



ONE CITY. ONE JACKSONVILLE.

City of Jacksonville, Florida

Lenny Curry, Mayor

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March 1, 2021

Mr. Tommy Hazouri, President
City Council, City of Jacksonville
117 West Duval Street
Jacksonville, Florida 32202

**Reference: Annual Recycling Report
City of Jacksonville
Fiscal Year 2019/2020**

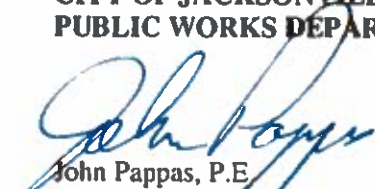
Council President Hazouri,

Attached please find the City of Jacksonville's Recycling Report as required to be submitted to the City Council per Ordinance 2020-700 and Municipal Code Section 380.512.

If you have any questions, please contact the undersigned at (904) 255-8748.

Sincerely,

**CITY OF JACKSONVILLE
PUBLIC WORKS DEPARTMENT**


John Pappas, P.E.
Director, Public Works Department


Eric B. Fuller
Environmental Programs Manager

cc: Cheryl L. Brown, Council Secretary



**CITY OF JACKSONVILLE
RECYCLING REPORT**

FISCAL YEAR 2019/2020

March 1, 2021

TABLE OF CONTENTS

Subject	Page
1.0 INTRODUCTION	1
2.0 SOLID WASTE MANAGEMENT AND SUMMARY OF RECYCLING SERVICES ...	1
3.0 RECYCLING COMPLIANCE AND INVESTMENT IN RECYCLING	2
4.0 REQUIRED ELEMENTS OF RECYCLING REPORT	3
4.1 All efforts undertaken by the City during the prior fiscal year to establish recycling of all materials that are financially attainable in the City	3
4.2 The number of written complaints pertaining to the recycling program.....	3
4.3 The statistics as to the number of materials recycled broken out by different types.....	4
4.4 The collaborative efforts undertaken by the City with third parties to maintain recycling within the City.....	4
4.5 The public education efforts undertaken by the City to encourage recycling of materials which are financially feasible within the City.....	5
4.6 The total expenditure of the City's recycling program	5
4.7 The performance standards utilized by the City to measure compliance with this part and the standards for recycling in City contracts.....	6
4.8 Recommendations for improvements to the Recycling Program.....	6
4.9 Certification that the City is using best practices in its recycling program.....	6
5.0 CONCLUSIONS.....	7

**CITY OF JACKSONVILLE RECYCLING REPORT
JACKSONVILLE, DUVAL COUNTY, FLORIDA
FISCAL YEAR 2019/2020**

1.0 INTRODUCTION

Ordinance 2020-700-E was enacted by City Council on January 12, 2021 which created a new Municipal Code Section 380.512 (Annual Report), to Part 5 (Recycling Program), Chapter 380 (Solid Waste Management). Code Section 380.512 requires the Director of the Public Works Department to submit an annual report to the City Council concerning the City's recycling program. The recycling report is required to be filed on or before March 1 of each calendar year and shall summarize activities related to the recycling program during the previous fiscal year.

The information contained in the recycling report is required to include, but not be limited to, the following information:

- All efforts undertaken by the City during the prior fiscal year to establish recycling of all materials that are financially attainable in the City;
- The number of written complaints pertaining to the recycling program submitted to the City during the prior fiscal year;
- The statistics as to the number of materials recycled broken out by different types (i.e. plastic, glass, cardboard, etc.);
- The collaborative efforts undertaken by the City with third parties to maintain recycling within the City;
- The public education efforts undertaken by the City to encourage recycling of materials which are financially feasible within the City;
- The total expenditure of the City's recycling program including the revenues received from the sale of recycling materials, costs incurred to dispose of materials that were put in the recycling stream but were not recyclable, estimated savings that the recycling program provides to the City by reducing materials that are landfilled, overall costs of the collection of recyclables, and any other significant costs or savings attributable to the recycling program;
- The performance standards utilized by the City to measure compliance with this part and with standards for recycling in City contracts;
- Recommendations for improvement to the recycling program;
- Certification that the City is using the best practices in its recycling program; and,
- Any other information requested by Council or considered significant by the Director.

2.0 SOLID WASTE MANAGEMENT AND SUMMARY OF RECYCLING SERVICES

The City of Jacksonville provides single stream recycling for residents that is picked up 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 by weight.

The majority of yard trash generated in the City of Jacksonville is collected curbside from residents and taken to Trail Ridge Landfill where it is currently mulched, mixed with soils 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 rate by weight. The use of yard trash as daily cover saves the City 50% of borrow pit soils that would have been used as daily cover. The City generates an average of approximately 92,000 tons of curbside residential yard trash annually.

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 Liberty Tire Recycling in Rockledge, Florida 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 taken to Liberty Tire Recycling for recycling.

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.

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 up to 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.

The City of Jacksonville 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.

3.0 RECYCLING COMPLIANCE AND INVESTMENT IN RECYCLING

City of Jacksonville Ordinance Section 380, Part 5 makes residential recycling mandatory. Seven employees including four compliance inspectors, two coordinators and a manager 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. All recycling collections are single stream recycling in City-owned containers between 64 and 96 gallons in size.

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.

4.0 REQUIRED ELEMENTS OF RECYCLING REPORT

Ordinance 2020-700-E, enacted by City Council on January 12, 2021, created a new Municipal Code Section 380.512 which requires the following elements to be addressed in the report submitted to Council.

4.1 All efforts undertaken by the City during the prior fiscal year to establish recycling of all materials that are financially attainable in the City

The City of Jacksonville has a contract with Republic Services of Florida to process, separate and sell curbside recyclables. This contract runs through September 30, 2022 with two, 1-year renewal options. The contract establishes a list of program recyclables acceptable to be placed in the curbside recycling cart. These items include 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. Items that are not part of the program recyclables because they do not have a market or cannot be effectively processed include #4 plastics such as plastic bags, cling wrap and other "flexible plastics", #6 plastics such as Styrofoam, packing peanuts and plastic cutlery, shredded paper, rubber and aerosol cans. The City maintains communications with Republic Services regarding the program recyclables and the market conditions of recyclable items.

4.2 The number of written complaints pertaining to the recycling program

Complaints regarding the recycling program are mostly entered online through the City's "MyJax" Customer Relationship Management System, by calling 630-CITY or by contacting City officials or the Solid Waste Division directly. When complaints related to a hauler issue are entered into the system, the issue goes directly to both the Solid Waste Division and the appropriate hauler for the area of the complaint.

Complaints related to recycling typically fall under the following categories:

- Damaged or Missing Recycling Carts
- Improper Placement of a Recycling Cart (ex. cart not placed back in same location after it was emptied)
- Improper Setout (cart not set out on proper day or in a proper manner)
- Messy Collection
- Missed Collection – Entire Street
- Missed Collection – Individual Premise

The below table summarizes the complaints received for FY19/20 (October 1, 2019 – September 30, 2020).

Recycling Issues	ADVANCED DISPOSAL	REPUBLIC SERVICES	WASTE PRO	COJ SOLID WASTE	SW Compliance	Grand Total
Cart	591	2,620	453	529		4,193
Damaged	92	2,304	180	51		2,627
Missing	499	316	273	478		1,566
Improper Placement	15	20	23	20	2	80
Improper Setout	0	0	0	0	124	124
Messy Collection	63	144	165	16		388
Missed Collection	1,840	6,322	3,738	758		12,658
Entire Street	957	4,294	2,102	225		7,578
My House	883	2,028	1,636	533		5,080
Grand Total	2,509	9,106	4,379	1,323	126	17,443
 Premise Count	 73,982	 77,195	 77,583	 51,393		
 Square Miles Serviced	 311	 293	 182	 52		
 Recycle Service Events per Year	 26	 26	 26	 26		
Total # of Collections per year	1,923,532	2,007,070	2,017,158	1,336,218		

4.3 The statistics as to the number of materials recycled broken out by different types

In accordance with the contract with Republic Services of Florida and as detailed in the Request for Proposal document, a composition study of the City recyclables was conducted to determine the different types and quantities of recyclables within the curbside collections. The composition study was conducted over three days (Monday, Wednesday and Friday) and each day it consisted of two loads from each hauler. During FY19/20, 48,279.52 tons of recyclables were collected curbside. The main composition of the recyclables consisted of 20,102.63 tons of fiber/paper; 4,721.25 tons of plastics; 11,764.27 tons of glass; 2,239.69 tons of metals; and 9,410.64 tons of non-program recyclables (contamination). A breakdown of the recyclables by specific commodity is provided in Table 1.

4.4 The collaborative efforts undertaken by the City with third parties to maintain recycling within the City

The City of Jacksonville has not historically collaborated with third parties related to the City's recycling program. The maintenance and collaboration efforts related to the recycling program have typically been done internally with our Public Works Department, Public Affairs Office, Mayor's Office and our contract recycling processor, Republic Services. The City has recently (2021) been in discussions with the Florida

Beverage Association and The Recycling Partnership about ways we can collaborate and improve recycling efforts and increase recycling participation.

4.5 The public education efforts undertaken by the City to encourage recycling of materials which are financially feasible within the City

The City of Jacksonville education efforts involve maintenance and updating the City's website, electronic media outreach through our Public Affairs Office and Mayor's office, informational mailers to residences, and educational efforts done as part of compliance work. The City's website provides a pathway for residents to get information about the City's recycling program (coj.net, search "recycle"). Videos indicating proper recycling and blogs are occasionally posted on the City's website related to the recycling program. Calendars are mailed to residents annually or every other year and provide recycling information along with their collection schedule. During solid waste compliance efforts and when a new cart is issued, a flyer is given to residents which outlines the proper methods of solid waste disposal and recycling. Compliance flyers detailing proper solid waste and recycling standards are also shared with various groups such as the Blight Office, Clean It Up Green It Up, City Hall reception/information desk and the CRM call center. The Public Works Department and the Public Affairs Office is also researching and working with the Information Technologies Division (ITD) on the creation of a mobile application (App) that can be utilized to determine proper recycling or disposal methods by material type. This is similar to the Waste Wizard App utilized by the City of Atlanta where you enter in a material type and it displays recycling or disposal instructions. This App can also provide collection schedules based on address.

The City's subcontract recycling facility, Republic Services of Florida, has also done significant outreach into the community, including appearing on local television news stations to discuss recycling, hosting field trips for schools and community groups, maintaining their own website, www.recyclingsimplified.com, participating in America Recycles Day and a paper shredding event with the City's Keep Jacksonville Beautiful group, and adding recycling displays during a reclaimed art exhibit/Art Walk.

4.6 The total expenditure of the City's recycling program

The City of Jacksonville's major costs to the recycling program come from the collection and processing of the curbside materials. Revenues or cost savings of the recycling program mainly come from the sale of recyclables and air space savings from diverting waste to the landfill. The City and its three subcontract haulers collect recyclables every other week (26 times per year) for a total of 280,153 premises. The City pays Republic Services \$53.83 per ton to process and sell the curbside materials and also pays disposal costs for non-recyclable materials received at the facility in excess of 10% by weight.

Expenditures:

- Collections (includes fuel, carts) - \$6,055,158.00
- Processing Fee (48,279.52 tons) - \$2,598,886.56
- Contaminant Disposal (>10% non-recyclables) - \$74,749.99

Revenues:

- 50% of sale of recyclables - \$1,174,896.02

Savings:

- Tons Diverted from Landfill (38,868.88 tons) - \$822,776.45 in landfill air space

The collections costs above are based on audited financial reports received from our contract haulers from fiscal year 2018/19 and actual City costs for the core area based on 13% of collection costs (13% is the average percentage of allocated cost from our three subcontract haulers to recycling collections). The subcontract haulers' audited reports are due to the City annually by March 1 of each calendar year and the audited collections expenses for FY19/20 have not yet been received. The value of the landfill space was determined based on an estimated 0.85 tons per cubic yard of landfill space and an estimated value of \$18 per cubic yard of air space. A summary of the costs associated with the processing and sale of recyclables, including a breakdown of sale amount by material type, is provided as Table 1.

4.7 The performance standards utilized by the City to measure compliance with this part and the standards for recycling in City contracts

Recycling in the City of Jacksonville is covered by Municipal Code Section 380, Part 5. Collection standards and requirements of the three subcontract haulers are governed by their individual contracts. The processing and sale of recyclables is governed by the terms of the contract with Republic Services of Florida.

4.8 Recommendations for improvements to the Recycling Program

The City of Jacksonville offers an expansive recycling program to its residents. There does not appear to be a need for an expansion of the current services being offered. The single stream recycling methodology has been a success in terms of producing a larger volume of recyclables; however, it has also resulted in unattended consequences such as increased "contamination" of the recycling stream due to the amounts of non-recyclables being collected and also some residents utilizing their recycling cart as a garbage can. Increased outreach, education and compliance efforts are recommended to increase participation in the recycling program and encourage the proper recycling (or disposal) of materials. The City has already embarked on these efforts with initial conversions with the Florida Beverage Association and The Recycling Partnership on ways to improve the recycling program and also developmental talks with our ITD on the creation of an App to assist residents in proper recycling procedures. Republic Services also conducts outreach efforts and plans to have school field trips and recycling center tours continue once it is deemed safe to do so with COVID-19.

The market for the sale of recyclables was positive for all commodities in FY19/20 with the exception of aseptic cartons and glass. The City monitors the commodity sales market of its program recyclables. Glass has had a steady down market over the past several years and it is an item that we must pay for a recycler to pick up. Glass is a traditional recyclable material and it is likely that it would be very difficult for it to be completely removed from the recycling stream without a significant media and outreach campaign. The City of Jacksonville will continue to monitor the list of program recyclables but is not recommending a change in these items at this time.

4.9 Certification that the City is using best practices in its recycling program

The Department of Public Works, City of Jacksonville, certifies it is using best management practices in its recycling program.

5.0 CONCLUSIONS

The City of Jacksonville has expansive recycling programs currently in place offering single stream recycling of a large variety of recoverable materials, yard trash recycling, tire recycling, appliance recycling and household hazardous waste collection and recycling. These recycling programs should be viewed as a substantial effort and commitment by the City of Jacksonville to recycling. The Public Works Department continually monitors the recycling program and looks for ways to improve. A focus on outreach and education are planned for the upcoming year to increase participation and reduce recycling contamination.

TABLE 1

TABLE 1: PROCESSING AND SALE OF RECYCLABLES

FY19_20 Total Tons Received and Processed

48,279.52

Material Value						
Type	Commodity	Composite %	Actual	Index Description	Composite Tons	Total Value
Fiber	CORRUGATED CONTAINERS	12.427%	Rate Sold	S/Ton, PS II baled, F.O.B. seller's dock	5,999.70	\$ 476,944.95
Fiber	SOFT MIXED PAPER	28.972%	Rate Sold	S/Ton, PS I baled, F.O.B. seller's dock	13,987.54	\$ 164,943.50
Fiber	ASEPTIC CARTONS	0.239%	Rate Sold	S/Ton, PS 52 baled, F.O.B. seller's dock	115.39	\$ (798.60)
Plastic	PET	5.295%	Rate Sold	Cents/lb, baled and picked up	2,556.40	\$ 437,619.43
Plastic	Natural HDPE	1.149%	Rate Sold	Cents/lb, baled and picked up	554.73	\$ 563,284.65
Plastic	Colored HDPE	1.650%	Rate Sold	Cents/lb, baled and picked up	796.61	\$ 181,218.60
Plastic	COMMINGLED PLASTICS # 3-7	0.778%	Rate Sold	Commingled (#3-7), cents/lb, baled and picked up	375.61	\$ 45,655.33
Plastic	MIXED BULKY RIGID	0.907%	Rate Sold	Cents/lb, baled and picked up	437.90	\$ 5,518.89
Glass	GLASS (3 MIX)	24.367%	Rate Sold	S/Ton, delivered	11,764.27	\$ (103,678.16)
Metal	STEEL CANS	1.971%	Rate Sold	S/Ton, sorted, baled and picked up	951.59	\$ 66,072.73
Metal	ALUMINUM CANS	1.007%	Rate Sold	cents/lb, sorted, baled and picked up	486.17	\$ 465,170.49
Metal	METAL SCRAP	1.661%	Rate Sold	Not on Index (Index Value = Actual Rebate)	801.92	\$ 47,840.21
Non-Recyclables	RESIDUAL	19.492%	N/A	Not on Index	9,410.64	
					48,238.48	\$ 2,349,792.03
					99.915%	

FY 19_20 Total Recycle Processing Expense 48,279.52 tons \$53.83 per ton \$2,598,886.56
 FY 19_20 Total Residual Disposal Expense (>10%) 48,279.52 tons 0.09492 4,582.69 tons
 FY 19_20 Total Recycle Revenue (50% of sales) \$2,349,792.03 0.5 \$1,174,896.02

* = Because of COVID-19 tipping fee waiver at Trail Ridge for six months, actual residual disposal cost was \$74,749.99

Total City Cost of Processing, Residual Disposal and Sales = \$2,598,886.56 + \$74,749.99 - \$1,174,896.02 = \$1,498,740.53