

A large, stylized orange fruit with green leaves is positioned on the left side of the slide. The orange is a vibrant orange color with a textured surface. The leaves are a bright green color with white veins. The fruit and leaves are partially overlapping the title text.

# **Orange County Recycling**

**A little bit about public-private partnerships**

**David Gregory  
Solid Waste Division Manager**

**METRA  
October 17, 2019**

# Overview

1. Recycling and Waste Overview – Role of Public and Private Sectors
2. Issues Affecting Recycling Industry
3. Orange County Environmental Initiatives
4. Recycling Improvement Activities
5. Public-private partnership for new materials recovery facility
6. Recycling Quality Improvement Program
7. Public-Public Partnerships



# Recycling and Waste Overview

## How much waste and recycling in Orange County? (DEP Annual Reports)

- 3,653,664 tons total
- 1,307,251 tons recycled – 34%, or 42 % with LFG
- 2,346,413 tons disposed

### DEP certified recycling values

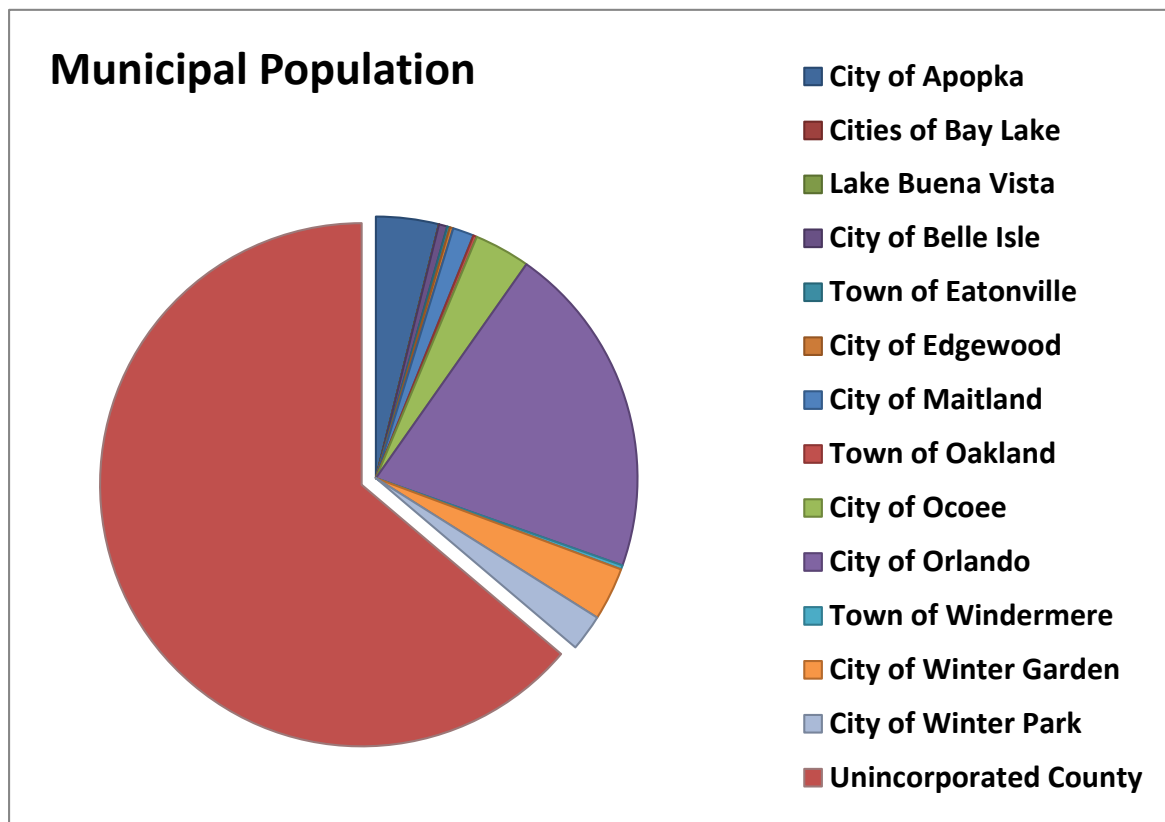
- C&D debris – 233,315 tons
- Corrugated cardboard – 89,724 tons
- Ferrous metal – 88,255 tons
- Paper – 95,034 tons



# Recycling and Waste Overview

## Who Manages Collection?

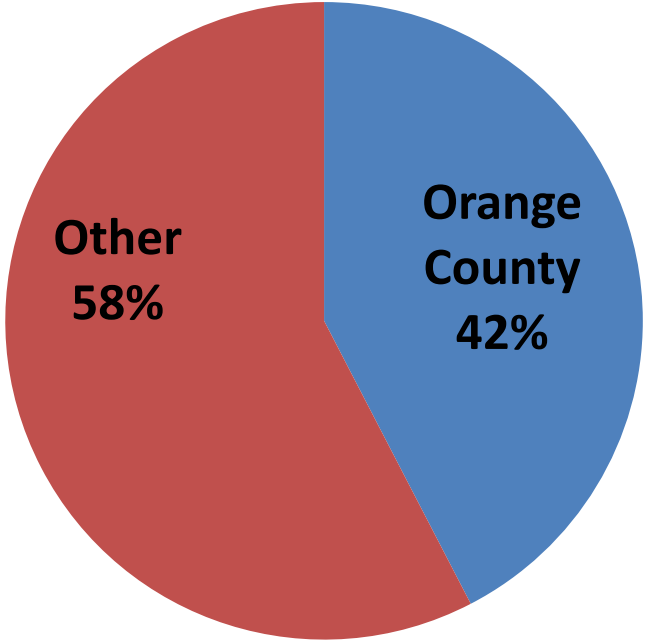
- 13 incorporated municipalities\*
- Unincorporated County
- Different management approaches



# Recycling and Waste Overview

## Who Manages Disposal?

Waste Type	Orange County	Other	Total
Class I	669,000	613,000	1,282,000
Class III	353,000	388,000	741,000
C&D		388,000	388,000
Total	1,022,000	1,389,000	2,411,000



# Recycling and Waste Overview

## Who Manages Recycling?

- Private companies direct recycling of their materials
- Multiple companies competing to collect and process
  - Report to state – Certified recycling values
- Local governments cannot direct where recycling goes
- Local governments do collect (or contract) mostly residential

# Factors Affecting Recycling

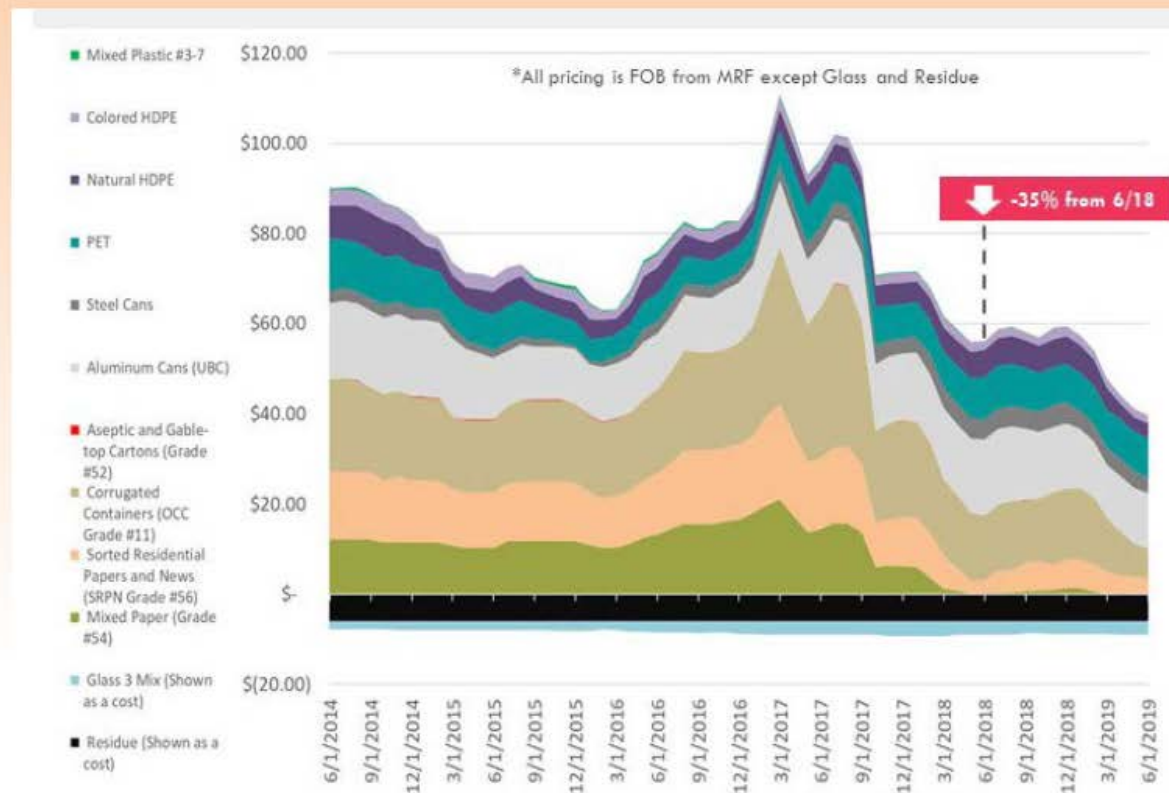
- Evolving and volatile global markets affects pricing
- Advancements in recovery technologies
- Unmanaged material contamination affects all parties
- Ocean garbage patches impact public perception





# MARKETS: 25-YR. LOW IN GOOD ECONOMY - \$30.57/T INDEX ACR (\$44.60 MT CAN) >50% since Last Year

- 53% lower than 5-Year average;  
70% lower than June 2017
- Dropped in value every month 2019 - 40%
- OCC/Aluminum/PE decreases in 2019
- Metals and Plastic make up 75% of Current Value-  
7.5% of the stream





# Orange County Environmental Initiatives

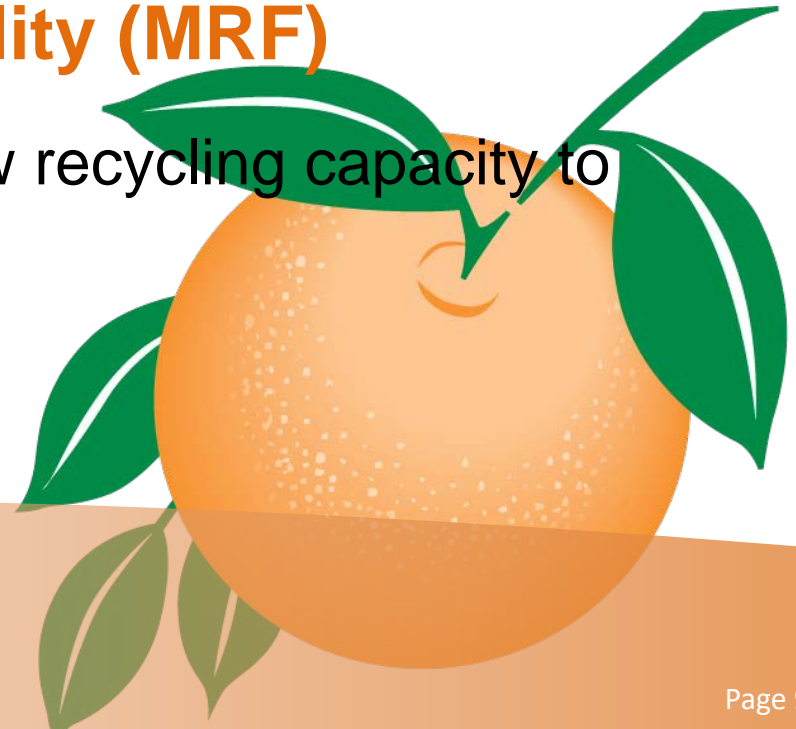
Mayor Demings has identified multiple goals including:

## Address Smart Growth and Transportation

- Mayors Transportation Initiative

## New Materials Recycling Facility (MRF)

- Multifaceted initiative to bring new recycling capacity to Orange County



# Mayor's Transportation Initiative

[www.ocfl.net/transportation](http://www.ocfl.net/transportation)



# Transportation Funding Sources

**Gas Tax**

**Impact  
Fees**

**Restricted  
Sources**

**Property  
Tax**

**Sales Tax**



# How is this TRANSPORTATION funding currently used?



# Charter County and Regional Transportation System Surtax

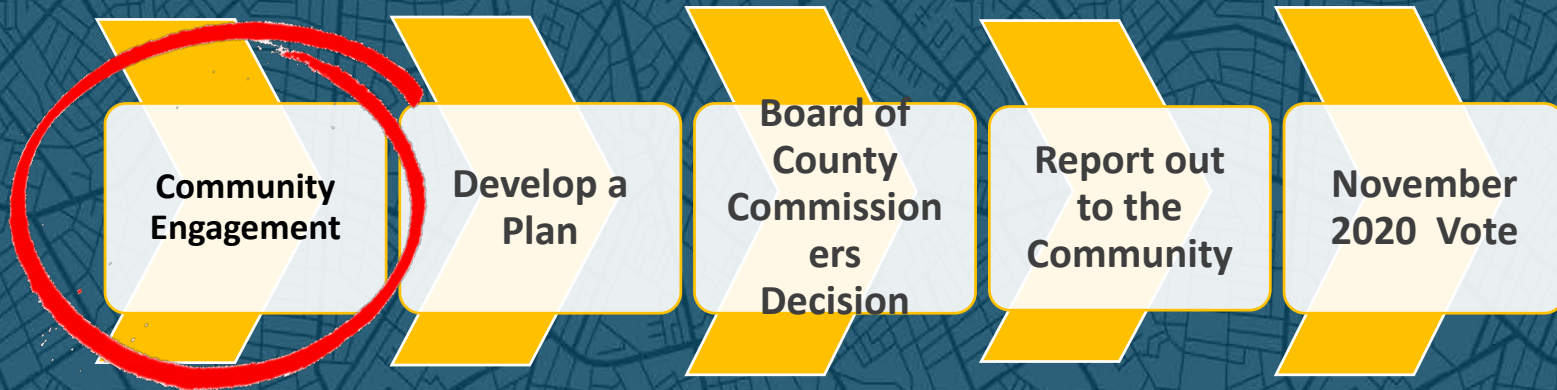
- Estimated revenues generated - \$596M annually \*
- Flexible use (Capital and O&M)
- Non-residents/tourists pay 51%
- Would not apply to essential grocery items, prescription drugs, medical supplies, and utilities



\*Updated estimates by Florida Department of Revenue-  
September 27, 2019



# Process





Mayor Demings Needs Your Input on the Future  
of Transportation in Orange County

## TRANSPORTATION



# TOWN HALL MEETINGS

### TOWN HALL DISTRICT 4

October 17, 2019 • 6:30 p.m.

Renaissance Community  
Senior Center  
3800 S. Eonlockhatchee Trail  
Orlando, FL 32829

### TOWN HALL DISTRICT 6

November 19, 2019 • 6:30 p.m.

Barnett Park Gymnasium  
4801 W. Colonial Drive  
Orlando, FL 32808

### TOWN HALL DISTRICT 2

December 5, 2019 • 6:30 p.m.

Wekiva High School  
2501 N. Hiwassee Road  
Apopka, FL 32703

### TOWN HALL DISTRICT 1

December 10, 2019 • 6:30 p.m.

West Orange  
Recreation Center  
309 S. West Crown Point Road  
Winter Garden, FL 34787



Covered topics will include:

- Public Transportation
- Congested Roads
- Pedestrian Crossings
- Street Lights & Technology

**Provide Your Input!**

For more information and to take a brief online survey,  
visit [www.ocfl.net/Transportation](http://www.ocfl.net/Transportation)

#OCFLTransportation

We need your input on the future of  
Orange County's transportation!



Take a brief survey and learn more  
about transportation:  
[www.ocfl.net/Transportation](http://www.ocfl.net/Transportation)



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## TRANSPORTATION INITIATIVE

Mayor Demings Wants Your Input



Fast Facts

Meetings

Newsroom

### Overview

Each week, nearly 1,000 residents move to Central Florida. This presents challenges in providing proper roads, infrastructure, mass transit, sidewalks, etc.

At the [2019 State of the County](#), Mayor Demings announced pursuing a transportation sales tax referendum in November 2020.

For Phase I of this initiative, Mayor Demings is asking for your input by participating in upcoming community meetings and Transportation surveys. Orange County's 1.35 million residents have unique transportation needs and we want to hear from you where they reside in the County – and we want to hear from you.

Over the next several months, Orange County is holding public workshops to gain input from community stakeholders, learn the priorities of residents, businesses and local leaders, and build towards a long-term solution that works for everyone.

From these community meetings, Orange County will gather feedback and develop a proposed plan to improve transportation in our community.

### Upcoming Transportation Community Town Hall Meetings

Transportation Town Hall Meeting in District 5  
October 3, 2019 | 6:30 P.M. - 8 P.M. (Doors Open at 6 P.M.)  
Goldenrod Recreation Center / Goldenrod Park  
4863 N. Goldenrod Road Winter Park, FL 32792

### Attend

Join Mayor Demings and Commissioner Bonilla for the upcoming meeting and provide your input on transportation in Orange County.

[RSVP to Attend](#)

*Provide Your Input!*

[Take the Survey](#)



# Mayor's Transportation Initiative

[www.ocfl.net/transportation](http://www.ocfl.net/transportation)



# New Materials Recycling Facility

**Mayor Demings' Transition Team Sustainability and Smart Growth Task Force short term action:**

***“Collaborate with the City of Orlando and other jurisdictions on the upcoming Materials Recovery Facility (MRF) Request for Proposals (RFP) with a goal of partnering with a private entity to significantly improve recycling and waste diversion processes and equipment.”***

## Cultural Goals

- Innovative
- Collaborative
- Inclusive

## Key Questions

- Benefits
- Costs/savings
- Impacts

# Recycling Improvement Activities

## What is needed to improve recycling in Orange County?

1. Public-private partnership for a new MRF
2. Recycling Quality Improvement Program
3. Public-Public partnerships to support new MRF



# Public-Private Partnership for a New MRF

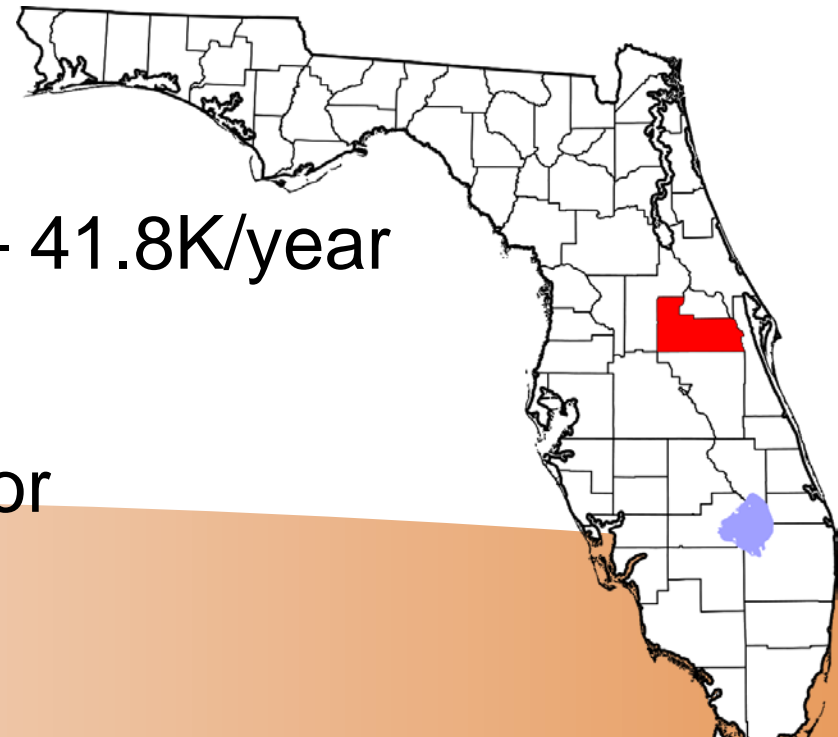
- 1990 County adopted recycling ordinance and Financed construction of MRF with contract operations
- 2004 MRF upgrades made
- Currently under contract extensions
- MRF operated as a transfer station
- Materials shipped out of County for processing





# Public-Private Partnership for a New MRF

- Looking for private partner to design, build, own, operate, and finance new MRF
- The 5th most populous county in Florida
- 1.4 million residents (projected 3% annual growth rate)
- Low unemployment 2.8%
- Nation's highest job growth – 41.8K/year
- 70 million visitors each year
- Situated along the I-4 Corridor



# Public-Private Partnership for a New MRF

**Request for Information – June 2019**  
22 responses



**Market Sounding Event – July 2019**  
90 attendees, 21 processing companies



**Request for Proposals**  
**Currently under development**

# Key Findings – Industry Perspective

- Significant industry interest in MRF project (design, build, own, operate)
- Risk sharing is necessary for a successful public-private partnership
  - Fairly and transparently address inbound load contamination and composition
  - Fairly apportion impacts of commodity market value changes
  - Fixed processing fee, mark-up for inbound contamination, share revenues to offset processing fees
- More tonnage will lower cost
- Term of contract must be long enough to recover investment – 20 years
- Industry interest in upgrading/expanding existing MRF or developing new MRF onsite
- Allowing merchant tonnage will attract processors
- New MRF will take 18 to 36 months to construct

# IMPACTS: NET PROCESSING FEES UP 40% IN 2 Years

June 2019

City	State	Date	Processing Fee	Parties to Agreement
North Lauderdale	FL	6/26/18	\$96/ton	North Lauderdale, WM
St. Petersburg	FL	6/9/2019	\$90/ton	WCX/St. Petersburg
DeBary	FL	8/1/18	\$80-120/ton	DeBary, Waste Pro
DeLand	FL	Sept. 2018	\$80/ton	DeLand, Gel Recycling
Deltona	FL	1/8/19	\$77.50/ton	Deltona, Waste Pro
Ormond Beach	FL	Sept. 2018	\$77.50/ton	Ormond Beach, Waste Pro
Sunrise	FL	7/20/18	\$100/ton	Sunrise, WM
Volusia County	FL	Sept. 2018	\$80/ton	Volusia County, Gel Recycling
Baltimore	MD	6/20/18	\$82.93/ton	Baltimore, WM
Gouldsboro	ME	7/31/18	\$140/ton	Gouldsboro, Casella
Kennebunkport	ME	3/13/19	\$211-276/ton	Unknown
Westland	MI	3/4/19	\$80/ton	Westland, ReCommunity
Kirkwood	MO	9/7/18	\$115/ton	Kirkwood, Republic Services
Harrisburg	PA	12/6/18	\$35/ton	Harrisburg, Penn Waste
Philadelphia	PA	11/28/18	\$170/ton	Philadelphia, Republic Services
Milwaukee	WI	5/15/19	\$53.89/ton, 80-20 Rev. Share	Milwaukee, ReCommunity

# Public-Private Partnership for a New MRF

## P3 Success Factors

- Multi-jurisdictional partners
- Economies of scale
- Optimize competitive pricing
- Proper risk allocation
- Fair contract terms
- Incorporate best practices
- Consistent, clean feedstock

# Public-Private Partnership for a New MRF

## Next Steps

- Continue development of RFP – evaluate and revise timeline (issue RFP by end of calendar year)
- Assess issues related to transition period
- Assure awareness of the project

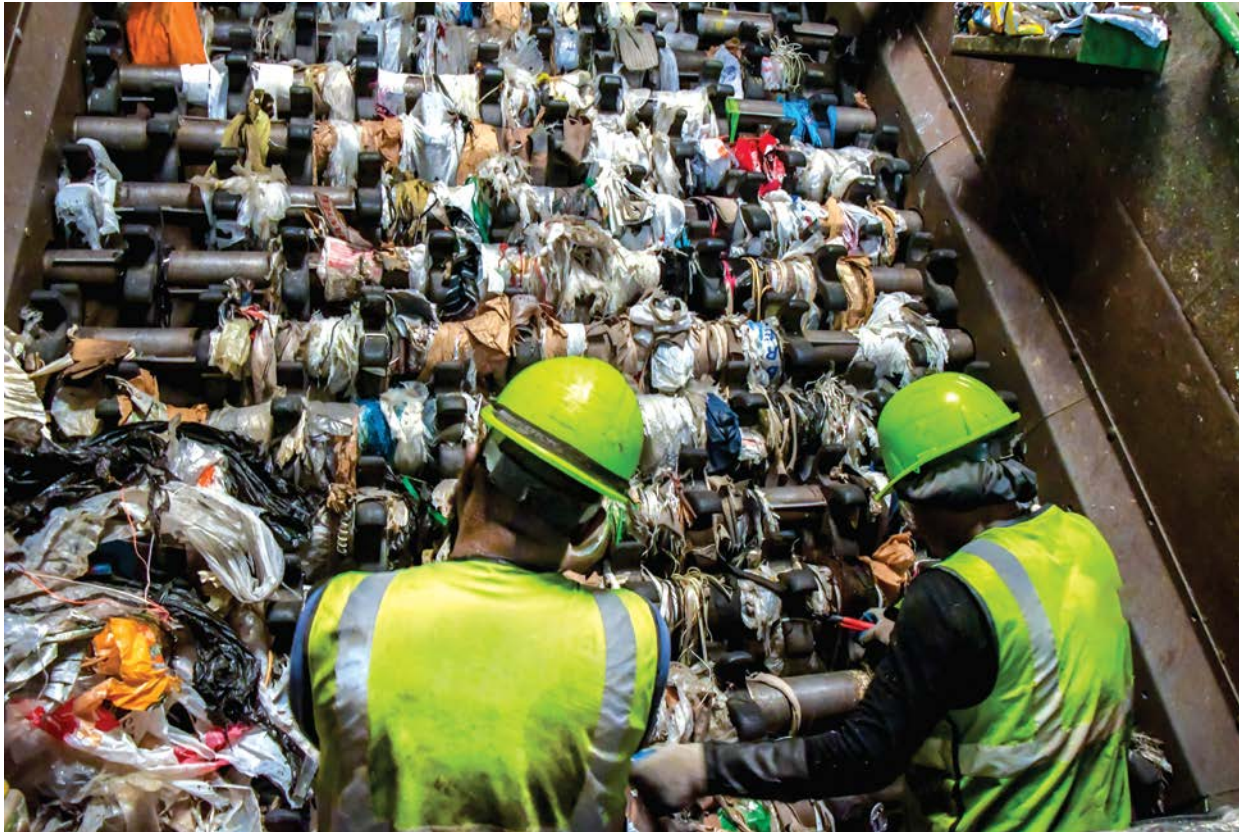


# Recycling Quality Improvement Program



The source of some slides in this section is The Recycling Partnership

# Recycling Quality Improvement Program





# RESIDENTIAL RECYCLING COMPOSITION



Material Components	Mean Composition
<b>PROGRAM ACCEPTED MATERIALS</b>	<b>62.1%</b>
<b>PAPER</b>	
Corrugated Cardboard/Paper Bags	17.8%
Paperboard/Chipboard/Pasteboard	7.3%
Newspaper	6.3%
Office Paper/Junk Mail	5.7%
Magazines/Catalogs	5.3%
Polycoated/Aseptic Containers	0.5%
Phone Books	<0.1%
Food Service Packaging	0.4%
<b>Total Paper</b>	<b>43.3%</b>
<b>PLASTIC</b>	
#1 PET Bottles (with neck)	4.6%
#1 PET Containers/Tubs (no neck)	0.3%
#2 HDPE Bottles (with neck)	2.5%
#2 HDPE Containers/Tubs (no neck)	0.4%
#3-#7 Bottles and Containers (neck/no neck)	1.7%
<b>Total Plastic</b>	<b>9.5%</b>
<b>METAL</b>	
Aluminum Containers	1.2%
Ferrous and Non-Aluminum Metal Containers	2.0%
Aerosol Cans	0.3%
<b>Total Metal</b>	<b>3.5%</b>
<b>GLASS</b>	
Glass Containers (clear, brown, green)	5.8%
<b>Total Glass</b>	<b>5.8%</b>

# RESIDENTIAL RECYCLING COMPOSITION

## (continued)



\* Fines were defined as materials two inches in diameter or less; a significant portion of the weight of fines within the study samples was crushed glass.

Material Components	Mean Composition
<b>NON-PROGRAM MATERIALS</b>	<b>37.9%</b>
<b>PLASTIC</b>	
Plastic - Bags/Film	3.1%
Plastic - Expanded Polystyrene	0.5%
Plastic - Other (bulky, toys)	4.0%
<b>Total Plastic Contamination</b>	<b>7.6%</b>
<b>OTHER</b>	
Paper - Non-Marketable (coated, soiled)	2.3%
Textiles/Clothing	3.8%
Electronics	0.8%
Green Waste/Wood	2.3%
Tanglers (hoses, cables, wires, cords)	1.0%
Fines (materials <2 inches in diameter) *	13.1%
Other Non-Program Items	7.0%
<b>Total Other Contamination</b>	<b>30.3%</b>
	<b>100%</b>



# PLEASE RECYCLE



## Plastic

Bottles and containers labeled #1 - #5



## Metal

Tin, aluminum, steel, and empty aerosol cans



## Glass

Bottles and jars



## Cardboard

Flattened corrugated boxes



## Paper

Newspapers, paper bags, junk mail, magazines, office/note paper, phone books, drink boxes, cereal/shoe boxes, milk/juice cartons, and catalogs





# COMMON RECYCLING CART CONTAMINANTS





# Orange County SPC/Coke Grant

## *Catalyzing Lasting Recycling Improvements in Florida*

### **Feet on the Street – Orange County**

- Pre and post measurement for contamination – composition studies
- In-home mailer to all households
- Tagging 36,000 households in 12 weeks

### **Workshop – Orange County**

- November 20, 2019
- Contracts and tagging
- Mini-grants

### **How2Recycle – Orlando**

- Testing of the How2Recycle label
- In-home recycling totes and magnets
- Consumer research - survey



# Orange County Materials



THANK YOU FOR RECYCLING THESE:

Empty & dry items only in the recycling cart | Solo artículos vacíos y secos en el contenedor de reciclaje



**Plastic**  
Plástico



**Bottles & containers #1-5**

Botellas y contenedores marcados #1-5



**Metal**  
Latas/Botes



**Metal, tin, steel, aluminum & empty aerosol cans**

Hojalata, aluminio, acero, y de aerosol vacías



**Glass**  
Vidrio



**Bottles & jars**

Botellas y jarras de vidrio



**Cardboard**  
Cartón



**Cardboard boxes (flattened)**

Cajas de cartón aplanar



**Paper**  
Papel



**Junk mail & paperboard (cereal & shoe boxes)**

Incluye correo basura y cartón por ejemplo, cajas de cereales y de zapatos

**NO!**



**DO NOT bag recyclables (leave items loose)**

NO coloque los reciclables en bolsas (deje los artículos sueltos)



**NO plastic bags**

NO incluya bolsas de plástico



**NO food or liquid (empty all containers)**

NO incluya alimentos o líquidos (vacíe todos los contenedores)



**NO pizza boxes**

NO incluya cajas de pizza



**NO foam**

NO poliestireno

TO LEARN MORE, visit [www.ocfl.net/recycles](http://www.ocfl.net/recycles) or call 407-836-6601



**GREAT JOB!**



Items checked were in the cart. Please keep all non-recyclables out.



Do not bag recyclables (leave items loose)



No food or liquid (empty all containers)



NO cords, hoses, chains or electronics



No yard waste



Think 5 and recycle only plastic bottles and containers, metal cans, glass bottles and jars, cardboard and paper.

**Keep up the good work!**

[www.ocfl.net/recycles](http://www.ocfl.net/recycles)  
407-836-6601

WHEN IN DOUBT, LEAVE IT OUT!



**OOPS!**



Your cart had items that cannot be recycled. Please leave these items out.



Do not bag recyclables (leave items loose)



No food or liquid (empty all containers)



No cords, hoses, chains or electronics



No yard waste



Think 5 and recycle only plastic bottles and containers, metal cans, glass bottles and jars, cardboard and paper.

This cart will not be collected the next time wrong items are found.

[www.ocfl.net/recycles](http://www.ocfl.net/recycles)  
407-836-6601

WHEN IN DOUBT, LEAVE IT OUT!



**OOPS!**



Your cart had items that cannot be recycled. Please leave these items out.



Do not bag recyclables (leave items loose)



No food or liquid (empty all containers)



No cords, hoses, chains or electronics



No yard waste



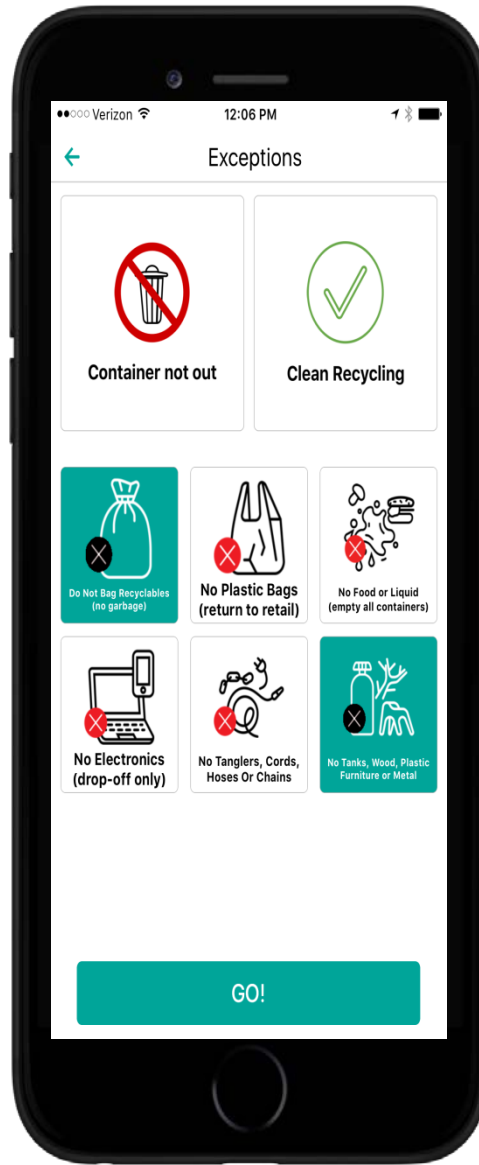
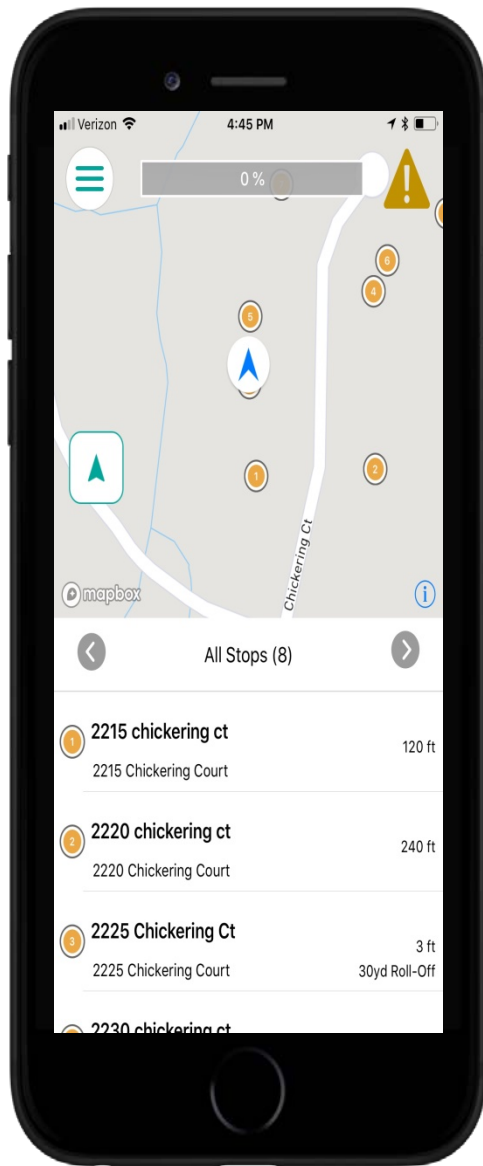
Think 5 and recycle only plastic bottles and containers, metal cans, glass bottles and jars, cardboard and paper.

This cart will not be collected until unaccepted items are removed.

[www.ocfl.net/recycles](http://www.ocfl.net/recycles)  
407-836-6601

WHEN IN DOUBT, LEAVE IT OUT!





# RUBICON

WASTE AUDIT

## DATA APP

# What is Next? Rollout the Program



- **Hired consultant team to be an extension of staff – start tagging**
- **Using TRP resources to help in educational material development**
- **Sent info to all Orange County customers**
- **Work with City partners to provide consistent messaging**
  - **Web site**
  - **Shared resources**
  - **Share materials**



**Lets Play**

**How Contaminated is this Cart?**



Oops Tag?

Great job tag?

**Lets Play**

**How Contaminated is this Cart?**



Oops Tag?

Great job tag?

**Lets Play**

**How Contaminated is this Cart?**



Oops Tag?

Great job tag?



# Public-Public Partnerships

- More tonnage will lower cost for new MRF
- A new MRF may open opportunities for expanded recycling programs
- Each municipality has own program – working together to align them

# Potential Recyclable Material Sources

(March 2019 Survey)

Agency	Recycling Type	Tons	Residential Units
<b>ORANGE COUNTY</b>	Residential	62,200	221,000
City of Winter Garden	Residential	2,200	44,500
City of Apopka	Residential	2,300	17,000
City of Ocoee	Residential	4,000	14,000
City of Orlando	Residential	9,700	36,000
Belle Isle	Residential	Unknown	2,500
City of Maitland	Residential	1,000	3,742
Seminole County	Residential	14,400	68,500
Greater Orlando Airport Authority	Commercial	8,400	N/A
Orange County Public Schools	Institutional	26,600	N/A
Reedy Creek Energy Services	Commercial	5,300	N/A
City of Winter Park	Residential	1,880	8,940
Orange County Convention Center	Commercial	100	N/A
<b>TOTAL</b>		<b>138,080</b>	<b>416,182</b>

# WASTE COMPOSITION

WasteCalc Categories	Percentage (%)		
	Total	Commercial	Residential
Newspaper	0.3	0.4	0.3
Glass	3.6	3.0	3.9
Aluminum Cans	1.1	1.2	1.1
Plastic Bottles	3.8	4.5	3.5
Steel Cans	0.8	0.5	0.9
Corrugated Paper	5.7	11.8	2.8
Office Paper	1.4	1.9	1.1
Yard Trash	2.8	0.3	4.0
Other Plastics	19.0	19.5	18.9
Ferrous Metals	1.3	0.6	1.6
Non-Ferrous Metals	0.5	0.2	0.6
Other Paper	19.7	16.8	21
Textiles	6.8	5.8	7.2
C&D Debris	2.6	4.0	1.9
Food	10.2	10.3	10.2
Miscellaneous	20.4	19.3	21.0
White Goods	0.0	0.0	0.0
Tires	0.0	0.0	0.0

# Value of Recyclables Thrown Away

(March 2019 Survey)

- 613,000 tons disposed in Orange County Class I Landfill 2018
- University of Florida disposed waste composition study, Summer 2019

Material	Percent	Tons	\$/Ton	Value
Aluminum Cans	1.1	6,743	\$1,010	\$6,810,430
PET Bottles	2.4	14,712	\$200	\$2,942,400
HDPE Clear	0.5	3,065	\$1,000	\$3,065,000
HDPE Colored	0.4	2,452	\$270	\$662,040
Steel Cans	0.9	5,517	\$78	\$427,568
Corrugated Cardboard	1.1	6,743	\$33	\$219,148
Total Value Thrown Away				<b>\$14,126,585</b>



# Conclusion

- Orange County is committed to a sustainable future
- Recycling has some challenges
- Orange County is working with public and private partners to address current challenges,
- We're looking for more partners to address future challenges
- Recycling has value
- We're committed to recycling

# THANK YOU

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