitors the compost bins to ensure their success. Course and fine mulch from yard debris is added to the compost bins to create the right ratio of greens-to-browns for proper decomposition. In addition to launching the composting drop-off site, the Office of Sustainability also distributed kitchen and yard compost bins to Leon County residents at low or no cost to support the pilot and encourage composting. The compost bin distribution was a huge success and is planned to be a regularly occurring service for residents.

VI. Strategies for Expansion of Recycling Programs

In order to increase Leon County's recycling rates to reach statewide goals, the County will need to increase commercial recycling as well as C&D, and yard debris as they make up a bulk of the County's recycling tonnage and present the greatest opportunities for improvement. This will require reimagined partnerships with the City of Tallahassee and other key stakeholders.

Residentially, in Leon County, recycling participation is high in urban areas (about 70%) with low contamination rates as compared to the rural areas in the county such as along Hwy 20. The recycling contamination in this area of Leon County has meant that recycling pick-up has been diverted directly to the transfer station for processing. The sustainability staff has recently become aware of this opportunity to engage the public in this area in targeted recycling education and outreach campaigns. A challenge in this is English is commonly a second language. Sustainability staff plans to provide bilingual recycling education materials in order to help build a better understanding of recycling in Leon County. This targeted education and outreach campaign will be implemented in Winter 2021/22.

Beyond targeted recycling education and outreach campaigns, sustainability staff has spent an extensive amount of time throughout the pandemic laying the groundwork for future policies and ordinances. One ordinance that has been researched in addition to the above Mandatory Construction & Demolition Recycling Ordinance is a Mandatory Commercial Recycling Ordinance using Lee and Collier Counties, Orlando, and Gainesville as examples.

VII. Discussion of Additional Steps, Challenges, and Strategies

Leon County is dedicated to reaching statewide recycling goals as demonstrated by our Integrated Sustainability Action Plan. Here is a list of waste reduction goals and action items that support recycling expansion in Leon County:

- Goal
 - o # 7 – 75% recycling goal by 2020
 - o # 8 – Increase number of commercial recycling accounts in unincorporated Leon County by 30% by 2030
- Action Item
 - o 3A – ensure recycling is available in all County facilities
 - o 3B – require recycling at events hosted at Leon County facilities
 - o 3C - Analyze a ban on polystyrene at County parks and property
 - o 3D – Explore incentives for commercial recycling in 2020 waste collection bid
 - o 3E – Explore use of recycled asphalt and concrete in paving and road construction
 - o 3F – Require adequate space for recycling dumpsters for new commercial and multi-family construction
 - o 3J – Develop a “Master Recyclers” class or “Recycling 201” seminar for the public to access current, correct information on recycling in Leon County
 - o 3P – Evaluate opportunities to audit citizen recycling: tag high- contaminant bins, acknowledge knowledgeable recyclers
 - o 3Q – Explore opportunities to expand composting practice in the community

There are several challenges Leon County faces in order to increase and expand recycling in Leon County, including:

- The County does own or operate the landfill where all MSW is sent, so has little control over operations or decisions
- The County does not own or operate the recycling facility, so has little control over operations or decisions
- The County does not own or operate a hauling or collection service, so has little control over operations or decisions
- The County does not have a WTE facility within a couple of hundred miles, nor the capital to invest in such infrastructure
- The City of Tallahassee contains most businesses and residents, and has different recycling goals than the County

Questions about this report may be directed to Cyndel Brunell, Leon County Sustainability Manager, (850) 606-5021

Manatee County



COUNTY RECYCLING PROGRAM PLAN

DATE: September 29, 2021

TO: Jennifer L. Simmons, Waste Reduction and Recycling Section
Florida Department of Environmental Protection (FDEP)

FROM: Teresa Chaffee, Recycling and Special Waste Collections Supervisor

SUBJ: **Manatee County 2020 Recycling Program Plan**

This plan is in response to the August 31, 2021 letter from Tim Bahr, P.G., FDEP, requesting the development and submittal of a County Recycling Program Plan from large counties that did not meet the State’s 2020 recycling goal.

BACKGROUND

In 2008, the Florida Legislature set a statewide municipal solid waste (MSW) recycling goal of 75% by the year 2020. In 2010, the Legislature further directed that the goal be primarily applied to counties with a population of greater than 100,000. In addition to the 2020 goal, the Legislature set interim goals for 2012, 2014, 2016, and 2018. Counties that do not reach and maintain the final or interim goals, including Manatee County (County), based on their annual calendar year recycling rates, are requested to submit Recycling Program Plans to the FDEP.

Table 1 provides the various tiers of the State recycling goal and the County’s reported recycling rate for each year. The County met the 2012 and 2014 State goals but did not achieve the 2016, 2018, and 2020 goals. A County Recycling Program Plan was submitted as required by Section 403.706 of the Florida Statutes for 2016 and 2018, and the County is now submitting this plan for 2020.

Table 1: Florida Recycling Goal and Manatee County Recycling Rate

Year	State Goal	Adjusted Recycling Rate*	Goal Achieved
2012	40% by December 31, 2012	40%	Yes
2013	Same as above	51%	Yes
2014	50% by December 31, 2014	51%	Yes
2015	Same as above	52%	Yes
2016	60% by December 31, 2016	54%	No
2017	Same as above	58%	No
2018	70% by December 31, 2018	63%	No
2019	Same as above	63%	No
2020	75% by December 31, 2020	65%	No

* Includes renewable energy recovery recycling credits

This document addresses the seven requirements for the plan specified in the August 31, 2021 FDEP letter and they are detailed below.

1. SUMMARY OF THE SERVICE AND MATERIALS FOR WHICH THE COUNTY OFFERS RECYCLING

Residential Curbside Collection: In October 2016, the County implemented a countywide single stream recycling program aimed to increase residential sector diversion of curbside recyclables from the landfill. Single stream recycling collection began at the beginning of fiscal year (October 1st – September 30th) 2017 and approximately 27,450 tons of residential recyclables were collected curbside that first year, which represented a 48% increase (8,900 tons) over fiscal year (FY) 2016’s dual-stream program residential recyclables tonnage. FY 2020 was the single stream recycling program’s fourth year, and the quantity of residential recyclables collected curbside was 24,870 tons.

Education and Outreach (E&O): The County continues to maintain a comprehensive E&O program for all its recycling programs. The County uses an array of outlets to distribute recycling information to residents and businesses. To reach more of the County’s Hispanic community, our E&O program has partnered with Spanish-speaking radio stations. Our printed materials that get distributed are not only in English but also in Spanish. Since implementation of social distancing due to Covid-19, the County has also concentrated on virtual efforts to educate and reach out to the residents. The recycling program employs a Recycling & Special Waste Supervisor and Recycling Program Coordinator, and five Solid Waste Enforcement (SWE) Officers provide support spending approximately 50% of their time on recycling program related matters.

In addition to the County’s printed materials and radio station outlets, Manatee County’s social media outlets have expanded. Along with the County’s Facebook page, Education and Outreach programs are also featured on Instagram.

The graphic, **Figure 1**, below shows the Waste Wizard feature that the County has on its website. **Figures 2 and 3** provide examples of educational material in both English and Spanish targeting residents for the materials accepted in the County’s single stream program.

Figure 1: Waste Wizard

Figure 2: E&O Flyer (English)



Figure 3: E&O Flyer (Spanish)



The county also maintains an active website for residents to obtain information about recycling programs offered. www.mymanatee.org/recycling

In addition to the County’s curbside single stream program, the County operates a drop-off recycling program and a comprehensive recycling center at the Manatee County Landfill. Waste tires, scrap metal, appliances, textiles, and yard waste are accepted at the landfill for recycling. The County also provides informational plastic resources to encourage commercial recycling. Additional details regarding these programs and those within the municipalities are provided in the following sections.

2. MSW GENERATION BY SECTOR

As reported in the County’s 2020 Solid Waste and Recycling Annual Report, a total of 1,087,793 tons of MSW were generated countywide in 2020. Of that, 394,006 tons were landfilled, and 693,787 tons were recycled. **Table 2** details the County’s MSW generation and disposal tonnage by sector.

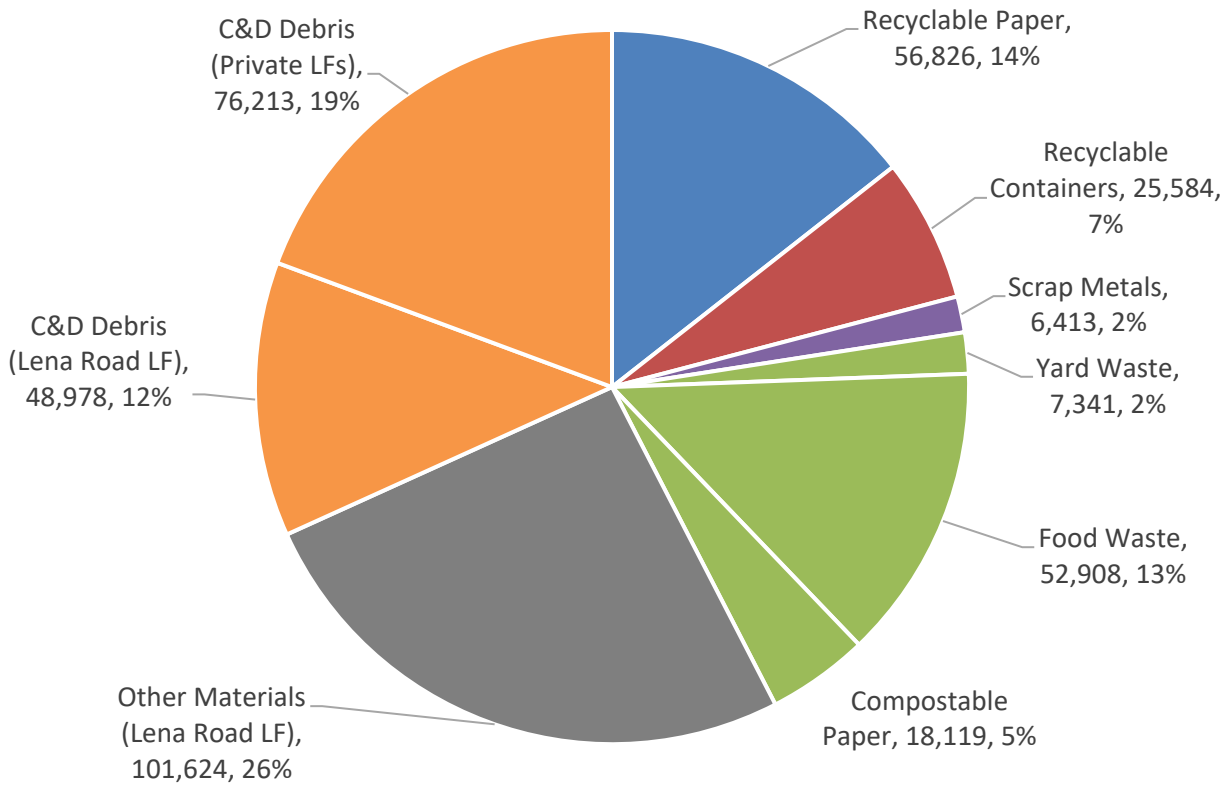
Table 2: Countywide MSW Generation and Disposal by Sector, 2020 (tons)

Sector	Generated	Recycled	Disposed
Single-Family	219,299	65,682	153,618
Multi-Family	52,479	16,420	36,058
Commercial	816,015	611,685	204,330
Total	1,087,793	693,787	394,006

Source: FDEP 2020 Solid Waste Management Annual Report – MSW Collected and Recycled by Generator Type

To identify the greatest opportunities to increase recycling, results of the County’s 2018/2019 waste composition study (WCS) were applied to the 2020 disposed tonnage. **Figure 4** provides the results of this analysis and identifies recycling opportunities by material type. An estimated 23% of the waste disposed in 2020 consisted of recyclable materials and another 20% consisted of compostable materials (i.e., food waste, yard waste, and non-recyclable paper). In addition, 31% of waste disposed was construction and demolition (C&D) debris. Based on audits of C&D debris loads, more than half of this material is recyclable.

Figure 4: Estimated Composition of Countywide Waste Landfilled in CY 2020 (% by weight)



Source: This figure was developed based on Manatee County’s 2020 waste quantity report, 2020 data compiled and reported to FDEP, and results of the 2018/2019 waste composition study conducted by Kessler Consulting, Inc. for the County.

3. EXISTING RECYCLING PROGRAMS

Residential Recycling Programs

The County offers single stream recycling collection service to all single-family and multi-family households in the unincorporated areas of the County. Multi-family units may be serviced similarly to curbside single-family homes, or they may receive commercial dumpster or compactor service.

In addition to the County’s program, all seven municipalities now have carted single stream recycling collection service for residents.

Drop-off Recycling Program

The County operates 10 recycling sites where residents can drop-off single stream recyclables. Manatee County Landfill also has a drop-off location for single stream recyclables and a comprehensive recycling center that accepts the following bulky, special, or household hazardous waste materials:

- Tires
- Yard Waste
- Scrap Metals
- White Goods
- Electronic Waste
- Household Hazardous Waste
- Batteries
- Textiles

Commercial Recycling

As required by State law, commercial recycling in the County is operated as an open market. The County promotes this program through the County’s website. County businesses may research and select their recycling vendor. Recycling vendors offer different collection services at different service rates. The County encourages interested businesses to evaluate all vendors and choose a company that provides them the most economical and operationally viable system for their materials, space allotment and proper container size. The website link below provides the direct link to the list of recycling vendors and contact information for businesses. www.mymanatee.org/departments/utilities/trash_and_recycling/garbage_recycling_faqs

In addition to the common recyclables such as cardboard, mixed paper, bottles, cans, and glass associated with a commercial recycling program, businesses also have the opportunity to recycle the following items through private sector collection initiatives:

- Yard Trash
- Scrap Metals & White Goods
- Tires
- Textiles
- Food Waste
- Electronic Waste & Batteries
- Used Oil

4. CONSTRUCTION AND DEMOLITIONS DEBRIS

On a tonnage basis, C&D debris offers one of the greatest opportunities to increase the County’s recycling rate. The quantity of C&D debris generated can fluctuate widely year to year because of residential and commercial growth. In 2020, approximately 125,200 tons of C&D debris were landfilled. About 49,000 tons of this were disposed at the County’s landfill (27,600 tons of which were in the County’s mixed residential and commercial waste and 21,400 tons were segregated loads); the remaining 76,200 tons were segregated Class III loads disposed at private landfills.



During the 2018/2019 WCS, Kessler Consulting, Inc. conducted visual audits of segregated C&D loads, and more than 50% of C&D debris by weight consisted of materials that could potentially be recycled. These included untreated wood, concrete, scrap metal, cardboard, select plastics, carpet, asphalt shingles, and rock/gravel/grit.

After submitting the 2016 and 2018 Recycling Program Plans, the County implemented the C&D debris recycling strategies identified in the plan. County staff actively worked to identify new collection providers and developed new ways to generate awareness. The recycling team researched new companies through the internet, field inspections, and meetings. The 2020 Annual Report shows that tonnage from new companies has grown from the previous year.

5. YARD WASTE AND ORGANICS RECYCLING

The County offers weekly yard waste collection service to all single-family homes in the unincorporated areas of the County to divert yard waste from landfill disposal for recycling. The County currently grinds yard waste, and the contracted vendor removes it as needed for agricultural uses. The County also uses mulch onsite for slope stabilization and applies it to the wet weather area during rain events to maintain access to the tipping area.



In 2020, the mixed residential and commercial waste stream landfilled by the County at Lena Road Landfill contained an estimated 52,900 tons of food waste and 7,340 tons of yard waste based on the 2018/2019 WCS results.

The County implemented the yard waste and organics recycling strategies identified in the 2016 and 2018 Recycling Program Plans. Staff continues to seek out and identify businesses that recover food waste and compostable materials, educate residents about yard waste collection, and encourage home composting. The County will also utilize the Institute of Food and Agricultural Sciences (IFAS) to develop knowledge in agricultural programs for organics recycling and sustainability.

6. RECYCLING PROGRAMS

In 2020, the mixed residential and commercial waste stream landfilled by the County contained an estimated 82,400 tons of recyclable paper and containers.

Residential Customers: Through its solid waste franchises, the County has a system in place for collection and processing of single-family and multi-family residential recyclables. The key to capturing additional residential recyclables is encouraging participation in the program through the E&O program and educating residents to recycle the correct materials to reduce contamination and ensure clean and marketable materials.



Commercial Businesses: State law prohibits a local government from awarding any entity the exclusive right to collect commercial recyclables. However, the County's franchise agreements require the franchisees to collect commercial recyclables, on a nonexclusive basis, upon request by the customer. It also sets not-to-exceed service fees for this service.

E&O: Additional completed actions include the enhancement of landfill tours to explain the entire solid waste management system and the importance of recycling and waste reduction; and in addition to the previously used media outlets, staff developed a Manatee County Recycling Facebook page, Instagram account, Waste Wizard tool, Spanish radio ads, and videos about recycling information on the Manatee County Government YouTube Channel.

The County implemented most of the residential and commercial recycling E&O actions identified in the 2016 and 2018 Recycling Program Plans. However, because of social distancing requirements due to the Covid-19 pandemic, several of these E&O actions, such as commercial dumpster audits, were interrupted in 2020.

7. NEXT STEPS AND CHALLENGES

As **Table 1** depicts, the County has been making concerted efforts and progress toward the State's 75% recycling goal by the year 2020 and is currently ranked 5th overall in the State. The County's recycling rates have been increasing over time, which is a result of the planning steps and program enhancements made to recycling programs each fiscal year: such as conversion to single stream recycling, dedicated staff work diligently to identify new recycling opportunities and improve E&O content and delivery, and concerted efforts to identify additional quantities of non-certified recyclable materials.

As noted in **Section 2 and Figure 4**, additional recycling opportunities (traditional recyclables and organics) represented an estimated 43% of waste that was landfilled in 2020. The plan outlined initiatives the County plans to undertake to strive to recycle more of these materials. However, to achieve the State's 75% recycling goal, the vast majority of these materials would need to be captured.

Next Steps (FY 2022):

Additional strategies to increase **C&D Debris Recycling** are as follows:

- a. Recognize recycling efforts of companies identified during the annual recycling report process.
- b. As permitted by safe social distancing protocols and requirements, staff will continue providing technical assistance to local building and demolition contractors by holding meetings to discuss the feasibility of source-separating C&D debris at the job site for reuse or recycling. Assistance might include performing job site waste audits that include calculation of potential savings.
- c. Staff will continue to improve its current list of reuse and recycling outlets for C&D materials (e.g. scrap metal, concrete, cardboard, clean wood, etc.) to make it more user-friendly and/or possibly develop a searchable online database.

Additional strategies to increase **Organic Materials Recycling** include the following:

- d. Staff will continue to work on ideas to divert food waste and identify generators who are recycling to gather tonnage information from them.
- e. Using the information on the Florida Organics Recycling Center for Excellence (FORCE) Website, staff will further promote food donations from businesses and institutions (e.g. K-12 schools) by expanding website information to include a list of organizations that operate food pantries or provide meals at no cost and their food acceptance requirements and seek to try and quantify it. <http://www.floridaforce.org/food-waste-reduction/>
- f. Using the information on the FORCE Website, staff will evaluate the potential to work with the vegetative and post-consumer vegetative food waste processing facilities located in or around the County to expand organics recycling. <http://www.floridaforce.org/facilities/>
- g. Staff is looking forward to the FDEP's updated developing partnership with FDOE and Brevard County. Our staff will implement these ideas which will further increase education regarding waste reduction and recycling processes.
- h. Backyard composting promotional efforts may be expanded by establishing composting demonstration sites at local schools or at community gardens.

The following actions are currently in process or anticipated to be performed in FY 2022 as part of the **Residential and Commercial Recycling E&O Program**:

- i. Staff is currently working to expand commercial recycling content for both the website, virtual media outlets, and print materials. They are also expanding components of the Waste Wizard that will educate residents on what is recyclable and how to properly recycle those items.
- j. Staff will add virtual programs on social media platforms such as “How To” Recycle videos. “Where To” Recycle videos. This will help residents in more of a virtual capacity to questions that they may have.
- k. Staff has developed Monthly Recycling topics to be featured in radio ads. Those specific recycling topics will also be on their Face Book and Instagram accounts.
- l. Staff will continue to research State, federal, and corporate grants and incentives for funding opportunities to help increase residential and commercial recycling.
- m. Staff will contact the municipalities to collaborate on recycling and waste reduction programs and E&O messaging.

Challenges:

Key challenges that are anticipated as the County strives to increase our recycling rate are summarized below:

- a. Social distancing and limited access to the public due to Covid-19 makes it challenging to implement in-person events.
- b. Although commodity prices are about as high (or higher for some commodities) than before the market downturn over recent years, the perception still exists among industry players and the public in general that recycling is not profitable or is more expensive than landfilling.
- c. All counties would benefit if FDEP expanded their role of working with Florida’s Recycling Business Assistance Center to help attract private industry and investment in the State’s recycling infrastructure and markets within Florida. Additionally, if FDEP would devise a method to notify counties when new recycling companies are established, it could help make quantifying additional tonnage more efficient and expand our local recycling vendor list.
- d. Funding to establish the necessary infrastructure and encourage innovation is probably the greatest challenge. FDEP could help address this by reinstating recycling or innovative grant programs for infrastructure development, innovation, and market development, or helping counties to identify incentivized grant programs offered through other government agencies or private corporations. These grants could help those counties who have not met the goal.
- e. In an open market for commercial recycling services, the County is challenged to increase commercial recycling participation when services are negotiated by the private hauler. Multiple commercial collection service providers compete to provide recycling collection services and rates can vary greatly. The County’s role is to provide educational information to assist commercial businesses and encourage recycling. FDEP has developed general recycling resources, but counties could benefit from the development of commercial recycling-specific materials such as: how-to guides and best management practices, model policy ordinances, and information on how to best negotiate with commercial collection service providers.

The County is pleased to submit our 2020 Recycling Program Plan. Please feel free to contact me if you have any questions.

Marion County



Marion County Board of County Commissioners

Environmental Services - Solid Waste

5601 SE 66th St.
Ocala, FL 34480
Phone: 352-671-8465
Fax: 352-671-8491

Marion County 2020 Recycling Plan Update

In 2009, Marion County completed a Solid Waste Management Plan which determined the following:

- Marion County consistently exceeded the 30% recycling goal that had been in effect prior to 2008.
- Marion County would need to consider additional actions if it were to achieve the goal of 75% recycling enacted by the legislature in 2008.
 - Of these actions the most significant was the need for additional capital improvements at several of the County's Citizen Recycling Centers. Examples of the capital improvements that have been completed since 2009 have included increasing the number of recycling containers available and increasing the traffic capacity at the busiest Recycling Centers

Since 2017, it has been noted that Marion County's recycling rate has been dynamic with increased and decreased rates. For example, in 2017 the recycling rate was 63 percent and then the rate decreased to 37 percent in 2018. The rate then increased to 62 percent and now has declined down to 41.48 percent for 2020. The noted decrease in the County's recycling rate can be attributed to the following:

- Global Pandemic.
- Lack of recycling education, due to limited interaction with the community during the Pandemic.
- One of the largest recyclers of concrete and asphalt within the County closed their operations.
- A number of franchise haulers eliminating curb side recycling within Marion County.
- The highest overall recycling contamination rate was noted in 2020.

Recycling rates are currently calculated by dividing the total tons of material recycled by the total tons of material generated within the County. Marion County surpassed the first two milestone goals of the 2008 legislation. However, it may prove more challenging to achieve the future milestones for a number of reasons, as described below:

1. **Due to the rural nature of the County, the Solid Waste Department utilizes eighteen (18) recycling centers spread across unincorporated Marion County.** The recycling centers allow the County's residents access to solid waste and recyclable material collection at a low cost. The distance between homes in this rural setting makes curbside collection of waste and recyclables comparatively more expensive than collection in more densely populated counties. The County's achievement of over 50% recycling over years 2011- 2017 in the absence of mandatory curbside collection is a statement of our effort, the effectiveness of our recycling centers and the willingness of the County's residents to separate and bring their recyclables to a location where they can be properly managed.

2. **Marion County elected not to utilize Waste to Energy/Waste Conversion Technology.** During the preparation of the Solid Waste Management plan in 2009, the County was approached by vendors promising low cost conversion of waste into energy. In response, the County then issued a request for proposals from the vendors to demonstrate their capabilities. The County received only three responses and none of them were in compliance with the minimum requirements stated in the request for proposals. The County then elected to continue the landfilling of waste until such time as the technology becomes widespread and cost effective.
3. **Recycling requires not only the separation of materials for the purposes of recycling, but also the subsequent utilization of the received materials.** In 2008, when recycling legislation was drafted, that value of the component commodities in the “Commodities Marketplace” was significantly greater than today. At current levels, the collective value of the recovered materials is generally far less than that of the cost of processing these materials in a single stream facility. Marion County is currently required to pay for the processing of recovered materials, as opposed to receiving revenue from the recovered commodities.
4. **There have been changes in recycling processes and procedures.** The most significant change in what constitutes recycling is the inclusion of the disposal of materials into waste to energy plants. Counties relying on waste to energy as the primary means of waste disposal are much more likely to be able to achieve the 75% goal. Additionally, the use of recovered materials for alternative daily landfill cover is now eligible for recycling credits however, Marion County’s landfill is reaching the end of its life span, therefore this “market” for recovered materials is not viable any longer.
5. **The absence of County-sanctioned Construction and Demolition Debris (C&D) Recycling.** Marion County does not operate a construction and demolition debris disposal or recycling facility, although there are three privately-owned/operated disposal facilities within the County. In regards to the 75% recycling goal, these C&D recycling facilities provide a substantial source for attaining recycling thresholds but they are not economically feasible for the County to operate. As part of the proposed goal, the legislature recognized that achievement of the 75% recycling rate includes a significant reliance on the recycling of C&D materials.
6. **Organics Management within the recycling stream is not feasible in Marion County.** Achievement of the 75% goal includes the segregation of the organic portion of the waste (primarily food waste) from the remainder of the waste stream. This organic waste can be utilized in composting operations though proper organic waste management however, this practice is currently only practiced to a limited extent around the United States. While the separation of organics could increase Marion Counties recycling rate, Marion County has elected to continue to leave organics in its waste stream until a proven and cost-effective method for processing of these materials is determined. For the foreseeable future, Marion County will continue to monitor the efforts of other communities and pending their success will consider implementation of their programs.

Marion County's approach to improve the recycling rate includes the following measures:

1. Marion County does not have control over commodity pricing. Keeping this in mind, Marion County will continue to monitor market conditions and will negotiate with our recycled material processor so that additional materials can be added to the single stream mix if and when such materials improve in value. Nationally, more efforts like those of the Carton Council have held manufacturers more accountable and responsible for packaging.
2. Marion County will continue its efforts to identify in-county recycling activities. Staff will continue to work diligently to identify activities in which material can be recovered and reused. These additional proactive efforts to identify unreported recyclable materials may show that our recycling rate is higher than what is being reported. Marion County staff has identified a potential surplus recycling source in the quantity of recycled materials generated by commercial and industrial establishments not reported in the County's recycling totals.
3. Marion County will continue to promote curbside collection of recyclables. Marion County is experiencing an increase in the population, which may lead the way for mandatory curbside collection of both solid waste and recyclables. With the additional development, curb side pickup will become more attractive in urbanized areas where the population density makes it financially feasible.
4. Marion County will be utilizing the transfer facility to export our municipal solid waste once capacity is achieved with the Baseline Landfill. Feasibility of allocation of tipping floor space for the recovery and stockpiling of readily recyclable materials, such as clean cardboard, as it arrives within the facility will be reviewed and may be implemented as the capacity of the transfer facility is increased.
5. Marion County will continue to track the progress being made in alternative means of waste processing and disposal. This will include organics management within Alachua County and other counties in Florida. If organics management and/or waste conversion technology is proven and financially feasible, Marion County will consider its implementation while remaining cognizant of our disposal agreement with the Heart of Florida Landfill.
6. Marion County will continue to be proactive with educational programs through local schools, organizations, and directly to our citizens. This educational program includes on-site tours of both collection and processing facilities. Additionally, the County will continue its participation in local events by providing recycling collection containers and staffed displays. Marion County has also wrapped two (2) vans with recycling messaging and graphics to increase awareness of the County's recycling efforts.

Summary of Services and Materials

- A. Marion County currently offers single stream recycling services at eighteen (18) recycling centers and two (2) drop-off locations in the County. Marion County's single stream collection centers accept:
 - Plastics 1-5 and 7
 - Cardboard

- Paper
- Tin Cans
- Aluminum

Several recycling centers also accept:

- Electronics – recycled through A1 Assets
- Scrap Metal – recycled through Trademark Metals
- White Goods – R-134 refrigerant is extracted and recycled through No-Vent, metal recycled through Trademark Metals
- Textiles – recycled through various vendors
- Batteries – Lead Acid recycled through Trademark Recycling
- Batteries – Rechargeable through Call2Recycle
- Fluorescent and Compact Fluorescent Bulbs – recycled through Lighting Resources
- Used Oil – recycled through Synergy
- Yard Waste – collected from centers and moved to Baseline Facility. The reduction and recycling through D & G Solutions
- Tires-through both Friends Recycling and Global Tire Recycling

Marion County supports a Landfill Gas-to-Energy Operation at the Baseline Landfill producing electricity from the landfill gas the site produces.

Opportunities to Encourage Recycling of Yard Waste

Marion County currently offers the collection of yard waste from the residents of unincorporated areas at all eighteen (18) recycling centers. Areas such as the City of Ocala, City of Belleview, McIntosh, Dunnellon, and Reddick assess and provide services to their residents. Marion County recycles 100% of the collected yard waste and the yard waste is collected by County trucks and brought to the yard-waste management area at Baseline Facility. Marion County currently utilizes the contracted services with D&G Solutions for the reduction and hauling of processed yard waste. D&G Solutions recycles the processed materials as follows:

- Current efforts yield 35,000 tons of processed yard waste annually.
- Processed material is used as a fuel source, commercial mulch and composting.
- Fines from the processing are used at compost operations.

Exhibit A

Marion County 2020 Recycling Plan Update

Examples of Commercial and Industrial Businesses in Marion County that Produce Recyclable Materials:

- Chewy (card board, metal, plastic)
- FedEx (card board, metal, plastic)
- Fuqua (mulching, compost)
- Ag Resource (mulch, compost)
- Art Walker (concrete, asphalt millings)
- Salsar Construction (concrete and asphalt millings)
- Conrad Tree Service (mulching and compost)
- Commercial Industrial Corp (asphalt millings)
- Anderson Columbia (asphalt millings)
- Art Walker Construction (asphalt millings)

It should be noted that Chewy and Fedex are within the limits of the City of Ocala and their recycled material tonnages are captured by Material Recycling Facility owned by Waste Pro. The other businesses that produce either processed organics or processed construction material provide little data on the outbound tonnages of the materials.

Martin County



MARTIN COUNTY
BOARD OF COUNTY COMMISSIONERS
UTILITIES & SOLID WASTE DEPARTMENT
PO Box 9000 Stuart, FL 34995-9000

DOUG SMITH
STACEY HETHERINGTON
HAROLD E. JENKINS II
SARAH HEARD
EDWARD V. CIAMPI

Commissioner, District 1
Commissioner, District 2
Commissioner, District 3
Commissioner, District 4
Commissioner, District 5

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October 18th, 2021

Florida Department of Environmental Protection
Mrs. Jennifer Simmons
2600 Blair Stone Road

Tallahassee, Florida 32399-2400

Re: Martin County Recycling Program Plans

Dear Mrs. Simmons:

This letter is in response to the request from The Department of Environmental Protection for counties who did not achieve the 2020 75% recycling goal. Included in this letter are the plans that Martin County has and will be implementing to help achieve the recycling goal.

Martin County's residential curbside, commercial garbage and recycling collection contract was renegotiated with Waste Management, Inc. The new contract, which commenced October 1st, 2021, will give Martin County the chance to look toward new recycling programs and the opportunity of reducing landfilled materials.

- This new contract required the contractor to deliver 65-gallon wheeled recycling carts to all residential customers.
- New 95-gallon recycle carts are being utilized at Multi-Family locations.
- Commercial customers can have the County's franchise hauler do a recycling audit to determine their recycling needs, free of charge.
- The increased capacity of the new 65-gallon recycling carts versus the old 18-gallon recycling bins, that were previously being used, will enable residents to divert more recyclable material from the waste stream.
- The new solid waste agreement also requires the contractor to provide additional recycling education to Martin County schools, civic groups, HOA's, and other groups as requested.
- Now that the new solid waste agreement has been finalized, Martin County will be improving its educational material such as flyers, brochures, and its website to reflect the new contract changes and the importance of recycling.
- The new solid waste agreement will also address contamination issues involving single stream recycling.

- A new contract for recycling of construction and demolition debris was awarded in November 2019, which requires the contractor to recycle 65% of incoming construction & demolition debris. This new construction and demolition debris processing contractor was fully operational January 2020.

If you have any questions, please contact my office at (772) 221-1416.

Sincerely,



Samuel Amerson, PE
Utilities & Solid Waste Director

Miami-Dade County



miamidade.gov

Department of Solid Waste Management
2525 NW 62nd Street • Suite 5100
Miami, Florida 33147
T 305-514-6666

October 19, 2021

Ms. Jennifer L. Simmons
Permitting & Compliance Assistance Program
Division of Waste Management
Florida Department of Environmental Protection

RE: Miami-Dade County Department of Solid Waste Management's Response to Plan on Achieving 75% Recycling Goal

Dear Ms. Simmons,

Miami-Dade County is pleased to provide you with our recycling plan as we work toward achieving the State's 75% goal. We have responded to each of the plan points as stated in Mr. Bahr's memo. Please see below:

Summary of Services:

Miami-Dade County (MDC) continues to maintain a residential single-stream curbside recycling program that currently provides service to more than 350,000 single-family homes. The program started in 1990 with a dual-stream application and transitioned to single-stream in 2008. The single-stream program continues to provide service to all single-family homes in the Department of Solid Waste Management's (DSWM) service area. This includes ten municipalities that receive all solid waste collection services from the County. In addition, MDC continues to provide curbside recycling service through Interlocal Agreements to nine municipalities who provide their own residential solid waste collection either by their own employees or their contractors.

The remaining 15 municipalities receive residential recycling services as directed by their municipal governments. This accounts for all single-family homes in Miami-Dade County. The residential recycling programs (all municipalities and the unincorporated area) collect newspaper, aluminum and steel cans, plastic bottles, cardboard, and aseptic containers. All single-family homes on the MDC curbside recycling program also collect glass, food, and beverage containers. It is possible that some of the cities that are not on the Miami-Dade County program do not collect glass. The market for glass in South Florida is not strong, and this will be addressed in the "Additional Steps" section of this response.

Yard trash is not collected for recycling; however, we promote our Home Composting Program in conjunction with the University of Florida IFAS Extension. Nearly 70% of

the waste that enters Miami-Dade's Disposal System is taken to the MDC Resources Recovery Facility or "RRF" (energy-from-waste) owned by MDC and operated by Covanta. Yard trash mixed with garbage is incinerated at the facility. Yard trash collected separately is shredded at the RRF and incinerated with the garbage.

In addition, white goods are collected in the DSWM service area by DSWM trash crews. Residents can bring white goods to any of the 13 DSWM-operated Neighborhood Trash and Recycling Centers (TRCs). The white goods are separated, and the metal is recycled.

After the Christmas holidays, residents are encouraged to bring Christmas trees to the TRCs. The Department chips the trees, and the mulch is made available for pick up by our residents after the holidays.

DSWM operates two Home Chemical Collection Centers, which are open to all residents of Miami-Dade County regardless of whether or not they live in the Department's Waste Collection Service Area (WCSA). Residents are welcome to bring household-generated used electronics, waste oil, paint, home chemicals, pool chemicals, spent propane tanks, scuba tanks, and oxygen tanks. Additionally, select TRCs also accept used electronics and used oil. Keeping these materials out of the waste stream, helping protect workers and the environment. DSWM operates a "Chem Again" program where new or "almost new" paint and household chemicals are available for pick up free of charge to be reused by MDC residents. Each week, a list is posted on the Home Chemical Collection Centers' web page on the DSWM website under the "Free Home Chemicals" accordion.

- *Analysis of the percentage of the county's MSW generated by the commercial, multifamily, and residential single-family sectors;*

Total tons of waste generated in Miami-Dade County is the result of total tons disposed (both at landfills and at the energy-from-waste facility) plus total tons recycled (both certified and non-certified). Tons disposed and certified recycled tons are provided by FDEP. Non-certified tons come from both FDEP and DSWM. The designation of commercial, multi-family, and residential units is a calculation based on the following:

The MDC Department of Regulatory and Economic Resources provides the number of single-family and multi-family residential units, and the Property Appraiser's Office provides the number of commercial units. Based on the number of units, 39% of the waste generated is single-family residential, 26% is multi-family residential, and 35% is commercial.

DSWM planned to review reports provided by County permitted hauling companies to determine the possibility of requesting additional information that would be helpful in providing the origin of these materials. This was not possible due to stay-at-home orders

and the transition to remote work activities but will be implemented in the coming months.

With regard to determining set out rates for single-family curbside recycling participation, due to the disruption of normal work activities caused by the pandemic, the Department's Enforcement Division was unable to implement the plan to conduct random sampling of residential units that use the County's curbside recycling service. This sampling plan will be conducted in Fiscal Year 2021-22.

- *Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors;*

Recycling at commercial and multi-family establishments is required in Miami-Dade County by Ordinance No. 91-123, which states: Every commercial and multi-family establishment shall provide for a recycling program which shall be serviced by a private hauler or the appropriate governmental agency. Failure to comply can result in fines that range from \$300 to \$950 based on the number of units for multi-family establishments or square footage for commercial establishments.

DSWM is not the service provider for commercial and multi-family recycling collection. However, the Department's Waste Enforcement Officers are responsible for inspections to determine compliance. The plan for the Department's Solid Waste Enforcement Division to continue to expand pro-active enforcement of the Multi-Family / Commercial recycling ordinance was curtailed due to the pandemic but will be implemented in Fiscal Year 21-22. In addition, several private recycling companies that provide recycling services to the commercial and multi-family sector discontinued the acceptance of glass in their programs, thus removing one of the heavier materials found in the recycling stream and possibly reducing the tonnage reported to the state by private recycling facilities.

- *Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris;*

Information regarding recycling tonnages of construction and demolition debris provided by FDEP continues to be limited. DSWM began to work with other County Departments to obtain information on C&D companies and contacted those companies to ascertain recycling tonnages. Many of these companies were less than cooperative in providing tonnage information as they are not required to do so by any government entity. Work on this will continue, but assistance from the State regarding revamping the reporting system to capture non-certified tons that may not be currently reported would be very helpful.

- *Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses;*

MDC uses an energy-from-waste facility to dispose of much of the municipal garbage and trash generated in the County. As stated last year, there may be private companies that process yard waste brought directly to them and/or municipalities that have yard waste programs. The information obtained by the Department showed that the municipalities do not have yard waste programs, and the Department's plan to obtain this information from private companies was limited during the pandemic.

To encourage participation in residential composting activities, the County continues to offer home composting workshops in cooperation with IFAS, where residents are taught by a Master Gardener. Residents who complete the class are then given a home composting bin. Data from the home composting program as well as grass-cycling was not available as classes were discontinued due to the pandemic.

- *Strategy (including general timeframes) for expanding your county's recycling programs, or for creating new programs if needed, as part of your county's efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.;*

MDC's residential recycling program continues to operate at its maximum level. Every "single-family" home in Miami Dade County has curbside recycling available; all multi-family and commercial buildings must recycle as required by Ordinance. Though markets for cardboard increased, markets for other recyclable materials -- specifically glass -- weakened. The County continues work on possibly expanding the Home Chemical Collection Program currently operating at two locations. As previously mentioned, this will make it easier for more residents to bring their home chemicals, used oil, used electronics, and other materials to be handled in an environmentally sound manner. We continue to believe it may be in the best interest of Florida's Counties to request Legislative help in either using a diversion goal or restating the 75%. Assistance with developing markets in the southern part of the state (especially for glass) would help tremendously in reaching this goal.

- *Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the statewide goal of 75%.*

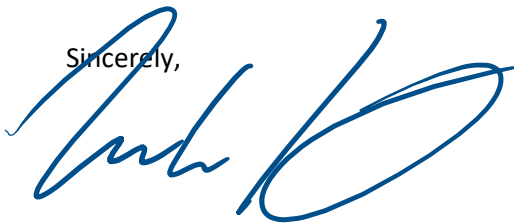
As previously mentioned, MDC will confirm the information provided by FDEP on MDC tonnage landfilled throughout the State to ascertain if any waste materials are being reused as landfill cover and therefore can be counted toward recycling. We will continue to work with our municipalities to determine if programs we may be unaware of are currently in place. We will continue to work to obtain tonnages from food banks, used electronics recyclers, as well as battery and tire recyclers.

Anticipated challenges continue to include recyclable material markets (over which we have no control) and how they affect municipal recycling programs and location of markets and lack of same in the southern part of the State. Pandemic-related challenges to collection, processing, and transportation will be a challenge going forward.

DSWM has recently awarded a contract to the University of Florida to assess the cost and market potential for yard waste management in the DSWM service area.

Should you have any questions regarding this plan, please do not hesitate to contact me at 305-514-6609 or Jeanmarie Massa our Recycling Manager at 305-790-2295.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael J. Fernandez". The signature is fluid and cursive, with a large loop at the end.

Michael J. Fernandez
Director

Okaloosa County



Okaloosa County Public Works



State of Florida

September 20, 2021

Tim Barr, P.G., Director
Division of Waste Management
Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Request for Development and Submittal of County Recycling Program Plans

Dear Sir:

In response to your letter dated August 31, 2021, subject as above, the following is provided:


- Okaloosa County provides single-stream curbside recycling service to about 34,000 residential customers. Materials collected include all paper products, glass containers, plastics 1-7 except Styrofoam, aluminum cans, and steel cans.
- A breakdown of percentages of MSW generated is as follows: single-family 30%; multi-family 9%; and commercial (includes C&D) 61%
- Residential recycling consists of mandatory curbside recycling provided to approximately 34,000 homes as well as accessibility to drop-off recycling to about 16,000 homes and buy-back services to 67,000 homes. 50% of residential units utilize the curbside service; 20% use drop-off locations; and 2% take advantage of buy-back locations. Multi-family recycling is voluntary. Of approximately 1500 units 30% have curbside service. It is estimated that 10% of the multi-family units use drop-off recycling and that 4% use buy-back services. Commercial recycling is on a subscription basis and about 1% of businesses have a recycling program.
- C&D recycling occurs on a voluntary basis where it proves profitable for the private C&D vendors to separate selected commodities for recycling. Historically, the building industry as well as private C&D owners have opposed mandatory recycling due to the potential for increased operational costs due to capital investments and labor required to sort out materials. Unless C&D recycling is mandated in adjacent counties (and the border state of Alabama) then the industry can choose to take it to an out of county or out of state facility where costs may be less expensive. (Currently municipal recycling programs in the Panhandle are struggling due to poor markets for recyclables.)

- Okaloosa County currently operates the yard trash processing operation for materials generated from residential pickup and from commercial landscapers. This material is ground into mulch and used within the inactive landfills for cover and erosion control. The County Recycling Office offers back yard composters at a reduced rate as an incentive for residents to compost at home. This effort is supported by the Master Gardeners through the County Extension Office. While the County has experimented with composting via innovative technology grants through FDEP, the County does not have the finances or manpower to add another process into its yard trash operations.
- The County has established a non-exclusive franchise ordinance that will select a pool of qualified vendors to service commercial establishments. Staff will look to establish incentives within the non-exclusive franchise that will encourage recycling. Additionally, a new ordinance also requires the registration of recyclers and construction and demolition debris facilities.
- Without a viable commercial recycling program it will be difficult to approach the State goal of 75% in 2020. A new solid waste contract effective April 1, 2017 included the replacement of 18 gallon recycling bins with 96 gallon roll-carts. It is anticipated that this will boost recycling figures. The County is utilizing a new recycling facility in Escambia County owned and operated by Emerald Coast Utility Authority (ECUA). The addition of the 96 gallon roll-carts for recycling positions the county to transition to 1-1-1 service in the future. Commissioners faced opposition to eliminating 2-1-1 while approving the larger recycling containers.
- A citizens advisory group was authorized by the Board of County Commissioners in late 2019 and began meeting in 2020. Its mission statement is to review, comment, and/or make recommendations to the Okaloosa County Board of County Commissioners on matters of recycling administration and operations in order to:
 - improve recycling effectiveness and efficiency;
 - increase public awareness of best practices;
 - conduct reviews of new and emerging technology; and
 - plan long-term enhancement to recycling capabilities
- The County and Waste Management are currently in discussions about building a new transfer station in South Okaloosa County. Waste Management (WM) also has plans to construct a Materials Recovery Facility (MRF) to create recyclable processing capabilities within Okaloosa County to service the Florida Panhandle. Currently, as stated above, Okaloosa County contracts with ECUA to process its recyclables. In the event of a disruption in services WM has a contract with RePower in Montgomery to process recyclables from Okaloosa County and cities serviced by WM.
- The potential exists to explore the possibility of constructing a facility similar to the one operated by RePower in Montgomery. This “dirty MRF” concept has the potential to not only to increase residential recycling, but also to address commercial recycling for the first time in a significant way.

- Okaloosa County is currently awaiting the results of recommendations made by the Florida Recycling Workgroup to FDEP concerning the use of Sustainable Materials Management to develop a waste diversion goal versus a recycling goal.

Please let me know if you need additional information.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. Reece".

Jim Reece
Recycling Coordinator

Orange County

Orange County Recycling Program Plan

September 30, 2021

Executive Summary

- On August 31, 2021, Orange County (County) Utilities Solid Waste Division (Division) was notified by the Florida Department of Environmental Protection (DEP) that it was required to present to the DEP a recycling program plan (Plan) because it had not achieved the state mandated 75 percent recycling goal by 2020. The County was one of 33 large counties (with populations over 100,000) that did not meet the goal. Only three large counties met the goal. The County achieved a 34 percent recycling rate (including landfill gas-to-energy credits) in 2020.
- The County and each municipality independently manage the waste and recycling programs in their jurisdictions.
- The County and its municipalities have had recycling programs in place since 1990, including curbside recycling collection programs that accept – plastic bottles , jugs, and tubs, glass jars and bottles, metal cans, clean cardboard, and clean paper. The County has additional programs that recycle a wide array of materials including yard waste, construction and demolition debris (C&D), electronics, white goods, and tires.
- More than 3.34 million tons of materials were discarded by Orange County residents, businesses and visitors in 2020. Almost 1 million tons of these materials were recycled.
- Multiple private solid waste and recycling collection and processing/disposal companies operate in the County. More than half of the waste and recycling generated in Orange County is managed by private firms that report recycling and disposal activities directly to the DEP.
- In December 2018, the County began a program to recycle select loads of C&D received at the Orange County Landfill.
- The County has a long-standing program that recycles clean yard waste delivered to the Orange County Landfill. In 2020, more than 76,000 tons of yard waste were processed into mulch.
- Currently, the Division is working to increase recycling in the County. Activities toward this goal include: 1) developing and soliciting a request for proposals (RFP) for the development of a new MRF through a public-private partnership; 2) continuing the Recycling Quality Improvement Program to improve the quality of collected recyclables; 3) development of a new sustainable materials management plan and solid waste master plan update; and 4) strengthening coordination with local-governments by harmonizing recycling messaging and entering into an inter-local agreement for municipalities and the County to partner on the new MRF.

Purpose of this Plan

On August 31, 2021, the Division received a memorandum (Memorandum) from Tim Bahr, P.G., Director of Waste Management for the DEP. The Memorandum was addressed to “Solid Waste Directors of Large Counties (over 100,000 population).” In 2008, the Florida Legislature set a recycling goal for Florida counties of 75 percent by 2020. Section 403.706(2)(d) Florida Statutes (F.S.) states that if a county does not achieve the recycling goal, the DEP can direct the county to develop a plan to expand its recycling program.

The Memorandum identifies the large counties that did not reach the 75 percent goal for 2020, and directs these counties to submit to the DEP a recycling program plan by September 30, 2021. Of 36 “large counties” in Florida, 33 (including Orange County) did not meet the 75 percent recycling goal. The County achieved a 34 percent recycling rate as calculated by the DEP in 2020, including credits for landfill gas-to-energy (without energy credits, the “conventional” recycling rate was 30 percent).

As directed in the Memorandum, “at a minimum, the county recycling program plans should include:

- Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper and yard trash;
- Analysis of the percentage of the county’s MSW generated by the commercial, multi-family, and residential single-family sectors;
- Analysis of any existing recycling programs for the commercial and multi-family sectors, including estimated customer participation rates and recycling rates for each of those sectors;
- Description of the county’s implementation, including any planned changes, for your program for recycling construction and demolition debris;
- Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses;
- Strategy (including general timeframes) for expanding your county’s recycling programs, or for creating new programs if needed, as part of your county’s efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.; and
- Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the next interim, and ultimate statewide recycling goal of 75% by the end of 2020.”

The Plan described herein meets the seven criteria established above, provides a description of the County’s existing recycling program, and presents steps the County will be undertaking to improve its recycling program.

Waste and Recycling Management in Orange County

The County and its municipalities have long-established and successful residential recycling collection programs. In assessing the entirety of recycling services available in Orange County, it is important to understand that many different entities have a hand in managing waste and recycling from commercial and residential generators in Orange County. There are eleven independent municipalities located within Orange County, and two municipalities that are located within the Reedy Creek Improvement District (associated with Walt Disney World). A list of municipalities and unincorporated County and their respective populations is shown in Table 1. In addition to 1.42 million residents, the County also hosted 35 million visitors in 2020¹.

Table 1. Orange County Estimated Incorporated and Unincorporated Population, 2020

Municipality	Population
City of Apopka	53,632
City of Bay Lake (Reedy Creek Improvement District)	15
City of Belle Isle	7,378
Town of Eatonville	2,351
City of Edgewood	2,791
Lake Buena Vista (Reedy Creek Improvement District)	24
City of Maitland	21,113
Town of Oakland	3,809
City of Ocoee	49,781
City of Orlando	298,943
Town of Windermere	3,024
City of Winter Garden	48,469
City of Winter Park	30,630
Total municipal population	521,960
Unincorporated County	893,300
Total Orange County Population	1,415,260

Source: Bureau of Economic and Business Research,
<https://www.bebr.ufl.edu/population>

¹ Orlando Sentinel, May 5, 2021.

The County and each of the municipalities independently manage their solid waste and recycling programs. Several of the larger municipalities self-perform collection operations – the Cities of Apopka, Orlando, Ocoee, and Winter Garden. The County contracts for the collection of solid waste and recyclables from single-family residential units. The County also has a licensing program for the collection of commercial solid waste in unincorporated areas of the County and a registration program for the collection of recyclables in unincorporated areas of the County. Like the County, the remaining municipalities contract for residential waste and recycling collection, and each municipality has its own programs concerning the control of commercial collection of solid waste and recycling.

There are a number of privately-owned and operated transfer stations and disposal facilities within the County, and private companies collect and manage most of the waste and recyclables generated in the County. Because so many different entities have a role in providing services to different residential and commercial customers, the County depends heavily on DEP to track and report disposal and recycling activities that occur within its boundaries.

The County’s Recycling Program

The Division provides 65- and 95-gallon recycling carts to each of the approximately 230,000 single-family residential units in the unincorporated areas of the County that are part of its collection program. For the purposes of residential collection, the unincorporated area of the County is divided into five collection franchise zones. In addition to the curbside collection program, the County currently operates two drop-off recycling collection locations – at the County Landfill and at the Porter Transfer Station. The materials accepted in the County’s recycling program are listed below.

List of Program Recyclable Materials:

- Plastic bottles , jugs, and tubs labeled #1 - #5
- Metal cans (tin, aluminum, and steel)
- Glass bottles and jars
- Cardboard (clean, flattened corrugated boxes)
- Paper (newspapers and advertisements, paper bags, junk mail, magazines and catalogs, office/note paper, phone books, cereal/shoe/drink boxes and milk/juice cartons)

Generally, the municipal residential collection programs collect the same program recyclable materials as the County.

Beyond the collection services described above, the County has historically provided the facilities that received most of Orange County’s residential and commercial recyclables for processing. In 1990 the County began operating the Orange County MRF located at the County Landfill (in the eastern portion of the County) and the McCormick Transfer Station (located in the western portion of the County).. The facilities were owned by the county and contract operated by Waste Management Recycle America. Since 2017, the Orange County MRF no longer serves as Central Florida’s regional recycling processing hub. It is no longer

operated as a MRF because the processing equipment is near the end of its service life. In 2020 operations at the McCormick Transfer Station were suspended and transfer operations were moved to the County's newly renovated McLeod Transfer Station. With the MRF shutdown, the County's processible recyclables received at the MRF and the McLeod Transfer Station are transported to facilities outside of the County for processing. Each municipality makes separate arrangements for its recyclables to be delivered to one of the available receiving locations that include the County's facilities and also Waste Management's McLeod Transfer Station and Waste Connection's Taft Transfer Station.

The lack of local recycling capacity results in undesirable transportation inefficiencies and additional costs, with most collected recyclables currently being shipped to MRFs located from 40 to over 100 miles away. In the recent past, the closed MRF processed more than 8,000 tons per month from the County, surrounding jurisdictions, and commercial sources. New infrastructure is needed for sustainable, efficient and long-term residential recycling and a new facility could most likely also include institutional/commercial/industrial mixed recycling.

The Mayor's Sustainability and Smart Growth Task Force report offers an important recommendation to "Reduce Solid Waste to extend current life of the landfill through education and improved methods." The final report identifies as a short-term goal for the County to:

"Collaborate with the City of Orlando and other jurisdictions on the upcoming Materials Recovery Facility Request for Proposals with a goal of partnering with a private entity to significantly improve recycling and waste diversion processes and equipment."²

The County has identified the development of a new MRF as critical to supporting recycling in the Central Florida region. The Division, with support of other County Divisions, is working to implement the Mayor's goal to develop a new MRF, as described in the "County Strategy for Expanding Recycling Programs" section of this Plan.

Additional recycling services provided by the County include:

- Electronics and HHW materials are collected at the Orange County Landfill and the Porter Transfer Station by a contracted private contractor for recycling and proper disposal.
- Waste Tires received at the Orange County Landfill and Transfer Stations are removed and processed off-site by a contractor.
- White goods accepted at the Orange County Landfill are removed from incoming loads and stored separately so that refrigerants can be properly removed. White goods, along with other scrap metal, are removed and processed off-site for recycling.

² "Transition Team Report," presented to Mayor-Elect Jerry L. Demings, November 2018, p38.

Waste Generation in Orange County

In Calendar Year 2020, the DEP reported that more than 3.3 million tons of waste and recycling were generated in the County³. The County owns and operates three locations to receive municipal solid waste (MSW) to meet its obligations under F.S. 403.706 “to provide for the operation of solid waste disposal facilities to meet the needs of all incorporated and unincorporated areas of the county.”⁴ The three county-owned and operated facilities are the Orange County Landfill (Class I and Class III landfills and ancillary facilities), the McLeod Road Transfer Station, and the Porter Transfer. In addition to County owned facilities, private transfer stations operate in the County that receive and transport MSW and recyclables out of the County for disposal or recycling including facilities operated by Waste Management Inc. of Florida and Waste Connections, Inc. Also, private Class III landfills operate in Orange County including Waste Management’s Vista and Pine Ridge Landfills and the Mid-Florida Materials Landfill.

DEP provided information to the County concerning the quantity of material disposed of at private facilities that report Orange County as its place of origin. A significant amount of waste management and recycling activity that occurs in Orange County is performed by the private companies or independent municipalities. Certain municipalities have arrangements for their collection contractors to deliver solid waste and yard waste out of the County for disposal, and others deliver quantities of solid waste to private facilities for disposal.

Table 2 shows the quantity of solid waste and Construction and Demolition Debris (C&D) reported as disposed of from Orange County in 2020. Quantities reported in Table 2 and subsequent tonnage information are rounded to the nearest 1,000 for ease of reporting and because of limited accuracy of the subject data.

Table 2. Tons of Waste Generated and Disposal Locations, 2018

Waste Type	Orange County	Other	Total
Class I	578,000	738,000	1,316,000
Class III	336,000	919,000	1,255,000
C&D	-	425,000	425,000
	9,000	210,000	219,000
Total	923,000	2,292,000	3,215,000

Source: County Scale Records and DEP Supplied Information

³ DEP website.

⁴ F.S. 403.706 Local government solid waste responsibilities. (1) The governing body of a county has the responsibility and power to provide for the operation of solid waste disposal facilities to meet the needs of all incorporated and unincorporated areas of the county.

Table 3 shows waste type and disposal location on a percentage basis. It is important to note that only 29 percent of waste reported as generated in Orange County was managed by the County disposal system.

Table 3. Percentage of Waste Generated and Disposal Location, 2020

Waste Type	Orange County	Other	Total
Class I	18%	23%	41%
Class III	10%	29%	39%
C&D	0%	13%	13%
Other	0%	7%	7%
Total	29%	71%	100%

Note: Numbers may not sum correctly due to rounding.

Loads of waste delivered to the Orange County Landfill are tracked as residential or commercial based on account codes and available information provided at the time of delivery. For private companies such information is not available, so deliveries to private landfills and transfer stations are assumed to be commercial waste.

In the County, multi-family waste is regulated and reported as commercial waste⁵, and not tracked separately.

Analysis of Commercial and Multi-Family Recycling Programs

The County has responsibility for managing a residential waste and recycling program for unincorporated County single-family residential units. Commercial waste and recycling (including multi-family as subsets thereof) is managed by the private-sector, pursuant to County Code Chapter 32. Florida Statutes⁶ prohibits local governments from directing recycled materials to a County-designated processing facility. In Orange County, recyclers are very protective of customer and quantity information and treat such information as trade secrets, and are reluctant to report any such information to the County. “Certified Recyclers” do report

⁵ Orange County Code, Section 32.

⁶ 403.7046 Regulation of recovered materials. (3) Except as otherwise provided in this section or pursuant to a special act in effect on or before January 1, 1993, a local government may not require a commercial establishment that generates source-separated recovered materials to sell or otherwise convey its recovered materials to the local government or to a facility designated by the local government, nor may the local government restrict such a generator’s right to sell or otherwise convey such recovered materials to any properly certified recovered materials dealer who has satisfied the requirements of this section. A local government may not enact any ordinance that prevents such a dealer from entering into a contract with a commercial establishment to purchase, collect, transport, process, or receive source-separated recovered materials.

certain information to the DEP, and the County relies on DEP reporting to obtain the best available information concerning recycling. In 2020, the recycling quantities shown in Table 4 were reported by the County, based on DEP supplied information.

Table 4. County Recycling Information, 2020

Materials Type	Collected Tons	Tons of MSW Recycled	Percent MSW Recycled
Newspaper	141,331	13,820	10%
Glass	67,203	8,080	12%
Aluminum cans	9,319	1,144	12%
Plastic bottles	51,922	2,701	5%
Steel cans	274,070	55,820	20%
Corrugated paper	472,908	173,088	37%
Office paper	124,558	32,044	26%
Yard trash	83,263	48,016	58%
Other plastics	176,625	5,374	3%
Ferrous metals	99,445	49,762	50%
White goods	14,594	9,461	65%
Non-ferrous metals	29,912	14,758	49%
Other paper	276,810	22,156	8%
Textiles	125,982	2,699	2%
C&D debris	1,154,561	540,203	47%
Food	106,189	4,371	4%
Miscellaneous	110,074	6,639	6%
Tires	22,773	9,352	41%
Process fuel	0	0	0
Total	3,341,539	999,488	30%

Source: DEP.

In Table 4, the Collected Tons column shows a break-out of the material types collected and recycled as reported by the DEP. The materials recycled in the largest volumes are C&D, steel cans, and corrugated cardboard. These materials are generated in large quantities in the commercial/industrial sector, and long-standing collection and recycling markets exist for these materials.

Orange County Code Section 32-163 does prescribe a commercial recycling program for all commercial generators to “separate designated recyclable materials and make them available for recycling.” Orange County has found Section 32-163 to be outdated, principally because no currently active MRF is operating in the County. The County may revisit commercial recycling and related enforcement options as a commercially-viable MRF is established.

County C&D Recycling

In December 2018, a pilot for a C&D recycling program was initiated at the Orange County Landfill. A five-acre area on the paved yard waste processing pad was designated for this purpose. At the scale house, select loads of C&D that are observed to contain a large percentage of recoverable materials are directed to the C&D recycling area. At the area, loads are dumped on the ground and material is sorted into roll-off boxes, walking-floor trailers, or adjacent vegetative material piles.

Because of the success of this effort, the C&D recycling program was incorporated into the operating permit renewal issued in 2019 by DEP for the Class III Landfill. Currently, C&D recycling operations have been suspended due to the COVID pandemic and related staffing shortages, but C&D recycling operations will resume as conditions return to normal.

County Yard Waste Recycling

Orange County has a long-standing yard waste recycling and composting program. Under the 2016 collection contract, haulers are required to de-bag yard waste at the curb. Additionally, drivers are instructed to remove any bags or litter from deliveries of material to the yard waste processing area. Loads of clean yard waste delivered to the Orange County Landfill have been able to be processed into virtually litter-free mulch.

Most of the ground mulch produced at the yard waste processing area is used on-site at the landfill as part of daily and intermediate cover, for side-slope stabilization, and for other uses on the landfill. The County intends to continue accepting and processing clean yard waste into mulch for the foreseeable future. Tons of yard waste processed is shown in Table 5.

Table 5. Tons of Yard Waste Processed Annually

Year	Yard Waste
2014	67,885
2015	70,807
2016	61,870
2017	73,034
2018	61,959
2019	61,221
2020	76,415

Source: County Records

In 2019, the County resolicited for the off-site recycling of yard waste collected by the County's contract haulers in the western part of Orange County. In its new agreement, the County specified that yard waste collected by the County's contract haulers and delivered to the new processing facility must be beneficially reused, and that the recycling company must provide specific, regular reports to the County on this recycling activity. It is expected that this improved contract will result in additional yard waste recycling in the County.

County Strategy for Expanding Recycling Programs

The County is undertaking significant activities to improve its recycling efforts. The County is working to attract new recycling capacity to the region, which is expected to support significant increases in residential and commercial recycling (including multi-family). To make this goal a reality, the four interrelated activities are being performed simultaneously. The activities are listed below and explained in the following subsections of the Plan.

- Public-private partnership for a new MRF
- Recycling Quality Improvement Program
- Development of a Sustainable Materials Management Plan/Solid Waste Master Plan Update (SMMP/SWMP)
- Intergovernmental coordination and inter-local agreements

Public-Private Partnership for a New MRF

Critical to expanding recycling efforts in the County and the region is encouraging the development a new facility that will take in recyclables and sort them into marketable commodities. It is the County's intention to enter into a public-private partnership (P3) for a company(ies) to design, build, own, operate, and finance the new MRF in return for a long-term commitment of recyclable materials from the County and participating municipal partners. The County is undertaking a strategic procurement process that will assure a suitable long-term P3 contract can be entered into. Important data gathering activities are being conducted to assure the most current and best in class ideas can be incorporated into the procurement process delivering a final contract.

Recent activities related to the development of the RFP include:

- Draft procurement documents and technical specifications have been substantially prepared.
- Outside legal counsel has been hired to assist with particular aspects of the P3 procurement approach.

Future planned activities include:

- Advise potential proposers of upcoming solicitation and receive feedback on RFP approach.
- Upon finalization of all contractual and technical components the RFP for a new MRF will be issued.

Recycling Quality Improvement Program

Over the past two years, the County has continued to operate and refine its Recycling Quality Improvement Program (Improvement Program). The goal of the Improvement Program is to reduce the amount of contamination residents place in recycling carts, which will allow collected materials to be processed more efficiently at the MRF (lowering costs) and increase the percentage of recyclables in the input stream (raising value). These changes will help improve the economics of the recycling program. The principal activity the Improvement Program will perform is to provide curbside education to customers concerning their recycling. Field staff

will observe recycling cart contents and provide feedback through the use of “Oops Tags” and “Great Job Tags” that will advise residents concerning what should and should not be placed in the recycling cart.

Recent Improvement Program activities include:

- November 2019 – The County fully-implemented the Improvement Program using contracted field staff, supervised by full-time County staff, to observe and tag carts placed at the curb for collection and provide direct, curbside feedback to residents about recycling.
- January 2020 – The County amended its current recyclables materials processing agreement to increase the percentage of allowable contamination in the incoming recycling stream from 15 percent to 30 percent. This change has allowed more incoming material to be accepted and processed for recycling.

Future planned activities include:

- Continued operation and refinement of the Improvement Program.
- Continued monitoring of increased recycling acceptance under the amended recyclable materials processing contract.

Development of SMMP/SWMP

The SMMP/SWMP planning process will involve stakeholders across the waste and recycling spectrum in the County and interested parties on a broader scale. As described above, the Division only manages a portion of the waste and recyclables produced in the County. The plan will look to make use of public and private resources, as well as new partnerships to provide end-of-life materials management for all of Orange County for the next 30 years. Because of the amount of work involved, this is expected to be a multi-year project.

Recent SMMP/SWMP activities:

- Contracted with a consultant to assist in plan development.

Future planned activities include:

- Project kick-off and plan development.

Intergovernmental Coordination and Inter-Local Agreements

Over the past several years, the County has made efforts to work closely with area local governments to coordinate on recycling and other waste related matters. Collaborating on consistent recycling messaging across jurisdictional boundaries makes sure residents receive consistent messages concerning what can be placed in their recycling carts. In preparing its RFP for a Recycling Improvement Consultant, the County made sure that the contract allows cooperative use of the agreement (piggy-backing), so that smaller municipalities can make use of services such as the field education activities. County staff has initiated and is continuing regular meetings to share educational materials and coordinate on promotional efforts.

One area where intergovernmental cooperation is anticipated to provide benefits is in the procurement of a new MRF agreement. One message County staff has heard consistently as it has conducted MRF research is – the more tons, the lower the processing cost. If a new MRF operator can be assured of a larger quantity of materials, it can construct a facility with optimum economies of scale for the sorting equipment. The County has been communicating with potential municipal partners who are interested in participating in a new MRF project. In conjunction with developing the procurement, the County is preparing an inter-local agreement for local governments that will partner in delivering materials to the new MRF. The timeline for developing and executing inter-local agreements will be in coordination with the procurement process for the new MRF.

Recent coordination activities include:

- Continued quarterly City-County coordination meetings
- April 2020 – startup of “CentralFloridaRecycles.org” website. This website is a cooperative effort of area counties and municipalities, and is the first step in creating a uniform recycling message for residents.

Future planned activities include:

- Distribution and meeting to discuss draft recycling inter-local agreement.

Additional Steps, Initiatives, and Challenges

As described in 403.706(2)(a)⁷ F.S., Florida counties bear the responsibility for achieving the mandated 75 percent recycling goal established by the Florida legislature. As described throughout this Plan, many entities participate in recycling and waste management in Orange County, which makes it challenging for the County to account for the state mandated recycling goal.

Conclusion

As described above, the County has laid out an ambitious Plan for recycling in Orange County. We are committed to pursue innovation in recycling processing public outreach; we are working to include other local governments in our recycling planning, and we will continue to collaborate with public and private sector partners to achieve the best recycling solutions for Orange County.

⁷ 403.706(2)(a) (2)(a) Each county shall implement a recyclable materials recycling program that shall have a goal of recycling recyclable solid waste by 40 percent by December 31, 2012; 50 percent by December 31, 2014; 60 percent by December 31, 2016; 70 percent by December 31, 2018; and 75 percent by December 31, 2020. Counties and municipalities are encouraged to form cooperative arrangements for implementing recycling programs.

Osceola County

Osceola County Solid Waste

2020/21/ updates and plan

Background:

In September of 2013 Osceola County implemented single stream curbside recycling. Although the Solid Waste Department had provided public drop off sites for recycling since the early 90's curbside recycling was never implemented. As in the past the recycling tonnages for this new service is recorded thru the state's certification of recyclers program. The curbside program did in fact impact the counties recycling rate increasing from 8 % to 30 %. However, county staff had to dig for the correct tonnages as the typical avenue of capturing the tonnage thru the certification of recyclers did not reflect the residential or the commercial tonnage. County staff has met with various franchised haulers to gain insight into their reporting policies and it was discovered that the haulers are not making any effort to make certain the county of origin is correctly recorded when tipping at a final processing site. Based on windshield surveys by county staff there is probably a 60 % participation rate among commercial establishments as far as making the service available. Commercial establishments include resorts and hotels.

Confirmation being witnessing a single stream container on site serviced by a commercial approved franchised hauler. Contact is then made with the franchised hauler to determine what site or facility the recyclables are hauled to. It is at that point that questions arise as to the accuracy of the tonnages that are reflected on the states certification of recycler's reports. It appears that the hauling side of the business is not able to make direct hauls from the county of origin only and back to the processing site. It is much more efficient to make a run that includes sites from more than one county. Any attempt to quantify the accurate tonnage from a particular county based on site verification proved fruitless. In addition, route sheets from haulers could not quantify specific volumes as it is all mixed and compacted on one load.

Documenting curbside recycling tonnage proved challenging also. For whatever reason the curbside tonnage simply was not recorded, however after persistence the tonnages were finally documented. It seemed if the county staff wasn't willing to dig for the information, the tonnage simply would go unrecorded.

In fairness it is also difficult to track commercial MSW tonnage. In addition to Osceola county waste streams are hauled to Polk county, Orange county and Lake. It is understood that significant amounts of MSW may not be accounted for in our reporting on Table 1. However, all efforts and methods of collecting data are exhausted each year to the best of our abilities.

Osceola County faces an additional challenge in a huge part of the curbside residential waste stream in the tourist corridor near the attractions. Short term rentals are a huge part of this area. Property and

HOA managers provide 7 day a week garbage collection thru valet services. The challenge is in the area of waste reduction. These areas produce huge volumes of garbage compared to nonshort term rental areas due to 5 and 6 bedroom homes being fully rented on a weekly basis. The typical vacationer consumes more than the traditional occupant. In these same areas where there is no valet 7 day service provided the county faces a challenge with contamination in the single stream cart on recycle day. These loads are quite often rejected at the processing site; therefore no recycling tonnage is recorded.

Summary and Plans:

In summary Osceola County feels the recycling goals set by the state statute may never be met without drastic changes in the reporting methods. However, we also understand that the perfect method may not be out there. Osceola County feels that an opportunity to recycle is being provided to all facets of our community including the cities of Kissimmee and the City of St. Cloud; however we just can't comprehend how the tonnage could ever offset the tremendous amount of MSW that is generated in our tourist corridor. The county will continue to explore options to address the contamination issues. Although a new curbside hauling collection contract went into effect October of 2019 that also utilizes automated curbside garbage collection to alleviate contamination and litter issues our tonnages are not showing a significant increase.. At this time the county does not plan on implementing a commercial recycling ordinance. The cost may not be economically feasible for some commercial establishments. Also, as pointed out above a lot of the resort/hotel establishments are already participating in recycling efforts. Staff will continue to collect reportable tonnages and increase efforts thru public information flyers, brochures, door hangars and web based educational tools to both encourage recycling and address the contamination issues.

Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper and yard trash:

Single stream curbside recycling: Osceola County has contracted with a vendor to provide single stream curbside recycling to 79,000 single family and multifamily dwellings in unincorporated Osceola County. Residents will be issued a 95 gallon recycling cart and a 95 gallon garbage cart to place their recyclables in. Our partners at the City of Kissimmee and City of St. Cloud also provide single stream curbside recycling. In addition to addressing the single family dwellings the cities are able to place single stream bins at multifamily dwellings and small business offices in strip malls.

6 Public Private Drop off Sites located throughout the county. These sites are designed to accommodate the multi-family, single family, commercial, Mobile home RV parks, single family with large cardboard loads. Sites contain roll off containers with sliding doors accepting the single stream waste stream. Popular for residential waste stream for large portions of cardboard that does not fit in curbside can.

Office Paper Recycling: Over 45 Osceola county government offices located throughout the area are provided with bins for collecting the office paper waste stream. Centrally located in break rooms office paper is collected once a week for transportation to a recycling processing site in south Orange county.

Plastic Bottle and Aluminum Can Recycling: Over 45 county government offices are provided with bins for aluminum cans and plastic bottles. Centrally located in break rooms. Collected by solid waste staff once a week and transported to our drop off sites.

Yard Waste grinding and screening for garden soil: The Bass Road yard waste processing site grinds and screens the vegetative waste collected curbside creating a soil amendment that is given away to the public and delivered to schools and community gardens for use. Upon request soil amendment is transported by solid waste equipment and staff to schools and used to create gardens and an educational opportunity.

Kenansville Public Recycling Drop off Site: The solid waste department provides a manned facility for residents of this rural area accepting recyclables from the residential waste stream, waste tires for processing, yard waste for grinding and household chemical collection center for waste oil, paint, old pesticides electronics and TV tubes.

Waste Tire operations: Tires are accepted at our Bass Road processing site at no charge 6 times a year in an effort to alleviate waste tires being illegally disposed at the side of our roadways.

Public Education campaign: (please see packet included) Web site and flyers and pamphlets are provided to civic groups HOA's and handed out at presentations and community events.

Small Quantity Generator Business Compliance inspection program: By performing business compliance inspections the solid waste department educates and provides guidance to the commercial sector on proper disposal and recycling of their waste stream.

Litter Prevention Program: The solid waste department employs a 4 man litter crew which conducts weekly roadway and waterway litter collection and retrieval. The Keep Osceola County Beautiful Campaign allows for civic clubs, students and neighborhood groups the opportunity to organize and conduct litter clean ups in their neighborhoods. Much of the litter is acceptable as recyclables and is recovered for recycling.

Household Chemical Collection Program : The solid waste department operates three full time public drop off sites for the citizens of unincorporated and incorporated Osceola County. These site except waste oil, waste paint, old pesticides, batteries and various household items . (see flyer included)

Analysis of the percentage of the county's MSW generated by the commercial, multifamily and residential single family sectors.

As mentioned above county staff has challenges with another sector called short term rental multifamily and single family that represents a much greater portion of the MSW generated than typical single family and multifamily. Based on that fact it is believed that the short term

rental community generates commercial type tonnages. Therefore, the obvious answer is that the potential for the greatest recovery of recyclables is from the commercial sector.

Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors.

As mentioned above by a windshield survey it appears approximately 40 % of the commercial sector in unincorporated and incorporated Osceola County is participating in some form of recycling provided by a franchised hauler or city government trucks and recycles carts. So it appears to be about a 40% participation rate, however staff does not feel comfortable or have enough information to calculate a recycling rate.

Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris.

The county has no plans to implement a construction and demolition debris recycling program in unincorporated Osceola County

Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses;

The solid waste department partners with the University of Florida Extension services and master gardeners to provide a soil amendment derived from the grinding and screening of the curbside yard waste collected from unincorporated Osceola County and the City of Kissimmee. The amendment is then provided at no charge to our citizens, schools and community gardens. The extension office strives to encourage backyard composting through their community outreach classes making citizens aware of the soil amendment provided by the solid waste department.

Strategy (including general time frames) for expanding your county's recycling programs, or for creating new programs if needed, as part of your county's efforts to achieve the statewide recycling goals set forth in s.403.706(2) F.S. and

At this time the county feels the current single stream curbside recycling program and the extremely high participation rates we experience due to once a week garbage collection are sufficient. We are also experiencing tremendous growth. As mentioned, we implemented a new curbside collection contract in October of 2019 in which we are adding automated garbage collection in 95 gallon containers and allowing citizens to purchase additional garbage containers. We are still hoping this will assist in alleviating some of our contamination issues. The automated garbage collection will also address the litter issues in our storm water ponds.

Discussion of any additional steps, initiatives and any anticipated challenges the county foresees would be critical for implementing your strategies to achieve the next interim recycling goal of 60 percent in 2016, and ultimately statewide goal goal of 75 percent by the end of 2020.

As mentioned above the county has implemented a new collection contract effective October 2019. The county believes this effort will address the current contamination issues with the single stream recycling and litter prevention in our storm water ponds. The biggest challenge is determining if the private processors that our recyclables are delivered to are finding a market for the recyclables.

Palm Beach County



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SOLID WASTE SOLUTIONS

Per Section 403.706(2)(d), Florida Statutes (F.S.), the FDEP has directed the Solid Waste Authority of Palm Beach County (SWA) to develop a plan for how the County will strive to meet the State of Florida's (State) 75% recycling goal. Though the SWA's total recycling credits was only 74% for 2020, the SWA is committed to continue and improve all of its existing programs in order to meet the State's 75% recycling goal.

1. Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper and yard trash;

The SWA employs a dual stream recycling program to manage the recyclables generated by more than 1.4M County residents. A blue recycle bin is for plastic bottles and containers of two gallons or less; food and beverage cans; glass bottles and jars; milk and juice cartons; and drink boxes. A yellow recycle bin is for cardboard; newspaper and inserts; office and school paper; mail; magazines; dry food boxes; paper bags; cardboard paper rolls; and the clean side of pizza boxes. Single family residents receive an 18-gallon blue or yellow recycle bin or 25-gallon can for their blue bin recyclables for curbside collection. Multi-family residents receive 96-gallon blue and yellow recycle carts for community collection. There are also more than 300 yellow 8-cubic yard dumpsters for residents who have larger cardboard or for those who live in multi-family communities that do not have recycling service. These yellow community cardboard dumpsters are also available at business locations that are publicly accessible for their cardboard and office paper collection. Each year the SWA processes more than 100,000 incoming tons of blue and yellow bin recyclables. More than 80,000 tons are sold through brokers to mills and factories that will use these commodities as raw materials to make new products.

In addition, the SWA collects yard waste at the curb. Residents are allowed to place 6-cubic yards of yard waste to the curb each week. Tree branches placed at the curb must be cut into pieces that are no more than 6-feet in length and



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weigh no more than 50-pounds each to facilitate manual loading. Palm fronds can be any length. Land clearing is never collected curbside and includes but is not limited to stumps, dirt, root balls and whole trees.

2. Analysis of the percentage of the county's MSW generated by the commercial, multi-family, and residential single-family sectors;

The SWA does not have access to this information, as many of the materials are mixed by the time they reach the SWA.

3. Analysis of any existing recycling programs for the commercial and multi-family sectors, including estimated customer participation rates and recycling rates for each of those sectors;

In November 2017, a month-long curbside set out rate study for single-family homes was conducted in three different areas of the County, which were broken down into four demographic areas as outlined by Census Data. The highest set out rate for each week per income-specific demographic area was calculated to be:

- ~ Low (Average Income \$13,600-\$53,800) – 40%
- ~ Medium Low (Average Income \$53,801-\$94,000) – 45%
- ~ Medium High (Average Income \$94,001-\$134,100) – 52%
- ~ High (Average Income \$134,101-\$392,900) – 57%

From the overall dataset, the combined set out rate for the highest set out weeks was 54%.

In an effort to increase this set out rate, the SWA is in the process of a direct mail campaign to provides a phone number and website to order new or replacement recycle bins and remind residents what goes in their blue and yellow recycle bins . The SWA has a dedicated recycling field team that conducts waste reviews of commercial properties in an effort to increase recycling. This



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team is building a commercial property database to be more proactive with businesses on a more routine basis.

4. Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris;

As an alternative for disposing of construction and demolition (C&D) debris at a landfill or the SWA's waste-to-energy facilities (WTEs), the SWA administers a permitting program for private solid waste recycling facilities to recycle C&D debris. In an effort to make recycling C&D the more economical alternative, the SWA increased the tipping fee for the disposal of C&D. The SWA also has entered into contracts with C&D recycling facilities located in Martin and Broward counties to further promote the recycling of C&D materials generated within the County. There are no planned changes to this program at this time.

5. Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses;

The SWA has an ongoing program for permitted yard waste facilities to process yard waste into mulch, so it can be land applied on farm land. The SWA is currently working with two permitted companies to process and convert yard waste delivered to the SWA transfer stations into a mulch-type material for land application.

6. Strategy (including general timeframes) for expanding your county's recycling programs, or for creating new programs if needed, as part of your county's efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.; and



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There are four initiatives that are under way that may bring in additional recyclables:

- 1) The FDEP recently approved the beneficial reuse of bottom ash from the SWA's two WTE facilities as a blended aggregate in asphalt and concrete applications. In addition the FDOT is currently preparing a developmental specification providing for the FDEP approved specified use of ash aggregate produced at our facilities in non-structural concrete. A pilot road project, utilizing the blended ash aggregate in asphalt was completed in 2020 and continues to perform satisfactorily. Two additional pilot projects including road asphalt and concrete gutters and sidewalks are scheduled to be completed within the next six (6) months.
- 2) In conjunction with the beneficial reuse of WTE bottom ash initiative, the SWA is moving forward with a demonstration project for "Advanced Metals Recovery" from WTE ash. In addition to recovering ferrous and nonferrous metal from the WTE bottom ash this project will produce size graded aggregate suitable for use. The timeline for implementation of this initiative is with the next six (6) months.
- 3) A new pilot program was just started to test if a larger blue recycling cart will bring in more volume of clean blue bin recyclables. The cart used in this pilot is to be 35-gallons, and have a lid and wheels. This larger cart is able to be tested as the SWA's current collection contract requires a rear-load split-body recycle truck that will have a flipper arm. This pilot is an extension of a 2016 pilot project using a 25-gallon can that was manually loaded. The results of this 25-gallon can pilot showed a sustained 13% increase in clean blue bin recyclables in the pilot area. Since this pilot's inception, more than 60,000 25-gallon blue recycle cans have been distributed to residents who requested them.
- 4) The SWA is expanding its Recycle Right Event program to standardize recycling at major community events to increase recycling tonnage and decreasing garbage tonnage. Success stories in this program are:
 - a. Boca Raton Bowl
 - i. 2016, recycled 2.4 tons of material
 - ii. 2017, recycled 3.2 tons of material
 - iii. 2018, recycled 3.4 tons of material



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- iv. 2019, recycled tons of material
 - v. 2020, Covid impacted game
- b. Garlic Fest
- i. 2017 (3-day event), recycled 1.95 tons of material; disposed 5.82 tons of garbage; for a recycling percentage of 25%
 - ii. 2018 (3-day event), recycled 1.97 tons of material; disposed 5.37 tons of garbage; for a recycling percentage of 27%
 - iii. 2019 (2-day event), recycled 1.24 tons of material; disposed 2.32 tons of garbage; for a recycling percentage of 35%
 - iv. 2020 – Covid impacted event
- c. SunFest
- i. 2018, recycled 16.24 tons of blue bin material; disposed 19.8 tons of garbage; for a recycling percentage of 45%
 - ii. 2019, recycled 9.17 tons of material; disposed 37.44 tons of garbage; for a recycling percentage of 24% (rainout year)
 - iii. 2020, Covid impacted event

7. Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the statewide recycling goal of 75 percent.

In order to achieve the current statewide recycling goal, the SWA will:

- ~ Continue its dual stream recycling program
- ~ Implement programs that aim to capture as much clean recyclable material as possible in the easiest manner from residents;
- ~ Include the energy recovery from beneficial use of landfill gas in biosolids processing;
- ~ Include any offsite yard waste recycling programs to help divert yard waste away from final disposal at SWA facilities; and



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SOLID WASTE SOLUTIONS

- ~ Completed evaluation and selected an equipment supplier to complete a \$3 Million upgrade to our container processing system to improve throughput, capture rate and quality.
- ~ Obtained grants from the Recycling Coalition and Carton Council to install a robotic component in the container processing system to recover polypropylene and additional aseptic containers.

Pasco County

PASCO COUNTY BOCC

Pasco County Recycling Program Plan

**Public Infrastructure Branch
Solid Waste and Resource Recovery Department**



I. Background and Motivation

The Florida recycling goal of 75% by the year 2020 was set by the Florida Legislature in 2008. A modification to the goal was made in 2010, directing that it applies primarily to counties with a population of greater than 100,000. Certain 'benchmark' interim goals were set as follows:

Calendar Year Interim Recycling Goal

2012 40%
2014 50%
2016 60%
2018 70%
2020 75%

Pasco County's 2020 recycling goal was not met. This report is being submitted to satisfy the requirements of Section 403.706(2)(b), 403.706(2)(d), and 403.706(2)(e) of the Florida Statutes. Pasco County's Solid Waste System includes a Waste-to-Energy plant; Class III landfill; white goods recycling; curbside recycling; biosolids processing facility; and Hazardous Waste program.

II. Summary of Recycling Services and Materials

Pasco County's recycling is single-stream and is comprised of the following materials: aluminum cans, metal food cans, mixed paper, cardboard, and plastic containers #1, 2, 3, 4, 5, and 7. The method of collection includes self-service drop-offs, residential curbside collection, and commercial collection that includes multifamily, rural, and business recycling; in Pasco, the difference between commercial and residential accounts is delineated by dumpster versus can service. Both curbside residential and commercial recycling collection are picked up by private, independent trash haulers and brought to a County transfer station before being shipped to a Material Recovery Facility (MRF). Household recyclables can be brought to the County's satellite recyclables drop off centers which provide an outlet to those who may have additional recycling needs other than what can be serviced by their waste hauler. These are geographically located to reduce travel time to one of the County's two full-service waste management facilities. Additionally, the on-site drop-offs at Pasco's East Pasco Transfer station and the West Pasco Resource Recovery Facility accept a variety of Household Hazardous Waste materials as well as white goods of all kinds.

III. Analysis of MSW and Recycling by Sector

The tracking system utilized at County facilities (PCscales) does not currently possess differentiation between waste collected from commercial businesses versus multifamily complexes, though a rough differentiation can be made between dumpster service and curbside service thanks to data on front-loaders, rear-loaders, and side-loaders. Additionally, much of the County's total waste can be attributed to C&D disposal, as well as extensive use of non-County facilities. Waste generation is an aggregate of many

different waste types. As such, it is not presently evident precisely how many tons of MSW is attributable to single family, multifamily, or commercial units. The data presented in the chart below is for total waste generation, inclusive of construction and demolition debris. In order to make as accurate an approximation as possible, data provided by the Property Appraiser was used to calculate percentages by unit type. These approximations of municipal solid waste generated by single family, multifamily, and commercial units as defined by FDEP terminology are listed in the annual Solid Waste Management Report and are recreated below:

Single Family Units	28% MSW
Multifamily Units	3% MSW
Commercial Units	69% MSW

IV. Analysis of Recycling Programs for Commercial and Multifamily

As of mid-2020, licensed trash haulers in Pasco must provide commercial recycling services upon request by any persons with dumpster service. Under the current delineation between residential and commercial, both multifamily complexes and commercial businesses are considered commercial accounts.

Multifamily complexes have several options for recycling in Pasco. First, individuals may utilize any of four County recycling drop-off sites available for personal recycling use, free of charge. Additionally, the management company for the complex may also request a recycling dumpster from their trash hauler.

According to a June 2021 report, there are approximately 800 commercial entities currently recycling in Pasco County, representing around 8% of all eligible businesses in Pasco. Ineligible recycling locations include businesses with no site to do business, as well as ATM's, vending machine video rentals, etc.

V. Description of C&D Recycling

Much of the construction and demolition recycling within Pasco's borders is executed by PAW Materials, Angelo's Recycled Materials, and Coastal Landfill Disposal, three private companies. PAW Materials has proposed the construction of a new facility in west Pasco. This new facility should notably increase recycled C&D tons and expand C&D options throughout the County.

VI. Description of Yard Debris and Organics Recycling

Yard waste recycling in Pasco is implemented by private companies, including Bay Mulch, PAW Materials, and Coastal Landfill. At the County's West Pasco Resource Recovery Facility, yard waste is ground and used as landfill cover. In 2020 and 2021, yard waste composting was investigated as a possible avenue for organics recycling. However, as

County facilities take in fewer than 5k tons of yard waste per year, the implementation of a yard waste composting program would not be economically feasible at this time and would not significantly change Pasco's recycling rate.

A cutting edge biosolids facility opened in 2018 that processes approximately 50,000 tons of biosolids into class AA Registered Fertilizer. Therefore, the utilization of biosolids in organics composting is not practical at this time.

VII. Strategy for Expanding County's Recycling Program

The expansion of Pasco County's WTE to include a fourth combustion unit will be implemented within the next seven years. By both reducing the need for out-of-county landfilling as well as significantly increasing recycling credits, a notable increase in the FDEP Reported Overall Recycling Rate is anticipated to fulfill the requirements of Florida Statute 403.706.

In addition, the ash reuse program from the WTE will be expanded in the coming years and the ash metal recovery process increased. Finally, within the next year Pasco will evaluate the feasibility of construction and demolition recycling on site, utilizing either internal mechanisms or via a partnership with external stakeholders.

VIII. Discussion of Additional Steps, Challenges, and Strategies

There are several challenges that the County faces in terms of reaching the 75% state recycling goal, including:

- The difficulties resulting from COVID-19 pandemic have and continue to affect recycling percentages by increasing solid waste thanks to growing use of single-serve items, supply chain problems, supply and demand disruptions, and tight labor markets at every level.
- Glass was removed from Pasco County's accepted recycling materials list due to a lack of competitive outlets for reuse and its negative impact on recycling contamination, despite the deleterious effects of glass removal on recycling tons. However, Pasco County's approach is geared towards the principals advocated in Sustainable Materials Management rather than mere tonnage.
- Consistent with industry news, changing market conditions, adverse impacts from the global pandemic, slumping domestic paper markets, downward pressure on paper prices, the lightening ton, and all other issues that have plagued the recycling industry for several years, the 75% recycling goal is challenging for many municipalities. Additionally, the focus on a weight-based metric as a measure of recycling success does not consider more current, germane views on recycling and may be inadequate to accurately analyze or track actual environmental benefits and impacts of solid waste materials management.

Polk County

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WASTE & RECYCLING DIVISION

Monday, October 18, 2021

Jennifer L. Simmons
Florida Department of Environmental Protection
Division of Waste Management
Permitting & Compliance Assistance Program
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Tallahassee, FL 32399-2400
Jennifer.L.Simmons@dep.state.fl.us

Re: Polk County 2021 Recycling Plan

Dear Ms. Simmons,

This document serves as Polk County's 2021 Recycling plan, which we are submitting to you in response to your October 14, 2021 email request (attached).

Polk County Recycling Plan

The Polk County Board of County Commissioners offers residential curbside recycling services to over 142,000 single and multi-family¹ residential units within unincorporated Polk County. This recycling service accepts aluminum cans, steel (tin) cans or containers, cardboard, cereal boxes, cardboard egg cartons, newspaper, uncoated paper, paper products, and most gallon and half-gallon translucent plastic² milk, juice or water jugs. More details on these services are available at <https://www.polk-county.net/waste-and-recycling/recyclable-materials>.

Polk County's 17 municipalities also offer various forms of residential curbside recycling. Recycling in the commercial sector of Polk County is voluntary and handled by individual businesses and private recycling contractors.

According to the Florida Department of Environmental Protection's (FDEP) 2020 Municipal Solid Waste Management Report, Polk County's citizens and businesses (unincorporated area and municipalities) recycled almost 352,000 tons of material from a total collected municipal solid waste (MSW) stream of 1,141,000 tons; an unadjusted recycling rate of 31%. Additional information that you requested regarding recycling in Polk County are discussed as follows:

- *Analysis of the percentage of the county's MSW generated by the commercial, multifamily, and residential single-family sectors*

¹ Facilities with 9 units or fewer. Facilities with greater than 9 units are handled as commercial entities

² No color or clear plastics

According to the 2020 FDEP Annual Report, the commercial, residential multi-family and residential single-family sectors in Polk County account for 47%, 8% and 45% of the MSW collected in Polk County, respectively (see table below).

2020 MSW Collected by Generator Type (tons), Polk County, Florida

Commercial	Residential		Total
	Multi-Family	Single Family	
537,641	92,048	510,984	1,140,673
47%	8%	45%	

Source: 2020 FDEP Solid Waste Annual Report

- *Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors*

Unincorporated Polk County and its municipalities have commercial, residential multi-family and residential single-family sector participation rates of 28%, 53% and 77% respectively, and recycling rates of 31%, 29% and 31%, respectively (see tables below).

2020 Recycling Participation by Generator Type, Polk County Florida

Sector	Total Units	Recycling Services Available		Units Participating in Service	
		Units	% of Total	Units	% of Total
Commercial	21,961	21,961	6%	6,091	28%
Residential Multi-Family	47,308	47,308	14%	25,081	53%
Residential Single Family	276,535	276,535	80%	212,932	77%
Total	345,804	345,804	100%	244,104	

Source: 2020 FDEP Solid Waste Annual Report

2029 Recycling Rate by Generator Type, Polk County Florida

Sector	Collected	Recycled	
Commercial	537,641	168,738	31%
Residential Multi-Family	92,048	26,717	29%
Residential Single Family	510,984	156,170	31%
Total	1,140,673	351,625	31%

Source: 2020 FDEP Solid Waste Annual Report

- *Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition (C&D) debris*

According to the FDEP annual report, 22% of Polk County construction and demolition (C&D) debris was recycled in 2020 (see table below).

2020 C&D Debris Recycling, Polk County Florida

Total C&D Debris (Tons)	Recycled C&D Debris	
238,294	51,379	22%

Source: 2020 FDEP Solid Waste Annual Report

Most C&D debris in Polk County is collected and managed by private industry, with disposal primarily at privately owned and operated C&D debris disposal facilities. The Polk County North Central Landfill (NCLF), which is the only active government-owned landfill in Polk County, does not have a dedicated C&D debris landfill cell, and therefore receives very little C&D debris. The NCLF staff segregate concrete, rock, tile, roofing shingles and other material from the C&D debris loads that are received at the NCLF, and beneficially reuse this material within the landfill for road stabilization.

- *Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses*

According to the 2020 FDEP annual report, 56% of yard trash in Polk County is recycled. All yard trash collected at Polk County's NCLF is processed into mulch and made available to citizens for agricultural and landscaping use. The processed mulch is also used at the NCLF for soil stabilization and landfill cover.

Recycling Program Strategy

Polk County strives to provide cost-effective and environmentally sound recycling services to its citizens by targeting commodities that can realistically be recycled. It is important to remember that local government solid waste programs facilitate and implement the collection of recyclables. The quantity and types of material that are actually recycled is controlled by the capabilities of the material recycling facilities, mills, and manufacturers; and ultimately the demand created by the end users of the materials. Our focus is on collecting materials that have a market demand and can be compatibly comingled during collection. This minimizes contamination and results in a cleaner product that is more likely to be recycled at material recovery facilities. It also minimizes double handling of materials and the potential for rejected contaminated materials to enter the environment.

Polk County engaged the University of Florida's Sustainable Materials Management Research Laboratory (SMMRL) to explore future recycling initiatives that would have the greatest positive environmental impact. One finding of this work was that the materials in the curbside collection program that contributed the most environmental benefit (greenhouse gas avoidance and energy use savings) were newspaper, aluminum and steel cans, and corrugated boxes; materials that Polk County's curbside recycling program has focused on. The following is a summary of some of the new recycling initiatives that Polk County is considering:

Expanded Commercial and Multi-Family Recycling Program

Section 403.706(2)(d) of the Florida Statutes state that the FDEP may direct counties that have not achieved milestone recycling goals to expand recycling programs to existing commercial and

multi-family dwellings, including but not limited to apartment complexes. Polk County will work with the University of Florida SMMRL to examine the feasibility, cost and environmental benefits of expanding mandatory recycling programs to commercial and larger-unit multi-family dwellings (apartment complexes).

Expanded C&D debris and Yard Trash Recycling Programs

Section 403.706(2)(b) of the Florida Statutes state that each county must implement a program for recycling C&D debris. Chapter 62-701.730(13)e of the Florida Administrative Code requires the owner or operator of disposal facilities that accept C&D debris to “ensure that such materials are processed, to the extent economically feasible, to remove recyclable material prior to disposal.” Most C&D debris in Polk County is managed by private sector C&D debris disposal facilities, and only a small amount of C&D debris is received by Polk County’s NCLF. Of the C&D debris that is accepted at the NCLF, concrete, tile, roofing shingles and similar materials are recovered and used for road stabilization on haul roads inside the landfill cells. The County is considering a policy change to accept these materials at a reduced charge to encourage additional recycling of these materials. In addition to being economical, this type of C&D debris recycling has the environmental benefit of reducing the consumption of natural aggregates that are normally used to stabilize roadways.

Any further expansion of C&D debris recycling would likely involve placing new requirements on businesses and/or private C&D debris disposal sites to recycle beyond what is currently financially feasible, and would likely require extensive processing (screening and grinding). This processing consumes energy, which diminishes the environmental benefit of recycling these materials. We believe investment in new recycling programs should be focused on materials that produce greater environmental benefits. The University of Florida SMMRL performed an analysis of the environmental impacts associated with increasing C&D debris and yard trash recycling-rates. Even if Polk County were to increase C&D debris and yard trash recycling rates 71% and 92% (respectively) above current levels, similar to that achieved in San Jose California, greenhouse gas emissions and energy use would only be reduced by 5.4% and 0.8%, respectively.

Glass Container Drop Off Collection Sites

Glass containers were dropped from Polk County’s curbside collection program because glass breakage during collection and sorting contaminates other recyclables and makes color separation of glass (which is necessary to produce a marketable product) very expensive. We are evaluating the feasibility, cost and environmental benefit of collecting glass separately at drop-off collection sites. Doing so will minimize the costs associated with recycling glass since it will be less contaminated with other materials and more efficient to segregate into each glass color.

Expanded Recycling Capabilities

Polk County will provide a new opportunity in November 2021 for potential bidders to submit during a request for proposal (RFP) period regarding a new recycling processor and seller. Polk County currently contracts with numerous recycling processors and sellers for various recycling streams (e.g., electronics, cardboard, metals). In the RFP, Polk County will target creating potential new contracts with recycling processors and sellers that have capabilities to locate high-value markets for existing and new potential recycling streams. In addition, the RFP will be an

opportunity for Polk County to streamline their recycling contracts to a smaller list of recycling processors and sellers.

We appreciate the opportunity to share our ideas for enhancing Polk County's recycling program. Please feel free to contact me if you have any questions or would like to discuss our recycling plan. We will appreciate any comments or suggestions you have regarding this plan.

Sincerely,



Ana Wood

Director, Polk County Waste and Recycling

Santa Rosa County



**SANTA ROSA COUNTY
ENVIRONMENTAL DEPARTMENT**

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Santa Rosa County

Recycling Program Plan

Prepared by:

Santa Rosa County
Environmental Department

September 28, 2021

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I. SUMMARY OF TRADITIONAL RECYCLING SERVICES

Santa Rosa County is actively engaged in supporting the requirement of Section 403.706, FS: (62-701.320(7)(h), FAC) by enacting a Solid Waste Franchise Collection Agreement for the unincorporated areas of the County. Beginning in 2011, the County awarded two solid waste collection franchises to Waste Management of Florida and Waste Pro of Florida to provide solid waste collection services in the southern portion of Santa Rosa County. In 2014, the County awarded a third franchise to the Emerald Coast Utilities Authority (ECUA) to provide solid waste collection services in the northern portion of the County. Again in 2020 the county combined the three franchise areas into one area that included all unincorporated areas within Santa Rosa County. Waste Pro of Florida is currently the county's residential waste collections franchisee. In addition, Adams Sanitation provides waste collection services in the northern area of the county. The Solid Waste Franchise Collection Agreements require the franchisee to provide weekly curbside collection of household garbage, recyclables (as a subscription service), yard waste and bulk waste.

A primary goal of the Franchise Collection Agreements was to provide a standard level of service county wide that includes curbside collection of recyclables if subscribed as a means of meeting the state of Florida's recycling goals. The County also provides segregated areas at the County owned and operated Central Landfill for the collection of yard waste, white goods, masonry/clean concrete, household hazardous waste (HHW) and end of life electronics that are recycled or reused. Yard Waste is ground to provide mulch for use in landfill operations as cover and erosion control material. Clean concrete, bricks, ceramics, and similar materials are crushed and used to construct temporary roads in the Class I and Class III disposal areas.

Before enacting a subscription-based recycling program in 2020 the county was experiencing high levels of contamination in the recycling stream from residents who were simply using their additional 96-gallon recycling container as a second waste container. By moving to a subscription service it allows the residents who truly care about recycling and want to participate the opportunity to do so. It has also proven to provide the county with a much cleaner recycling product that will in turn allow our recycling processor (Emerald Coast Utilities Authority) to better market and sustain their current recycling operations.

In May of 2021 staff created a brief video describing the where, when, how, and why of the county's subscription-based recycling program. This video was advertised on social media outlets and is posted on the county's web page. The video can be viewed here:

<https://www.santarosa.fl.gov/362/Recycling>

and

https://youtu.be/MMSsjQV_dQ

Items that are accepted and not accepted in SRC's Recycling program:

1. Acceptable Items

Santa Rosa County utilizes a single-stream recycling provider, so acceptable recyclable items do not need to be separated including:

- Glass; any color
- Newspaper & Inserts
- Cardboard
- Boxboard (cereal, cake & cracker boxes, etc.)
- Plastic bottles
- Plastics No. 1 & 2
- Plastic Milk Jugs; 2-Liters
- Aluminum Cans & Lids
- Tin and Steel Cans & Lids
- Metal Pots, Pans & Cookie Sheets
- Pet food cans (no plastic liner)

2. Items Not Accepted

- Aerosol Cans
- Aluminum Foil Baking Pans
- Balls of Tin Foil; Foil Pie Tins
- Bedding or linens
- Bubble wrap
- Carpeting or Rugs
- Clothes
- Construction Materials
- Diapers
- Empty Plastic Bags
- Food Waste
- Garbage or Yard Waste
- Garden Hoses
- Christmas Lights
- Ice Cream Cartons
- Juice Boxes / Bags
- Polystyrene products (Styrofoam®)
- Pet Food Cans (with plastic liner) and Pet Food Bags
- Plastic Bags - check with your local grocery stores to see if they collect plastic bags for recycling.
- Residential Medical Supplies/Waste
- Tarps
- Waxy / Paper Milk Cartons
- Window Blinds

Note: Oil, gas, paint, antifreeze, fertilizers, propane tanks, pesticides and other household hazardous wastes are not recyclable but can be disposed of at no charge at the Household Hazardous Waste Center located at the entrance of the Central Landfill.

II. ANALYSIS BY SECTOR – MSW GENERATION

Santa Rosa County does not differentiate between residential, multifamily, or commercial disposal except for vegetative waste. Vegetative waste includes both residential and commercial while recycling is primarily generated by single family residential units and collected curbside in the Residential Collection Franchise Area. The county also has a significant number of self-haulers that contribute little to the recycling system; however, two (2) recycling containers are provided at the Residential Drop Off Area. The county does track waste generated outside of Santa Rosa County but again does not differentiate between residential and commercial waste streams.



Recycling Containers Located at the Central Landfill

All weights in tons, rounded to the nearest whole ton.

Year	Class I	Class III	Total Class I & III	Out of County Waste
2021*	153,268	124,781	278,049	31,801
2020	196,591	128,766	325,357	48,753
2019	173,150	112,899	286,049	44,598
2018	137,583	115,259	252,842	33,967
2017	121,805	131,957	253,762	2,428
2016	127,206	126,334	253,540	4,488
2015	160,699	79,667	240,366	n/a
2014	120,043	51,309	171,352	n/a
2013	110,637	35,914	146,551	n/a
2012	110,107	29,785	139,892	n/a
2011	106,632	24,012	130,644	n/a

* Thru 9/14/21

III. ANALYSIS BY SECTOR – RECOVERED MATERIALS

All weights in tons, rounded to nearest whole ton.

Year	Waste Tires	Vegetative Waste		Masonry	Recycling	Oil & Gas (gallons)
		Residential	Commercial			
2021*	113	4,736	12,041**	3,800	1,747	10,370
2020	184	5,183	7,544	3,886	4,484	8,925
2019	196	4,172	7,532	2,991	3,471	11,330
2018	63	3,594	7,624	2,135	9,670	
2017	45	3,087	7,040	514	9,938	
2016	49	3,816	3,862	1,336	10,415	
2015	51	2,366	2,167	3,696	9,054	
2014	51	2,559	599	168	8,696	
2013	41	2,463	211	143	8,168	
2012	37	1,960	2,705	301	6,685	
2011	27	303	8,818	3,005	3,005	

* Thru 9/14/21

**Vegetative Waste numbers do not include vegetative waste from Hurricane Sally.

All weights in tons, rounded to the nearest whole ton.

Year	Concrete & Masonry Recycling	Vegetative Debris Recycling	Metal Recycling
2021*	3,800	65,500**	460
2020	3,886	12,727	710
2019	2,991	11,704	615
2018	2,135	11,218	507

* Thru 9/14/21

The total vegetative debris that was ground and utilized from hurricane Sally was 229,279 cubic yards, or 48,723 tons.

IV. CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING

Santa Rosa County accepts clean concrete, bricks and similar C&D materials that are source separated at the point of generation and accepts the material at no charge for reuse in landfill operations. The landfill contracts with a local firm to crush these materials and the crushed material is utilized as road base in the Class I and Class III disposal areas. The material is also used to stabilize areas used for equipment storage and vehicle turnaround pads.



Clean Concrete/Masonry Waiting to Be Crushed



Crushed Concrete/Masonry

V. VEGETATIVE DEBRIS RECYCLING

Santa Rosa County accepts yard waste, and natural land clearing/landscaping debris from residential and commercial activities. These materials are ground into mulch that is used primarily for landfill operations as an alternative cover material. In early 2021 Santa Rosa County received FDEP approval to utilize all mulched vegetative material produced by Hurricane Sally as a beneficial use as alternative cover material. Those figures are depicted above and added to SRCs recycling numbers for 2021.



Vegetative Debris Stockpile Area at the Central Landfill



Ground Vegetative Debris Stockpiled to Be Used for Landfill Cover



Postcard from the County Waste Franchisee, Explaining the new Yard Waste Collections Program

VI. METAL RECYCLING

Santa Rosa County offers metal recycling to customers of the Central Landfill. Metal can be separated by the customer and dropped off in an easily accessible area for recycling as scrap metal. These scrap metal materials are picked up by a contractor and hauled to their facility for further processing. Refrigerant containing white goods are evacuated by a EPA-licensed contractor in accordance with 40 CFR Part 82, section 608 of the Clean Air Act. Evacuation of refrigerant containing devices takes place on-site at the Central Landfill prior to shipment to a scrap metal recycling facility. In April 2021, the county entered contracts with two firms to handle the county's metal recycling. Comfort Systems inc. was contracted for a 1-year term for refrigerant recovery services and Renew Recycling was contracted for a 1-year term for the transportation and acceptance of scrap metal from the Central Landfill and Jay Transfer station. Both contracts offer renewal periods with mutual agreement of both parties.



Receptacle to Collect Recycled Metal Located at the Central Landfill

VII. HOUSEHOLD HAZARDOUS WASTE & AMNESTY DAY EVENTS

Many of the items discarded through Santa Rosa County's Household Hazardous Waste program can be re-used or recycled including paint, batteries, electronics, mercury containing fluorescent light bulbs and more. Our HHW program hosts a re-use swap shop which offers unwanted household products such as paint, cleaners, and automotive fluids FREE of charge to Santa Rosa County residents. The HHW center is open 6 days a week for residents and there is no charge for dropping off household hazardous waste (excluding tires which are \$5/each for small tires).

For convenience to South-End Residents, Santa Rosa County provides two Amnesty Day Events in the South End (unincorporated Santa Rosa County south of the Yellow River). This is either held in Midway (halfway point between Navarre and Gulf Breeze) or in Gulf Breeze city limits. Typically, these events are held in March or April and again in October or November. Announcements are made in the local newspaper, through social media via our Public Information Office, through local radio programs, and often even through local broadcast news outlets.

In 2021 Santa Rosa County Household Hazardous Waste Collection "Amnesty Day" was held on Saturday, March 27 at the South-End Annex in Midway on Hwy 98. Once again, this event was extremely successful, and all the partners involved were pleased with both the public turnout and the amount of waste collected. A total of 510 vehicles dropped off materials. Some of the materials collected included: tires, electronics, latex paint and solvent/oil-based paints, batteries, propane tanks, fire extinguishers, mercury containing devices such as fluorescent light bulbs, and numerous other household hazardous wastes. The second 2021 event is scheduled for Saturday, October 23, 2021, in Gulf Breeze city limits.

These one-day amnesty collection events are funded in part by a Florida Department of Environmental Protection State Cooperative Collection Center Arrangement Grant administered by the Okaloosa County's recycling department in partnership with Santa Rosa County Environmental Department. The events are free for residents of Santa Rosa County. However, Santa Rosa County businesses, small quantity generators, and/or residents requiring bulk disposal options for Hazardous Waste are available for discounted options at the event by appointment.

Through recycling and proper disposal citizens of Santa Rosa County are working hard to keep our area beautiful and environmentally safe. "As Santa Rosa County grows, so must our environmental awareness" said Andrew Hill, Environmental Manager.



HHW Amnesty Day Event, 2020

VIII. RECYCLING PROGRAM STRATEGY

Santa Rosa County provides residential curbside recycling collection thru the County's Solid Waste Collection Franchise Agreements and has contracted with the Emerald Coast Utilities Authority (ECUA) in Escambia County to process recyclables. However, ECUA's Materials Recycling Facility (MRF) was shut down from 4/20/19 – 3/18/20 and again in 7/15/21 – current. The ECUA MRF is expected to once again begin accepting recycling in October 2021.

Additionally, in September 2021, ECUA renewed a new Interlocal recycling processing agreement that will require SRC to pay a flat rate of \$25/ton for processing and will be for a term of two (2) years, ending on September 30th, 2023. The recycling processing agreement with ECUA provides for the acceptance of all recyclables collected within Santa Rosa County and includes up to 3,000 tons of materials annually.

Currently, unincorporated Santa Rosa County has two (2) permitted solid waste collection providers which offer curbside service on an optional subscription-based service. Waste Pro (North & South End residents) currently offers weekly curbside recycling collection and Adam's Sanitation (North End residents only) offers every other week curbside recycling collection. Santa Rosa County also provides recycling transfer services for permitted haulers such as the City of Milton, the City of Gulf Breeze (Republic Services), Town of Jay (Adam's Sanitation), and Naval Air Station Whiting Field (Mark Dunning Industries) who offers its citizens subscription based weekly curbside recycling collection.

To address contamination in the recycling stream Santa Rosa County has implemented a Recycling Education Program utilizing the following methods: (See Appendix A for examples)

- Public Notifications from County Public Relations Department
- Printed information in local newspapers
- Online information thru Social Media Platforms
- Information from local broadcasters utilizing services of COX Communications Media
- In person contact with county staff providing printed media during curbside collections.
- Public Awareness Program provided by franchised waste hauler.

The new waste franchise contract agreement requires the awarded franchise hauler to provide a Public Awareness Program to inform and encourage residents to use the Recycling Collection Services. The promotional program shall also focus on reduction of contamination in the Recyclable Materials. Expenses related to the awarded franchise hauler's promotional and public education program shall not be less than \$10,000 per contract year.

The County also utilizes landfill personnel to screen incoming loads of recyclables to remove contaminated materials. Initially this has been a "sledgehammer" approach, using a small front-end loader, and temporary staff to remove the most obvious contamination items. This coupled with the routes provided by the awarded franchise hauler should allow the County's new Waste Compliance Staff to identify recycling routes that are heavily contaminated and allow the county to target corrective actions to those routes/areas in a "surgical approach".

IX. INITIATIVES AND CHALLENGES

1. INITIATIVE – SHINGLE AND TIRE RECYCLING

Staff has placed funding in the upcoming FY 21-22 budget cycle to hire a consultant to perform a shingle and waste tire recycling feasibility study. This study will outline and identify the most efficient and current industry standards and processes for recycling shingles and tires, provide a breakdown of how and where onsite the efforts would occur, list the challenges associated with the recycling of both commodities, identify end users both internally and commercially, and will examine the overall economic feasibility of the program. Santa Rosa County currently contracts out vegetative waste grinding services, and clean concrete crushing services to commercial companies. One thought is to contract with one of the existing companies to perform the work. If the study indicates that a shingle and tire recycling program would be feasible staff will recommend moving forward with the development of that program. A shingle and tire recycling program has the potential to add approximately several thousand tons annually that is not landfilled.

2. INITIATIVE – CNG PROJECT, LANDFILL GAS TO ENERGY

In 2013 Santa Rosa County voluntarily installed a Landfill Gas Collection and Control System to capture and control landfill emissions. The original plan was to convert the LFG to CNG for use as an alternative fuel for local waste haulers; however, the county was unable to secure commitments from local companies to utilize the produced CNG. Without a viable outlet for the produced CNG the project was postponed indefinitely. Within the upcoming year staff anticipates that there will be enough fill in our new disposal cells to add a new well field to our current LFG system. Adding this new well field should increase gas production exponentially thereby opening new avenues in which to provide a beneficial use with the gas such as partnering with Florida Power and Light (FPL) to power generators, or cleaning and feeding the gas into the gas pipeline that is located just north of the facility. Staff will be researching several options in the coming year.

3. RECYCLING CHALLENGES

The primary challenge to maintaining a financially sustainable curbside recycling program is the instability in the recycling markets and the low value of recyclables. While contamination certainly plays a major role in the loss of value, the overriding issue is the lack of regional markets for the various processed recycling products.

A major contributor to the contamination issue is the widespread, almost universal belief that everything is recyclable. The main enabler for that belief is deceptive product advertisement, a lack of current recycling trends being taught in educational system, and misleading recycling industry agencies, all with good intentions; however, the end results are recycling trucks full of garden hoses, plastic blinds, light bulbs, clothes and just plain garbage from good intentioned “wish recyclers”.

It's time to get back to basics. We need to shift more of the responsibility and effort to recycle back to residents. We must be very clear on what is recyclable and how to prepare items for recycling, (clean containers, remove labels etc.) and what is not recyclable and why. We need to get this information in front of the public and the local education systems to push current local recycling policies to produce a less contaminated recycle stream that processors can get into markets which use the recycled materials turning them into new products and lowering the demand for virgin materials.

X. BACKGROUND ON RECYCLING IN SANTA ROSA COUNTY & WHERE WE ARE NOW

Santa Rosa County has faced several challenges in past years with regards to recycling. In March of 2012 the county signed a contract with West Florida to collect and process all recyclables from Santa Rosa County. After that contract the county eliminated recycling positions and auctioned off all county recycling equipment. In March 2014 West Florida Recycling ceased operations and filed for bankruptcy.

In or around May 2014, recyclables from the county were transported to Infinus Renewal Energy Park (IREP) in Montgomery for processing and that continued until IREP Montgomery ceased operations without prior notice in October of 2015.

In both cases, with West Florida Recycling and IREP Montgomery, the county incurred significant expenses in both the transportation and loss of revenue from its recycling operations while accepting recyclables at no tip for disposal in the Class I disposal cell.

In June of 2016 the county contracted with the Emerald Coast Utilities Authority (ECUA) to transport, process and market recyclables collected in Santa Rosa County. In April of 2016 the county instituted a tipping fee for recyclables to offset the cost of recycling and to ensure sufficient revenue to sustain recycling operations.

Adding to the county's hesitation in expanding or adding recycling services was the market's persistent instability and China's decision to limit the importation of recyclables that had a devastating effect on the sustainability of recycling markets.

On February 8, 2019, ECUA notified the county that they were moving to terminate the recycling contract and provided the county a new draft recycling agreement. ECUA's proposed recycling agreement would end the requirement for ECUA to transport recyclables for the county and increased processing fees to \$20 per ton, a significant increase from the \$9 per ton the County had been paying. From February 8th thru April 3rd the county discussed various terms of the new agreement with ECUA and met with a representative of ECUA on April 2nd for discussions. On April 22, ECUA unilaterally cancelled the recycling and processing agreement with the county effective April 30, 2019, effectively ending recycling in Santa Rosa County.

On April 25, 2019, the Santa Rosa County Board of County Commissioners approved the new flat rate recyclables processing agreement with ECUA and returned the signed agreement to ECUA for the ratification on May 2, 2019. On June 25, 2019, the ECUA board rejected the agreement approved by the Santa Rosa County BOCC. After the rejection, ECUA provided a third, variable rate agreement to the County that the BOCC approved on July 11, 2019 and returned to ECUA on July 19 for ratification. On September 24th, 2019, the ECUA approved the proposed Interlocal Agreement and SRC has been delivering recyclables to the ECUA under this agreement until their facility suffered a fire and subsequent shutdown in July of 2021. The current Interlocal Agreement expires on September 30th, 2021. ECUA has provided SRC a new Interlocal Agreement that will require SRC to pay a flat rate of \$25/ton for processing and will be for a term of two (2) years, ending on September 30th, 2023 (See Appendix B).

Santa Rosa County fully supports recycling; however, recycling operations must have a firm foundation that includes local or regional markets, sufficient revenue generation to support operations and flexibility to add or delete material that does not have a positive recycling value. The County will continue to evaluate recycling opportunities as they arise and will initiate action to increase or expand recycling efforts when possible.

Questions and comments may be directed to the Santa Rosa County Environmental Office at 850.981.7135, email to Environmental-Dept@santarosa.fl.gov or to the author of the plan cited below.

Respectfully,

Andrew Hill

Andrew Hill, C.P.M.

Santa Rosa County

Environmental Manager

6051 Old Bagdad Highway

Suite 301

Milton, FL 32583

Email: andrewh@santarosa.fl.gov

Office Phone: 850.981.7136

Cell Phone: 850.232.5304

Appendix A

RECYCLING EDUCATIONAL MATERIALS AVAILABLE TO THE PUBLIC

Don't trash your recycling

— Get back to the basics —

Focus on recycling these items in your curbside bin:

Clean cardboard



Aluminum and steel cans



Plastic bottles and jugs



For a full list of what you can and can't recycle, visit
ecua.fl.gov/green/recycling





If recycling continues to be contaminated, Santa Rosa County runs the risk of not being able to continue the program.

These items CANNOT be recycled:

- Garden hoses**
- Christmas tree lights**
- Window blinds**
- Greasy pizza boxes**
- Clothing**
- Bedding, carpet & rugs**
- Plastic bags**
- Styrofoam**
- Pet food cans/bags**
- Waxy/paper milk cartons**
- Juice boxes**
- Aerosol cans**
- Tin foil/foil pie tins**

Find a full list at ecua.fl.gov/green/recycling

When in doubt throw it out!



Get back to the basics

Focus on recycling these items in your curbside bin:

**Clean cardboard
and newspaper**



**Aluminum and
steel cans**



**Plastic bottles
and jugs**



Do not recycle pizza boxes because they can be contaminated with food.

Do not recycle pet food cans because they contain a plastic lining that makes them non-recyclable

Find more information on recycling in
Santa Rosa County at
www.santarosa.fl.gov/recycle
or call (850) 981-7135



News Release

Public Information Office

Santa Rosa County holds household hazardous waste Amnesty Day - Sat., Mar. 27 at South Service Center

Household Hazardous Waste (HHW) Amnesty Day will be held **Sat., Mar. 27** from **8 a.m. to noon** at the **Santa Rosa County South Service Center**, 5841 Gulf Breeze Parkway in Gulf Breeze. This event offers residents the opportunity to dispose of HHW at no charge without having to drive to the Central Landfill in Milton.

Residents will be required to remove items from their vehicles. Remember, HHW items can cause injury if handled improperly. These items will usually have a warning or cautionary statement on their labels, such as flammable, corrosive, poison or toxic. The following items will be accepted and should never be disposed of with household garbage:

- up to **five regular car or truck tires per vehicle**, no large, heavy-duty or racing tires accepted (help keep mosquitos away this summer!)
- antifreeze, gasoline, oil and oil filters
- paint and solvents
- lubricants and grease
- pesticides and fertilizers
- pool cleaners, household cleaners
- battery backups, rechargeable batteries (from vehicles, lawn mowers, laptops, cellphones, coin cells) **no alkaline batteries!**
- propane bottles
- aerosol cans
- **flat screen** monitors and **flat screen** TVs
- computers, laptops, tablets, cellphones
- stereos, radios, amplifiers
- printers, copiers, fax machines, typewriters
- DVD/DVR players
- remotes and gaming systems
- **up to 20** fluorescent light bulbs
- fire extinguishers
- approved sharps containers - **bring a full sharps container for proper disposal and receive a free replacement container**

Conditionally exempt small quantity generators (small businesses, schools and growers, etc.) may dispose of hazardous waste at a reduced rate. CESQG waste is accepted by appointment only. Call (850) 981-7135 by 12 p.m. the day before the event to schedule a drop-off time.

Santa Rosa residents can dispose of household hazardous waste, including sharps, Monday through Saturday, 8 a.m. to 4:30 p.m., at the HHW center at the entrance to the Central Landfill, 6337 Da Lisa Road in Milton. Regular, light duty, truck or car tires are accepted for \$5 each year round.

Amnesty Day is made possible by Santa Rosa County in cooperation with the Florida Department of Environmental Protection and the Okaloosa County Environmental Office.

For more information, contact (850) 981-7135.

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Florida has a very broad public records law. Under Florida law, both the content of emails and email addresses are public records. If you do not want the content of your email or your email address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in person.
6495 Caroline Street, Milton FL 32570

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News Release

Public Information Office • 850.983.5254



HOUSEHOLD HAZARDOUS WASTE

Amnesty Day • Sat., Mar 7, 8 a.m. -12 p.m.

NEW LOCATION: Gulf Breeze Community Center, 800 Shoreline Drive

**Santa Rosa County holds household hazardous waste amnesty day
NOTE NEW LOCATION**

Dispose of HHW at Gulf Breeze Community Center on March 7, 8 a.m. to 12 p.m.

Santa Rosa County will host **Household Hazardous Waste (HHW) Amnesty Day** on **Sat., Mar. 7** from **8 a.m. to noon** at the **Gulf Breeze Community Center**, 800 Shoreline Drive in Gulf Breeze Proper. This event offers residents the opportunity to dispose of HHW at no charge without having to drive to the Central Landfill in Milton.

Residents will be required to remove items from their vehicles. Remember, HHW items can cause injury if handled improperly. These items will usually have a warning or cautionary statement on their labels, such as flammable, corrosive, poison or toxic. The following items will be accepted and should never be disposed of with household garbage:

- up to five regular car or truck tires per vehicle (no large, heavy-duty or racing tires)
- antifreeze, gasoline, oil and oil filters
- paint and solvents
- lubricants and grease
- pesticides and fertilizers
- pool cleaners, household cleaners
- batteries, battery backups (UPSs)
- propane bottles
- aerosol cans
- flat screen monitors and flat screen TVs

- computers, printers, copiers, fax machines, typewriters, DVD/DVR
- players
- fluorescent light bulbs
- fire extinguishers
- approved sharps containers - bring a full sharps container for proper disposal and receive a free replacement container.

Conditionally exempt small quantity generators (small businesses, schools and growers, etc.) may dispose of hazardous waste at a reduced rate. CESQG waste is accepted by appointment only. Call (850) 981-7135 by 12 p.m. the day before the event to schedule a drop-off time.

Santa Rosa County residents can dispose of household hazardous waste, including sharps Monday through Saturday, 8 a.m. to 4:30 p.m., at the HHW center at the entrance to the Central Landfill, 6337 Da Lisa Road in Milton. Regular, light duty, truck or car tires are accepted for \$5 each year round.

Amnesty Day is made possible by Santa Rosa County in cooperation with the Florida Department of Environmental Protection and the Okaloosa County Environmental Office. For more information, contact (850) 981-7135.

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HOUSEHOLD HAZARDOUS WASTE

Amnesty Day • Sat., Mar. 7, 8 a.m. -12 p.m.

NEW LOCATION: Gulf Breeze Community Center, 800 Shoreline Drive

- up to five **regular** tires per vehicle (no large, heavy-duty or racing tires)
- up to five gallons of antifreeze, gasoline, paint, solvents, lubricants
- pesticides, fertilizers
- pool chemicals and household cleaners
- battery backups, rechargeable batteries (from vehicles, lawn mowers, laptops, cellphones, coin cells), **no alkaline batteries!**
- used oil (cooking oil), oil filters
- propane bottles
- aerosol cans
- **flat screen** monitors and **flat screen** TVs
- computers, laptops, cellphones
- printers, copiers, fax machines
- stereos, radios and amplifiers
- DVD/DVR players
- fluorescent light bulbs
- fire extinguishers
- approved sharps containers

*Bring a full sharps container for proper disposal and receive a **free replacement container!***

Questions?
Call 850-981-7135



Appendix B

INTERLOCAL AGREEMENT FOR THE ACCEPTANCE AND
PROCESSING OF SOURCE SEPARATED RECYCLABLES (SSR)

INTERLOCAL AGREEMENT FOR THE ACCEPTANCE AND PROCESSING OF SOURCE SEPARATED RECYCLABLES

This Interlocal Agreement for the Acceptance and Processing of Source Separated Recyclables (hereinafter "Agreement") is made and entered into as of this 10th day of August, 2021, by and between the Emerald Coast Utilities Authority, a local governmental body, corporate and politic, which was formed by the Florida Legislature as an independent special district (hereinafter "ECUA") with administrative offices located at 9255 Sturdevant Street, Pensacola, Florida 32514, and Santa Rosa County, Florida, a municipal corporation of the State of Florida (hereinafter "County"), with administrative offices located at 6495 Caroline Street, Milton, Florida 32570 (each at times also being referred to as a "Party" or collectively as "Parties").

WITNESSETH:

WHEREAS the Santa Rosa County and ECUA are authorized by Section 163.01, Florida Statutes, to enter into Interlocal Agreements and thereby cooperatively utilize their powers and resources in the most efficient manner possible; WHEREAS Source Separated Recyclables are collected in Santa Rosa County through a curbside recycling collection program operated by the Santa Rosa County;

WHEREAS the Source Separated Recyclables collected in Santa Rosa County must be processed and sorted into separate commodities so as to facilitate their resale so that the Recyclable Materials may be recycled and put to beneficial use;

WHEREAS ECUA has a Municipal Recycling Facility (MRF) which is capable of processing Source Separated Recyclables;

WHEREAS Santa Rosa County or a 3rd party selected by Santa Rosa County would like to deliver all of the Source Separated Recyclables collected by the County or any hauler operating under an agreement or franchise within Santa Rosa County in its curbside recycling program to the ECUA MRF so that the Source Separated Recyclables may be processed, segregated into recyclable commodities, and put to beneficial use;

WHEREAS the Parties desire to clarify the terms and conditions under which Santa Rosa County may deliver and the ECUA MRF may accept Source Separated Recyclables collected by Santa Rosa County.

NOW THEREFORE in consideration of the mutual promises and covenants contained in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

AGREEMENT

1. Recitals. The recitals contained in the preamble to this Agreement are declared to be true and correct and are hereby incorporated into this Agreement.

2. Definitions. As used in this Agreement the following terms shall have the following meanings:

2.1 *Applicable Law* -- shall mean all applicable federal, state and local statutes, codes, ordinances and standards and all applicable rules, regulations, licenses, permits, registrations, approvals, decisions, authorizations, judgments, orders, writs, decrees, directives or other action adopted, issued or taken by a governmental authority.

2.2 *Construction and Demolition Waste or C&D Waste* -- shall mean waste building materials, packaging and rubble resulting from construction, remodeling, repair, or demolition operations on houses, commercial buildings, and other structures, or as otherwise defined from time to time. Such wastes include, but are not limited to, concrete and paving debris, masonry materials, sheet rock, roofing waste, insulation (not including asbestos or asbestos containing materials), scrap metal, wood products, and other similar materials (not including asbestos or asbestos containing materials).

2.3 *ECUA MRF* -- shall refer to the Municipal Recycling Facility designed and constructed by ECUA which is located at the Perdido Landfill at 13009 Beulah Road, Cantonment, Florida 32533.

2.4 *Effective Date* -- shall mean October 1, 2021, and the first day on or after that date on which the County collects Source Separated Recyclables and the ECUA MRF is operating shall be the date the ECUA MRF begins accepting Source Separated Recyclables delivered to it from the County.

2.5 *Garbage* -- shall mean any putrescible animal and/or vegetative waste resulting from the handling, preparation, cooking and consumption of food, including, but not limited to, waste from markets, storage facilities, handling and sale of

produce and other food products and further includes the packaging materials and containers, but excepting such materials that may be serviced by garbage grinders and handled as household sewage.

2.6 *Hazardous Waste* -- shall mean (a) any waste which by reason of its quality, concentration, composition or physical, chemical or infectious characteristics which is defined or regulated as a hazardous waste, toxic substance, hazardous chemical substance or mixture, or asbestos under Applicable Law, as may be amended from time to time, including: (i) the Resource Conservation and Recovery Act of 1976 ("RCRA") and the regulations contained in 40 CFR Parts 260-281, (ii) the Toxic Substances Control Act (15 U.S.C. Sections 2601 *et seq.*) and the regulations contained in 40 CFR Parts 761-766, and (iii) future additional or substitute federal, state or local laws pertaining to the identification, treatment, storage, or disposal of toxic substances, or hazardous wastes; (b) radioactive materials, which are source, special nuclear, or by-product materials, as defined by the Atomic Energy Act of 1954 (42 U.S.C. Section 2011 *et seq.*) and the regulations contained in 10 CFR Part 40; (c) a chemical listed by the United States Environmental Protection Agency in accordance with Section 302(a) or Section 313(c) of the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C.A. § § 11002(a), 110239(c) (Supp. 1993), in each case as the same may be amended, replaced, or superseded; (d) a material or substance which may endanger health or safety, including any material or substance or combination of materials or substances which are explosive, volatile, radioactive, toxic, corrosive, flammable, reactive, an irritant or a strong sensitizer, or which generate pressure through decomposition, heat or other means if such materials or substances may cause injury, illness or harm to humans, domestic animals, livestock or wildlife; (e) a material falling within the definition of Fla. Stat. § 403.703(13); or (f) a material or substance that is treated as a hazardous or toxic waste, substance, or material by any Applicable Law or is otherwise prohibited from being deposited in a municipal solid waste processing facility under Applicable Law. Household Hazardous Waste contained in SSR shall not be considered Hazardous Waste for purposes of this Agreement and shall be accepted at the Facility if such acceptance is in compliance with the requirements of RCRA and the requirements of the MRF. With regard to materials

or substances which are not Hazardous Waste as of the Effective Date, if any Applicable Law is subsequently enacted or amended or any governmental authority thereafter determines that such material or substance is a hazardous or toxic waste, substance or material, then such material or substance shall be considered Hazardous Waste for the purposes of this Agreement from and after the effective date of such enactment or amendment of Applicable Law or governmental authority determination.

2.7 *Municipal Solid Waste or MSW* -- shall mean Garbage, household waste, and commercial solid waste; provided that for the purposes of this Agreement, Municipal Solid Waste shall not include Source Separated Recyclables, C&D Waste, Hazardous Waste, Special Handling Waste, Unacceptable Waste, or scrap tires.

2.8 *Perdido Landfill* -- shall mean the landfill currently operated by Escambia County, Florida which is located at 13009 Beulah Road, Cantonment, Florida 32533.

2.9 *Prohibited Materials* -- shall mean Municipal Solid Waste, C&D Waste, Hazardous Waste, Special Handling Waste, Unacceptable Waste, Yard Waste, scrap tires and any other solid waste or material of any kind that the ECUA MRF is prohibited from accepting pursuant to agreement, Applicable Law, or operational constraints.

2.10 *Recyclables or Recyclable Materials* -- shall mean various recyclable products and packaging designated by ECUA to be accepted at the MRF for processing, including various types of paper (including but not limited to newspaper, junk mail, magazines, office paper, cardboard and paperboard packaging), containers (including but not limited to glass bottles and jars, aluminum and steel cans, and #1 - #7 plastics), and mixed ferrous and non-ferrous metals. The terms Recyclables and Recyclable Materials shall not include Municipal Solid Waste, Construction and Demolition Waste, Hazardous Waste, Special Handling Waste, Unacceptable Waste, styrofoam, or scrap tires. The list of Recyclables may be expanded or contracted from time to time as determined by ECUA and the operator of the ECUA MRF, if any.

2.11 *Rejects* -- shall refer to materials collected along with the Recyclable Materials that are not designated by ECUA to be accepted at the MRF for processing.

2.12 *Residue* -- shall refer to Rejects and Recyclable Materials that are accepted by the operator of the ECUA MRF, processed at the MRF, and not converted to Recovered Materials due to breakage and/or transportation or processing limitations or inefficiencies.

2.13 *Shutdown* -- shall refer to those times in which the operator of the ECUA MRF is unable to receive Source Separated Recyclables for any reason except Force Majeure.

2.14 *Source Separated Recyclables or SSR* -- shall refer to Recyclables which (a) have been diverted or removed from the Municipal Solid Waste prior to collection, (b) are not C&D Waste, Hazardous Waste, Special Handling Waste, Yard Waste, Unacceptable Waste or scrap tires, (c) are not Municipal Solid Waste, and (d) the ECUA MRF is not prohibited from accepting and/or Processing under Applicable Law. The Parties acknowledge, however, that incidental amounts of Rejects may be collected and delivered with Source Separated Recyclables as a normal part of a recycling collection program.

2.15 *Special Handling Waste* -- shall mean any waste or other material that requires the delivery and disposal to be supervised by a government authority, including confiscated drugs and records of a police department or similar governmental authority.

2.16 This paragraph is intentionally left blank.

2.17 *Unacceptable Waste* -- shall mean (a) Hazardous Waste, explosives and ordinance materials, pathological wastes, radioactive materials, lead acid batteries, sewage sludge, highly flammable substances, cesspool or other human wastes, human and animal remains, motor vehicles, farm or other large machinery, construction materials and demolition debris and hazardous refuse addressed by regulations adopted by the United States Environmental Protection Agency ("EPA") pursuant to the Resource Conservation and Recovery Act of 1976, as amended, or other federal or state statutes, such as, but not limited to, cleaning fluids, hazardous paints, acids, caustics, poisons, radioactive materials, fine powdery earth used to filter cleaning fluid; (b) unless

consented to by ECUA, any item of waste exceeding six feet in any one of its dimensions or being in whole or in part a solid mass, the solid mass portion of which has dimensions such that a sphere with a diameter of eight inches could be contained within such solid mass portion; (c) all large household appliances, commonly referred to as “white goods” including refrigerators, stoves, washing machines, drying machines and water heaters; (d) any controlled substances regulated under the Controlled Substances Act, 21 USA 801 *et seq.*, or any equivalent state law; (e) small appliances containing chlorofluorocarbons (CFCs) including air conditioners, water coolers, and dehumidifiers; (f) cathode ray tubes; and (g) all other items of waste which pose a substantial threat to health or safety or the acceptance and disposal of which will cause substantial damage to, or adversely affect the continuous operation of the MRF or be in violation of any Applicable Law. Any substance or material which is determined by the EPA or any other Governmental authority subsequent to the Effective Date hereof to be hazardous, toxic, dangerous, harmful, or otherwise designated as a “waste ban,” shall, at the time of such determination, be considered Unacceptable Waste.

2.18 *Yard Waste* -- shall refer to vegetative matter resulting from landscaping maintenance and land clearing operations and includes associated rocks and soils.

3. Term. The initial term of this Agreement shall begin on the Effective Date, as defined in paragraph 2.4, above, and end on September 30, 2023. Provided, however, that the Parties may extend the term of this Agreement upon mutual written agreement.

4. Delivery and Acceptance of Source Separated Recyclables.

a. *Delivery of Source Separated Recyclables to ECUA*. Beginning on the Effective Date and throughout the term of this Agreement, the County or a 3rd party selected by Santa Rosa County will deliver, to the ECUA MRF, all SSR collected by the County or any hauler operating under an agreement or franchise within Santa Rosa County in its curbside recycling program to the ECUA MRF so that the Source Separated Recyclables may be processed, segregated into recyclable commodities, and put to beneficial use.

b. *Right to Reject Loads Containing Excess Rejects.* In the event that SSR delivered to the ECUA MRF contains Rejects in excess of twenty-five percent (25%) by weight, the entire load may be rejected by the operator of the ECUA MRF. In the event that such a rejection occurs, the County shall be liable for a processing fee of \$250 per load plus the disposal costs attributable to that entire rejected load at the Perdido Landfill, at the rates established by Escambia County which are then in effect.² Moreover, in the event that the County's SSR has excess Reject contamination on three separate loads within a thirty (30) day calendar period, the ECUA Executive Director or his designee, in his sole discretion, may terminate this Agreement and disqualify the County from further deliveries.

c. *Charges to County.* The County shall be charged monthly for each ton of SSR processed at the ECUA MRF, in accordance with paragraph 6 of this Agreement, below.

5. Disposal of Residue. The Parties acknowledge and understand that each load of SSR may contain Garbage, Unacceptable Waste, or other Rejects which cannot be recycled and put to beneficial use (collectively hereafter referred to as Residue). Because the SSR received from the County will likely be commingled with SSR generated from other jurisdictions, the Parties acknowledge and understand that it is impossible to therefore segregate the Residue by each entity. Accordingly, all such Residue shall be disposed of at the Perdido Landfill at no charge to the County.

6. Charges for Delivered Recyclables. The Parties agree that the County shall be charged for the SSR processed at the ECUA MRF, at a flat rate of \$25 per ton based upon weights measured at the scale house operated by Escambia County at the Perdido Landfill.

7. Billing. ECUA shall send a bill to the County within fifteen (15) days of

²In the event some or all of the load cannot be lawfully disposed of at the Perdido Landfill, County shall be liable for all disposal costs associated with the disposal selected by the operator of the ECUA MRF.

the end of each month of the calendar year which reflects all charges to the County pursuant to paragraph 6, above. All charges shall be paid by the County within forty-five (45) days of the end of each month of the calendar year.

8. Compliance with Law and Procedures. ECUA and the County shall perform their respective obligations under this Agreement in compliance with all Applicable Law. The County shall transport and handle SSR in its control in a safe and workmanlike manner and in full compliance with Applicable Law. ECUA shall further endeavor to maintain throughout the term of this Agreement, all permits, licenses, certificates, and approvals required by Applicable Law for the operation of the ECUA MRF.

9. Staffing at the ECUA MRF. The Parties understand that the ECUA MRF may be operated by either a third party selected by ECUA or by ECUA staff, in ECUA's sole discretion.

10. Title to Source Separated Recyclables. Upon acceptance of a load of SSR (as opposed to a rejection in accordance with paragraph 4.b, above), title to the SSR shall vest with the operator of the ECUA MRF.

11. County's Obligation to Require the Source Separation of Recyclables; Delivery of said SSR; and Tonnage Limit.

a. *Collection and Delivery Requirements.* The County presently provides for the collection of residential solid waste within its jurisdiction and offers curbside collection of Source Separated Recyclables. The County agrees to keep the curbside collection of Source Separated Recyclables in place throughout the term of this Agreement and any extensions thereof. Additionally, the County will haul all SSR that is collected to the ECUA MRF. It is thus the Parties' intent that all SSR controlled and collected by the County will be delivered to the ECUA MRF. However, if prior to delivery to the ECUA MRF the County reasonably identifies one or more loads of SSR to contain excess contamination, as defined in paragraph 4.b, above, the County shall not be in breach of this Agreement by not delivering such contaminated load/s to the ECUA MRF. Should the County exercise this option, it shall endeavor to educate the public and take such actions it deems necessary or appropriate to improve the quality of its SSR. *

b. *Tonnage Limit.* The Parties anticipate approximately 2,500 tons of SSR are currently generated and collected within the jurisdiction of the County per year. Despite the requirements in paragraphs 4.a and 11.a above that all SSR be delivered to ECUA, the County is limited to delivering 3,000 tons of SSR per year, absent subsequent written agreement between the Parties pursuant to the notice provisions set forth in paragraph 13, below.

12. Events of Default. A Party shall be in default of this Agreement only upon the expiration of thirty (30) days (ten (10) days in the event of failure to pay money) from receipt of written notice of default from the other Party specifying the particulars in which such Party has failed to perform its obligations under this Agreement unless such Party, prior to the expiration of said thirty (30) days (ten (10) days in the event of failure to pay money), has rectified the particulars specified in said notice of default; provided, however, that such Party shall not be deemed to be in default if such failure (except a failure to pay money) cannot be rectified within said thirty (30) day period and such Party is using good faith and commercially reasonable and diligent efforts to rectify the particulars specified in the notice of default.

13. Notices. All notices called for under this Agreement, other than those called for under paragraph 4.b, above, shall be made in writing and delivered by hand, certified mail with return receipt, or overnight courier, as follows:

To County:

Michael Schmidt, P.E.
Environmental Department Director
Santa Rosa County Board of County Commissioners
6065 Old Bagdad Hwy, Suite 301
Milton, FL 32583

E-mail: michaels@santarosa.fl.gov
Telephone: 850-981-7128

To ECUA:

Randy Rudd
Deputy Executive Director of Shared Services

Emerald Coast Utilities Authority
9255 Sturdevant Street
Pensacola, Florida 32514

14. Force Majeure. In the event that performance by the Parties of any of its obligations under this Agreement shall be interrupted, delayed, or prevented by any occurrence not occasioned by the conduct of such Party, whether such occurrence be an act of God or any other occurrence whatsoever beyond the reasonable control of such Party, including a change in environmental law or regulation rendering performance impractical or impossible, then such Party shall be excused from such performance for such period of time as is reasonably necessary after the occurrence to remedy the effects thereof, or until such performance is no longer impractical or impossible.

15. ECUA's Right to Refuse to Accept SSR and Parties Right to Cancel for Convenience. Notwithstanding the provisions of paragraph 4, above, in the event that the operator of the ECUA MRF declares a Shutdown, ECUA and the ECUA MRF shall be under no obligation to accept any SSR from the County through the duration of that Shutdown. Additionally, in the event of a Shutdown, the County may dispose of its SSR as it deems fit for the duration of that Shutdown, and the County is not obligated to reimburse ECUA and/or the operator of the ECUA MRF, if any, for lost revenue associated therewith. Moreover, in the absence of a Shutdown, ECUA, acting through its Executive Director, may cancel this Agreement for convenience on one week's written notice notwithstanding the provisions of paragraph 3 above.

16. Records. The Parties acknowledge that this Agreement and any related financial records, audits, reports, plans, correspondence, and other documents may be subject to disclosure to members of the public pursuant to Chapter 119, Florida Statutes, as amended. In the event a Party fails to abide by the provisions of Chapter 119, Florida Statutes, the other Party shall give written notice of the alleged violation of Chapter 119 and seven (7) calendar days to cure the alleged violation. If the alleged violation has not been cured at the end of that time period, then the party giving such notice may terminate this Agreement for cause. ECUA further agrees to:

a. Keep and maintain public records required by the County to perform services under this Agreement.

b. Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

c. Ensure that public records that are exempt or confidential from public records disclosure requirements are not disclosed except as authorized by law during the term of this Agreement and following completion of the Agreement if ECUA does not transfer the records to the County.

d. Upon completion of the Agreement, transfer, at no cost, to the County all public records in possession of ECUA or keep and maintain public records required by the County to perform the services under this Agreement. If ECUA transfers all public records to the County upon completion of the Agreement, ECUA shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If ECUA keeps and maintains public records upon completion of the Agreement, ECUA shall meet all applicable requirements for retaining the public records. All records stored electronically must be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the information technology systems of the County.

IF ECUA HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, AS TO ECUA'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT: WANDA PITTS, (850) 963-1925, wandap@santarosa.fl.gov, 6945 Caroline Street, Milton, FL 32570.

17. Assignment. This Agreement or any interest herein, shall not be assigned, transferred, or otherwise encumbered, under any circumstances, by any Party, without the prior written consent of all other Parties.

18. Headings. Headings and subtitles used throughout this Agreement are for the purpose of convenience only, and no heading or subtitle shall modify or be used to interpret the text of any section.

19. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida, and the Parties stipulate that venue for any matter which is the subject of this Agreement shall lie in Escambia County, Florida.

20. Dispute Resolution. The Parties agree that in the event of any dispute or claim relating to, arising out of, or interpreting this Agreement arises, all such disputes or claims shall be fully, finally, and exclusively decided by a State court of competent jurisdiction sitting in Escambia County, Florida. Additionally, the Parties knowingly and willingly hereby waive their respective rights to have any such disputes or claims decided by a jury; instead, their sole relief shall be via a bench trial in which the judge alone sits as the finder of fact.

21. Interpretation. For the purpose of this Agreement, the singular includes the plural and the plural shall include the singular. References to statutes or regulations include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined that have well-known technical or industry meanings are used in accordance with such recognized meanings. References to persons include their respective permitted successors and assigns and, in the case of governmental persons, persons succeeding to their respective functions and capacities.

a. If any Party discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the Party shall immediately notify all other Parties and request clarification of this Agreement.

b. This Agreement shall not be more strictly construed against any party hereto by reason of the fact that one Party may have drafted or prepared any or all of the terms and provisions hereof.

22. Severability. The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if it did not contain such invalid or unenforceable portion or provision.

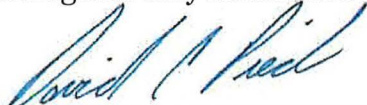
23. Further Documents. The parties shall execute and deliver all documents and perform further actions that may reasonably be necessary to effectuate the provisions of this Agreement.

24. No Waiver. The failure of a Party to insist upon the strict performance of the terms and conditions hereof shall not constitute or be construed as a waiver or relinquishment of any other provision or of either Party's right to thereafter enforce the same in accordance with this Agreement.

25. All Prior Agreements Superseded. This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein, and the Parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained in this document. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or Agreements whether oral or written. It is further agreed that no modification, amendment, or alteration in the terms and conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith.

IN WITNESS WHEREOF, the Parties have executed this Agreement, by and through their duly undersigned and authorized representatives, as of the date and year first written above.

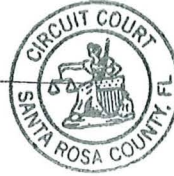
Santa Rosa County, Florida, a political subdivision of the State of Florida acting by and through its duly authorized Board.

By: 

David C. Piech, Chairman

ATTEST:

By: Donald C. Spencer
Donald C. Spencer, Clerk of Court



Approved as to Content:

Dan Schebler
Dan Schebler, County Administrator

Approved as to Form and Execution:

Greg Stewart, County Attorney

**EMERALD COAST UTILITIES
AUTHORITY**, a local governmental body,
corporate and politic, acting by and through its
duly authorized Board.

By: _____
Lois Benson, Chairman

ATTEST:

By: _____
Secretary

Appendix C

RECYCLING HAULING SERVICES AGREEMENT

**AGREEMENT BETWEEN SANTA ROSA COUNTY, FLORIDA
AND WPR INC.**

THIS AGREEMENT (hereinafter referred to as the “Agreement”) is made this _____, day of _____, 2021, by and between Santa Rosa County, a political subdivision of the state of Florida, (hereinafter referred to as the “County”), with a mailing address of 6495 Caroline Street, Milton, Florida 32570, and WPR Inc. a for profit organization authorized to do business in the State of Florida a whose mailing address is 4175 Briarglen Rd, Milton, FL 32583 (hereinafter referred to as “Contractor”) whose Federal I.D. # is 59-3294802.

RECITALS

WHEREAS, the County is in need of a contractor to provide Recycle Hauling Services (“Services”); and

WHEREAS, pursuant to the Santa Rosa County Purchasing Manual, the County issued an Request for Proposal to competitively procure the Services and received responses to perform these Services. A copy of the procurement and Contractor’s responsive to the procurement is included as Attachment “A”; and

WHEREAS, Contractor is a certified and insured entity with the necessary experience to provide the desired Services; and

WHEREAS, the County wishes to enter into this Agreement with Contractor to provide the Services to the County for an annual amount Not To Exceed Three Hundred Thousand Dollars (\$ 300,000.00) as further detailed below.

NOW THEREFORE, in consideration of the promises and the mutual covenants herein, the parties agree as follows:

1. Recitals and Attachments. The Recitals set forth above are hereby incorporated into this Agreement and made part hereof for reference. The following documents are attached to this Agreement and are incorporated herein.

Attachment “A” – RFP 21-056 and Contractor’s Response;

Attachment “B” – Insurance Requirements;

Attachment “C” – Title VI list of pertinent nondiscrimination acts and authorities;

Attachment “D” – Scrutinized Companies Certification;

2. Services. Contractor agrees to perform the following services: daily transportation of recyclables to the Emerald Coast Utility Authority (ECUA) Municipal Recycling Facility (MRF) processing facility in Escambia County Florida located at 13009 Beulah Road, Cantonment. Services will be provided no fewer than three loads per week at the rate of Nine Hundred Fifty Dollars (\$950.00) per load with the exception of a shut-down of the ECUA MRF, or during a natural disaster. Upon notification of Services required “Contractor” has three (3) hours for services to commence. The Services to be provided are further detailed in the Contractor’s proposal attached as Attachment “A” and incorporated herein by reference. The Services shall be performed by Contractor to the

full satisfaction of the County. Contractor agrees to have a qualified representative to audit and inspect the Services provided on a regular basis to ensure all Services are being performed in accordance with the County's needs and pursuant to the terms of this Agreement and shall report to the County accordingly. Contractor agrees to immediately inform the County via telephone and in writing of any problems that could cause damage to the County. Contractor will require its employees to perform their work in a manner befitting the type and scope of work to be performed.

3. Term and Renewal. The term of this Agreement shall begin September 30, 2021 and shall continue for a period of One (1) Year from the date of full execution of this Agreement, subject to the County's ability to terminate in accordance with Section 7 of this Agreement. The terms of Section 20 entitled "Indemnification and Waiver of Liability" shall survive termination of this Agreement.

This agreement may be renewed upon mutual written agreement of the parties for a period of up to Two, One Year renewals.

4. Compensation. The Contractor agrees to provide the Services to the County, including materials and labor, in a total annual amount Not to Exceed Three Hundred Thousand Dollars (\$300,000.00).

- a. Contractor shall submit an invoice to the County monthly. The invoice shall indicate that all services have been completed for that invoice period. In addition, Contractor agrees to provide the County with any additional documentation requested to process the invoices.
- b. Disbursement. Check one:

There are no reimbursable expenses associated with this Agreement.

- c. Payment Schedule. Invoices received from the Contractor pursuant to this Agreement will be reviewed by the initiating County Department. Payment will be disbursed as set forth above. If services have been rendered in conformity with the Agreement, the invoice will be sent to the Finance Department for payment. Invoices must reference the contract number assigned by the County after execution of this Agreement. Invoices will be paid in accordance with the State of Florida Local Government Prompt Payment Act.
- d. Availability of Funds. The County's performance and obligation to pay under this Agreement is contingent upon annual appropriation for its purpose by the County Commission.

Contractor shall make no other charges to the County for supplies, labor, taxes, licenses, permits, overhead or any other expenses or costs unless any such expenses or cost is incurred by Contractor with the prior written approval of the County. If the County disputes any charges on the invoices, it may make payment of the uncontested amounts and withhold payment on the contested amounts until they are resolved by agreement with the Contractor. Contractor shall not pledge the County's credit or make it a guarantor of payment or surety for any contract, debt, obligation, judgment,

lien, or any form of indebtedness. The Contractor further warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms of this Agreement.

5. Ownership of Documents and Equipment. All documents prepared by the Contractor pursuant to this Agreement and related Services to this Agreement are intended and represented for the ownership of the County only. Any other use by Contractor or other parties shall be approved in writing by the County. If requested, Contractor shall deliver the documents to the County within fifteen (15) calendar days.

6. Insurance. Contractor shall, at its sole cost and expense, during the period of any work being performed under this Agreement, procure and maintain the minimum insurance coverage required as set forth in Attachment "B" attached hereto and incorporated herein, to protect the County and Contractor against all loss, claims, damages and liabilities caused by Contractor, its agents, or employees.

7. Termination and Remedies for Breach.

- a. If, through any cause within its reasonable control, the Contractor shall fail to fulfill in a timely manner or otherwise violate any of the covenants, agreements or stipulations material to this Agreement, the County shall have the right to terminate the Services then remaining to be performed. Prior to the exercise of its option to terminate for cause, the County shall notify the Contractor of its violation of the particular terms of the Agreement and grant Contractor Thirty (30) days to cure such default. If the default remains uncured after Forty-Five (45) days the County may terminate this Agreement, and the County shall receive a refund from the Contractor in an amount equal to the actual cost of a third party to cure such failure. If Contractor fails, refuses or is unable to perform any term of this Agreement, County shall pay for services rendered as of the date of termination.
 - i. In the event of termination, all finished and unfinished documents, data and other work product prepared by Contractor (and sub-Contractor (s)) shall be delivered to the County and the County shall compensate the Contractor for all Services satisfactorily performed prior to the date of termination, as provided in Section 4 herein.
 - ii. Notwithstanding the foregoing, the Contractor shall not be relieved of liability to the County for damages sustained by it by virtue of a breach of the Agreement by Contractor and the County may reasonably withhold payment to Contractor for the purposes of set-off until such time as the exact amount of damages due the County from the Contractor is determined.
- b. Termination for Convenience of County. The County may, for its convenience and without cause immediately terminate the Services then remaining to be performed at any time by giving written notice. The terms of Section 7 Paragraphs a(i) and a(ii) above shall be applicable hereunder.

- c. Termination for Insolvency. The County also reserves the right to terminate the remaining Services to be performed in the event the Contractor is placed either in voluntary or involuntary bankruptcy or makes any assignment for the benefit of creditors.
- d. Termination for failure to adhere to the Public Records Law. Failure of the Contractor to adhere to the requirements of Chapter 119 of the Florida Statutes and Section 9 below, may result in immediate termination of this Agreement.

8. Governing Law, Venue and Waiver of Jury Trial. This Agreement shall be interpreted and construed in accordance with and governed by the laws of the State of Florida. All parties agree and accept that jurisdiction of any dispute or controversy arising out of this Agreement, and any action involving the enforcement or interpretation of any rights hereunder shall be brought exclusively in the First Judicial Circuit in and for Santa Rosa County, Florida, and venue for litigation arising out of this Agreement shall be exclusively in such state courts, forsaking any other jurisdiction which either party may claim by virtue of its residency or other jurisdictional device. In the event it becomes necessary for the County to file a lawsuit to enforce any term or provision under this Agreement, then the County shall be entitled to its costs and attorney's fees at the pretrial, trial and appellate levels. BY ENTERING INTO THIS AGREEMENT, CONTRACTOR AND COUNTY HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. Nothing in this Agreement is intended to serve as a waiver of sovereign immunity, or of any other immunity, defense, or privilege enjoyed by the County pursuant to Section 768.28, Florida Statutes.

9. Public Records. Any record created by either party in accordance with this Contract shall be retained and maintained in accordance with the public records law, Florida Statutes, Chapter 119. Contractor must comply with the public records laws, Florida Statute chapter 119, specifically Contractor must:

- a. Keep and maintain public records required by the County to perform the service.
- b. Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in chapter 119 Florida Statutes or as otherwise provided by law.
- c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the County.
- d. Upon completion of the contract, transfer, at no cost, to the County all public records in possession of the contractor or keep and maintain public records required by the County to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate

public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining the public records. All records stored electronically must be provided to the public agency, upon the request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, WANDA PITTS, (850) 963-1925, wandap@santarosa.fl.gov, 6945 Caroline Street, Milton, FL 32570.

10. Audit. The County and/or its designee shall have the right from time to time at its sole expense to audit the compliance by the Contractor with the terms, conditions, obligations, limitations, restrictions, and requirements of this Contract and such right shall extend for a period of three (3) years after termination of this Contract.

11. Notices. All notices and other communications required or permitted to be given under this Agreement by either party to the other shall be in writing and shall be sent (except as otherwise provided herein) (i) by certified mail, first class postage prepaid, return receipt requested, (ii) by guaranteed overnight delivery by a nationally recognized courier service, or (iii) by facsimile with confirmation receipt (with a copy simultaneously sent by certified mail, first class postage prepaid, return receipt requested or by overnight delivery by traditionally recognized courier service), addressed to such party as follows:

If to the County:		With a copy to: Environmental Department 6051 Old Bagdad Hwy, Ste 301 Milton, FL 32583
If to the Contractor:		WPR Inc. 4175 Briarglen Rd Milton, FL 32583

12. Assignment. Contractor shall not assign this Agreement or any part thereof, without the prior consent in writing of the County. If Contractor does, with approval, assign this Agreement or any part thereof, it shall require that its assignee be bound to it and to assume toward Contractor all of the obligations and responsibilities that Contractor has assumed toward the County.

13. Subcontracting. Contractor shall not subcontract any services or work to be provided to County without the prior written approval of the County's Representative. The County reserves the right to accept the use of a subcontractor or to reject the selection of a particular subcontractor and to inspect all facilities of any subcontractors in order to make a determination as to the capability of the subcontractor to perform properly under this Agreement. The County's acceptance of a subcontractor shall not be unreasonably withheld. The Contractor is encouraged to seek minority and women business enterprises for participation in subcontracting opportunities. Additionally, any subcontract entered into between the Contractor and subcontractor will need to be approved by the County prior to it being entered into and said agreement shall incorporate in all required terms in accordance with local, state and Federal regulations.

14. Civil Rights. The Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

15. Compliance with Nondiscrimination Requirements. During the performance of this Agreement, the Contractor, for itself, its assignees, and successors in interest, agrees as follows:

a. Compliance with Regulations: The Contractor will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated and attached hereto as Attachment "C".

b. Nondiscrimination: The Contractor, with regard to the work performed by it during the Agreement, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

c. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

d. Information and Reports: The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the County or other governmental entity to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails

or refuses to furnish the information, the Contractor will so certify to the County or the other governmental entity, as appropriate, and will set forth what efforts it has made to obtain the information.

e. Sanctions for Noncompliance: In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the County will impose such contract sanctions as it or another applicable state or federal governmental entity may determine to be appropriate, including, but not limited to:

a. Withholding payments to the Contractor under the Agreement until the Contractor complies; and/or

b. Cancelling, terminating, or suspending the Agreement, in whole or in part.

f. Incorporation of Provisions: The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the County may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the County to enter into any litigation to protect the interests of the County. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

16. Compliance with Laws. Contractor shall secure any and all permits, licenses and approvals that may be required in order to perform the Services, shall exercise full and complete authority over Contractor's personnel, shall comply with all workers' compensation, employer's liability and all other federal, state, county, and municipal laws, ordinances, rules and regulations required of an employer performing services such as the Services, and shall make all reports and remit all withholdings or other deductions from the compensation paid to Contractor's personnel as may be required by any federal, state, county, or municipal law, ordinance, rule, or regulation.

17. Conflict of Interest. The Contractor covenants that it presently has no interest and shall not acquire any interest, directly or indirectly which could conflict in any manner or degree with the performance of the Services. The Contractor further covenants that in the performance of this Agreement, no person having any such interest shall knowingly be employed by the Contractor. The Contractor guarantees that he/she has not offered or given to any member of, delegate to the Congress of the United States, any or part of this contract or to any benefit arising therefrom.

18. Independent Contractor. Contractor enters into this Agreement as, and shall continue to be, an independent contractor. All services shall be performed only by Contractor and Contractor's employees. Under no circumstances shall Contractor or any of Contractor's employees look to the County as his/her employer, or as partner, agent or principal. Neither Contractor, nor any of Contractor's employees, shall be entitled to any benefits accorded to the County's employees, including without limitation worker's compensation, disability insurance, vacation or sick pay.

Contractor shall be responsible for providing, at Contractor's expense, and in Contractor's name, unemployment, disability, worker's compensation and other insurance as well as licenses and permits usual and necessary for conducting the services to be provided under this Agreement.

19. Third Party Beneficiaries. It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of the Agreement to create in the public or any member thereof, a third party beneficiary under this Agreement, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Agreement.

20. Indemnification and Waiver of Liability. The Contractor agrees, to the fullest extent permitted by law, to defend, indemnify and hold harmless the County, its agents, representatives, officers, directors, officials and employees from and against claims, damages, losses and expenses (including but not limited to attorney's fees, court costs and costs of appellate proceedings) relating to, arising out of or resulting from the Contractor's negligent acts, errors, mistakes or omissions relating to professional Services performed under this Agreement. The Contractor's duty to defend, hold harmless and indemnify the County its agents, representatives, officers, directors, officials and employees shall arise in connection with any claim, damage, loss or expense that is attributable to bodily injury; sickness; disease; death; or injury to impairment, or destruction of tangible property including loss of use resulting therefrom, caused by any negligent acts, errors, mistakes or omissions related to Services in the performance of this Agreement including any person for whose acts, errors, mistakes or omissions the Contractor may be legally liable. The parties agree that TEN DOLLARS (\$10.00) represents specific consideration to the Contractor for the indemnification set forth herein.

The waiver by a party of any breach or default in performance shall not be deemed to constitute a waiver of any other or succeeding breach or default. The failure of the County to enforce any of the provisions hereof shall not be construed to be a waiver of the right of the County thereafter to enforce such provisions.

21. Taxes and Assessments. Contractor agrees to pay all sales, use, or other taxes, assessments and other similar charges when due now or in the future, required by any local, state or federal law, including but not limited to such taxes and assessments as may from time to time be imposed by the County in accordance with this Agreement. Contractor further agrees that it shall protect, reimburse and indemnify County from and assume all liability for its tax and assessment obligations under the terms of the Agreement.

The County is exempt from payment of Florida state sales and use taxes. The Contractor shall not be exempted from paying sales tax to its suppliers for materials used to fulfill contractual obligations with the County, nor is the Contractor authorized to use the County's tax exemption number in securing such materials.

The Contractor shall be responsible for payment of its own and its share of its employees' payroll, payroll taxes, and benefits with respect to this Agreement.

22. Prohibition Against Contracting with Scrutinized Companies. Pursuant to Florida Statutes Section 215.4725, contracting with any entity that is listed on the Scrutinized Companies that Boycott Israel List or that is engaged in the boycott of Israel is prohibited. Contractors must certify that the company is not participating in a boycott of Israel. Any contract for goods or services of One Million Dollars (\$1,000,000) or more shall be terminated at the County's option if it is discovered that the entity submitted false documents of certification, is listed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or has been engaged in business operations in Cuba or Syria after July 1, 2018.

Any contract entered into or renewed after July 1, 2018 shall be terminated at the County's option if the company is listed on the Scrutinized Companies that Boycott Israel List or engaged in the boycott of Israel. Contractors must submit the certification that is attached to this agreement as Attachment "D". Submitting a false certification shall be deemed a material breach of contract. The County shall provide notice, in writing, to the Contractor of the County's determination concerning the false certification. The Contractor shall have ninety (90) days following receipt of the notice to respond in writing and demonstrate that the determination was in error. If the Contractor does not demonstrate that the County's determination of false certification was made in error, then the County shall have the right to terminate the contract and seek civil remedies pursuant to Florida Statute Section 215.4725.

23. Inconsistencies and Entire Agreement. If there is a conflict or inconsistency between any term, statement, requirement, or provision of any attachment attached hereto, any document or events referred to herein, or any document incorporated into this Agreement, the term, statement, requirement, or provision contained in this Agreement shall prevail and be given superior effect and priority over any conflicting or inconsistent term, statement, requirement or provision contained in any other document or attachment, including but not limited to Attachments listed in Section 1.

24. Severability. If any term or condition of this Contract shall be deemed, by a court having appropriate jurisdiction, invalid or unenforceable, the remainder of the terms and conditions of this Contract shall remain in full force and effect. This Contract shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all the terms and provisions hereof.

25. Entire Agreement. This Agreement contains the entire agreement of the parties, and may be amended, waived, changed, modified, extended or rescinded only by in writing signed by the party against whom any such amendment, waiver, change, modification, extension and/or rescission is sought.

26. Representation of Authority to Contractor/Signatory. The individual signing this Agreement on behalf of Contractor represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this Agreement. The signatory represents and warrants to the County that the execution and delivery of this Agreement and the performance of the Services and obligations hereunder have been duly authorized and that the Agreement is a valid and legal agreement binding on the Contractor and enforceable in accordance with its terms.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate on the day and year first written above.

WITNESS:



Signature

Douglas Russell

Print Name

BY: 

Douglas Russell, Vice President

ATTEST:

SANTA ROSA COUNTY, FLORIDA

Donald C. Spencer, Clerk of Court

BY: _____
David C. Piech, Chairman

Attachment "A"

SANTA ROSA COUNTY, FLORIDA



RFP 21-056 Recycle Hauling Services

August/September 2021

**OWNER: BOARD OF COUNTY COMMISSIONERS
SANTA ROSA COUNTY, FLORIDA**

**SAM PARKER
ROBERT A. "BOB" COLE
JAMES CALKINS
DAVE PIECH
COLTEN WRIGHT**

**-DISTRICT I
-DISTRICT II
-DISTRICT III
-DISTRICT IV
-DISTRICT V**

SECTION I.
Request for Proposals

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SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

6495 Caroline Street, Suite L | Milton, Florida 32570 850-983-1870 procurement@santarosa.fl.gov

MEMORANDUM

TO: Company Addressed DATE: August 20, 2021

FROM: Santa Rosa County Procurement Office

SUBJECT: **RFP 21-056 Recycle Hauling Services**

Notice is hereby given that the Santa Rosa County Board of County Commissioners is requesting proposals for Recycle Hauling Services.

All bids must be in writing and delivered by hand, overnight courier service, or U.S. Mail to the Santa Rosa County Procurement Department, 6495 Caroline Street, Suite M, Milton, Florida 32570, and must be received by **10:00 a.m. on September 14, 2021** at which time will be publicly opened. Only bids received by the afore stated time and date will be considered. E-mailed proposal responses will be rejected. All bids shall be sealed and clearly labeled, "RFP 21-056 Recycle Hauling Services". Please provide the original proposal, labeled "ORIGINAL", five (5) copies, labeled "Copy" and one (1) electronic file in OCR (readable) PDF format.

A pre-bid conference will be held **August 31, 2021, at 10:00 A.M.** at the Santa Rosa County Central Landfill, 6337 Da Lisa Road, Milton, Florida 32583. All interested parties are strongly encouraged to attend. Please meet at the parking lot before the weigh station for further instructions.

Specifications may be secured by download from the Santa Rosa County Website: <https://www.santarosa.fl.gov/391/Procurement-Office> "Bid Opportunities". Questions concerning this request should be directed to the Santa Rosa County Procurement Office in writing at bidinfo@santarosa.fl.gov prior to **12:00 p.m. on September 7, 2021**.

Santa Rosa County Board of County Commissioners encourages all segments of the business community to participate in its procurement opportunities, including small businesses, minority/women owned businesses, and disadvantaged business enterprises. The Board does not discriminate on the basis of race, color, religion, national origin, disability, sex, or age in the administration of contracts.

The Board of County Commissioners reserves the right to waive irregularities in bids, to reject any or all bids with or without cause, and to award the bid that it determines to be in the best interest of Santa Rosa County.

By order of the Board of County Commissioners of Santa Rosa, Florida

SECTION II.
RFP INSTRUCTIONS, SUBMITTAL REQUIREMENTS
AND GENERAL RFP REQUIREMENTS

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PRE-PROPOSAL ACTIVITY

Except as provided in this section, respondents are prohibited from contacting or lobbying the County, County Administrator, Commissioners, County staff, and Review Committee members, or any other person authorized on behalf of the County related or involved with the solicitation. All inquiries on the scope of work, specifications, additional requirements, attachments, terms and general conditions or instructions, or any issue must be directed in writing, by US mail or email to: Santa Rosa County Procurement Office, 6495 Caroline Street, Suite L Milton Fl. 32570. Email; Bidinfo@santarosa.fl.gov.

All questions or inquiries must be received no later than the last day for questions stated in the RFP & Legal Notice. Any addenda or other modification to the bid documents will be issued by the County five (5) days prior to the date and time of bid closing, as written addenda, and will be posted to the Santa Rosa County website at <https://www.santarosa.fl.gov> keyword; Bids.

Such written addenda or modification shall be part of the bid documents and shall be binding upon each respondent. Each respondent is required to acknowledge receipt of any and all addenda in writing and submit with their bid. No respondent may rely upon any verbal modification or interpretation.

PROPOSED SCHEDULE

Request for Proposal Published	August 21, 2021
Pre-proposal meeting	August 31, 2021 @ 10:00 a.m.
Deadline for Questions	September 7, 2021 @ 12:00 p.m.
Proposals Due	September 14, 2021 @ 10:00 a.m.

PREPARATION OF RFP

The respondent shall submit proposals in accordance with the public notice.

Any proposal which contains any omissions, erasures, alterations, additions, irregularities of any kind, or items not called for which shall in any manner fail to conform to the conditions of public notice may be rejected.

A proposal submitted by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature). The official address of the partnership shall be shown below the signature.

A proposal submitted by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.

A proposal submitted by an individual shall show the respondent's name and official address.

A proposal submitted by a joint venture shall be executed by each joint venture in the manner indicated on the bid form. The official address of the joint venture must be shown below the signature.

It is preferred that all signatures be in blue ink with the names type or printed below the

signature. Santa Rosa County does not accept electronic signatures in proposal submissions. The proposal shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the form. The address and telephone # for communications regarding the bid shall be shown.

If the respondent is an out-of-state corporation, the bid shall contain evidence of respondent's authority and qualification to do business as an out-of-state corporation in the State of Florida. A state contractor license # for the State of Florida shall also be included on the bid form. Respondent shall be licensed in accordance with the requirements of Chapter 489, Florida Statutes.

The proposal shall be based upon the completion of the Work according to the drawings and specifications, together with all addenda thereto.

SUBMITTAL OF PROPOSAL

A proposal shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be sealed and clearly labeled with the words "RFP 21-056 Recycle Hauling Services", name of respondent/firm and date and time of opening so as to guard against premature opening of any bid and shall be accompanied by the bid security and other required documents. It is the respondent's responsibility to assure that its proposal is delivered at the proper time and place. Offers by email, facsimile, or telephone will NOT be accepted.

INTEGRITY OF PROPOSAL DOCUMENTS

Respondents shall use the original documents provided by the Santa Rosa County Procurement Office and enter information only in the spaces where a response is requested. Respondents may use an attachment to the documents if sufficient space is not available. Any modifications or alterations to the original documents by the respondent, whether intentional or otherwise, will constitute grounds for rejection of a bid. Any such modification or alteration that a respondent wishes to propose must be clearly stated in the respondent's response in the form of an addendum to the original bid documents.

WITHDRAWAL OF SUBMITTALS

Any Respondent may withdraw its Submittal, either personally or by written request, at any time prior to the scheduled time for opening Submittals.

INTERPRETATION

No oral interpretation will be made to any Respondent as to the meaning of the drawings or specifications. Every interpretation made to a Respondent will be in the form of an Addendum to the specifications. Addenda will be furnished to each Respondent, but it shall be the Respondent's responsibility to make inquiry as to Addenda issued. All such addenda shall become part of the contract and all Responders shall be bound by such Addenda whether or not received by the Responders.

PROPOSALS TO REMAIN SUBJECT TO ACCEPTANCE

All responses will remain subject to acceptance or rejection by Santa Rosa County for sixty (60) calendar days after the day of the response opening. The County may, in its sole discretion, release any response and return the response security prior to the end of this period.

CONDITIONAL & INCOMPLETE PROPOSALS

Santa Rosa County specifically reserves the right to reject any conditional response.

ADDITION/DELETION OF ITEM

The County reserves the right to add or delete any item from this response or resulting contract when deemed to be in the County's best interest.

SPECIFICATION EXCEPTIONS

Specifications are based on the most current literature available. Respondent shall clearly list any change in the manufacturer's specifications which conflict with the proposal specifications. Respondent must also explain any deviation from the proposal specification in writing, as a foot note on the applicable bid page and enclose a copy of the manufacturer's specifications data detailing the changed item(s) with their bid. Failure of the respondent to comply with these provisions will result in respondents being held responsible for all costs required to bring the equipment in compliance with bid specifications.

FAMILIARITY WITH LAWS

All applicable Federal and State laws, County and municipal ordinances, orders, rules and regulations of all authorities having jurisdiction over the project shall apply to the bid throughout, and they will be deemed to be included in the contract the same as though they were written in full therein.

EXAMINATION OF DOCUMENTS AND SITE

Before submitting their proposal, the Respondent shall familiarize themselves with the nature and extent of the work and any local conditions that may in any manner affect the work to be done and the equipment, materials, and labor required. Respondent shall also examine all drawings, specifications, addenda and other Contract Documents to be thoroughly informed regarding any and all conditions and requirements that may in any manner affect the work to be performed under the contract.

RIGHT TO REJECT PROPOSAL

The Owner reserves the right to waive informalities in bids to reject any or all proposals with or without cause and accept the proposal that in its judgment is in the best interest of the County.

DISQUALIFICATION OF RESPONDENTS

Any of the following reasons may be considered as sufficient for the disqualification of a respondent and the rejection of its proposal:

Submission of more than one proposal for the same work from an individual, firm or corporation under the same or different name. Evidence that the respondent has a financial interest in the firm of another respondent for the same work.

Evidence of collusion among respondents. Participants in such collusion will receive no recognition as respondents for any future work of the County until such participant has been reinstated as a qualified respondent.

Uncompleted work which in the judgment of the County might hinder or prevent the prompt completion of additional work if awarded.

Failure to pay or satisfactorily settle all bills due for labor and material on former contracts in force at the time of advertisement of proposals. Default under previous contract.

Listing of the respondent by any Local, State or Federal Government on its barred/suspended vendor list.

DISCRIMINATION

An entity or affiliate who has been placed on the discriminatory vendor list may not submit a response on a contract to provide goods or services to a public entity, may not submit a response on a contract with a public entity for the construction or repair of a public building or public work, may not submit responses on leases of real property to a public entity, may not award or perform work as a contractor, supplier, subcontractor, or consultant under contract with any public entity, and may not transact business with any public entity.

REVIEW OF PROCUREMENT DOCUMENTS

Per Florida Statute 119.071 (1) 2, sealed bids, proposals, or replies received by the County pursuant to a competitive solicitation are exempt from public disclosure until such time as the County provides notice of an intended decision or until 30 days after opening the responses, proposals, or final replies, whichever is earlier.

COMPLIANCE WITH FLORIDA STATUTE 119.0701

The Respondent shall comply with all the provisions of section 119.0701, Florida Statutes relating to the public records which requires, among other things, that the Respondent: (a) Keep and maintain public records; (b) Provide the public with access to public records on the same terms and conditions that the public agency would provide the records; (c) ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and (d) Meet all requirements for retaining public records and transfer, at no cost, to the public agency all public records in possession of the respondent upon termination of the contract.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE

CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (850) 983-1925, wandap@santarosa.fl.gov; 6495 CAROLINE STREET, SUITE C, MILTON, FLORIDA 32570.

SUSPENSION OR TERMINATION FOR CONVENIENCE

The County may, at any time, without cause, order Respondent in writing to suspend, delay or interrupt the work in whole or in part for such period of time as the County may determine, or to terminate all or a portion of the Contract for the County's convenience. Upon such termination, the Contract Price earned to the date of termination shall be paid to Respondent, but Respondent waives any claim for damages, including loss of profits arising out of or related to the early termination. Those Contract provisions which by their nature survive final acceptance shall remain in full force and effect. If the County orders a suspension, the Contract price and Contract time may be adjusted for increases in the cost and time caused by suspension, delay or interruption. No adjustment shall be made to the extent that performance is, was or would have been so suspended, delayed or interrupted by reason for which Respondent is responsible; or that an equitable adjustment is made or denied under another provision of this Contract.

FAILURE OF PERFORMANCE/DELIVERY

In case of default by the Vendor, the County after due notice (oral or written) may procure the necessary supplies or services from other sources and hold the Vendor responsible for difference in cost incurred. Continuous instances of default shall result in cancellation of the award and removal of the Vendor from the response list for duration of one (1) year, at the option of the County.

AUDIT

If requested, respondent shall permit the County or an authorized, independent audit agency to inspect all data and records of respondent relating to its performance and its subcontracts under this bid from the date of the award through three (3) years after the expiration of contract.

NON-COLLUSION

Respondent certifies that it has entered into no agreement to commit a fraudulent, deceitful, unlawful or wrongful act, or any act which may result in an unfair advantage over other respondents. See Florida Statute 838.22.

PUBLIC ENTITY CRIME INFORMATION

Pursuant to Florida Statute 287.133, a respondent may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided

in s. 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.

Note: For respondent's convenience, this certification form is enclosed and is made a part of the bid package.

INVESTIGATION OF RESPONDENT

The County may make such investigations, as it deems necessary to determine the stability of the respondent to perform the work and that there is no conflict of interest as it relates to the project. The respondent shall furnish to the Owner any additional information and financial data for this purpose as the County may request.

CONE OF SILENCE CLAUSE

The Santa Rosa County Board of County Commissioners has established a solicitation silence policy (Cone of Silence Clause) that prohibits oral and written communication regarding all formal solicitations for goods and services (formal bids, Request for Proposals, Requests for Qualifications) issued by the Board through the Procurement Office. The period commences from the date of advertisement until award of contract. All communications shall be directed to the Procurement Office.

Note: For respondent's convenience, this certification form is enclosed and is made a part of the bid package.

EVALUATION OF PROPOSALS AND AWARD OF CONTRACT

Santa Rosa County Staff will review all bids and will provide the recommendation to award to the Procurement Office, the County Administrator and the Board of County Commissioners. The County will award the bid to the responsive and responsible vendor(s) with the lowest responsive bid(s). The County reserves the right to award the bid to the respondent submitting a responsive bid with a resulting negotiated agreement which is most advantageous and in the best interest of the County, and to reject any and all bids or to waive any irregularity or technicality in bids received. Santa Rosa County shall be the sole judge of the bid and the resulting negotiated agreement that is in its best interest and its decision shall be final.

Santa Rosa County reserves its right to reject any or all Responses, including without limitation nonconforming, nonresponsive, unbalanced or conditional Bids. The County further reserves the right to reject the Response of any Responder whom it finds after reasonable inquiry and evaluation to not be responsible. In evaluating Responses, the County may consider the qualifications of Responders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted with the Response.

Santa Rosa County reserves the right to waive any informalities or reject any and all Responses, in whole or part, to utilize any applicable state contracts in lieu of or in addition to this Response and to accept the Response that in its judgment will best serve the interest

of the County.

FORM OF AGREEMENT

The Contract form shall be provided by the Procurement Office. The successful contractor shall, within 10 days after receipt of the Notice of Award and the contract forms or documents, sign and deliver to the County Procurement Office all required contract documents. The awarded contractor shall also deliver the policies of insurance or insurance certificate as required. All insurance documents shall be approved by Santa Rosa County Procurement Office before the successful contractor may proceed with the work.

SECTION III.
SANTA ROSA COUNTY DOCUMENTS AND FORMS

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Santa Rosa County
Insurance Requirements
March 2021

Workers' Compensation – meet statutory limits in compliance with the Workers Compensation Laws of Florida. This policy must include Employer Liability with a limit of \$100,000 for each accident, \$500,000 disease policy limit and \$100,000 disease each employee limit.

Commercial General Liability – coverage shall provide minimum limits of liability of \$1,000,000 per occurrence, \$2,000,000 Aggregate, for bodily injury and property damage. This shall include coverage for:

- a. Premises/operations
- b. Products/complete operations
- c. Contractual liability
- d. Independent contractors

Business Auto Liability – coverage shall provide minimum limits **\$1,000,000**. Combined Single Limit for bodily injury and property damage. If Split limit coverage is provided Limits of **1,000,000 per person/1,000,000 per accident** and **1,000,000** for property damage are required.

This shall include coverage for:

- a. Owned autos
- b. Hired autos
- c. Non-owned autos

Special Requirements:

- 1) Prior to execution of a contract or agreement, certificates of insurance will be produced that shall provide for the following:
 - a. Santa Rosa County shall be named as an additional insured on all coverages except workers' compensation.

b. Santa Rosa County will be given thirty (30) days' notice prior to cancellation or modification of any stipulated insurance.

2) It is the responsibility of the contractor to ensure that all subcontractors comply with all insurance requirements.

3) It should be noted that these are minimum requirements which are subject to modification in response to specialized or high hazard operations.

In the event of unusual circumstances, the County Administrator, or his designee, may adjust these insurance requirements.

Insurance Checklist

Proposal/Project Reference **RFP 21-056 Recycle Haul Services**

Required Coverage (Marked by "X")	Minimum Limits
1. <input type="checkbox"/> Workers Compensation Proprietor/Executive Officers Exclusion not allowed	\$100,000. Employers Liab. \$100,000. Accident –Disease \$500,000. Disease policy Limit
2. <input type="checkbox"/> Commercial General Liability Including Premises operations-Products completed ops Contractual Liability and Personal and advertising Liability	\$1,000,000. CSL \$2,000,000. Annual Aggregate
3. <input checked="" type="checkbox"/> Automobile Liability – including Hired and Non- Owned	\$1,000,000. CSL
4. <input type="checkbox"/> Professional Liability coverage	\$1,000,000. Per Occurrence
5. <input type="checkbox"/> Asbestos Removal Liability	\$2,000,000. Per Occurrence
6. <input type="checkbox"/> Medical Malpractice	\$1,000,000 Per Occurrence
7. <input type="checkbox"/> Garage Liability	\$1,000,000. BI/PD- Occurrence
8. <input type="checkbox"/> Garage Keepers Liability	\$500,000. Comprehensive \$500,000. Collision
9. <input type="checkbox"/> Inland Marine- Bailee’s Insurance	\$_____
10. <input type="checkbox"/> Moving and Rigging Floater	Endorsement to CGL
11. <input type="checkbox"/> Crime/Dishonesty Bond	\$_____
12. <input type="checkbox"/> Builders Risk/Installation Floater – Provide coverage in Full amount of Contract.	
13. <input type="checkbox"/> Owner’s Protective Liability	\$_____
14. <input type="checkbox"/> Excess/Umbrella Liability	\$_____

General Requirements

- A. Carrier rating shall be A.M. Best rating of B++V or Better.
- B. Notice of Cancellation or Non-renewal or material change in coverage shall be provided to Santa Rosa County at least 30 days prior to action.
- C. Santa Rosa County shall be named as Additional Insured on all policies except Workers' Compensation.

Approved by the BOCC March 23, 2021

SECTION IV.
PROJECT MANUAL, SPECIFICATIONS, PLANS AND
SUPPORTING DOCUMENTATION

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I. INTRODUCTION

The County is seeking Proposals from qualified Vendors for the daily transportation of recyclables to the Emerald Coast Utility Authority (ECUA) Municipal Recycling Facility (MRF) processing facility in Escambia County Florida located at 13009 Beulah Road, Cantonment.

Santa Rosa County (SRC) has developed and implemented a curbside subscription-based recycling program servicing single family households. The County has committed to continue the curbside recycling program and is seeking a Vendor to transport recyclables collected by the county or any hauler operating under an agreement or franchise within Santa Rosa County. The County currently has an agreement to transport up to 3,000 tons of recyclables annually, with an average of 215 tons per month at the County's recycling transfer station facility located at the county owned Central Landfill. The County estimates that Vendor will need to make 15 - 20 pulls per month, averaging approximately 13 tons with an acceptable range of 12 to 20 tons per pull to manage the volume of recyclables collected in the county and to avoid overrunning the County's Recycling Transfer Stations holding capacity.

ECUA currently accepts the following materials in the Program: glass; any color, newspaper & inserts, cardboard, boxboard (cereal, cake & cracker boxes, etc.), plastic bottles, plastics No. 1 & 2, plastic milk jugs; 2-liters (including caps), aluminum cans & lids, tin and steel cans & lids, metal pots, pans, & cookie sheets, and pet food cans (no plastic liner). (The "Recyclable Materials" list is available on ecua.fl.gov and/or santarosa.fl.gov). The list of Recyclables may be expanded or contracted from time to time as determined by ECUA and the operator of the ECUA MRF, if any. The county contracts with ECUA to process the recycling and follows guidelines set by ECUA for materials accepted into ECUA MRF's recycling program.

Previously, Santa Rosa County source-separated recycling have been successfully transported by top loading into the transportation contractor's truck/trailer to the ECUA MRF. Equipment which has been successfully used in the past include an approximately 100 cu yd open top walking floor semi-trailers and semi-tractor-trailer trucks. Santa Rosa County staff or a contracted operator, if any, will provide top loading of the source separated materials into the transportation contractor's trailer using a wheeled-loader with an approximately 7 cu yd front bucket (or equivalent equipment as SRC sees fit for loading of the source-separated recycling). Source-separated recycling generated within Santa Rosa County has historically averaged approximately 260 lbs / cu yd.

II. SUBMITTAL REQUIREMENTS

The County is seeking a transportation only proposal in this submission package to support the County's curb side recycling system in Santa Rosa County.

All proposals must be in writing and delivered by hand, overnight courier service, or U.S. Mail to the Santa Rosa County Procurement Department, 6495 Caroline Street, Suite M, Milton, Florida 32570, and must be received by 10:00 a.m. on September 14, 2021, at which time will be publicly opened. Only bids received by the afore stated time and date will be considered. E-mailed proposal responses will be rejected. All bids shall be sealed and clearly labeled, "RFP 21-056 Recycle Hauling Services". Please provide the original proposal, labeled "ORIGINAL", five (5) copies, labeled "Copy" and one (1) electronic file in OCR (readable) PDF format.

Transportation Only to a County Designated Materials Recycling Facility (MRF)

For the transportation of recyclables from the County's Central Landfill located at 6337 Da Lisa Road, Milton Florida to the Emerald Coast Utilities Authority (ECUA) Materials Recycling Facility (MRF) at the Escambia County Perdido Landfill located at 13009 Beulah Road, Cantonment, Florida.

The Vendor shall provide a cost per pull of Vendor's truck & trailer for the round trip from the Santa Rosa County Central Landfill Recycling Facility to the Emerald Coast Utilities MRF located at the Escambia County's Perdido Landfill.

All cost associated with providing the transportation services including, but not limited to, fuel, wages, upkeep, and maintenance of equipment shall be included in the cost per pull. No additional fees, charges or pass throughs are permitted.

Vendor shall bill the County monthly for services provided in the previous month and each invoice shall contain the date of service, vehicle number, weight, and cost. The vendor must also submit corresponding scale tickets from both the SRC and ECUA's MRF showing the time, date, vehicle number, and net weight for each pull from the SRC Recycling Transfer Station.

The collected Recyclable Materials will be delivered by the Vendor to the Materials Recycling Facility daily, Monday thru Friday, 7 AM to 5 PM.

ECUA reserves the right to declare a Shutdown of their facility independently and without consent from the County for any reason. During a shutdown the county shall be under no obligation to send any Source-Separated Recycling (SSR) from the County's curbside recycling program throughout the duration of the Shutdown. Additionally, in the event of a Shutdown, the County may dispose of its SSR as it deems fit for the duration of that Shutdown, and the County is not obligated to reimburse the hauling vendor for lost revenue associated with the Shutdown.

Minimal Qualifications.

The selected Vendor must meet the following minimum qualifications requirements:

a. The Vendor's vehicles must be capable of accommodating the MRF's or Vendor's selected Facility's physical restrictions for offloading the Vendors equipment. Contact for the ECUA and the Materials Recycling Facility:

Randy Rudd
Deputy Director of Shared Services
Emerald Coast Utilities Authority
9255 Sturdevant Street
Pensacola, Florida 32514

b. The Vendor must conform to the MRF's operational days and hours. Alternate schedules may be established by mutual agreement of the parties.

c. Prior to award of an Agreement, pursuant to this RFP, the Vendor must have or shall have sufficient equipment and personnel to provide the services requested.

d. Vendor must weigh all outgoing loads of recyclables at the County's Central Landfill scalehouse prior to leaving the facility. The vendor must provide the County with written (email) notice of any discrepancies or errors within 96 hours. Any outgoing loads that bypass the Central landfill scales are ineligible for transportation fees unless authorized by the Santa Rosa County Environmental Department Director.

e. The County will work with selected Vendor to establish vehicle number and tare weights. All Vendor vehicles shall have tare weights so that refuse vehicles do not need to be weighed twice. Vehicle tare weights will be validated annually by the County, or at such time as may be necessary to resolve billing issues.

f. Vendor must have at the time the agreement is finalized and maintain throughout the term of the agreement the following minimum insurance and provide copies of applicable policies to the County.

III. EVALUATION/SELECTION CRITERIA

To simplify evaluation and to assure that each submittal receives the same orderly consideration; all submittals are to follow the format described in this section. Respondents are encouraged to submit concise and clear responses to the RFP.

Part 1 – Cover Page / Table of Contents

Part 2 – Letter of Interest and Executive Summary

Provide a letter explaining your interest in the RFP and ability to meet the minimum qualifications and the requirements stated in the RFP. The letter should include an Executive Summary summarizing your relevant qualifications and experience.

Part 3 – Profile and Organizational Chart with Staff Profiles

Provide the following information:

1. List your business name and business address, including telephone number, email address, facsimile numbers, and website, if applicable.
2. Indicate the year your business was established and type of business.
3. Staff and Organizational Chart
4. Concept and Work Plan
 - a. Concept
 - b. Work Plan
5. Management and Technical Skills
 - a. Management Team
 - b. Technical Skills

Part 4 – History and Equipment

Provide the following appropriate information:

1. Past Performance
2. Relevant Experience
3. Year, Make, Model, and description of proposed equipment to be utilized to perform this service.

Part 5 – Financials

Provide your most recent financial statements, consisting of a balance sheet and income statement.

Part 6 – Miscellaneous

Provide any additional information that you feel is relevant to your submittal.

Part 7 – Submission - Transportation Only to a County Designated MRF.

The County Designated MRF is the Emerald Coast Utilities ECUA MRF located at Escambia County's Perdido Landfill. Submission must include price per pull to haul 12-20 tons per haul to the county designated MRF.

Part 8 – Required Forms

Provide either a completed Accord form or a signed letter from your insurance agency on its letterhead stating that you have or can get the required insurance coverages.

Complete and provide attached Sworn Statement (notarized).

IV. AGREEMENT TERM

The County anticipates entering into an Agreement for the Services for a one-year term beginning on September 30th, 2021, with up to five one-year renewals. Such agreement may be terminated by the County for any reason upon giving the other party 30 days' notice. The County also reserves the right to modify or cancel the curb side recycling program, at its discretion, if the cost to maintain the program becomes financially unsustainable at which time the transportation agreement would be terminated with 30 days' notice.

V. TERMS AND CONDITIONS

1. The OWNER (Santa Rosa County) reserves the right to accept or reject any or all proposals, with or without cause, to waive technicalities, or to accept the proposal which, in its sole judgment, best serves the interest of the OWNER, or to award a contract to the next most qualified submitter if a successful submitter does not execute a contract within thirty (30) days after approval of the selection by the OWNER. OWNER reserves the right, and has absolute and sole discretion, to cancel a solicitation at any time prior to approval of the award by the OWNER.
2. The OWNER reserves the right to request clarification of information submitted and to request additional information of one or more applicants.
3. Any proposal may be withdrawn until the date and time set above for the submission of the proposals. Any proposals not so withdrawn shall constitute an irrevocable offer, for a period of ninety (90) days, to provide to the OWNER the services set forth in this Request for Qualifications, or until one or more of the proposals have been awarded.
4. Proposals shall be sealed, and submitter should indicate externally on their proposal the following:
 - a. Title: RFP 21-056 Recycle Hauling Services
 - b. Name and Address of submitter
5. Costs of preparation of a response to this request for proposals are solely those of the submitter. The OWNER assumes no responsibility for any such costs incurred by the submitter. The submitter also agrees that the OWNER bears no responsibility for any costs associated with any administrative or judicial proceedings resulting from the solicitation process.
6. The respondent(s) awarded this contract shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the work for at least three (3) years after completion of the later of final project closeout or final audit by OMB of any project work performed under contract resulting from this RFP. The OWNER shall have access to all records, documents and information collected and/or maintained by others during the administration of the agreement. This information shall be made accessible at the awardees place of business to the OWNER, including the Comptroller's Office and/or its designees, for purposes of inspection, reproduction, and audit without restriction.

7.The Agreement form shall be provided by the Procurement Office.

8.This is a Request for Proposal and not an offer to purchase said services. The county shall have no obligation to any submitter who presents a submission and is not liable for any costs incurred by the submitter in preparation of the submission. The county reserves the right to award a contract solely on the basis of the submission received and to award noncontract whatsoever. The county reserves the right also to accept or reject submissions in whole or in part and to waive any defect, technical requirements and/or irregularities therein.

RFP 21-0
Recycling Haul Service

	Points Available	/	/	/	/	/	/	/
Following RFP Submittal Requirements	10							
Concept and Workplan	10							
Management Team and Technical Skills	15							
Past Performances	15							
Relevant Experience	20							
Transportation Only to a County Designated (MRF) Cost	30							
TOTAL POINTS:	100							

DIRECTIONS: Score each firm in each category. In the event of a tie for 1st or 2nd place, there will be another scoring round using only the two tied firms to determine their final ranking.

Evaluator's Name: _____

Signature: _____

Date: _____



SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

6495 Caroline Street, Suite L | Milton, Florida 32570 850-983-1870 procurement@santarosa.fl.gov

BID SUBMISSION CHECKLIST

RFP 21-056 Recycle Hauling Services

Respondent Name: Douglas Russell

- Sealed Bid Package with Bid Name and Number, Firm name and Address with Contact information clearly marked on the outside of envelope/box.
- 1 Original Bid Package and 5 Copies with 1 Electronic Copy in .pdf on a CD or USB Drive
- Bid Submittal Checklist attached to top of Original Package
- Cone of Silence
- Sworn Statement Public Entity Crimes
- Debarment Form
- References Form
- Conflict of Interest Form
- Copy of current Required Insurance declaration page with Santa Rosa County named interest, or, Letter of Insurability from Carrier stating that the levels of coverage will be obtained.
- Proof of Active Status with State of Florida business registration (sunbiz.org)

All required documentation submitted must be updated with most current and complete information from date of bid opening) including notarizations where required. Failure to submit all required forms may result in your submittal being deemed non-responsive. **ATTACH THIS PAGE TO THE TOP OF YOUR BID SUBMISSION**

Firm: WPR inc

By: Douglas Russell

Signature: *(Signature)*
(Print)

Title: Vice President

Date: 9/13/21



SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

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CONE OF SILENCE FORM

SRC Procurement Form COS 013_01_091619

The Board of County Commissioners have established a solicitation silence policy (Cone of Silence) that prohibits oral and written communication regarding all formal solicitations for goods and services (ITB, RFP, ITQ, ITN, and RFQ) or other competitive solicitation between the bidder (or its agents or representatives) or other entity with the potential for a financial interest in the award (or their respective agents or representatives) regarding such competitive solicitation, and any County Commissioner or County employee, selection committee member or other persons authorized to act on behalf of the Board including the County's Architect, Engineer or their sub-consultants, or anyone designated to provide a recommendation to award a particular contract, other than the Procurement Department Staff.

The period commences from the time of advertisement until contract award.

Any information thought to affect the committee or staff recommendation submitted after bids are due, should be directed to the Procurement Officer or an appointed representative. It shall be the Procurement Officers decision whether to consider this information in the decision process.

Any violation of this policy shall be grounds to disqualify the respondent from consideration during the selection process.

All respondents must agree to comply with this policy by signing the following statement and including it with their submittal.

I, Douglas Russell representing WPR inc
(Print) (Company)

On this 13 day of September 2021 hereby agree to abide by the County's "Cone of Silence" clause and understand violation of this policy shall result in disqualification of my proposal/submittal.


(Signature)



SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

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SWORN STATEMENT UNDER SETION 287.133 (3) (A) FLORIDA STATUTE ON PUBLIC ENTITY CRIMES

SRC Procurement Form SSPEC 016 01 091619

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid, Proposal or Contract for: RFP 21-056
recycle hauling contract
2. This sworn statement is submitted by, Douglas Russell, whose business address is, WPR inc, and (if applicable) Federal Employer Identification Number (FEIN) is 59-3294802 (if the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement).
3. My name is Douglas Russell and my relationship to the entity named above is VP (title).
4. I understand that a "public entity crime" as defined in paragraph 287.133 (1) (g) Florida Statute, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States including, but not limited to , any bid or contract for goods or services to be provided to any public entity or any agency or public subdivision of any other state or of the United States and involved antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy or material misrepresentation.
5. I understand that "convicted" or "convicted" as defined in paragraph 287.133 (1) (b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime with or without an adjudication of guilt, in any federal or state trial court of records relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.
6. I understand that an "affiliate" as defined in Paragraph 287 .133 (1) (a), Florida Statutes, means:
 - a. A predecessor or successor of a person convicted of a public entity crime; or
 - b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one of shares constituting a controlling income among persons when not for fair interest in another person, or a pooling of equipment or income among persons when not for fair market value under an length agreement, shall be a prima facie case that one person controls another person. A person who knowingly convicted of a public entity crime, in Florida during the preceding 36 months shall be considered an affiliate.
7. I understand that a "person" as defined in paragraph 287 .133 (1) (e), Florida Statutes, means any natural person or entity organized under the laws of the state or of the United States with the legal power to enter into a binding contract provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.



SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

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8. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies)

- Neither the entity submitting this sworn statement, nor any officers, directors, executive, partners, shareholders, employees, member, or agents who are active in management of the entity, nor affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.
- The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989 And (please attach a copy of the final order)
- The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order)
- The person or affiliate has not been placed on the convicted vendor list. (Please describe any action taken by, or pending with, the department of General Services)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM

Douglas Russell

Name


Signature

9/13/21

Date

PERSONALLY APPEARED BEFORE ME, the undersigned authority, who, after first being sworn by me, affixed his/her signature at the space provided above on this day of September 13 2021, and is personally known to me, or has provided personally known as identification.

STATE OF FLORIDA

COUNTY OF: Santa Rosa

My Commission expires: 1-18-2025

Lauren Coogle
Notary Public





SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

6495 Caroline Street, Suite L | Milton, Florida 32570 850-983-1870 procurement@santarosa.fl.gov

DEBARMENT FORM

SRC Procurement Form Debar 022_00_082719

Certification Regarding Debarment, Suspension, And Other Responsibility Matters

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or Local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - d. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or Local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Name: Douglas Russell Title: Vice president

Signature: 

Firm: WPR inc

Street Address: 4175 Briarglen rd

City: Milton

State: FL Zip Code: 32583

Solicitation Name Recycle Hauling Service # XX-XXX 21-056



SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

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REFERENCES FORM

SRC Procurement Form Memo 024_00_082719

List work which best illustrates current qualifications relevant to this solicitation accomplished by personnel that will be assigned to the County's project. List at least three but no more than five (5) projects. (This form may be reproduced.)

YOUR FIRMS NAME WPR inc
PROPOSAL POINT OF CONTACT Douglas Russell PHONE 850-698-3401
EMAIL doug@rsquaredhomes.com

REFERENCE I.

PROJECT NAME: 2020 Santa Rosa county recycle contract
AGENCY: Santa Rosa county
ADDRESS: 6495 Caroline st
CITY, STATE, ZIP CODE: Milton, FL, 32583
CONTACT PERSON: Andrew Hall
TITLE: Enviromental manager
EMAIL: andrewh@santarosa.fl.gov
TELEPHONE: 850-981-7135
PROJECT COST: \$500,000
COMPLETION DATE: December 31 2020

SCOPE of Project (list tasks, attach samples of deliverables, outlines or descriptions of items:
(You may attach information to this form)

Delivered recycle material to ECUA recycling facility from Santa Rosa
County landfill

List key personnel assigned to this project that will work on the County project (include assignments. You may attach information to this form):

Douglas Russell



SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

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REFERENCE II.

PROJECT NAME: Cambria subdivision
 AGENCY: DR Horton
 ADDRESS: 2450 Hwy 29
 CITY, STATE, ZIP CODE: Cantonment FL 32533
 CONTACT PERSON: Casey Smith
 TITLE: Starts Manager
 EMAIL: csmith2@drhorton.com
 TELEPHONE: 850-281-1862
 PROJECT COST: \$1,500,000
 COMPLETION DATE: 8/1/2021

SCOPE of Project (list tasks, attach samples of deliverables, outlines or descriptions of items:
(You may attach information to this form)

Delivered dirt and building materials to all job sites in the subdivision

List key personnel assigned to this project that will work on the County project (include assignments. You may attach information to this form):

Douglas Russell

REFERENCE III.

PROJECT NAME: Precast tank delivery
 AGENCY: Roger @ Grant septic service
 ADDRESS: 1702 e james Blvd
 CITY, STATE, ZIP CODE: Crestview , FL 32539
 CONTACT PERSON: _____
 TITLE: _____
 EMAIL: _____
 TELEPHONE: 850-837-7200
 PROJECT COST: \$150,000
 COMPLETION DATE: yearly

SCOPE of Project (list tasks, attach samples of deliverables, outlines or descriptions of items:
(You may attach information to this form)

delivered precast septic tanks

List key personnel assigned to this project that will work on the County project (include assignments. You may attach information to this form):

Douglas Russell



SANTA ROSA COUNTY PROCUREMENT DEPARTMENT

6495 Caroline Street, Suite L | Milton, Florida 32570 850-983-1870 procurement@santarosa.fl.gov

REFERENCE IV.

PROJECT NAME: _____

AGENCY: _____

ADDRESS: _____

CITY, STATE, ZIP CODE: _____

CONTACT PERSON: _____

TITLE: _____

EMAIL: _____

TELEPHONE: _____

PROJECT COST: _____

COMPLETION DATE: _____

SCOPE of Project (list tasks, attach samples of deliverables, outlines or descriptions of items:
(You may attach information to this form)

List key personnel assigned to this project that will work on the County project (include assignments. You may attach information to this form):

REFERENCE V.

PROJECT NAME: _____

AGENCY: _____

ADDRESS: _____

CITY, STATE, ZIP CODE: _____

CONTACT PERSON: _____

TITLE: _____

EMAIL: _____

TELEPHONE: _____

PROJECT COST: _____

COMPLETION DATE: _____

SCOPE of Project (list tasks, attach samples of deliverables, outlines or descriptions of items:
(You may attach information to this form)

List key personnel assigned to this project that will work on the County project (include assignments. You may attach information to this form):



SANTA ROSA COUNTY
PROCUREMENT DEPARTMENT

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CONFLICT OF INTEREST DISCLOSURE FORM

SRC Procurement Form COS 027_00_091319

For purposes of determining any possible conflict of interest, all respondents, must disclose if any Santa Rosa Board of County Commissioner, employee(s), elected officials(s), or if any of its agencies is also an owner, corporate officer, agency, employee, etc., of their business.

Indicate either "yes" (a county employee, elected official, or agency is also associated with your business), or "no". If yes, give person(s) name(s) and position(s) with your business.

Yes: _____ No: X

Table with 2 columns: Name(s), Position(s). Includes four rows of blank lines for data entry.

All respondents must agree to comply with this policy by signing the following statement and including it with their submittal.

FIRM NAME: Wpr Inc

BY (PRINTED): Douglas Russell

BY (SIGNATURE):

TITLE: VP

ADDRESS: 4175 Brairglen rd State FL Zip Code 32583

PHONE NO: 850-698-3401

E-MAIL: doug@rsquaredhomes.com

Date: 9/13/2021

Santa Rosa County
Insurance Requirements
March 2021

Workers' Compensation – meet statutory limits in compliance with the Workers Compensation Laws of Florida. This policy must include Employer Liability with a limit of \$100,000 for each accident, \$500,000 disease policy limit and \$100,000 disease each employee limit.

Commercial General Liability – coverage shall provide minimum limits of liability of \$1,000,000 per occurrence, \$2,000,000 Aggregate, for bodily injury and property damage. This shall include coverage for:

- a. Premises/operations
- b. Products/complete operations
- c. Contractual liability
- d. Independent contractors

Business Auto Liability – coverage shall provide minimum limits **\$1,000,000**. Combined Single Limit for bodily injury and property damage. If Split limit coverage is provided Limits of **1,000,000 per person/1,000,000 per accident** and **1,000,000** for property damage are required.

This shall include coverage for:

- a. Owned autos
- b. Hired autos
- c. Non-owned autos

Special Requirements:

- 1) Prior to execution of a contract or agreement, certificates of insurance will be produced that shall provide for the following:
 - a. Santa Rosa County shall be named as an additional insured on all coverages except workers' compensation.

b. Santa Rosa County will be given thirty (30) days' notice prior to cancellation or modification of any stipulated insurance.

2) It is the responsibility of the contractor to ensure that all subcontractors comply with all insurance requirements.

3) It should be noted that these are minimum requirements which are subject to modification in response to specialized or high hazard operations.

In the event of unusual circumstances, the County Administrator, or his designee, may adjust these insurance requirements.

Insurance Checklist

Proposal/Project Reference RFP 21-056 Recycle Haul Services

Required Coverage (Marked by "X")

Minimum Limits

- | | |
|---|---|
| 1. <input type="checkbox"/> Workers Compensation
Proprietor/Executive Officers Exclusion not allowed | \$100,000. Employers Liab.
\$100,000. Accident –Disease
\$500,000. Disease policy Limit |
| 2. <input type="checkbox"/> Commercial General Liability
Including Premises operations-Products completed ops
Contractual Liability and Personal and advertising
Liability | \$1,000,000. CSL
\$2,000,000. Annual Aggregate |
| 3. <input checked="" type="checkbox"/> Automobile Liability – including Hired and Non-
Owned | \$1,000,000. CSL |
| 4. <input type="checkbox"/> Professional Liability coverage | \$1,000,000. Per Occurrence |
| 5. <input type="checkbox"/> Asbestos Removal Liability | \$2,000,000. Per Occurrence |
| 6. <input type="checkbox"/> Medical Malpractice | \$1,000,000 Per Occurrence |
| 7. <input type="checkbox"/> Garage Liability | \$1,000,000. BI/PD- Occurrence |
| 8. <input type="checkbox"/> Garage Keepers Liability | \$500,000. Comprehensive
\$500,000. Collision |
| 9. <input type="checkbox"/> Inland Marine- Bailee's Insurance | \$ _____ |
| 10. <input type="checkbox"/> Moving and Rigging Floater | Endorsement to CGL |
| 11. <input type="checkbox"/> Crime/Dishonesty Bond | \$ _____ |
| 12. <input type="checkbox"/> Builders Risk/Installation Floater – Provide coverage in Full amount of Contract. | |
| 13. <input type="checkbox"/> Owner's Protective Liability | \$ _____ |
| 14. <input type="checkbox"/> Excess/Umbrella Liability | \$ _____ |

General Requirements

- A. Carrier rating shall be A.M. Best rating of B++V or Better.
- B. Notice of Cancellation or Non-renewal or material change in coverage shall be provided to Santa Rosa County at least 30 days prior to action.
- C. Santa Rosa County shall be named as Additional Insured on all policies except Workers' Compensation.

Approved by the BOCC March 23, 2021



**SANTA ROSA COUNTY
PROCUREMENT DEPARTMENT**

6495 Caroline Street, Suite L| Milton, Florida 32570 850-983-1870 procurement@santarosa.fl.gov

ADDENDUM FORM

To: Planholders
From: Procurement Office
Date: September 7, 2021
Ref: Addendum #1 for **RFP 21-056 Recycling Hauling Services**

The following clarifications, amendments, additions, deletions, revisions and modifications form a part of the contract documents and change the original documents in the manner and to the extent stated.

QUESTIONS AND ANSWERS:

- 1) What is the process for gaining approval to have a 3rd party haul this for the successful bidder? *If a 3rd party subcontractor is chosen prior to bid submission please include their information in your referenced bid, if they are chosen after contract award the Prime contractor must present proof to the Project manager that the 3rd party meets all requirements directed by the county.*
- 2) We would need approval for a 3rd party hauler prior to submitting our bid. Is this possible? *Include your 3rd party hauler's information in your bid documents, they must meet all of the same requirements as the Prime to include insurance requirements.*
- 3) Is the county willing to guarantee a minimum number of hauls per week? Using your estimates, 1 haul per day, or 5 hauls per week, guaranteed, seems realistic, barring any unforeseen circumstances like the MRF closing. *No, the amount of recycling sent to the facility depends upon many factors, we will be unable to guarantee a minimum amount of loads in a specified amount of time.*

This Addendum is furnished to all known prospective Proposers. **Please sign and include one copy of this Addendum, with original signature, with your proposal as an acknowledgement of your having received same.**

NAME/TITLE: Douglas Bussell VP SIGNATURE: [Signature]
COMPANY: WPR inc DATE: 9/13/21

End of Addendum #1

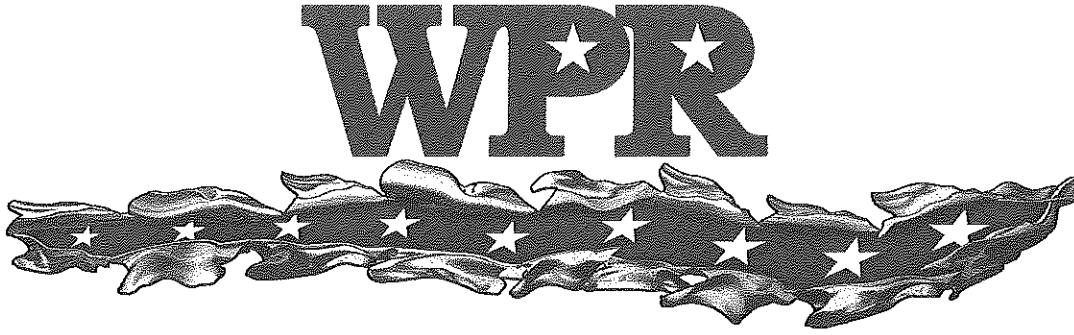


ECUA Recycle Hauling contract

The follow is the term we would like to have included in the contract for hauling the recycled material from Santa Rosa county landfill to ECUA recycling facility

WPR Inc will be hauling recycled material for \$950 per load from the Santa Rosa County Central land fill to the ECUA Recycling Facility in Pensacola with a guaranteed 12-month contract and 1 loads per day 5 days per week.

Thanks
Douglas Russell, Vice President
Submitted 9/13/2021



ECUA Recycle Hauling contract

The follow is the term we would like to have included in the contract for hauling the recycled material from Santa Rosa county landfill to ECUA recycling facility

WPR Inc will be hauling recycled material for \$950 per load from the Santa Rosa County Central land fill to the ECUA Recycling Facility in Pensacola with a guaranteed 12-month contract and 1 loads per day 5 days per week.

Thanks
Douglas Russell, Vice President
Submitted 9/13/2021

A handwritten signature in black ink, appearing to read 'D. Russell', is placed to the right of the typed name.

**Attachment “B”
Insurance Requirements**

**Santa Rosa County
Insurance Requirements
March 2021**

Workers' Compensation – meet statutory limits in compliance with the Workers Compensation Laws of Florida. This policy must include Employer Liability with a limit of \$100,000 for each accident, \$500,000 disease policy limit and \$100,000 disease each employee limit.

Commercial General Liability – coverage shall provide minimum limits of liability of \$1,000,000 per occurrence, \$2,000,000 Aggregate, for bodily injury and property damage. This shall include coverage for:

- a. Premises/operations
- b. Products/complete operations
- c. Contractual liability
- d. Independent contractors

Business Auto Liability – coverage shall provide minimum limits \$500,000. Combined Single Limit for bodily injury and property damage. If Split limit coverage is provided Limits of 500,000 per person/500,000 per accident and 500,000 for property damage are required.

This shall include coverage for:

- a. Owned autos
- b. Hired autos
- c. Non-owned autos

Special Requirements:

1) Prior to execution of a contract or agreement, certificates of insurance will be produced that shall provide for the following:

a. Santa Rosa County shall be named as an additional insured on all coverages except workers' compensation.

b. Santa Rosa County will be given thirty (30) days' notice prior to cancellation or modification of any stipulated insurance.

2) It is the responsibility of the contractor to ensure that all subcontractors comply with all insurance requirements.

3) It should be noted that these are minimum requirements which are subject to modification in response to specialized or high hazard operations.

In the event of unusual circumstances, the County Administrator, or his designee, may adjust these insurance requirements.

Attachment "C"
Civil Rights Clauses

Attachment “C”

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this Agreement, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), as applicable, agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 *et seq.*)

Attachment "D"
Scrutinized Contractors Certificate

VENDORS ON SCRUTINIZED COMPANIES LISTS

By executing this Certificate, the bid proposer, certifies that it is not: (1) listed on the Scrutinized Companies that Boycott Israel List, created pursuant to section 215.4725, Florida Statutes, (2) engaged in a boycott of Israel, (3) listed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to section 215.473, Florida Statutes, or (4) engaged in business operations in Cuba or Syria. Pursuant to section 287.135(5), Florida Statutes, the County may disqualify the bid proper immediately or immediately terminate any agreement entered into for cause if the bid proposer is found to have submitted a false certification as to the above or if the Contractor is placed on the Scrutinized Companies that Boycott Israel List, is engaged in a boycott of Israel, has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or has been engaged in business operations in Cuba or Syria, during the term of the Agreement. If the County determines that the bid proposer has submitted a false certification, the County will provide written notice to the bid proposer. Unless the bid proposer demonstrates in writing, within 90 calendar days of receipt of the notice, that the County's determination of false certification was made in error, the County shall bring a civil action against the bid proposer. If the County's determination is upheld, a civil penalty shall apply, and the bid proposer will be ineligible to bid on any Agreement with a Florida agency or local governmental entity for three years after the date of County's determination of false certification by bid proposer.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.

DATE: 9/27/21

COMPANY: WPR inc

ADDRESS: 4175 Briarglen rd
Milton fl 32583

PHONE NO.: 850-626-7777

SIGNATURE: 

NAME: Douglas Russell
(Typed or Printed)

TITLE: VP

E-MAIL: doug@rsquaredhomes.com

Sarasota County

8750 Bee Ridge Rd.
Sarasota, FL 34241

941-861-5000
scgov.net

September 28, 2021

Mr. Tim Bahr, P.G., Director
Florida Department of Environmental Protection
Division of Waste Management
2600 Blair Stone Road, MS4550
Tallahassee, FL 32399-2400

Subject: Request for Development and Submittal of County Recycling Program Plans

Dear Mr. Bahr:

In response to your request, enclosed is an up-to-date review of Sarasota County's Recycling Program Plan for 2021. Please feel free to contact me with any questions. Thank you.

Sincerely,



Oland L. Stokes
Solid Waste Collections Manager
Sarasota County Solid Waste
8750 Bee Ridge Road
Sarasota, FL 34241
Office: 941-861-1532
Cell: 941-356-3742
Email: ostokes@scgov.net
Web: www.scgov.net

CC: Brian Usher, Director, Solid Waste

Sarasota County Recycle Program Plan 2021

Section 1 – Introduction and Background

This plan is in response to the request on August 31, 2021, by Mr. Tim Bahr and in compliance with section 403.706(2)(d), Florida Statutes, F.S., requiring all counties not reaching the 75% recycling goal by calendar year 2020, to develop and submit to the Florida Department of Environmental Protection, a plan to expand recycling programs to existing commercial and multifamily dwellings, including, but not limited to, apartment complexes. In addition, 403.706 (2)(b), F.S., that counties implement a program for recycling construction and demolition debris as part of their efforts to attain the 75% interim recycling goal. As requested, this plan includes a comprehensive summary of recycling services and materials offered, analysis of the county's MSW generated by sector, commercial and multi-family sector participation and recycling rates, C&D recycling, yard waste and organics recycling and usage efforts, current improvement strategies and a discussion of the challenges to attain and sustain the 75% recycling interim goal for 2020.

Section 2 – Recycling Services and Materials Offered

Residential and commercial recycling is mandatory in unincorporated Sarasota County (County Ordinance No. 2019-052). Previously, the county offered dual-stream recycling service to its residents through a franchise collection agreement with Waste Management. Presently, the county has implemented single-stream recycling service (as mentioned in its 2018 plan) to its residents through the same vendor. The county also has upgraded its service to automated trucks with three container options (35-gal, 65-gal, or 95-gal), replacing red and blue bins for convenience to accommodate residential need. Recycling program information continues to be disseminated to residents and businesses through up to date "How-to" Guides, social media, special events, web-site information, commercial invoice reminders, curbside "oops" tagging, mandatory recycling audits and the Recycle Coach app. All residents can utilize the free Recycle Coach app to gain pertinent recycling information, such as "What Goes Where", event notices and collection schedules.

Materials and disposal tips for recycling include the following:

PLASTICS – CANS – CARTONS – GLASS

- Aluminum, steel or tin cans
- Plastics #3-7, HDPE (natural and colored), PET
- Glass Bottles and jars (all colors)
- Milk/Juice Cartons and Drink Boxes

Tips for disposal:

- Empty and lightly rinse cans, bottles, jars and replace caps.
- Coat hangers, dishes, glassware, pans, pots go in the garbage.
- Books-Remove the hard cover before putting them in recycle.
- Plastic utensils, plates, plastic bags, and Styrofoam go in the garbage.

PAPER – MAGAZINES – CARDBOARD – BOXES

- Cardboard and boxes
- Magazines, catalogs, and phone books
- Mixed Paper (writing/office paper, junk mail, envelopes with windows, brown paper bags)
- Newspaper
- Paperboard (cereal boxes without liners, soda boxes, tissue boxes (without tissues), etc.

Tips for disposal:

- Flatten all boxes.
- Cut cardboard into pieces no bigger than 2 feet by 3 feet.
- Remove liner and food from pizza boxes.
- Place food contaminated paper/cardboard product into garbage.
- Shredded paper should be placed in the garbage.

Listed items that DO NOT BELONG in recycling include:

- Non-recyclable plastics
- Recyclables in plastic bags
- Plastic bags, film/sheeting, flexible film packaging
- Food and Liquids
- Paper napkins, plates, cups and tissues
- Polystyrene foam
- Yard waste
- Hoses, holiday lights, hangers
- Diapers

Sample recycling education piece

The graphic features a dark green header with the Sarasota County Recycles logo on the left and the text "THANK YOU FOR RECYCLING THESE:" in large, bold, white letters. Below the header are five columns, each with a recycling icon, a category name, and a photograph of items. The categories are: Cans (Aluminum and steel cans), Cartons (Food and beverage cartons), Glass (Bottles and jars), Paper (Mixed paper, newspaper and magazines), and Plastic (Kitchen, laundry, bath bottles and containers). Below these columns is a dark green bar with the text "WHEN IN DOUBT, LEAVE IT OUT!" in white. Underneath this bar are six icons with red diagonal lines through them, representing items not to be recycled: a plastic bag, a plastic bag, a food spill, a pizza box, a diaper, and tangled wires/hoses. At the bottom of the graphic are the Sarasota County logo, the website "scgov.net/recycling" with the phone number "941-861-5000", and the "THE RECYCLING PARTNERSHIP" logo.

THANK YOU FOR RECYCLING THESE:

Cans	Cartons	Glass	Paper	Plastic
Aluminum and steel cans Empty and rinse.	Food and beverage cartons Empty, rinse and replace caps.	Bottles and jars Empty, rinse and replace caps.	Mixed paper, newspaper and magazines Flattened cardboard and boxes.	Kitchen, laundry, bath bottles and containers Empty, rinse and replace caps.

WHEN IN DOUBT, LEAVE IT OUT!

Do not bag recyclables (no garbage)	No plastic bags (return to retail)	No food or liquid (empty all containers)	No pizza boxes	No diapers	No tangles (no hoses, wires, chains or electronics)
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scgov.net/recycling
941-861-5000

THE RECYCLING PARTNERSHIP



ITEMS TO RECYCLE



CANS



Aluminum and Steel Cans
Empty and rinse.



CARTONS



Food and Beverage Cartons
Empty, rinse and replace cap.



GLASS



Bottles and Jars
Empty, rinse and replace cap.



PAPER



Mixed Paper, Paper Board,
Newspaper and Magazines
Flatten cardboard and boxes.



PLASTICS



Kitchen, Laundry, Bath
Bottles and Containers
Empty, rinse and replace cap.

WHEN IN DOUBT, LEAVE IT OUT!



**NO Recyclables
in Plastic Bags**
Empty loose
recyclables in carts.



NO Plastic Bags
Return to retail.



NO Food and Liquids
Compost if possible,
or throw in trash.



NO Tanglers
Wires and hoses can
damage equipment!
Throw in trash.



NO Diapers
Throw in trash.



NO Hazardous Waste
Take to the
county's chemical
collection center.



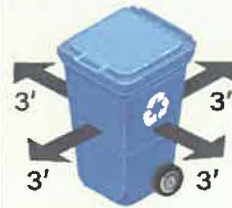
For more information, go to
scgov.net or call 941-861-5000.



Created in part by The Recycling Partnership

Follow the 3 feet rule!

Keep carts at least 3 feet away from
other carts, mailboxes, fire hydrants,
low hanging trees or shrubs, parked
cars and utility poles so trucks can
easily access cart.



POINT
THIS
ARROW
TOWARD

THE
STREET

Created by Sarasota County Communications 8/1/2014



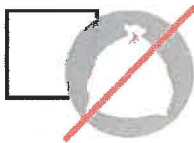
Top: In-mold label located on lid of recycling carts.

Bottom: Three sizes of recycling carts available to Sarasota County residents

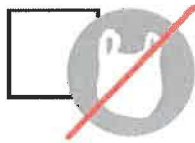
OOPs tags used for residential recycling



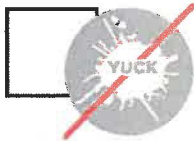
PLEASE LEAVE THESE ITEMS OUT!



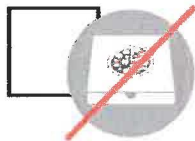
Do not bag recyclables
(no garbage)



No plastic bags
(return to retail)



No food or liquid
(empty all containers)



No pizza boxes

Other

**RECYCLING CARTS CONTAINING THESE ITEMS
WILL NOT BE COLLECTED IN THE FUTURE.**



scgov.net/recycling
941-861-5000



**RECYCLE MORE OF THESE:
RECICLE MÁS DE LO SIGUIENTE:**



Cans

Latas de metal
Aluminum and steel cans
Empty and rinse
Latas de aluminio y acero
Vaciar y enjuagar



Cartons

el Cartón
Food and beverage cartons
Empty, rinse and replace caps
Cajas de cartón de alimentos y bebidas
Vaciar, enjuagar y tapar



Glass

el Vidrio
Glass bottles and jars
Empty, rinse and replace caps
Botellas y frascos
Vaciar, enjuagar y tapar



Plastics

Plásticos
Kitchen, laundry, bath bottles and containers
Empty, rinse and replace caps
Botellas y envases de la cocina, del lavadero y del baño
Vaciar, enjuagar y tapar



Paper

el Papel
Mixed paper, newspaper and magazines
Flatten cardboard and boxes
Cajas de cereal, periódicos, revistas, correo y cajas de cartón desarmadas
empty and flatten



scgov.net/recycling
941-861-5000

Section 3 – MSW Generation Percentage Comparison 2018 – 2020

Type	Tons Collected/Percentage 2018	Tons Collected/Percentage 2019	Tons Collected/Percentage 2020
Single-Family	632,858 – 50%	678,366 – 51%	818,202 – 51%
Multi-Family	111,681 – 9%	119,712 – 9%	144,389 – 9%
Commercial	506,787 – 41%	543,229 – 40%	655,208 – 40%

Section 4 – Commercial and Multi-Family Participation and Recycling Rates

Regarding recycling participation, commercial businesses may contract with the service provider of their choice or may choose an alternative collection method such as self-hauling, piggybacking a larger business or pooling with other businesses. Sarasota County conducts audits of commercial businesses for compliance with the mandatory recycling ordinance and finds participation rates to be over 99%. Sarasota County continues waste reduction and recycling strategies as a part of a more comprehensive hazardous materials, solid waste, and recycling audit. Assistance and education continue to be offered for additional guidance through The Green Business Partnership which is open to all businesses in Sarasota County. More than 260 businesses are certified and operate in an environmentally responsible manner.

Multi-family is considered residential in Sarasota County, which makes it difficult to discern multi-family data from the residential data. Sarasota County has established a pilot study focusing on the recycling habits of multi-family residents with the hope of providing a more convenient way to recycling through additional education and smaller recycle baskets for each residential unit.

Section 5 – C&D Debris Disposal and Recycling Program

Sarasota County does not have a franchise hauler for its C&D debris waste stream. Businesses and residents can contract with a hauler of their choice or self-haul to an authorized facility to dispose of or recycle their C&D debris.

The Central County Solid Waste Disposal Complex has a C&D facility on-site where a recycling rate of 50% is required per ordinance and contract agreement. In 2020, the county-wide recycle rate reached 54% based on the Recovered Materials Report when comparing total tons of C&D recycled vs. total tons C&D Disposed. Tonnage-wise, the recycling of C&D debris is a major opportunity to increase recycling rates. However, there are currently no planned changes to the program due to the end-market challenges that impact recycling C&D Debris cost effectively.

Section 6 – Yard Waste and Organics Recycling and Usage Opportunities

Residential and Commercial Yard Waste is collected as a separate waste through a franchise agreement with Waste Management. Lawn Maintenance providers may self-haul their yard waste materials. Yard wastes are collected and processed at the Central County Solid Waste Disposal Complex where it is ground to be used as landfill daily cover, mulch and/or given to

residents at no charge as a fines material. Organics are collected as Solid Waste and landfilled which contributes to the landfill gas to energy system.

Section 7 – Strategies and Initiatives to Improve Recycling

Sarasota County continues to look for ways to improve recycling for single family, multi-family as well as commercial entities by promoting quality recyclable materials education and communication through various campaigns. The Solid Waste Department has proposed to increase the advertising budget from \$50k to \$100k to reach a wider audience as well as multiple cultures in their native tongue.

Automated curbside single-stream recycling has made recycling easier and more convenient for customers and has contributed along with overall community growth to the 8% increase in combined residential and commercial recycling from 2019 to 2020 based on the Recovered Materials Report, along with overall community growth.

Another strategy to reach residents and businesses is an initiative through Keep Sarasota County Beautiful. The catch phrase is “Think before you throw...no matter where you go” will be instrumental to encourage recycling wherever possible and customizes information for targeted locations throughout our community such as at home, school, park, beach, work, mall, etc. We are hoping this model will motivate everyone to look for ways to recycle in every aspect of living.

The multi-family pilot study will be concluding soon and will be assessed for implementation as a possible way to provide more convenient recycling opportunities to multi-family customers.

Section 8 – Existing and Anticipated Challenges

Sarasota County continues to face challenges to achieve the recycling goal of 75%:

- A tonnage-based recycling system that favors waste to energy fails to focus on materials that have a higher overall environmental value.
- The county has not been successful at validating tonnages taken to landfills outside of Sarasota County. Reporting facilities continue to be unresponsive.
- Fluctuations in post-consumer commodity markets when compared to rising processing costs creates difficult conversations with policy makers and constituents regarding the overall value of recycling programs.
- Press related to the landfilling or cessation of recycling programs creates doubt among policy makers and contradicts educational materials provided through county programs.
- Less recyclable materials still dominate packaging industries by manufacturing packaging that cannot be easily recycled in a curbside program and confuses participants when recycling logos are placed on non-curbside program materials.
- The value of C&D materials has not supported the recycling of such materials on a broad scale; therefore, private C&D debris processors take material to private landfills which decreases the county’s recycling rate.

Seminole County

SEMINOLE COUNTY 2021 RECYCLING PROGRAM PLAN

1. BACKGROUND

In 2008, the Florida Legislature set a statewide municipal solid waste (MSW) recycling goal of 75% by the year 2020. In 2010, the Legislature further directed that the goals be primarily applied to counties with a population of greater than 100,000. In addition, the Legislature set interim goals for 2012, 2014, 2016, and 2018. Counties that do not reach and maintain these interim goals, based on their annual calendar year recycling rates, are requested to submit Recycling Program Plans to the FDEP.

Table 1 provides the various tiers of the State's recycling goal and Seminole County's (County) reported recycling rate for each year. The County met the 2012 State goal but failed to achieve the 2014, 2016, 2018, and 2020 goals of 40%, 60%, 70%, and 75%, respectively. Therefore, the County is submitting this County Recycling Program Plan as required by Section 403.706, F.S.

Table 1: Florida Recycling Goal and Seminole County Recycling Rate

Year	State Goal	Adjusted Recycling Rate*	Goal Achieved?
2012	40% by December 31, 2012	62%	Yes
2013	Same as above	48%	Yes
2014	50% by December 31, 2014	41%	No
2015	Same as above	41%	No
2016	60% by December 31, 2016	34%	No
2017	Same as above	43%	No
2018	70% by December 31, 2018	35%	No
2019	Same as above	43%	No
2020	75% by December 31, 2020	35%	No

*Includes renewable energy recovery recycling credits

2. SUMMARY OF THE SERVICE AND MATERIALS FOR WHICH THE COUNTY OFFERS RECYCLING

The County offers weekly, curbside, dual stream recycling to residents of the Unincorporated County. The County also operates two drop-off locations that accept recyclables from residents. The following materials are accepted in the dual stream and drop-off programs:

- Paper Bin - newspaper (with inserts), corrugated cardboard, catalogs/magazines, brown paper bags, pasteboard (cereal boxes, empty paper towel and toilet paper rolls, soda boxes, beer boxes, tissue boxes, gift boxes, pizza boxes, and shoe boxes), boxboard, carrier stock, white and colored paper, and telephone books.
- Container Bin - plastic containers #1-#7, glass containers, aluminum cans, steel, and tin cans.

SOLID WASTE MANAGEMENT DIVISION

Other recycling programs offered by the County include:

- Used oil recycling - accepted at the County's Central Transfer Station (CTS) and several private businesses throughout the County.
- Household hazardous waste (HHW) - accepted at the CTS.
- Electronic waste - accepted at the CTS.
- Yard waste - residents in the Unincorporated County have the option of curbside yard waste collection and material is accepted at CTS and Osceola Road Landfill (OLF).
- Tires - accepted twice per year at no charge during waste tire collections events held at the CTS and OLF and accepted other times at both facilities for \$1.00 per tire.
- Clean Corrugated Cardboard - accepted at the CTS, free of charge.

In addition to the programs listed above, private businesses in the County currently recover the following materials of their own accord:

- Scrap Metals
- Construction & Demolition Debris (C&D)
- White Goods
- Food Waste

Additional details regarding these programs and those within the municipalities are provided in the following sections.

3. MSW GENERATION BY SECTOR

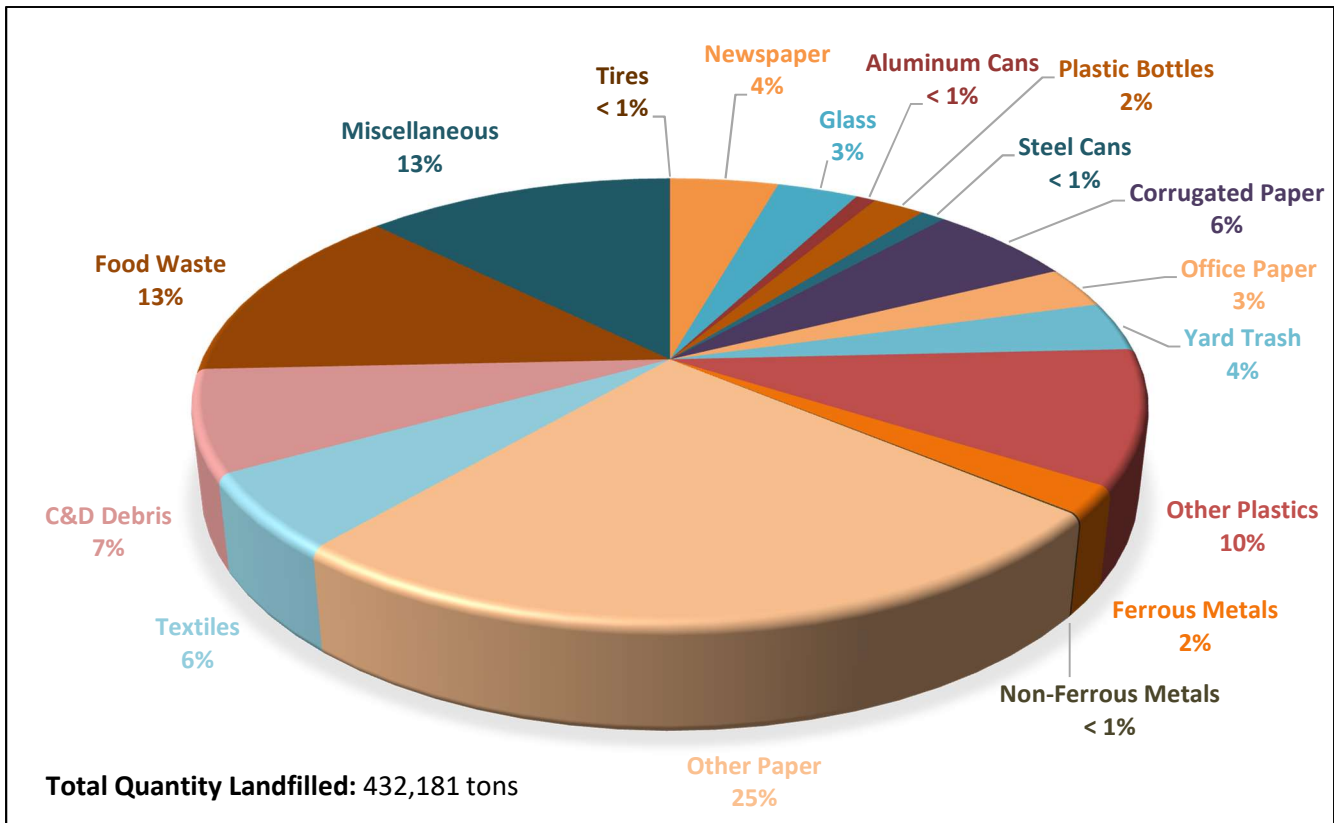
As reported in the County's 2020 Solid Waste and Recycling Annual Report, a total of 641,144 tons of MSW were generated in 2020. Of that, 208,963 tons were diverted from disposal. The County's scale house system currently tracks incoming tonnage by commercial and residential sectors. Tonnage data for the multi-family residential sector has been estimated based on the number of multi-family residential units in the County. Table 2 details the County's MSW generation and disposal tonnage by sector.

Table 2: MSW Generation and Disposal by Sector (in tons), 2020

Sector	Generated	Recycled	Disposed
Single-Family	288,238	91,582	196,656
Multi-Family	108,890	32,177	76,713
Commercial	244,016	85,204	158,812
Total	641,144	208,963	432,181

Data from the 2020 Annual Solid Waste Management Report submitted to FDEP were used to estimate the composition of the County's 2020 disposal tonnage. Figure 1 provides the results of this analysis.

Figure 1: Estimated Composition of Waste Landfilled, 2020 (% by weight)



Source: Seminole County 2020 Annual Solid Waste Management Report

4. EXISTING RECYCLING PROGRAMS

Curbside Residential Recycling Programs

As stated in Section 1, the County currently offers dual stream recycling to all single-family homes in the Unincorporated County. The County estimates that nearly 74% of single-family households participate in their respective curbside recycling programs. Only a small number of multi-family complexes in the County have recycling programs, but all units have access to County’s drop-off facilities.

The following recycling programs are available to municipal residents:

- Altamonte Springs - dual stream recycling program
- Casselberry - dual stream recycling program
- Lake Mary - single recycling program
- Longwood - dual stream recycling program
- Sanford - dual stream recycling program
- Oviedo - single recycling program
- Winter Springs - dual stream recycling program

Drop-off Recycling Program

The County operates two recycling drop-off sites where residents can deliver recyclables. One is at the Seminole County landfill, and the other is at the CTS. Dual stream recyclables are collected at both locations. Used oil, electronics, old corrugated cardboard, tires, and HHW are also accepted at the CTS.

The City of Oviedo also maintains six locations within the City where single stream carts are staged for use by residents. These carts are intended for multi-family households that do not have access to the City's curbside single stream recycling program.

Commercial Recycling

As required by State law, commercial recycling in the County is operated as an open market. County businesses may select their recycling vendor. Vendors offer different services at different rates. The County encourages interested businesses to research all vendors and choose a company that works best for them. The County's website provides a list of recycling vendors and contact information.

In addition to common recyclables such as cardboard, mixed paper, bottles, cans, and glass associated with a dual or single stream recycling program, the commercial sector also actively recovers the following items through private sector initiatives:

- Yard Trash
- Scrap Metals & White Goods
- Tires
- Textiles
- C&D
- Food Waste
- Tires
- Electronic Waste

The County estimates that approximately 40% of its commercial businesses actively participate on some level in one of the available recycling programs.

5. CONSTRUCTION AND DEMOLITION DEBRIS

Based on the County's best estimates and the data provided in Figure 1, C&D debris represents approximately 15% of the waste landfilled in the County. In 2020, approximately 32,000 tons of C&D debris was landfilled. Based on visual audits of C&D debris conducted at other locations and on recycling rates reported by some C&D processing facilities, at least half of C&D debris typically consists of materials that could potentially be recycled. This includes materials such as untreated wood, concrete, scrap metal, cardboard, select plastics, carpet, mattresses, asphalt shingles, and rock/gravel/grit.

It appears that some of the C&D debris generated in Seminole County is delivered to private facilities; the County plans to investigate the following strategies to try to increase recycling of this material:

SOLID WASTE MANAGEMENT DIVISION

- Staff will actively seek to identify additional non-certified C&D debris recycling activities to ensure that the County is receiving proper credit for the recovery of C&D debris that is currently unaccounted for and unreported.
- County staff will continue to work with the Florida Department of Transportation and Public Works staff to identify large concrete recyclers and other sources of aggregate materials to seek additional recycling credit.
- County staff will research facilities in neighboring counties and speak with neighboring recycling coordinators to identify potential sources of C&D debris recycling credits.

6. YARD TRASH AND ORGANIC MATERIALS

Segregated yard trash collection is an option available to every household in the County. The County currently grinds yard trash, which is used as alternative daily cover for landfill operations. Recently, staff engaged with a contractor to determine the financial viability of converting yard trash into compost. Additional information is being exchanged between the two entities. It is expected, however, that the County will continue to utilize ground yard trash as alternative daily cover as it functions as a viable alternative to clean dirt, helps to reduce erosion of landfill cover material, and provides relief to other operational challenges within the landfill.

Food waste recovery was limited to only a few large waste generators in the County.

As staff time allows, the following actions related to organic materials recovery are anticipated:

- Staff will continue to track yard waste processing operations to ensure that all ground yard trash sent for alternative daily cover is tracked and credited as recycling.
- Staff will actively seek out and identify additional businesses within the County that are currently recovering food waste and/or other compostable to ensure that all non-certified organic recycling tonnage is being tracked and credited to the County. Staff will first identify organic waste processors, such as Waste Management's Apopka facility, and work to identify feedstock providers within Seminole County.
- Staff may also propose a meeting with Waste Management (a non-exclusive franchised hauler) to determine their interest in expanding food waste recovery in the County to increase organic feedstock for their Apopka facility. County staff will also look to identify other local composting operations and propose similar discussion. If a demand for organic feedstock is found, food waste recycling information could be added to the County's website, including a list of local facilities accepting drop-offs as well as haulers offering organics collection service.

7. RECYCLING PROGRAMS

Through its solid waste franchises, the County has a system in place for collection and processing of single-family recyclables. The key to capturing additional residential recyclables is encouraging participation in the program, both in terms of the number of residents who recycle and the extent of recycling efforts (i.e. recycling all types of materials accepted in the program).

The following actions are anticipated as staff time allows:

- Staff will focus on education and outreach to ensure that website information is up-to-date and readily available.
- Staff will remain engaged with the regional Beyond 34 group in an effort to generate education and outreach materials that can be applied across the Central Florida area in an effort to reduce public confusion and misunderstanding.
- Staff will coordinate regular meetings with its municipalities to discuss regional and countywide recycling efforts.

State law prohibits a local government from awarding any entity the exclusive right to collect commercial recyclables. However, the County's franchise agreements require the franchisees to offer commercial recycling, on a nonexclusive basis, upon request by the customer. As staff time allows, County staff will:

- Actively seek to identify additional sources of non-certified recycling activities to ensure that the County is receiving proper credit for materials recovery that is currently unaccounted for and unreported. Staff will start with large commercial waste generators and institutions to determine if recycling programs are in place and whether the materials are currently being reported to FDEP.
- Focus on commercial recycling by meeting with commercial haulers to encourage them to actively market recycling services to their customers, as stated in the hauler agreements.
- Educate local businesses about recycling opportunities and promote the value of the environmental impact.
- Provide technical assistance to businesses looking to initiate recycling programs.
- Research ways or find grant funds to help offset recycling program initiation costs for local businesses.

8. NEXT STEPS AND ANTICIPATED CHALLENGES

As no program can capture 100% of the materials targeted, the County faces many challenges in reaching the State's goal, including: a downturn in the commodities market, education and outreach resources, funding, and a lack of a full-time Recycling Coordinator to track and capture the recycling efforts in the County. Some of the County's key challenges are summarized below:

- Funding to establish the necessary infrastructure and to encourage innovation is probably the greatest challenge. The State could help address this issue by reinstating recycling grant programs for infrastructure development, innovation, and market development. In past years the County utilized grants funds to offset education and outreach expenses and purchase items for giveaways and promotions. The County is also in need of a designated Recycling Coordinator that can focus on increasing material diversion and tracking tonnage data.
- Ensuring sufficient County resources to develop and maintain ongoing education and outreach efforts and technical assistance to commercial businesses and institutions is also challenging. The State could assist by developing technical assistance materials such as how-to guides and best management

SOLID WASTE MANAGEMENT DIVISION

practices, conducting a statewide education and outreach campaign to promote recycling, developing case studies, conducting demonstration programs, and providing model policy ordinances.

- Tracking C&D and yard trash recovery on a state-level would ensure comparable data for all counties. All counties would benefit from a FDEP program that tracked all C&D debris recovery and yard trash processing activities. For example, many concrete processing facilities do not currently report to the FDEP. If the FDEP identified these facilities, through past county submissions, and developed a method to track tonnage and include the recovery data in the Certified Construction and Demolition Reports, all county solid waste management data would be more transparent and comparable. A similar program and report would be beneficial for yard trash processing facilities.
- Ensuring strong markets for existing recyclables and expanding markets for additional commodities is also critical. Given the closure of overseas markets for some commodities, developing domestic markets is critical. In addition, to continue to expand recycling programs, viable commodity markets are needed for additional materials such as plastics 3-7. Other states have played an active role in attracting businesses that utilize recovered materials through organizations such as North Carolina's Recycling Business Assistance Center (RBAC). Florida's RBAC could be re-established to help attract private industry interest and investment in the State's recycling infrastructure.

St. Johns County

2021 Recycling Program Plan Update – St. Johns County

The St. Johns County curbside recycling program, administered by the Solid Waste Management Division of Public Works, applies only to the unincorporated areas of the county. The drop-off recycling center at Tillman Ridge landfill is temporarily closed pending planned infrastructure improvements. As of September 7, 2021, 96,943 single family residences have 35- or 95 gallon recycling carts as part of the mandatory SWM curbside collection program. Survey data indicates that 86% of respondents use curbside recycling each week.

All paper grades, all metals, glass bottles and jars, plastic bottles, cardboard, yard debris and some textiles can be collected and recycled by any individual or entity in the county. All recycling activities are voluntary.

St. Johns County is one of the fastest growing counties in America. Although our residential recycling activity remains strong, the absence of a mandatory commercial requirement has limited any significant increase in the county's overall annual recycling rate. Typically, less than 10% of C&D from the deconstruction and construction wastage of rapid development is being recycled and recycling from condominiums and apartments is lackluster for a number of reasons. On a positive note, there was a large quantity of concrete recycled in 2020 which helped the C&D numbers, and yard material collected in the county has been efficiently reused as landfill cover for a number of years.

In 2020, the MSW total for St. Johns County was 525,341 tons (landfilled = 375,812 tons (72%), recycled = 149,529 tons (28%)). Of that, the total for residential single family was 111,461 tons (landfilled=86,417 tons (78%), recycled=25,044 tons (22%)). Residential multi-family was 46,041 tons (landfilled=36,603 tons (80%), recycled=9,438 tons (20%)). Commercial was 367,839 tons (landfilled=252,792 (69%), recycled=115,047 (31%)).

Going forward, the following measures have been established or are scheduled for the coming year:

- A new recycling coordinator has been hired.
- The recycling line item in the budget has been substantially increased.
- The number of CNG powered collection vehicles increases annually per the ten year contract in place.
- Two recycling vans are now in service.
- Continue off-site displays at local hardware stores.
- Continue staff-generated articles in print.
- Distribute recycling and HHW refrigerator magnets.
- Anti-contamination and other outreach program videos produced.
- Continue visual survey of commercial recycling containers at condos, apartments and businesses.
- Perform recycling audits for local businesses.
- Continue to produce new multi-media presentations for SJC web site, schools, HOA's & other community groups.
- Include composting in all recycling presentations.
- Maintain social media presence to deliver county recycling information and solid waste guidelines to all community associations.
- Conduct off-site HHW collection events when effects of pandemic lessen.
- Set up displays at local public events that use health and safety protocols.
- Created recycling mascot for outreach videos, school presentations, and events.
- Maintain inventory of current mandatory commercial recycling ordinances/ C&D disposal surcharges in Florida counties.

The "China Sword" policy has caused worldwide disruptions in recycling programs. Many contractors have requested or imposed price increases to offset the loss of the China market and to pay for higher transport costs and much needed technology improvements to MRF's. Many programs have dropped glass collection, and some jurisdictions have terminated recycling altogether.

However, the SWM industry has displayed remarkable resilience to these challenges. While collection totals have not returned to historical levels, strong markets for clean PET, HDPE, PP, paper and cardboard have emerged, with PET and HDPE currently trading higher than aluminum. Significant new investments in facilities, technology and newly minted mergers continue apace as the higher than anticipated revenues received so far in 2021 have provided new opportunities. The Chinese continue to build and operate new recycling facilities in the United States and to enter into partnerships with U.S. firms.

Absent a mandatory commercial recycling ordinance, St. Johns County does not predict a dramatic change in the County's annual recycling rate. What we do see is an opportunity to increase our residential and commercial recycling as both sectors are educated to the "new normal" in recycling. On the residential side, we will give full attention to "wish-cycling" and contamination issues. On the commercial side, we will continue to assist recycling efforts through education, awareness and every other tool at our disposal. Finally, MRF operators across the country are investing in the new, highly effective technologies now available to remain viable in the changing recycling market. Recycling levels in the U.S. have been stagnant for years, but economic and social factors now in play may very well revitalize the industry and move that needle upward.

*A more in-depth breakdown of MSW generated in St. Johns County by commercial, multi-family, & single family sectors is stated in the current annual report available online at FDEP.

St. Lucie County



ST. LUCIE COUNTY RECYCLING PROGRAM PLAN

As required by the Legislature from counties with a population over 100,000 that did not meet the State's 2020 Recycling Goal of 75%

Prepared By: Ally Berry

St. Lucie County Recycling Program Plan

Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper and yard trash.

Summary of Services:

In St. Lucie County, weekly curbside collection of single stream recyclables in 64-gallon carts and separate containerized yard waste is provided by the contracted hauler for single-family homes in the City of Port St. Lucie, St. Lucie Village, and most homes in Unincorporated St. Lucie County. In the City of Fort Pierce, the Public Works Department collects these materials weekly from single-family homes, as waste collection is not contracted out.

Single stream recyclables are also collected from County office buildings, public schools, participating businesses, participating multi-family homes, condominiums, and apartment complexes.

All single stream recyclables collected by the contracted hauler and the Fort Pierce Public Works Department are delivered to the St. Lucie County Solid Waste Baling & Recycling Facility (“our Facility”) for sorting and baling.

Business owners, owners of multi-family homes, condominium associations, and others currently without on-site single stream collection may obtain service directly with the hauler based on their needs and as space allows on their property.

Our Facility has a collection area for residents and businesses to drop off single stream recyclables free of charge. It is used by residents and businesses without single stream curbside collection, on-site collection, or those who have too much material or material too large to fit in their recycling cart or on-site container.

Summary of Accepted Single Stream Recyclables:

Empty, Clean, and Dry:

- Aerosol Spray Cans
- Aluminum Cans, Foil, and Trays
- Corrugated Cardboard Boxes
- Food Cans – Tin, Steel, and bi-metal
- Glass Bottles and Jars
- Metal Cookie Sheets, Pots, Pans, and Lids
- Paper – Office Paper, Writing Paper, Mail, Envelopes, Newspaper & Advertisements, Magazines, Catalogs, Phone Books, etc.
- Paperboard Boxes and Molded Paper Fiber Products
- Paper Cups (NEW in 2021)
- Single-use Plastic Coffee Pods (NEW in 2021)
- Plastic Bottles, Jugs, Jars, Cups (no lids or straws), Containers, Tubs, Spray Bottles (spray pump removed), Squeezable Bottles, etc.
- Rigid Plastic Buckets, Toys, Storage Containers, Laundry Baskets, etc. (NEW in 2021)

St. Lucie County Recycling Program Plan

Several other recyclable materials are accepted at our Facility from residents free of charge or for a nominal fee and some other recyclable materials are also accepted from businesses for free or for a nominal fee.

Summary of other recyclable materials that are accepted at our Facility:

- Electronics (E-Scrap)
- Fluorescent Lamps/Bulbs and other Mercury Containing Devices
- Lead-Acid, SSLA, all other types of Rechargeable Batteries
- Appliances (white goods)
- Scrap Metal
- Propane Tanks
- Tires
- Automotive Fluids and Oil Filters
- Plastic Bags and Wrap (NEW in 2019)
- Helium Balloon Tanks (8.9 and 14.9 Cubic Foot size)
- Cooking Oil and Grease (NEW in 2020)
- Polystyrene (Styrofoam) including food containers (NEW in 2021)

Our Facility also offers free disposal of Household Hazardous Waste (HHW) from residents. Many common household products can harm, people, pets, and the environment if not disposed of properly. The City of Port St. Lucie currently holds two Household Hazardous Waste Collection Day events per year at their Public Works compound to give residents an additional drop-off location. The City of Port St. Lucie pays for the collection day in May (it is open to City residents ONLY) and the County pays for the collection day event in October (it is open to all residents within St. Lucie County municipalities).

Analysis of the percentage of the county's MSW generated by the commercial, multifamily, and residential single-family sectors:

St. Lucie County's estimated percentages of MSW generated are as follows:

- Commercial = 31%
- Multi-Family = 24%
- Single-Family = 45%

Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors:

- Approximately 18% of the commercial sector participates in recycling.
- Approximately 35% of multi-family units participate in recycling.

Commercial sector/business owners, owners of multi-family homes, condominium associations, and other sectors currently without on-site single stream recycling collection may obtain this service directly through the hauler based on their needs (number of times per week container is emptied) and if space allows on their property.

The greatest challenges for these sectors are space limitations for single stream recycling containers and the space necessary for collection truck maneuverability. Extra effort is made by County Solid Waste staff and our hauler to meet with these sectors to try and find solutions or alternatives. These sectors can bring single stream recyclables to our Facility free of charge if there is no solution.

St. Lucie County Recycling Program Plan

Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris:

Changes are currently in progress for recycling C&D materials received for disposal at our Facility. These changes will continually be reviewed and revised as needed. Materials such as concrete, bricks, rocks, soil, sod, land clearing debris, other vegetative debris, and scrap metal are dumped in designated locations. Scrap metal is sent off-site for recycling and the other materials are beneficially reused onsite. Scrap metal is also removed from mixed C&D loads and Class I garbage and moved to the scrap metal pile for recycling.

In 2022, our facility will apply for a permit to use an air curtain burner for yard waste and land clearing debris. This will reduce the volume to only ash residue, and we will work to find a beneficial use for the ash that will count toward recycling credits for the County.

The existing C&D debris disposal area may be mined again in the future to recover recyclable and reusable materials such as dirt/soil for landfill cover, scrap metal for recycling, and concrete, bricks, and rocks to be used as road base.

Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses:

Single-family home residents of the City of Port St. Lucie and Unincorporated St. Lucie County have yard waste picked up weekly. The contracted hauler brings it to our Facility, and it is either mulched and mixed with soil for landfill cover or mulched and used as road base. The City of Fort Pierce collects Yard Waste and Vegetative Debris within their City limits but does not deliver it to our facility. The County has no authority over how their yard waste is used or disposed and the facilities that receive it have not shared their data with us nor do they report it to FDEP.

The County encourages residents to compost yard waste and leave grass clipping on the ground.

The St. Lucie County Environmental Education and Community Outreach Division at the Oxbow Eco-Center and the St. Lucie County University of Florida/Institute of Food and Agricultural Sciences (UF/IFAS) Extension Office often hold educational workshops and events for the public to learn more about recycling, re-purposing, reusing materials, composting, and natural resources. They have information available about composting yard debris/organic materials for home use, Florida yards & neighborhoods, and environmental horticulture.

County Solid Waste staff will continue to seek out businesses that recover organic materials from within the County for acceptable beneficial use to help increase our recycling rate.

Strategy (including general timeframes) for expanding your county's recycling programs, or for creating new programs if needed, as part of your county's efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.:

Our recycling program has expanded over the years as markets change and new materials become recyclable. Our recycling programs will continue to grow as emerging recyclable waste streams become available.

St. Lucie County Recycling Program Plan

In 2021, the County received the FoamCycle polystyrene collection container and densifier through a grant from the Foam Recycling Coalition. Promotion was done on social media and our website. We also received local TV news publicity and promotion on the FoamCycle website. The program remains strong, and promotion will continue. There is currently only one collection site (at our Facility). We intend to expand collection sites to outside of our Facility in the coming year.

In 2021, Solid Waste staff participated in the Cultural Alliance Fair with an educational booth to educate attendees about recycling. The County Solid Waste staff will continue to participate in educational events.

In 2021, the Solid Waste Division sponsored the virtual Oxbow Eco-Center Earth Day. This included promotion of our new Waste Wise app, what materials are recyclable and how to recycle them properly, and household hazardous waste education. We will continue to promote our new app using various methods, such as vehicle wraps. We will add one additional vehicle wrap in the 4th quarter of 2021.

In 2021, the Solid Waste Division sponsored a summer camp in partnership with FAU Harbor Branch Oceanographic Institute to “Keep the Sea Free of Debris” to foster a continued partnership into the future.

In 2021, “Talking Trash Thursday” was a Q & A game for residents that ran for eight weeks on social media with a different recycling/disposal question each week.

Starting in 2020, and continuing, the County uses social media to promote acceptance of cooking oil and grease from residents to prevent waterway pollution and clogged drains.

In 2020, the County Solid Waste Division launched and promoted the St. Lucie County Waste Wise app and will continue to promote the app via social media, our website, and County vehicle wraps. The app gives detailed information about how to recycle or dispose of different types of materials and will continue to be promoted.

In 2020, holiday recycling guides were posted on social media and radio spots ran. These will continue in the future.

In 2019, St. Lucie County created and filled the position for a Solid Waste Marketing & Quality Control Coordinator.

In 2019, the County joined the Wrap Recycling Action Program (W.R.A.P) campaign and continues to accept and bale plastic bags and plastic wrap.

In 2019, fishing line recycling boxes from Berkley Conservation Institute were distributed to five local businesses and marinas by County staff.

St. Lucie County public schools have single stream recycling carts and encourage education about recycling. County staff members can speak to classes of students and provide resources to assist teachers with recycling education.

St. Lucie County office buildings and public buildings have in-house recycling programs to encourage recycling by all County employees and visitors to County buildings. Single stream recycling carts are easily accessible in County buildings.

St. Lucie County Recycling Program Plan

Solid Waste Division staff regularly review and update pages on the County's website dedicated to single stream recyclables, household hazardous waste, and promotes new programs such as the Waste Wise app., Recycling Do's and Don'ts, acceptable new recyclable materials, and how to recycle difficult materials.

The St. Lucie County Solid Waste Division continues to work toward construction of a waste to energy or gasification facility at our site to reach our ultimate goal of reducing the amount of landfilled material while producing a fuel or fuel substitute.

Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the statewide recycling goal of 75%.

In 2021, Solid Waste Division staff participated in surveys and video discussions with other counties in Florida to ultimately develop a recycling plan with new goals and measurements as a suggestion to help create more attainable recycling goals.

In 2021, our Facility implemented new inbound scale codes to separate tons of non-MSW from MSW.

In 2022 or 2023, our Facility plans to conduct a waste composition study to accurately calculate the types of materials in our waste streams so as not to rely on WasteCalc to determine our recycling rate.

An unfortunate challenge is that **private Recycling and Disposal Facilities** are **required** to report **landfilled tons** to FDEP according to county of origin but are **not required** to report **recycled tons** to FDEP according to the county of origin. It is highly likely that these private facilities **do** recycle materials for additional revenue and save landfill space as it makes good business sense.

A second challenge of reaching the 75% recycling goal, is that even with our new recycling programs implemented (plastic bags/wrap and polystyrene), the new material is extremely light and will not make a noticeable impact to the recycling rate. It also takes a long time to accumulate enough of these materials to warrant paying for transportation to sell the materials to a vendor.

A third challenge of reaching the 75% recycling goal is the reduction of the amount of recyclable materials used in packaging of consumable items. Many companies continue to reduce the amount of plastic in their plastic bottles to make them thinner and lighter while others shift away from containers made of recyclable plastic, glass, aluminum, and steel to flexible mixed material pouches or cartons that are not recyclable or reusable, thus reducing the measurable weight of inbound recyclables. St. Lucie County accepts glass bottles and jars with single stream recyclables and all of the glass is crushed to beneficially use as landfill cover material.

Finally, the tremendous rate of growth within the City of Port St. Lucie has and will continue to be a challenge because we have no authority over the City and their hauler contracts. Below are the growth rates as published in the 2021 St. Lucie County Local Mitigation Strategy. Also included is an overview of the County.

St. Lucie County Recycling Program Plan

St. Lucie County is located on Florida's east coast in south central Florida bordered by 21 miles of Atlantic coastline with two inhabited barrier islands. St. Lucie County's population in 2020 was estimated at 322,265, an increase of 12% from 287,749 in 2015.¹ Population is estimated to increase to 367,500 in 2030.² Respectively, the Bureau of Economic Business and Regulation reported 2020 population estimates for the City of Fort Pierce as 44,476 persons (2015; 42,119), the City of Port St. Lucie as 202,914 persons (2015; 174,132), and the Town of St. Lucie Village at 661 persons (2015; 597).

Table 1.1 illustrates municipal population growth from 2000 to 2020 with projections for the year-2030. The 2020 population estimates show a 12% increase from 2015 to 2020 countywide.

Table 1.1

St. Lucie County Population					
	2000	2010	2015	2020	2030 projection
Fort Pierce	37,516	41,590	42,119	44,476	N/A
Port St. Lucie	88,769	164,603	174,132	202,914	N/A
St. Lucie Village	647	590	597	661	N/A
Unincorporated (County)	71,596	71,006	70,901	72,194	N/A
Total County Populatio	198,528	277,789	287,749	320,245	367,500

Source: Bureau of Economic Business and Regulation, April 1, 2020

St. Lucie County is located on the Atlantic along the south-central coast of Florida in the upper reaches of the South Florida geographic region. It is nearly rectangular in shape. At its widest points, the County measures 24 miles, north/south and 29 miles east/west. The County occupies a total of 572 square miles (358,460 acres) of which approximately 60 square miles (38,400 acres) are water and 515 square miles (330,020 acres) are land. The County comprises approximately 572 square miles, 480 square miles of which are unincorporated, the balance of the land area is located within the three (3) incorporated municipalities; Fort Pierce (14.7 square miles), Port St. Lucie (120 square miles), and St. Lucie Village (approximately 1 square mile).

Sumter County

Sumter County Recycling Plan

INTRODUCTION

The amount and type of waste generated by a community, and the strategies employed to manage or treat the waste, contribute to the many facets of a sustainable community including human health, the environment, land use, and economic development. Waste materials originate from a variety of sources including industrial, agricultural, commercial, and domestic activities. In Sumter County, 147,264 tons of municipal solid wastes (MSW) were managed by both the public and private sectors through landfilling, combusting, and recycling practices in 2020.

In an effort to contribute to the achievement of the waste reduction and recycling goals contained in Section 403.706 and Section 403.7032, Florida Statutes, Sumter County has developed a recycling program for local government entities, private companies, organizations, and the residents of Sumter County. Recycling allows materials that would otherwise go into a landfill to be removed from the waste stream to be processed into new products, reduce the need for raw materials and save space in the landfill. As the county continues to grow, the potential amount of MSW which must be disposed of will also grow in proportion resulting in the need for improvement of the collection, disposal, and recycling of solid waste.

SUMMARY

As of April 1, 2020, the University of Florida Bureau of Economic and Business Research estimates the population of Sumter County to be 141,422. There are five municipalities in the County (Bushnell, Center Hill, Coleman, Webster, and Wildwood) which comprise 16% of the total population while 84% of the population resides in the unincorporated area of the County. Of the 118,814 persons residing within the unincorporated county, approximately 107,000 reside within The Villages. The North Sumter County Utility Dependent District (NSCUDD) provides curbside municipal solid waste and recycling services for the Sumter County portion of The Villages which are contracted through Jacobs CH2M/Jacobs while the remaining residents utilize the Citizens' Drop-Off Area (CDA) provided by the County to drop-off their municipal solid waste and recyclables or elect to pay a commercial vendor to haul their municipal solid waste to a private-owned landfill.

The County's Public Works Division operates the CDA (WACS ID: SWD-60-53008) as outlined in the Florida Department of Environmental Protection Permit No. 126848-008-SC/08, which includes the Sumter County Solid Waste Facility Operations Manual dated November 2015. The CDA is located at 819 CR 529 Lake Panasoffkee, Florida 33538. The CDA is open Tuesday through Saturday from 8:00 a.m. to 4:00 p.m. with the exception of the approved holiday schedule. The facility is available only for residential drop-off and accepts Class I general, non-hazardous household waste, source-separated recyclables, and special waste including Class III waste, C&D materials, lead-acid batteries, tires, used oil, white goods, and yard waste. This facility does not accept commercial waste, institutional waste, hazardous waste, industrial waste, ash waste, or biological waste. These materials are rejected at the point of delivery. If hazardous waste materials are unknowingly accepted and identified in the waste stream, Sumter County contracted staff handles the waste in accordance with the hazardous waste manual for the CDA.

There is no solid waste tax assessment set for the residents of Sumter County. The CDA is funded entirely as part of the General Fund. The CDA accepts waste material then loads and transfers the waste to a permitted disposal facility by contract with a local hauler as listed in the table below. In addition, the CDA has separate contracts to dispose of recyclables such as used oil and cardboard whereby the vendor is responsible for hauling and reporting back to the County the amount of volume for each recycled material.

Material	Location of Transport per Hauling Contract
MSW	Waste Connections (Heart of Florida)
Construction and Demolition	Waste Connections (Sumter Recycling & Solid Waste Disposal, Inc.)
Tires	Global Tire Recycling in Wildwood
Metal	Trademark Metals in Ocala or Dominion Metals Wildwood

RECYCLING STATUS

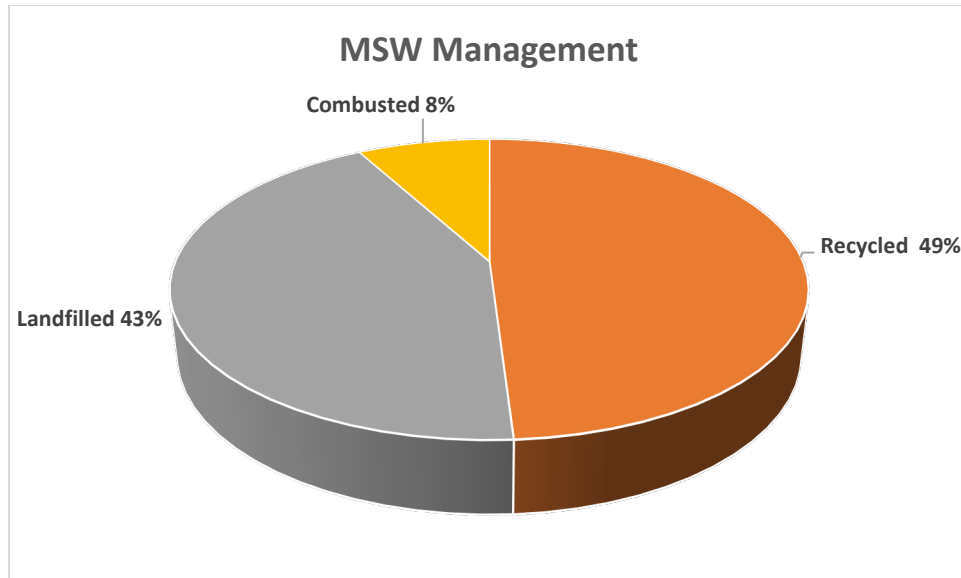
In 2008, the Florida Legislature enacted House Bill 7135 which created Section 403.706, Florida Statutes. This established a new statewide recycling goal of 75% to be achieved by the year 2020. Also, the statute directed the Florida Department of Environmental Protection (FDEP) to develop a program designed to achieve this goal and submit it to the Legislature for approval. FDEP submitted its 75% Recycling Goal Report in January 2010.

In 2010 the Florida legislature passed House Bill 7243 which addressed several of the issues discussed in FDEP's 75% Recycling Goal Report. There are also several Florida Administrative Codes in regards to recycling as follows:

- Florida Administrative Code 62-716: This rule currently establishes procedures for disbursement of recycling and education grants, small county grants, waste tire, litter control /prevention grants, and small county landfill closure grants to local governments for recycling/solid waste education in accordance with the intent of the Legislature, and to assist local governments in meeting the requirements of the Solid Waste Management Act.
- Florida Administrative Code 62-722: This rule regards the regulations of recovered materials.

According to FDEP regulations, traditional recycling credits exclude renewable energy and yard trash disposed of in a landfill. A renewable energy recycling credit is 1 Megawatt = 1 Ton of yard trash disposed of in a landfill beneficially using landfill gas for something other than electricity. Renewable energy recycling credits are included in the total number of recycling credits. A summary of 2020 total recycling credits for Sumter County is as follows:

Traditional Recycling Credits	49%
Renewable Energy Recycling Credits	8%
Yard Trash Recycling Credits	0%
Total Recycling Credits for Sumter County	57%



*Note as reported by FDEP

RECYCLED MATERIALS

The CDA accepts some recyclable materials at no cost while other materials require a small disposal fee to the resident. Recycled materials listed below are currently disposed of at recycling locations that specialize in the specific material. Some of the materials are disposed of at a cost to the resident while general fund revenue is collected for the other materials as listed below:

Cost to the Resident

- Used Tires (all sizes accepted and residents are charged the appropriate tire disposal fee)
- C&D Materials
- Vegetated/Wood Debris

No Cost to the Resident

- Used Oil/Oil Filters
- Batteries
- Clean Scrap Metal
- Cardboard

Sumter County also has a Single Stream Recycling Program through a contract with Waste Management. Recycled materials listed below are currently recycled through this program at no cost to the residents as well.

- Glass (all colors)
- Aluminum and steel cans
- Corrugated cardboard
- All junk mail
- Papers (all colors)
- Copier paper

- Phone books
- Printer paper
- Shredded paper
- Clean paper bags
- Magazines
- Catalogs
- Newsprint
- Blue surgical – pre-operation wrap
- Plastic containers (water, soda, milk with the numbers 1 thru 7)

Material	2020 Recycled Total
Tires	25.44 tons
Cardboard	14.22 tons
Used Oil	2430 gallons
Metal	206.53 tons
Batteries	0 tons
C&D	45341 tons
Single Stream Recyclables	89.01 tons

HOUSEHOLD HAZARDOUS WASTE COLLECTION BI-ANNUAL EVENT

As directed in Chapter 3 Infrastructure Elements Goals, Objectives, and Policies of the Unified Sumter County/Center Hill/Webster Comprehensive Plan, the BOCC provides two Hazardous Waste collections each year. The County ensures that these events are fully advertised to ensure public awareness of the dates and locations. The Cities cooperatively continue to advise the residents and businesses of the County’s Amnesty Day and encourage participation. These events are managed cooperatively by Sumter County and the Marion County Hazardous Waste Collection Center.

Sumter County has entered into an inter-local agreement with the Marion County Board of County Commissioners to provide services and vendors for these collections, with assistance from the Sumter County Public Works Division.

SUMTER COUNTY’S CHALLENGES

Developing a successful recycling program is both an opportunity and a challenge. When state legislatures codified waste reduction and recycling mandates into law and placed responsibility with local governments, few gave special consideration to rural areas. These communities are striving alongside their urban counterparts to meet recycling and reduction goals of 75%. Rural areas' efforts, however, can be hampered by low population densities and tax base, limited local government budgets and personnel, and limited commercial development. For the Sumter County CDA, difficulties accumulating sufficient quantities of processed materials can limit cost-effective marketing options and solid waste volumes can fluctuate due to seasonal residents and, or tourists.

The Sumter County CDA has its unique challenges, only accepting residential MSW and recyclables from those residents which elect to drop-off at the site along with the fact that no commercial waste generated from businesses or Cities is accepted at this facility. All commercial waste is either run through Waste Management and/or The Village’s service provider. In addition, the County does not operate an active landfill which is an additional limitation in the development of an extensive MSW and recycling expansion plan. The main reason for the hindrance to Sumter County and these types of programs is geographical. The majority of the county is still rural based even though the population does not indicate that fact. The Villages and their population only encompass a small northeast portion of the county.

ASSESSMENT DATA & INDICATORS

Indicators presented in this area include the amount of waste each person contributes to the waste system, a breakdown of the generator type of waste, and the material type recycled by the entire County which includes the County’s recycling contracts, other governments, The Villages, and private recycling. Table 1 shows the waste generated per capita since 2010. Table 2 shows the disposal of waste per capita since 2010.

Table 1
County Municipal Solid Waste Collected per Capita

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Tons/Year	1.02	1.20	1.77	1.19	1.41	1.15	2.14	2.49	1.06	1.10	1.04
Pounds/Day	5.57	6.55	9.69	6.51	7.75	6.28	11.73	13.64	5.81	6.04	5.71

*Note data published by FDEP

Table 2
County Municipal Solid Waste Disposal per Capita

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Tons per Capita (Landfilled and Combusted)	.83	.94	1.53	.93	1.09	.90	.78	..69	.57	.53	.53

*Note data published by FDEP

Table 3 shows MSW collected by Generator Types such as residential single-family and multi-family along with commercial and the percentage recycled for the County’s recycling contracts, other governments, The Villages, and private recycling.

Table 3
MSW Collected by Generator Type
(Excludes recycling credits for renewable energy and yard trash beneficially using landfill gas)

Year	Population	Residential: Single-Family Tons Per Year			Residential: Multi-Family Ton Per Year			Commercial Tons Per Year			Total Tons Per Year		
		Collected	Recycled	%	Collected	Recycled	%	Collected	Recycled	%	Collected	Recycled	%
2020	141,422	51,542	25,488	49%	14,726	7,283	49%	80996	40,053	49%	147,264	72,824	49%
2019	128,633	49,656	25,997	52%	14,188	7,428	52%	78,031	40,859	52%	141,875	74,284	52%
2018	124,935	46,357	21,525	46%	13,245	6,150	46%	72,849	33,826	46%	132,451	61,501	46%
2017	120,700	106,124	75,901	72%	30,035	21,685	72%	165,195	119,273	72%	300,354	216,859	72%
2016	118,577	88,859	56,283	63%	25,388	16,081	63%	139,635	88,445	63%	253,882	160,809	63%
2015	115,657	43,578	8,654	20%	12,591	2,472	20%	76,405	17,104	22%	132,574	28,230	21%
2014	111,125	54,974	12,416	23%	15,706	3,547	23%	86,411	19,535	23%	157,091	35,498	23%
2013	105,104	43,676	9,301	21%	12,479	2,657	21%	68,635	14,617	21%	124,790	26,575	21%
2012	100,198	75,853	8,256	11%	12,924	2,338	18%	88,415	12,841	15%	177,192	23,435	13%
2011	84,815	35,623	5,783	16%	10,125	1,399	14%	55,684	14,525	26%	101,432	21,707	21%
2010	93,420	33,259	4,611	14%	9,488	1,050	11%	52,132	11,825	23%	94,879	17,486	18%
2009	95,326	39,638	3,496	9%	8,678	956	11%	78,597	9,525	12%	126,913	13,977	11%
2008	93,034	50,487	8,882	18%	14,849	1,906	13%	83,121	8,740	11%	148,457	19,528	13%
2007	89,771	5,339	1,172	22%	763	195	26%	70,173	8,439	12%	76,275	9,806	13%
2006	82,599	36,394	2,634	7%	10,704	2,107	20%	59,942	5,796	10%	107,040	10,537	10%
2005	74,052	21,699	6,548	30%	6,410	1,271	20%	35,740	5,659	16%	63,849	13,478	21%
2004	66,416	24,671	9,215	37%	7,208	1,821	25%	40,215	4,199	10%	72,094	15,235	21%

*Note published by FDEP

Table 4 shows the recycling rates for various material types for the entire County which includes the County’s recycling contracts, other governments, The Villages, and private recycling.

**Table 4
Waste Products Collected and Recycled (Tons) by Material Type**

Materials	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Newspapers	63%	69%	73%	80%	71%	88%	64%	60%	38%	8%	0%
Glass	33%	31%	27%	57%	70%	82%	59%	79%	94%	58%	92%
Aluminum Cans	16%	25%	7%	64%	30%	51%	41%	59%	87%	26%	38%
Plastic Bottles	0%	0%	0%	0%	0%	29%	2%	36%	53%	40%	46%
Steel Cans	4%	10%	6%	11%	14%	9%	10%	8%	90%	43%	55%
Corrugated Paper	75%	63%	42%	69%	86%	87%	86%	92%	92%	55%	83%
Office Paper	2%	0%	27%	10%	0%	5%	16%	66%	7%	3%	0%
Yard Trash	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other Plastics	14%	18%	11%	22%	24%	15%	14%	19%	11%	6%	5%
Ferrous Metals	36%	63%	37%	42%	76%	32%	47%	79%	80%	79%	94%
White Goods	30%	71%	0%	72%	36%	0%	0%	0%	0%	0%	0%
Non-Ferrous Metals	15%	20%	9%	56%	9%	27%	37%	52%	84%	71%	77%
Other Paper	6%	12%	1%	0%	1%	1%	7%	87%	56%	36%	39%
Textiles	4%	7%	3%	9%	4%	1%	10%	16%	21%	14%	17%
C&D Debris	0%	2%	0%	1%	6%	3%	77%	85%	38%	93%	52%
Food Wastes	0%	0%	0%	0%	5%	4%	4%	3%	1%	3%	0%
Miscellaneous	0%	21%	0%	4%	7%	39%	3%	1%	7%	3%	2%
Tires	38%	36%	21%	90%	23%	34%	35%	56%	95%	59%	90%
Process Fuels	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Overall Recycling Rate	18%	21%	17%	24%	25%	24%	63%	72%	46%	52%	49%

*Note data published by FDEP

INITIATIVES

In order for Sumter County to increase its recycling credits, it will take an increased effort from the municipalities, other governmental agencies, commercial businesses, local businesses, County employees, and the residents all working together to reduce the amount of solid waste generated where it is practical and economically feasible. Sumter County will begin with the following initiatives:

- Development of a waste reduction and recycling plan for all County-owned buildings (see Exhibit A).
- Identify potential recyclables at the CDA.

- Negotiate recycling contracts. Sumter County has several contracts already in place; such as waste oil and tires but will look at adding new contracts for additional recycling opportunities at the CDA.
- Partner with local businesses to encourage recycling efforts and maintain tracking of such efforts.
- Educate the residents on recycling, reduce and reusing via website and brochures.
- County to establish metrics for its recycling goal measurement and ongoing tracking.

Exhibit A
Sumter County Board of County Commissioners
County-owned Buildings Waste Reduction and Recycling Plan

Purpose

To provide a cost-effective and environmentally sound way of managing office waste by reducing the amount of waste generated, maximizing the life of products by reusing where possible, recycling acceptable materials, disposing only what is necessary, and buying recycled products.

Responsibility

It shall be the responsibility of each Sumter County employee to participate in recycling and waste reduction programs to reduce the amount of waste generated by the organization.

Recycling Primary Goals Implementation Plan

Prevention of waste is the most cost-effective waste management strategy as it reduces the total amount of waste generated. Whenever practical, employees are encouraged to prevent waste by reusing items. Listed below are just a few objectives Sumter County has implemented.

Responsible Division/Department	Goal
Office of Management and Budget (OMB)	Centralized purchasing of office supplies to limit overstock of items
OMB	Development of a plan to increase centralized purchasing to reduce other areas of excess inventory or duplication of items
Public Works/Operations	Monthly approved electronic communication to educate employees on approved recycling initiatives
All BOCC Employees	Use double-sided copying and printing
Administrative Services	Only purchase recyclable cups for County meetings and functions
All BOCC Employees	Reuse interoffice envelopes, file folders, and binders
Administrative Services and Public Works	Weekly courier old library newspapers to Animal Services for reuse

Responsible Division/Department	Goal
Public Works / Engineering	Contract with a hauler for the collection of recyclables from county properties
OMB	Purchasing employees gain training on Environmentally Preferable Purchasing (EPP)
OMB	Establish a policy for implementation to purchase recycled paper with at least 30% post-consumer content
Public Works	Recycle all scrap metal from county projects
Public Works / Operations	Recycle all used county vehicle tires via a contracted recycler
Public Works / Engineering	New and renovated county building construction required to consider LEED or equivalent green building standards

Secondary Goals

Responsible Division/Department	Goal
Division/Department Heads	Employees will be trained on what to reuse, recycle, how, and where
Public Works / Engineering	Place a recycling bin for office paper next to every copy machine, central office area, and or mailroom
Public Works / Engineering	Provide for corrugated cardboard to be flattened and placed next to other recycling bins on every floor

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Current Traditional/Total Recycling Credit Rate:

The overall recycling rate for the County of Volusia in 2020 was 49%.

1. Summary of the services and materials for which you offer recycling such as newspaper, aluminum cans, steel cans, glass, plastic bottles, cardboard, office paper and yard trash;

The County of Volusia currently offers recycling services for a variety of materials both in its curbside collection program as well as in designated drop-off facilities. Materials collected in the curbside recycling bin program include loose paper such as news print, office paper, magazines and junk mail, along with cardboard, clear or tinted glass bottles, aluminum and steel cans, and plastic containers coded #1 or #2. Collection services are provided to all residential structures in the unincorporated area on a weekly basis, with no limitations to the volume of household recyclable materials residents may place out in their curbside collection bins. Recycle bins are provided to residents at no charge and residents have the ability to order an unlimited number of additional containers. Other materials outside of the standard household recycling bin items that are collected curbside include appliances, tires, and yard waste, which are also collected weekly. Though there are limitations to the number of appliances and tires residents may place out on a weekly basis as well as restrictions on the volume of yard waste, they may take advantage of the service every week for year-round continuous removal of yard waste, tires and appliances for potential recycling.

All of the aforementioned items may also be brought to designated drop sites at the Tomoka Farms Road Landfill and the West Volusia Transfer Station. Both locations are open six days per week for residential drop-off, and provide residents with the ability to bring in household hazardous waste such as paint, oil, gasoline, herbicide, insecticide, automotive fluids, and cleaners, along with batteries, electronics, and fluorescent light tubes for recycling. Additionally, fifteen county operated fire station facilities are equipped with drop-off bins for household recyclables and Public Used Oil Collection Centers (PUOCC) for recycling of residential used motor oil. Other recycling activities that the county participates in on a less regular basis include semi-annual off-site household hazardous waste collection events held in the cities of DeBary, New Smyrna Beach, and Ormond Beach, as well as providing recycling bins to county offices and various county-sponsored events that the Solid Waste Division participates in.

Other factors relevant to the services available in Volusia County, but not provided by the county directly include a number of private landfill and recycling operations, and city-sponsored recycling programs provided by the local municipalities within the borders of Volusia County. Currently, there are fifteen certified and non-certified recycling centers operating within Volusia County where residents and commercial entities alike may take advantage of their recycling services ranging from standard household recycling to other varied services such as electronics, scrap metal, automobiles, Styrofoam, and construction & demolition debris recycling. The Solid Waste Division is in contact with each of them to ensure that all information about their volumes of recycled materials for annual reporting efforts is collected. With the exception of one city, most municipalities within Volusia County, encompassing 14 cities and 2 smaller townships offer curbside residential recycling services for many of the same items that the county collects as well. The Solid Waste Division holds meetings with representatives of these municipalities to allow everyone to keep apprised of the others situations in regards to recycling efforts, and share information related to new residential and commercial recycling initiatives taking place countywide.

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2. Analysis of the percentage of the county’s MSW generated by the commercial, multifamily, and residential single-family sectors;

Data for Collection and Recycling by Generator Type				
Generator Type	Units/Tons	Percentage of Generator Units & Municipal Solid Waste		
Residential Single Family	Units/Tons	Percentage of Units	Percentage of Total MSW	
Number of Units	183,881	81%		
Collected Tons	663,241		45%	
Landfilled Tons	322,636		22%	
Recycled Tons	340,605		23%	
Residential Multi-Family	Units/Tons	Percentage of Units	Percentage of Total MSW	
Number of Units	31,679	14%		
Collected Tons	221,080		15%	
Landfilled Tons	10,919		1%	
Recycled Tons	210,161		14%	
Commercial	Units/Tons	Percentage of Units	Percentage of Total MSW	
Number of Units	10,689	5%		
Collected Tons	589,548		40%	
Landfilled Tons	415,623		28%	
Recycled Tons	173,925		12%	
Totals	Units/Tons	Percentage of Total MSW		
Number of Units	226,249			
Landfilled Tons	749,178	51%		
Recycled Tons	724,691	49%		
Collected Tons	1,473,869			
Breakdown of Municipal Solid Waste Generated by Sector				
Sectors:	Single Family Sector	Multi Family Sector	Commercial Sector	Total
Number of Units:	183,881	31,679	10,689	226,249
Landfilled Tons:	322,636	10,919	415,623	749,178
Recycled Tons:	340,605	210,161	173,925	724,691
Total MSW Generated:	663,241	221,080	589,548	1,473,869
Percentage of Total MSW Generated:	45%	15%	40%	
Percentage of Total MSW Landfilled:	43%	1.5%	55.5%	
Percentage of Total MSW Recycled:	47%	29%	24%	

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MSW Generated By Sector - Summary of Data:

In 2020, a total of 1,473,869 tons of municipal solid waste were collected in Volusia County. Of those collected tons, 749,178 tons were landfilled, and 724,691 tons were recycled. This gives Volusia county a recycling rate of 49% overall for the calendar year of 2020. Broken down by generator type, the majority of municipal solid waste and recycling was generated by residential single-family units. There are 183,881 single family units, which generated 663,241 tons of municipal solid waste, or 45% of the total municipal solid waste generated during the year. Of the waste generated, 322,636 tons (51%) were landfilled, and 340,605 tons (49%) were recycled. Multi-family residential units generated the smallest portion of the municipal solid waste stream with 31,679 units generating 221,080 tons of municipal solid waste, or 15% of the municipal solid waste generated during the year. Lastly, 10,689 commercial units generated 589,548 tons of municipal solid waste, or 40% of the municipal solid waste generated during the year. Of the waste generated, 415,623 tons (70%) were landfilled and 173,925 tons (30%) were recycled.

3. Analysis of any existing recycling programs for the commercial and multifamily sectors, including estimated customer participation rates and recycling rates for each of those sectors;

Commercial

Number of Units	10,689
Collected Tons	589,548
Recycled Tons	173,925
Scheduled Collection	10,689
Scheduled Participation	433
On-Call Collection	10,689
On-Call Participation	19

Residential Multi-Family

Number of Units	31,679
Average # of Residents Per Unit	2.35
Collected Tons	221,080
Recycled Tons	210,161

Participation & Recycling Rates for Commercial and Multi-Family Sectors - Summary of Data:

Volusia County has 10,689 commercial units that generated 589,548 tons, or 40% of the municipal solid waste generated during the 2020 calendar year. Of the waste generated, 415,623 tons (70%) were landfilled and 173,925 tons (30%) were recycled. This accounts for 55.5% of the total municipal solid waste landfilled in Volusia County, and 24% of the overall tons recycled.

Multi-family residential units generated the smallest portion of the municipal solid waste stream overall with 31,679 units generating 221,080 tons, or 15% of the municipal solid waste generated during the year. This accounts for 1.5% of the total municipal solid waste landfilled in Volusia County, and 29% of the overall tons recycled.

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4. Description of the county's implementation, including any planned changes, for your program for recycling construction and demolition debris;

The Volusia County Solid Waste Division has previously undertaken some changes in its landfill and transfer station operations to allow for the reuse of select clean construction and demolition materials to be utilized in landfill access road construction within the landfill footprint. By incentivizing commercial and residential landfill customers with reduced disposal rates, they are able to provide clean, un-mixed materials for alternate use and diversion from the landfill. Commercial entities would typically pay a rate of \$28 per ton to dispose of construction and demolition materials at county-operated disposal facilities. The County allows them to reduce their cost by bringing in clean roofing material. All they have to do is ensure that roofing materials that they intend to dispose of are clean and separated from other debris types. The reward for bringing clean debris and effort taken to separate out this material, results in their disposal rate being adjusted to a lower rate of \$13 per ton.

There are not currently any upcoming planned changes to the county's construction and demolition debris recycling program that is presently running. However, it is worth noting that another of the primary sources of construction and demolition debris recycling is through private sector enterprises operating and construction and demolition material sorting and processing sites in the county. Residential and small business services for the reuse and repurposing of construction and demolition materials exist on a small scale as well, but their overall contribution to the rate of recycling construction and demolition materials is negligible. A possible future consideration would be collaborating with locally operating businesses that deal with construction and demolition recycling to see if they are able to accommodate other materials. A private recycling entity is continuing to research the diversion of reclaimed asphalt materials.

5. Description of efforts or opportunities to encourage recycling of yard trash, and other organic materials or mechanically treated solid waste, into compost or mulch that may be made available for agricultural and other acceptable uses;

Yard waste is currently collected on a weekly basis from all residents serviced in Volusia County's unincorporated area. Residents and commercial businesses may also bring yard waste to the Tomoka Farms Road Landfill and West Volusia Transfer station for disposal at a rate of \$23 per ton. All accepted yard waste is mulched and is mixed with dirt and utilized as daily cover. It is also made available to residents at both facilities for their own home use at no charge. This information is advertised on the Volusia County Website, inside of solid waste pamphlets made available to residents at community events, and given verbally during phone calls when residents are seeking information about solid waste services in the area. Residents are also able to contract with any of the county's franchised haulers for removal of large-scale land clearing debris and high volume vegetative materials. Additionally, changes to the collection guidelines with our current contractor in the curbside collection program now allow residents to place out up to four cubic yards of yard waste per week as opposed to the two cubic yards that was allowed previously in past collection contracts, effectively doubling the county's ability to collect and recycle residential yard waste. Research is also being undertaken to determine the feasibility of a residential composting program as well.

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6. Strategy (including general timeframes) for expanding your county's recycling programs, or for creating new programs if needed, as part of your county's efforts to achieve the statewide recycling goals set forth in s. 403.706(2), F.S.;

The county of Volusia will be undertaking a strategic and multi-faceted approach to increase participation in its recycling program over the long term, and improve its overall recycling rate in pursuit of the statewide recycling goals set forth in s. 403.706(2), F.S. This effort will involve several strategies designed to reach out to core groups of stakeholders involved in various roles in the recycling process, and bring them into the fold so that all parties involved are on the same page when it comes to achieving this objective. Primary areas of focus will include:

1. Targeted Information Campaigns
2. Increasing Participation Among Single Family Units
3. Contamination Reduction
4. Community Engagement
5. Intra-Municipality Cooperation
6. Continued Support of Multi-Family Recycling Initiatives
7. Encouraging Commercial Participation
8. Improved Accuracy of Reporting
9. Program Expansion – Additional Secondary Programs
10. Staff Research and Education

Targeted Information Campaigns

Knowledge is power when it comes to accomplishing any goal, and increasing the number of people with access to that knowledge is paramount to this endeavor. By providing relevant information to the groups most likely to need it, we not only ensure a basic level of knowledge among a diverse group of key stakeholders, but also increase the likelihood of that knowledge being spread.

Shortly before the curbside collection contract for the unincorporated area was to be shifted to a new hauling company, a general information campaign was launched through a mail out to all residential customers serviced by the Volusia County Solid Waste Division for curbside collections. The notice they received provided them with more detailed information about the new hauling company along with collection guidelines, and our recycling program. Our simplified recycling message included the material types that we are most focused on receiving in their curbside collection bins. Predictably, after the notice was sent out, customer service staff were flooded with customer inquiries involving the specifics of our recycling program, general terms of service, and additional requests for recycling bins. Other changes made to the dissemination of information about solid waste programs in the county included a general update to all pamphlets and literature the Solid Waste Division makes available to its customers including updated guidelines sheets, informational magnets, and pamphlets related to recycling, hazardous waste disposal, general landfill information, and litter reduction. In addition to generalized mailings of information, targeted efforts have been undertaken to provide information about commercial recycling services and recycle rate reporting to a number of businesses, schools, home owners associations, and multi-family dwellings to ensure that they are informed about what options are available to them regarding

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recycling in Volusia County. Retention of contact information for these and other local groups and interested parties will continue to be used for future communication regarding new programs, educational opportunities, events, and projects to gauge their interest and disseminate further information as needed. Educational videos are also currently in development to share further information with the community about waste reduction, reuse, recycling and other related topics in an online setting. Future possibilities in the digital medium may include the eventual use of social media to reach a broader range of individuals and groups within the community.

Increasing Participation Among Single Family Units

As previously iterated in the analysis of waste generation among the commercial and residential sectors, single-family units not only produce the most municipal solid waste of any sector, but also generate the greatest volume of recycling. As mentioned earlier, through targeted information campaigns, it is possible to reach out to groups like this to help foster a renewed interest in the pursuit of recycling to improve overall recycling diversion among a large group of residents.

However, this method is not the only means of encouraging residents to participate, and would definitely benefit from supplemental support. Other sources of information and encouragement to residents are provided through information sheets left behind by route drivers and solid waste compliance officers. This group can also be engaged with directly through facility tours, offsite presentations, and community engagement events. The personnel of the Solid Waste Division are currently undertaking all of these activities and the overall goal is to be able to increase the number of residents that the message reaches through these means to raise the overall rate of participation in the county's recycling program.

Some possible ways to improve upon our single family sector participation include offsite location visits by Solid Waste Division employees to areas with the lowest levels of participation or the highest levels of contamination, follow up phone calls to all residents phoning into our customer support line, and a targeted mail out of recycling guidelines made after each residential recycle bin request. Aside from the current educational videos already being produced, other possibilities may include extending our promotion of recycling to social media, adoption of a web-based application for use on cellphones and tablets, or holding events specifically sponsored by the Solid Waste Division itself for the purpose of recycling education.

Contamination Reduction

One of the major issues facing many community recycling programs is a high contamination rate in the recycling stream. To tackle this problem, the Volusia County Solid Waste Division has previously adopted a simplified approach to make it easier for residents to understand which items should be placed in their curbside recycle bins, and common mistakes that people make when trying to recycling. This "Back to the Basics" campaign promotes the "Big Five Recyclable Items" including paper, cardboard, aluminum & steel cans, glass bottles, and plastic bottles. By specifically requesting these items and no others be placed in their curbside collection bin, and asking residents to ensure that they are clean before being placed out, it not only helps to educate them, but also to ensure a cleaner and more saleable recycling stream. As mentioned earlier in our targeted information campaigns, a general mailing was provided to all residential Volusia County customers providing this new information. That along with supplemental information on our website, printed materials given out at educational events and tours, and verbal

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guidance offered by our customer support staff have really helped residents to understand the process and improve the overall quality of the program. This information will also be shared through online video as well after the completion and publishing of our upcoming series entitled; “The Do’s and Don’ts of Recycling,” made in collaboration with Volusia County’s Community Information Department.

Community Engagement

The Volusia County Solid Waste Division has always made it a point to reach out to the communities in which we operate to better connect with our residents and help them to understand the finer points of recycling and waste management best practices. This is accomplished by providing residents with a window into what we do on a daily basis, and how our operations work through a combination of tours, offsite educational presentations, and by ensuring a presence at local community sponsored events and activities. Some of these events include quarterly cleanups in Volusia County’s state parks, rivers, and beaches, along with residential facing opportunities at special events like the county fair and wildlife and environmental festivals. This has always proved successful in the past in capturing the interest of younger residents, and giving older and longtime residents the opportunity to ask questions and expand their knowledge of what our division does.

Recently, progress in our efforts to increase our participation in these types of events have slowed due to the large number of event cancellations resulting from the rise in Covid-19 cases. In prior years, the Solid Waste Division participated in roughly six to eight community events along with a handful of tours and offsite presentations. With the idea of improving recycling education and gaining a wider audience in the community, we had been actively seeking out additional events and venues to present our information. In 2019, we were successful, and drastically increased the number community events that we participated in to an average of two events per month. However, this proved near impossible during much of 2020, and 2021. Our attempt to continue our increased outreach efforts have been limited to smaller group settings, digital presentations, and online educational videos. Specifically, we have also sought to increase our outreach among school groups and younger audiences through targeted mailings to every school in the Volusia County school district advertising the benefits of recycling and offering educational tours and presentations to interested student populations, as well as directing them to online resources to encourage hands on learning in a classroom environment with the support of our online materials.

Intra-Municipality Cooperation

In recent years, the Volusia County Solid Waste Division has reached out to local municipalities in the area to get on the same page about where current recycling programs are going, and where we hope to take them in the future in pursuit of the state’s overall recycling goal. This started as a quarterly meeting dubbed the “Lunch N’ learn” series where the Solid Waste Division invited representatives from all of the local cities to a communal gathering to talk about a range of topics related to their individual recycling programs, and the overall state of recycling in Volusia County. This has had a relative degree of success in getting several of our cities to reach out and share information with each other about operations that could potential impact solid waste and recycling services in the county.

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Our most recent set of meetings that took place prior to the pandemic discussed Volusia County's current overall recycling diversion rate of 49%, specifically in regards to how much waste is being generated, what we can all do to improve diversion of recyclable materials, and how to share this information with the public in our respective service areas. A common consensus in these meetings was to try to standardize the types of materials accepted as well as to have a shared message as to what materials are recyclable in the county. The Solid Waste Division has also made the designs of all of its informational literature available in digital format to participating cities in the hopes that they will standardize their designs and messages in a similar fashion to ours. This would help to avoid customer confusion, and let residents know that all cities in the county stand united in pursuit of an improved recycling rate and cleaner recycling stream.

Continued Support of Multi-Family Recycling Initiatives

In an effort to improve the ratio of bins to residents in multi-family complexes, and universal access to alternative methods of recycling for these residents, the Solid Waste Division has recently undertaken a mailing campaign to apartment complexes, centralized housing units, and other communal living structures to provide them with information about what services are available to them. This includes literature on the availability of commercial recycling in their area; recycle center locations, county drop-off bins, and other waste services available to them. In addition, as a free service available to multi-family residences, the Solid Waste Division has offered to visit local properties to conduct small-scale waste audits and to meet with residents to give them a better idea of what recycling services would best suit their needs. This includes making suggestions for container size and placement, and recommending how many containers should be available to residents, and which waste hauler they should be in contact with to modify or expand their existing waste services. As the number of apartment complexes, planned communities, and other multi-family housing projects continues to increase across the county, efforts in pursuit of this measure are expected to sharply increase within the next few years.

Encouraging Commercial Participation

As the second highest source of municipal solid waste and recycling in Volusia County behind single-family residences, commercial units not only make up a significant portion of the waste generated in our county, but also hold the highest potential for improvement to their overall rate of recycling participation. As a result, their inclusion in any planned efforts to expand recycling efforts in Volusia County is important. Much like our efforts in the multi-family sector, the Solid Waste Division has approached the commercial sector in a similar fashion through directed mailing campaigns. Pamphlets and full-page advertisements were sent out to numerous commercial enterprises operating within Volusia County that encouraged them to either adopt, or expand on existing recycling programs. As with multi-family buildings, the Solid Waste Division offers no cost waste assessments to help determine a facility's recycling needs. Due to local restrictions limiting our ability to provide this in-person service during much of the pandemic, we have also opted to perform additional research and expand out potential mailing lists for local businesses so that as many commercial entities as possible operating within Volusia County are able to receive information related to recycling and waste diversion.

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Improved Accuracy of Reporting

On a similar note to improving commercial sector recycling participation, the Solid Waste Division is also in the process of reaching out to more of our local businesses and national chains operating in the area that already have established recycling programs in an effort to better capture their rates of recycling and waste diversion. This is also accomplished primarily through a yearly mailing campaign starting in early January of each year and designed to reach out to those specific businesses in the Volusia County area that advertise their recycling services to their customers, with great attention given to businesses with high waste diversion potential. As a part of the mailing, an information request form is enclosed, along with a template for companies to voluntarily submit the details of their recycling programs and the collected volumes of different material types over the previous calendar year. Staff members intend to further expand the pool of businesses in our mail-out campaign this coming year, and increase the number of follow up attempts. Further research efforts have also involved reaching out to the owners of commercial businesses listed on local business tax licenses and State of Florida Division of Corporations records, or to out-of-state corporate offices for business enterprises that operate chains nationwide. The overall goal of these research measures is to cast as wide a net as possible in the hopes of potentially reaching more businesses and collecting their recycle volume information. Other possible measures are also being considered, including offering some form of incentive to participating businesses such as an award or some other form of recognition by Volusia County as thanks for their support and participation.

Program Expansion – Additional Secondary Programs

Though Volusia County already provides recycling services for household recyclable items, household hazardous waste, and electronics, the potential still exists to expand upon it by accepting additional material types, or collaborating with other organizations to recycle materials that don't typically fall into the standard recycling stream. One such organization that the Solid Waste Division is looking into is a nationally recognized recycling chain called Terra Cycle. This organization specializes in recycling difficult-to-process materials that residents use regularly and help keep them out of the landfill by having the materials reused, oftentimes by their original manufacturers. Some of the services allow for free mail-in of collected materials simply by acting as a designated drop-off facility. Others are paid options that are charged per shipment. Some of the free materials that are currently under advisement for acceptance in a potential pilot program include Febreze air freshener containers and cartridges, Little Bites snack bags, Arm & Hammer soft packets, P&G soft pouches, Solo #6 plastic cups, and BIC writing instruments. If a pilot program is launched and proves to be successful, it may lead to adoption of disposal bins for these materials at other centralized location, or the addition of more items to the program. Another program that has been given tentative consideration at this time includes the potential introduction of polystyrene foam densification machines at our transfer station and landfill that would allow for the compression of residential Styrofoam products into a denser more saleable material that could potentially be accepted for recycling through local processors. At this point in time, the potential feasibility of this program is still in the relatively early stages of research, and the potential costs and benefits will need to be further researched before implementation.

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Staff Research and Education

In order to ensure that our residents are educated on the topic of recycling, we must first make sure that members of our staff have a thorough understanding of the subject as well. Aside from simply learning about what materials our program accepts, and knowing the necessary steps for proper disposal, staff will aim to go the extra mile to fully explore the broader recycling field, learn about what other communities are doing, industry best practices, changes taking place nationally and globally, and ways to improve our own programs. This is accomplished through a combination of attending educational webinars, going to meetings both locally and in other parts of the state, and through on-the-job research into topics of interest in recycling technologies and other related fields.

Throughout much of 2020 and 2021, staff members have participated in a number of different webinars and informational sessions that covered a broad range of topics in the field of reuse, recycling, and waste diversion. Presentations have included such topics as challenges to the recycling industry, education and outreach tools available to local governments, battery recycling, plastic wrap recycling, food waste diversion, and construction and demolition debris markets. These webinars were hosted by a number of state and locally sponsored groups such as Friends of Florida, the National Recycling Partnership, South East Recycling Council, the US Department of Energy, Environmental Protection Agency, Chamber of Commerce, Beyond 34, and Recycle Florida Today. These organizations not only possess resources and information that we at the local level lack, but also make it available to us at no charge for the benefit of our employees and residents, and it has proved highly effective in promoting our own education and increasing our knowledge of the recycling field.

Other activities that have proved beneficial to increasing the knowledge base of our staff include the attendance of various meetings across the state aimed at growing our state's rate of recycling, and promoting the sharing of information across municipalities. One such event that our team frequents on occasion is the Orlando Regional Recycling Meeting held in conjunction with Beyond 34, and the U.S Chamber of Commerce Foundation. This began as a pilot program to increase recycling in the city of Orlando and other areas neighboring Orange County. It brings together multiple representatives from surrounding areas, businesses, charitable organizations, and interested members of the community to keep us all apprised of what is happening with regards to waste and recycling in the Central Florida area, and teach us about new potential programs and guidelines that could be implemented to help benefit our own local programs. Another similar program that our staff has recently attended was the annual recycling conference and trade show that was held locally in nearby Daytona Beach Shores and sponsored by Recycle Florida Today, an organization specifically aimed at improving recycling rates in Florida, and keeping local communities apprised of new industry standards, events, and changes in national and international market environments.

Finally yet importantly, our staff is committed to improving our program through research into a variety of topics that will serve to grow our program, benefit our residents, and greatly improve our environmental impact. Staff members have sought to further increase our community presence and outreach by contacting local school groups, community organizations, and private enterprises that will benefit from recycling education.

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7. Discussion of any additional steps, initiatives and anticipated challenges that are critical to implementing your strategies to achieve the next interim, and ultimate statewide recycling goal of 75%.

Volusia County Solid Waste has previously updated its ten-year master plan and has sought the assistance of consultants and other private entities in our attempts to reach the state's recycling goal of 75%. Staff has aggressively pursued many opportunities to increase our recycling such as the continued education opportunities mentioned above and utilizing spotters in order to capture all available recyclables. However, as many other counties throughout the state can attest, the task of reaching the 75% goal established by the legislature by the year 2020 has thus far eluded us. As our county's current recycling rate does not yet include any type of waste-to-energy credits at this time, Volusia County is not able to take advantage of the benefit that it can provide.

Our staff plans to continue to educate our residents on recycling and increase waste diversion efforts. However, our staff still anticipates many challenges to our ability to increase the overall recycling rate. Historic difficulties in the domestic and overseas commodity markets, the impacts of tariffs, inflation, and other rising processing costs associated with even basic curbside recycling have definitely proven to be detrimental to the cause. As a result, one of the cities in Volusia County has dropped its recycling program entirely with no signs of returning after a suspension period that has now lasted over two years, while other areas have restricted certain types of materials they accept.

Despite the efforts of the Volusia County Solid Waste Division, and other community recycling programs, there are still several outside factors that are beyond our control that severely limit our progress toward the state's 75% recycling goal. These factors include historically unstable market conditions, increased processing costs, and other domestic and international developments that impact the overall state of recycling in the United States. Currently, market conditions for recycled commodities are still rebounding from a historically low point for the past two years. Many of the materials common in Volusia County's recycling stream were selling for well below the cost to process them. Though the price of ferrous and non-ferrous metals has rebounded slightly over the last year due to an ever-present demand and increased manufacturing of durable goods, and commodities like paper and OCC have drastically risen in the past few months, other commodities are still trading well below their historic averages due to the closure of several domestic processing centers and reduced overseas demand. Even PET and HDPE that are staple commodities in the recycling market have seen decreased price and demand in recent days due to increased domestic shale oil production, increased crude oil production overseas, and reduced production costs for virgin materials across the board due to technological advances.

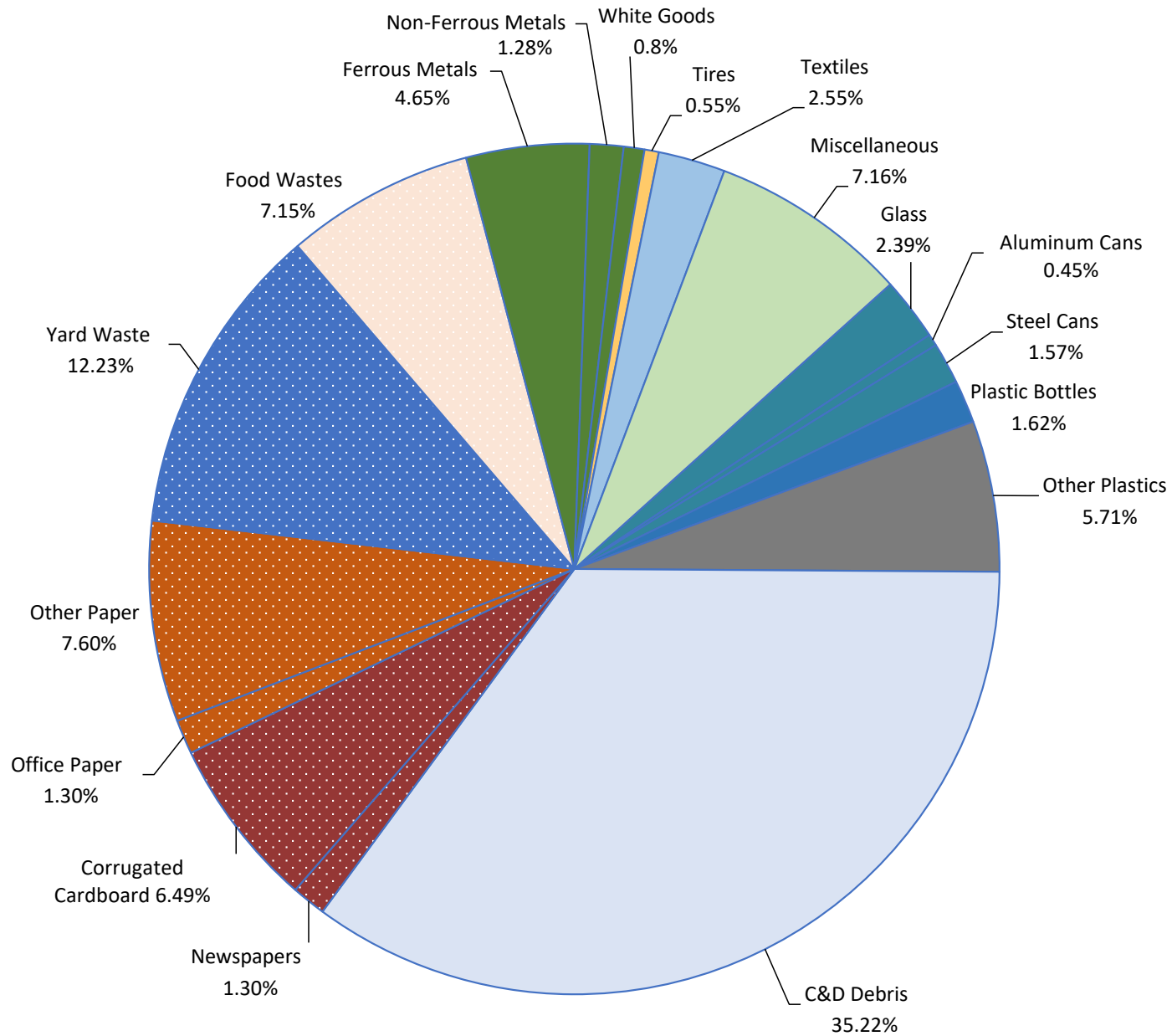
Though the market is in the process of recovering, these past poor market conditions have already negatively impacted many local recycling programs that have relied on the funds generated from the sale of these materials to run their ongoing operations. When recycling was essentially a self-funded enterprise, it flourished. Now, market conditions have thrown the standard model out the window. As opposed to a guaranteed profit from material sales, many MRFs are struggling to stay afloat because the cost of processing those materials now far exceeds what they hope to bring in from their sale. This has resulted in some MRFs going out of business, others breaking contracts with their municipal hosts, and many renegotiating their renewal terms in their favor. This is the case for Volusia County and our MRF operator, Gel Corporation. Our current processing cost is \$80 per ton.

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In summary, the prospect of attaining the state's 75% recycling goal will prove to be challenging. The Volusia County Solid Waste Division is committed to working with residents, businesses, and local governments to share information and improve our overall recycling participation rates. Market volatility, increased costs, and lower rates of return in domestic recycling ventures, have had a greater impact not only on recycling operations in Volusia County, but also on programs across the state as well. This development limits the ability to reach the aspirational 75% goal. However, despite these challenges, Volusia County is still actively committed to continue our recycling efforts as much as is economically feasible.

APPENDIX E
Solid Waste & Recycling Data
Tables, Charts, & Graphs

2020 Florida Municipal Solid Waste Collected (47.1 million tons)



Florida Municipal Solid Waste Collected and Recycled (2020)					
MATERIALS	MUNICIPAL SOLID WASTE COLLECTED ¹		MUNICIPAL SOLID WASTE RECYCLED		
	TONS PER YEAR	PERCENT OF TOTAL TONS PER YEAR	TOTAL TONS RECYCLED	PERCENT OF TOTAL TONS RECYCLED	MATERIAL RECYCLING RATE ² (PERCENT)
Glass	1,127,806	2.4	223,256	1.1	20%
Aluminum Cans	210,873	0.4	25,469	0.1	12%
Steel Cans	740,528	1.6	194,119	1.0	26%
Plastic Bottles	762,017	1.6	52,310	0.3	7%
Other Plastics	2,687,954	5.7	79,771	0.4	3%
C&D Debris	16,594,928	35.2	9,423,530	48.1	57%
Newspapers	612,902	1.3	62,965	0.3	10%
Corrugated Cardboard	3,059,105	6.5	1,325,204	6.8	43%
Office Paper	610,664	1.3	112,368	0.6	18%
Other Paper	3,620,259	7.6	376,321	1.9	10%
Yard Waste	5,760,876	12.2	3,780,600	19.3	66%
Food Wastes	3,368,065	7.1	188,645	1.0	6%
Ferrous Metals	2,189,856	4.6	1,616,255	8.3	74%
Non-Ferrous Metal	602,524	1.3	449,139	2.3	75%
White Goods	375,266	0.8	203,554	1.0	54%
Tires	257,042	0.5	100,892	0.5	39%
Textiles	1,201,010	2.5	62,104	0.3	5%
Miscellaneous	3,374,638	7.2	1,026,023	5.2	30%
Process Fuel ³	N/A ⁴	N/A	269,881	1.4	100%
TOTAL	47,114,583	100.0	19,572,559	100	42%

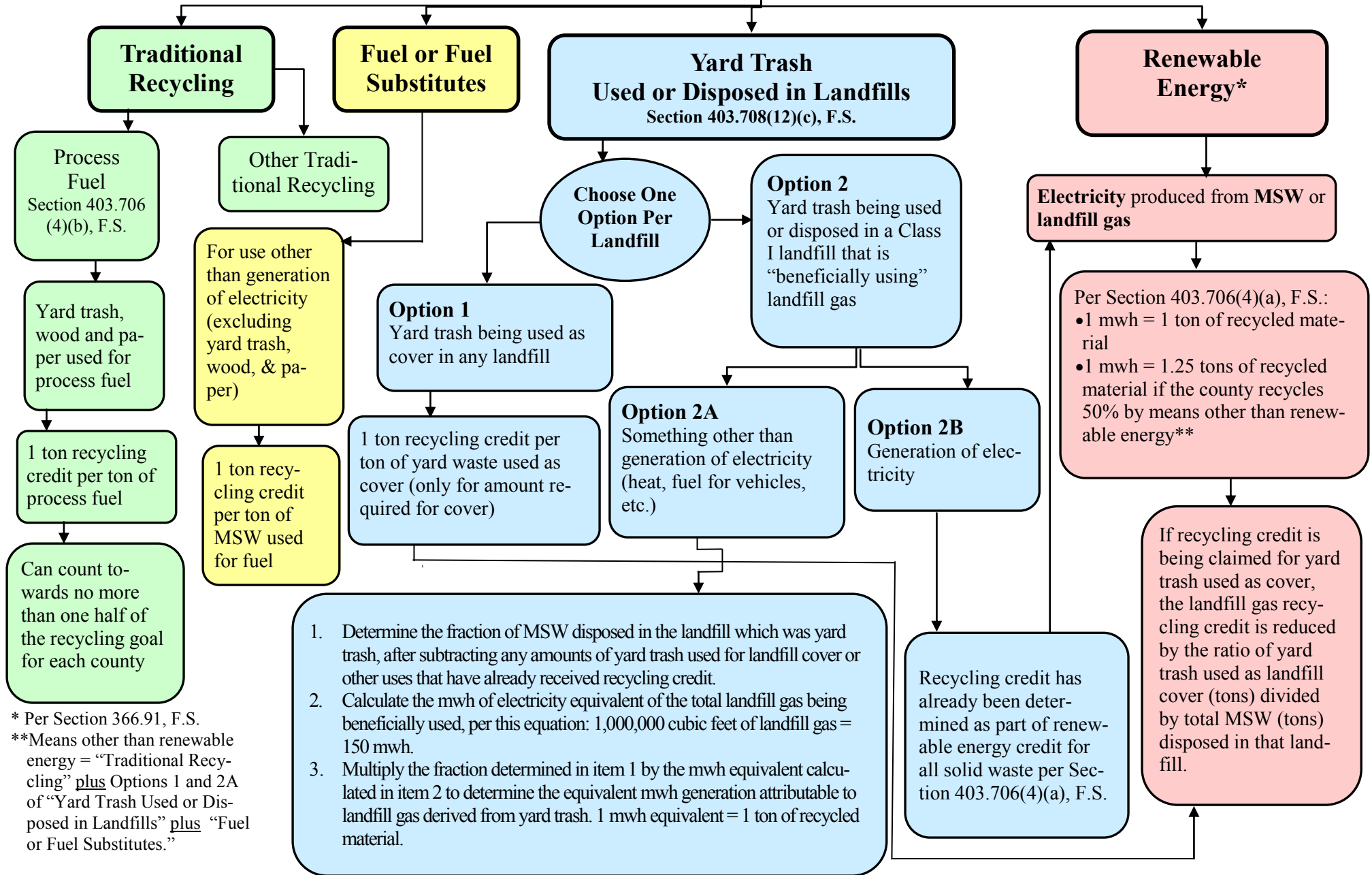
¹Municipal solid waste collected is the total recycled, landfilled and combusted.

²Unadjusted traditional recycling rate.

³Process fuel is composed of yard, wood and paper waste used in process boilers.

⁴Process fuel is not included in the total. The tonnage collected has been counted in other material categories.

Source of MSW Recycling Credits in Florida



* Per Section 366.91, F.S.

**Means other than renewable energy = "Traditional Recycling" plus Options 1 and 2A of "Yard Trash Used or Disposed in Landfills" plus "Fuel or Fuel Substitutes."

- Determine the fraction of MSW disposed in the landfill which was yard trash, after subtracting any amounts of yard trash used for landfill cover or other uses that have already received recycling credit.
- Calculate the mwh of electricity equivalent of the total landfill gas being beneficially used, per this equation: 1,000,000 cubic feet of landfill gas = 150 mwh.
- Multiply the fraction determined in item 1 by the mwh equivalent calculated in item 2 to determine the equivalent mwh generation attributable to landfill gas derived from yard trash. 1 mwh equivalent = 1 ton of recycled material.

2020 Summary of Recycling Credits By Descending Population

County	Population	Total MSW Collected	Traditional Credits ² Tons	Traditional Credits ² Unadjusted %	Traditional Credits ² Adjusted %	Renewable Energy Credits ³ Tons	Renewable Energy Credits ³ %	Yard Trash Disposed in a Landfill ⁴ Tons	Yard Trash Disposed in a Landfill ⁴ %	Total Unadjusted Recycling Credits Tons	Total Recycling Credits Unadjusted %	Total Adjusted Recycling Credits Tons	Total Recycling Credits Adjusted %
Miami-Dade	2,832,794	4,346,993	839,805	19%	19%	348,797	8%	0	0%	1,188,602	27%	1,188,602	27%
Broward	1,932,212	4,100,847	1,268,789	31%	31%	455,135	11%	0	0%	1,723,924	42%	1,723,924	42%
Hillsborough	1,478,759	3,046,624	1,497,968	49%	49%	437,130	14%	0	0%	1,935,098	64%	1,935,098	64%
Palm Beach	1,466,494	3,660,769	1,762,955	48%	48%	0	0%	47,719	1%	1,810,674	49%	1,810,674	49%
Orange	1,415,260	3,341,539	999,488	30%	30%	137,368	4%	0	0%	1,136,856	34%	1,136,856	34%
Pinellas	984,054	2,369,335	1,215,347	51%	51%	508,394	21%	0	0%	1,723,741	73%	1,850,840	78%
Duval	982,080	2,759,113	1,459,979	53%	53%	41,140	1%	0	0%	1,501,119	54%	1,511,404	55%
Lee	750,493	2,211,334	1,261,775	57%	57%	329,764	15%	0	0%	1,591,539	72%	1,673,980	76%
Polk	715,090	1,140,673	351,625	31%	31%	0	0%	0	0%	351,625	31%	351,625	31%
Brevard	606,671	1,806,404	1,076,381	60%	60%	37,762	2%	0	0%	1,114,143	62%	1,123,584	62%
Volusia	551,588	1,473,869	724,691	49%	49%	0	0%	0	0%	724,691	49%	724,691	49%
Pasco	542,638	1,131,874	417,437	37%	37%	226,194	20%	0	0%	643,631	57%	643,631	57%
Seminole	476,727	641,144	208,963	33%	33%	12,567	2%	0	0%	221,530	35%	221,530	35%
Sarasota	438,816	1,617,801	767,853	47%	47%	11,269	1%	0	0%	779,122	48%	779,122	48%
Manatee	398,503	1,087,791	693,785	64%	64%	7,360	1%	0	0%	701,145	64%	702,985	65%
Collier	387,450	1,670,569	1,169,920	70%	70%	55,041	3%	0	0%	1,224,961	73%	1,238,721	74%
Osceola	387,055	240,010	84,774	35%	35%	0	0%	0	0%	84,774	35%	84,774	35%
Marion	368,135	1,130,438	449,562	40%	40%	19,324	2%	0	0%	468,886	41%	468,886	41%
Lake	366,742	553,452	126,847	23%	23%	45,361	8%	0	0%	172,208	31%	172,208	31%
Escambia	323,714	693,586	244,470	35%	35%	21,122	3%	0	0%	265,592	38%	265,592	38%
St. Lucie	322,265	550,835	231,891	42%	42%	3,185	1%	0	0%	235,076	43%	235,076	43%
Leon	299,484	720,177	434,683	60%	60%	12,377	2%	0	0%	447,060	62%	450,154	63%
Alachua	271,588	560,035	205,725	37%	37%	47,152	8%	0	0%	252,877	45%	252,877	45%
St. Johns	261,900	525,341	149,529	28%	28%	0	0%	0	0%	149,529	28%	149,529	28%
Clay	219,575	255,077	49,512	19%	19%	0	0%	0	0%	49,512	19%	49,512	19%
Okaloosa	203,951	409,447	45,251	11%	11%	8,453	2%	0	0%	53,704	13%	53,704	13%
Hernando	192,186	252,616	77,882	31%	31%	12,092	5%	0	0%	89,974	36%	89,974	36%
Charlotte	187,904	1,004,809	776,359	77%	77%	0	0%	7005	1%	783,364	78%	783,364	78%
Santa Rosa	184,653	319,972	36,612	11%	11%	0	0%	0	0%	36,612	11%	36,612	11%
Bay	174,410	571,513	105,244	18%	18%	0	0%	0	0%	105,244	18%	105,244	18%
Martin	161,301	553,572	253,524	46%	46%	0	0%	0	0%	253,524	46%	253,524	46%
Indian River	158,834	471,750	248,061	53%	53%	0	0%	0	0%	248,061	53%	248,061	53%
Citrus	149,383	222,710	59,845	27%	27%	0	0%	0	0%	59,845	27%	59,845	27%
Sumter	141,422	147,264	72,824	49%	49%	5,660	4%	0	0%	78,484	53%	78,484	53%
Flagler	114,173	149,671	66,400	44%	44%	0	0%	0	0%	66,400	44%	66,400	44%
Highlands	104,834	145,357	41,696	29%	29%	0	0%	0	0%	41,696	29%	41,696	29%
Nassau	89,258	184,192	53,487	29%	29%	0	0%	0	0%	53,487	29%	53,487	29%
Monroe	77,823	266,542	119,029	45%	45%	31,801	12%	0	0%	150,830	57%	150,830	57%
Walton	74,724	176,923	13,456	8%	8%	0	0%	0	0%	13,456	8%	13,456	8%
Putnam	73,723	100,887	23,506	23%	23%	0	0%	0	0%	23,506	23%	23,506	23%
Columbia	70,617	106,178	39,643	37%	37%	0	0%	0	0%	39,643	37%	39,643	37%
Jackson	46,587	54,007	7,503	14%	14%	0	0%	0	0%	7,503	14%	7,503	14%
Gadsden	46,226	21,485	4,756	22%	22%	0	0%	0	0%	4,756	22%	4,756	22%
Suwannee	45,463	57,077	11,722	21%	21%	0	0%	0	0%	11,722	21%	11,722	21%
Okeechobee	42,112	59,409	13,463	23%	23%	0	0%	0	0%	13,463	23%	13,463	23%
Levy	41,699	30,850	2,573	8%	8%	0	0%	0	0%	2,573	8%	2,573	8%
Hendry	40,953	57,135	7,640	13%	13%	42	0%	0	0%	7,682	13%	7,682	13%
Desoto	37,082	45,095	6,612	15%	15%	0	0%	0	0%	6,612	15%	6,612	15%
Wakulla	33,981	17,940	2,551	14%	14%	0	0%	0	0%	2,551	14%	2,551	14%
Bradford	28,725	31,205	9,344	30%	30%	0	0%	0	0%	9,344	30%	9,344	30%
Baker	28,532	40,345	16,301	40%	40%	0	0%	0	0%	16,301	40%	16,301	40%
Hardee	27,443	24,873	3,654	15%	15%	0	0%	0	0%	3,654	15%	3,654	15%
Washington	25,334	41,114	3,504	9%	9%	0	0%	0	0%	3,504	9%	3,504	9%
Taylor	22,436	27,746	7,505	27%	27%	0	0%	0	0%	7,505	27%	7,505	27%
Holmes	20,001	6,990	1,108	16%	16%	0	0%	0	0%	1,108	16%	1,108	16%
Madison	18,954	22,877	5,552	24%	24%	0	0%	0	0%	5,552	24%	5,552	24%
Gilchrist	18,269	11,030	2,830	26%	26%	0	0%	0	0%	2,830	26%	2,830	26%
Dixie	16,663	13,074	64	0%	0%	0	0%	0	0%	64	0%	64	0%
Union	15,410	10,602	569	5%	5%	0	0%	0	0%	569	5%	569	5%
Gulf	14,724	18,019	2,277	13%	13%	0	0%	0	0%	2,277	13%	2,277	13%
Hamilton	14,570	4,360	426	10%	10%	0	0%	0	0%	426	10%	426	10%
Calhoun	14,489	21,722	2,524	12%	12%	0	0%	0	0%	2,524	12%	2,524	12%
Jefferson	14,394	13,256	344	3%	3%	0	0%	0	0%	344	3%	344	3%
Glades	13,609	38,365	65	0%	0%	0	0%	0	0%	65	0%	65	0%
Franklin	11,864	19,330	895	5%	5%	0	0%	0	0%	895	5%	895	5%
Lafayette	8,690	3,973	207	5%	5%	0	0%	0	0%	207	5%	207	5%
Liberty	8,575	3,351	222	7%	7%	0	0%	0	0%	222	7%	222	7%
State	21,596,068	47,414,263	19,840,784	42%	42%	2,814,489	6%	54,724	0.12%	22,709,997	48%	22,957,956	48%

¹County receives 1.25 renewable energy credits for reaching 50% traditional recycling rate.
²Excludes renewable energy and yard trash disposed in a landfill beneficially using landfill gas other than electricity.
³Includes yard trash disposed in a landfill beneficially using landfill gas.
⁴Beneficially using landfill gas for something other than electricity.

**Comparison of Total Tons of Construction Demolition Debris Managed in Florida
(2017-2018) by Descending Population**

County	2017			2018			Change in the Amount of C&D Disposed (tons)*
	C&D Debris Total (tons)	C&D Debris Recycled (tons)	C&D Debris Disposal (tons)	C&D Debris Total (tons)	C&D Debris Recycled (tons)	C&D Debris Disposal (tons)	
Miami-Dade	708,736	106,356	602,380	1,381,374	134,580	1,246,794	644,414
Broward	1,691,767	874,174	817,593	1,249,248	696,899	552,349	-265,244
Palm Beach	773,062	732,730	40,332	1,011,379	698,994	312,385	272,053
Hillsborough	753,217	654,136	99,081	790,916	503,534	287,382	188,301
Orange	1,029,746	460,145	569,601	1,075,666	631,884	443,782	-125,819
Pinellas	545,000	528,124	16,876	420,000	412,270	7,730	-9,146
Duval	1,371,828	873,991	497,837	1,547,458	1,076,406	471,052	-26,785
Lee	509,083	329,810	179,273	621,959	495,224	126,735	-52,538
Polk	279,064	30,191	248,873	200,891	76,814	124,077	-124,796
Brevard	407,865	255,794	152,071	409,570	253,752	155,818	3,747
Volusia	479,622	184,058	295,564	1,015,071	521,670	493,401	197,837
Pasco	443,223	190,016	253,207	562,475	255,251	307,224	54,017
Seminole	204,993	122,847	82,146	142,183	70,708	71,475	-10,671
Sarasota	331,096	280,850	50,246	354,371	301,937	52,434	2,188
Manatee	266,878	143,128	123,750	350,991	235,359	115,632	-8,118
Collier	436,612	264,371	172,241	733,301	371,311	361,990	189,749
Marion	126,106	71,022	55,084	215,027	58,603	156,424	101,340
Lake	82,098	86	82,012	242,005	40,787	201,218	119,206
Escambia	201,191	5596	195,595	214,683	132438	82,245	-113,350
St. Lucie	252,960	215,487	37,473	135,140	115,839	19,301	-18,172
Leon	141,104	114,691	26,413	449,391	375,253	74,138	47,725
Osceola	388,573	378,463	10,110	46,869	275	46,594	36,484
Alachua	392,962	312,790	80,172	416,434	369,208	47,226	-32,946
St. Johns	171,833	205	171,628	230,168	2099	228,069	56,441
Clay	22,275	1	22,274	83,582	1,354	82,228	59,954
Okaloosa	132,041	2893	129,148	117,339	2030	115,309	-13,839
Hernando	142,276	38025	104,251	55,146	14494	40,652	-63,599
Bay	69,342	15680	53,662	83,223	15	83,208	29,546
Charlotte	55,113	54,998	115	526,925	444,445	82,480	82,365
Santa Rosa	368,710	330146	38,564	35,435	15090	20,345	-18,219
Martin	91,566	71,117	20,449	89,542	70,679	18,863	-1,586
Indian River	280,430	205,064	75,366	240,315	226,321	13,994	-61,372
Citrus	26,603	26,068	535	102,000	36,467	65,533	64,998
Sumter	213,251	181,923	31,328	69,470	26,317	43,153	11,825
Flagler	2,018	39	1,979	51,350	32162	19,188	17,209
Highlands	36,692	35,045	1,647	43,445	36,924	6,521	4,874
Nassau	92,474	35,920	56,554	125,535	42,809	82,726	26,172
Monroe	266,967	216,967	50,000	268,322	214,279	54,043	4,043
Putnam	20,308	19	20,289	19,061	16	19,045	-1,244
Walton	15,401	16	15,385	8,946	0	8,946	-6,439
Columbia	32,037	0	32,037	4,823	0	4,823	-27,214
Jackson	4,371	0	4,371	9,833	0	9,833	5,462
Gadsden	808	215	593	2,683	63	2,620	2,027
Suwannee	3,817	0	3,817	5,893	501	5,392	1,575
Levy	3,268	0	3,268	1,840	3	1,837	-1,431
Hendry	6,959	0	6,959	3,737	0	3,737	-3,222
Okeechobee	12,031	0	12,031	4,430	0	4,430	-7,601
Desoto	3,073	302	2,771	65,593	1,339	64,254	61,483
Wakulla	1,476	611	865	778	0	778	-87
Bradford	1,524	113	1,411	1,565	113	1,452	41
Baker	1,132	29	1,103	1,140	1	1,139	36
Hardee	1,578	0	1,578	1,720	0	1,720	142
Washington	1,020	0	1,020	1,396	0	1,396	376
Holmes	1,095	0	1,095	283	0	283	-812
Taylor	277	0	277	17703	0	17,703	17,426
Madison	1,743	11	1,732	1,041	0	1,041	-691
Gilchrist	54	0	54	326	0	326	272
Dixie	3,273	0	3,273	758	0	758	-2,515
Union	3,985	0	3,985	675	9	666	-3,319
Calhoun	1,243	31	1,212	6,192	217	5,975	4,763
Jefferson	229	0	229	874	23	851	622
Hamilton	414	0	414	934	0	934	520
Gulf	1203	45	1,158	12530	0	12,530	11,372
Glades	711	2	709	930	0	930	221
Franklin	5,622	40	5,582	1,994	14	1,980	-3,602
Liberty	21	0	21	214	0	214	193
Lafayette	279	208	71	411	0	411	340
State	13,917,329	8,344,589	5,572,740	15,886,502	8,996,780	6,889,722	1,316,982

*A positive number indicates an increase in the amount of C&D disposed. A negative number indicates a decrease in the amount of C&D disposed.

Traditional County Recycling Credits in Florida By Adjusted Recycling Rate¹

County	Adjusted Recycling Rank	Population Rank	Population	Unadjusted Traditional Recycling Rate	Adjusted Traditional Recycling Rate ¹
Charlotte	1	28	187,904	77%	77%
Collier	2	16	387,450	70%	70%
Manatee	3	15	398,503	64%	64%
Leon	4	22	299,484	60%	60%
Brevard	4	10	606,671	60%	60%
Lee	6	8	750,493	57%	57%
Duval	7	7	982,080	53%	53%
Indian River	7	32	158,834	53%	53%
Pinellas	9	6	984,054	51%	51%
Sumter	10	34	141,422	49%	49%
Volusia	10	11	551,588	49%	49%
Hillsborough	10	4	1,466,494	49%	49%
Palm Beach	15	3	1,478,759	45%	45%
Sarasota	13	14	438,816	47%	47%
Martin	14	31	161,301	46%	46%
Monroe	15	38	77,823	45%	45%
Flagler	17	35	114,173	44%	44%
St. Lucie	18	21	322,265	42%	42%
Baker	19	51	28,532	40%	40%
Marion	19	18	368,135	40%	40%
Columbia	21	40	73,723	37%	37%
Pasco	21	12	542,638	37%	37%
Alachua	21	23	271,588	37%	37%
Osceola	24	17	387,055	35%	35%
Escambia	24	20	323,714	35%	35%
Seminole	26	13	476,727	33%	33%
Broward	27	2	1,932,212	31%	31%
Polk	27	9	715,090	31%	31%
Bradford	29	50	28,725	30%	30%
Orange	29	5	1,415,260	30%	30%
Nassau	31	37	89,258	29%	29%
Highlands	31	36	104,834	29%	29%
St. Johns	33	24	261,900	28%	28%
Citrus	34	33	149,383	27%	27%
Taylor	35	54	22,436	26%	26%
Gilchrist	35	57	18,269	26%	26%
Madison	37	56	18,954	24%	24%
Putnam	38	39	74,724	23%	23%
Lake	38	19	366,742	23%	23%
Okeechobee	38	47	40,953	23%	23%
Gadsden	41	43	46,226	22%	22%
Hernando	42	27	192,186	21%	21%
Suwannee	42	44	45,463	21%	21%
Clay	44	25	219,575	19%	19%
Miami-Dade	44	1	2,832,794	19%	19%
Bay	46	30	174,410	18%	18%
Holmes	47	55	20,001	16%	16%
Hardee	48	52	27,443	15%	15%
Desoto	48	48	37,082	15%	15%
Wakulla	50	49	33,981	14%	14%
Jackson	50	42	46,587	14%	14%
Hendry	52	46	41,699	13%	13%
Gulf	52	61	14,570	13%	13%
Calhoun	54	60	14,724	12%	12%
Santa Rosa	55	29	184,653	11%	11%
Okaloosa	55	26	203,951	11%	11%
Glades	55	64	13,609	11%	11%
Hamilton	58	63	14,394	10%	10%
Washington	59	53	25,334	9%	9%
Levy	60	45	42,112	8%	8%
Walton	60	41	70,617	8%	8%
Liberty	62	66	8,690	7%	7%
Union	63	59	15,410	5%	5%
Lafayette	63	67	8,575	5%	5%
Franklin	63	65	11,864	5%	5%
Jefferson	66	62	14,489	3%	3%
Dixie	67	58	16,663	0%	0%
State	N/A	N/A	21,596,068	42%	42%

¹Excludes renewable energy and yard trash disposed in a landfill beneficially using landfill gas other than electricity