

# **Green Work Orlando: BEYOND WASTE**

## **Advancing Towards A Zero-Waste, Circular Economy**

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# Beyond Waste Welcome & Partners

## Housekeeping

- Please keep yourself muted unless speaking
- Change title to "Name, Organization" on zoom

## Welcome!

- Beyond 34 (2017) relaunch
- Renamed "Beyond Waste" (2022)
- Phase II partnerships
  - City of Orlando
  - Orange County
  - Orlando Economic Partnership
  - VHB (project consultants)





**GREEN WORKS  
ORLANDO**

*“Our vision is to become the most environmentally friendly, socially inclusive, technology-enabled, and economically vibrant city in the Southeast...we strive to be one of the most sustainable and resilient cities in the U.S.”*

*– Mayor Buddy Dyer, City of Orlando*



# Green Works Orlando

## Office of Sustainability & Resilience

- Award-winning sustainability program called “**Green Works Orlando**” launched by Mayor Buddy Dyer in 2007
- Develops internal and citywide policies + programs to:
  - Protect natural resources and the environment (air, water, land)
  - Improve public health and social equity
  - Create green economic dev. and green jobs opportunities
  - Decrease air pollution and carbon emissions
  - Enhance city resilience and adapt to climate change impacts
  - Reduce operational expenses and enhance efficiency
  - Educate the residents and businesses on sustainable practices
- Focuses on 7 key areas:
  - Clean Energy
  - Green Buildings
  - Local Food Systems
  - **Zero Waste**
  - Livability
  - Clean Water
  - Electric & Alternative Transportation

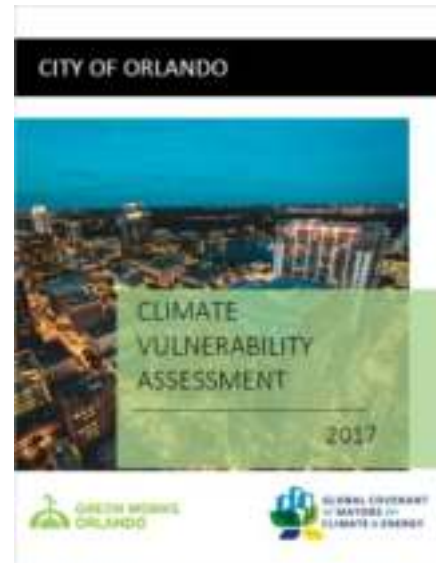


# Pathway towards Sustainability & Resilience

Municipal Operations Sustainability Plan (2012, updated in 2017)



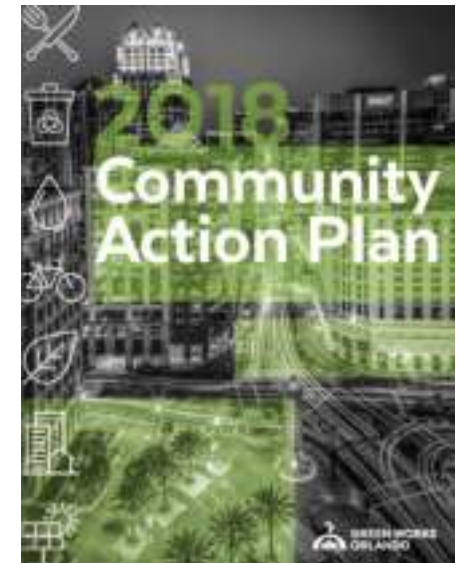
Climate Vulnerability Assessment (2017)



Greenhouse Gas Inventory (2018)



Community Sustainability Action Plan (2013, updated in 2018)



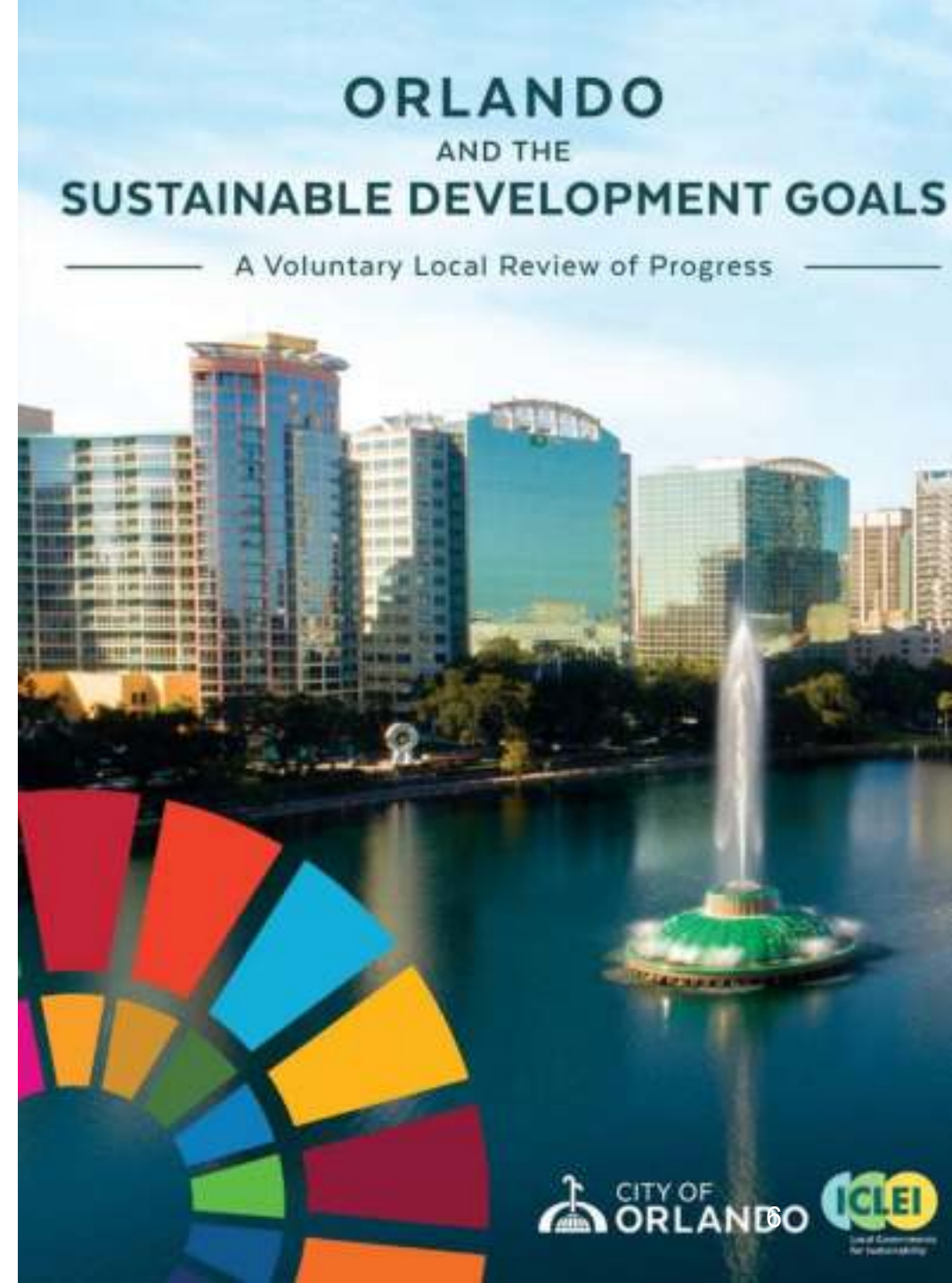
Vision Zero Plan (2019)



Future-Ready Master Plan (2020)

# Orlando Voluntary Local Review (VLR)

- Partnered with ICLEI to produce first VLR as model for other cities worldwide
- Official report submitted to the United Nations
- Covers 9 of the 17 goals
- Aligns with the Green Works and Equity priorities of City of Orlando
- Develops list of KPI's and metrics to track progress towards the local + global goals
- Spotlights partners working to advance the SDGs in and around Orlando
- Visit <http://Orlando.gov/VLR>

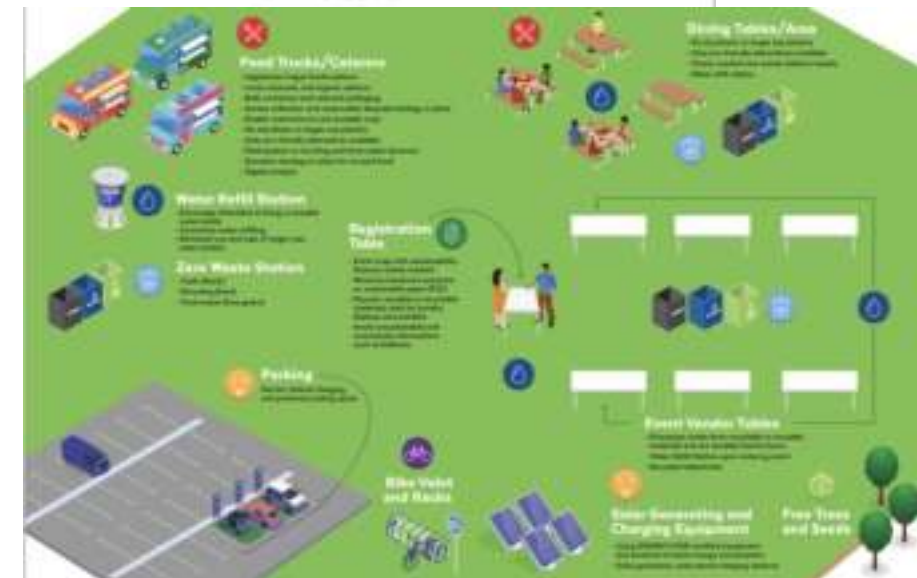




# Orlando's Zero-Waste 2018 CSAP Goals

## Zero Waste to Landfill or Incinerators by 2040

- ✓ Implement a Polystyrene, Plastic Bag and Plastic Straw Ban for All City Facilities, Parks and Affiliated Events
- ✓ Implement Recycling Requirements for Commercial and Multi-Family Buildings
- ✓ Create Green Works Event Guide and Program
  - Establish Construction and Demolition (C&D) Recycling Standards
  - Develop and Implement the Beyond 34 Regional Sustainable Waste Management Plan
    - Zero Waste Roadmap (ZWR), end of 2022/early 2023





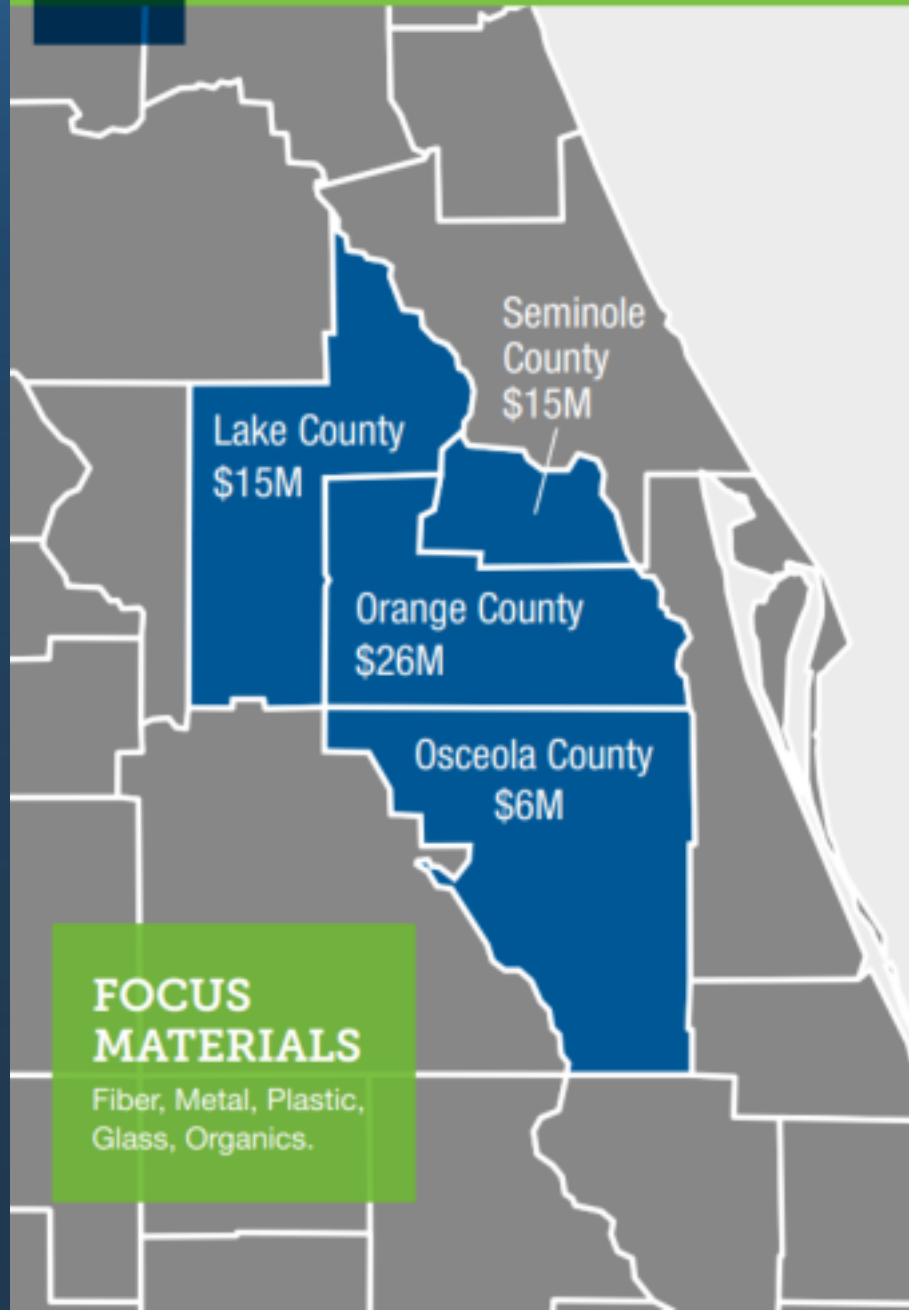
# Beyond 34

- Selected by US Chamber of Commerce Foundation as “Pilot City”
- Launched October 2017
- **Goal:** Gap Analysis + Develop strategy to move “Beyond 34% diversion rate”
- Created community taskforce
- Implemented short-term actions to advance towards “zero-waste” future





## GAP ANALYSIS RESULTS: DIRECT ECONOMIC OPPORTUNITY



### RECOVERING THE ORLANDO REGION'S FOCUS MATERIALS

Disposed tonnage is an area to look for opportunity and lost material value. When looking at our disposed focus material (fiber, metal, plastic, glass, organics), this makes up about 50% of the disposed MSW stream.

The Florida Dept. of Environmental Protection has set a goal of recycling 75% by 2020. If this goal were met, the region would avoid throwing away approximately \$62M of additional recyclables annually, and instead provide a significant investment opportunity for local recycling businesses. Recycling and recovering this material provides a direct economic opportunity valued at \$84 million annually.

<b>Opportunity</b> (75% of annual disposal of focus materials from reporting counties, per FL DEP, 2015)	<b>656K Tons</b>
<b>Commodity Value</b> (\$95/ton, 2017 regional average commodity value of disposed focus materials)	<b>\$62M</b>
<b>Avoided Disposal</b> (\$33.50/ton, 2017 avg. landfill tip fee)	<b>\$22M</b>
<b>Total Annual Opportunity</b>	<b>\$84M</b>

**\$84 MILLION**  
a significant economic opportunity!

# BEST PRACTICES LEAD TO RECOVERY



 300K  
HOUSEHOLDS  
REPORTING

 36%  
TOTAL RESIDENTIAL  
DIVERSION\*



39% AVERAGE UPTAKE OF  
BEST PRACTICES



Higher adoption of recycling best practices leads to more material recovery for the circular manufacturing economy. The chart corresponds to the percent uptake of best practices, and shows the relative "opportunity" for additional uptake in the region

\*36% residential diversion is based on residential curbside recycling and yard waste collection data from 300,000 households in the region.

## RELATIVE PERCENT UPTAKE FOR EACH BEST PRACTICE TOPIC AREA





# Beyond 34 Project Outcomes: Partner Updates

- Commerical Organics Infrastructure
- Standardized Labeling
- Orange County MRF and SMMP
- [CentralFloridaRecycles.org](http://CentralFloridaRecycles.org)
- WP Downtown Core Recycling
- OCPS Waste Audits
- Orlando Recycling Ordinance
- TRP Contamination Rates





# Commercial Organics Infrastructure

## Chris Castro, City of Orlando

- WM Vista Organics compost facility - closure
- Harvest Power AD facility - closure
- Anuvia Plant Nutrients - pilot
- Compost USA – current facility





# Standardized Labeling

## Resham Shirsat, City of Orlando

- City of Orlando
- City of Winter Park
- OCPS
- Orlando Airport (MCO)
- Disney
- Valencia College





# Orange County MRF

## David Gregory, Orange County

- Need for new, local processing facility
- Working with partners
- Working on new public-private partnership approach
- Risk sharing





# Orange County SMMP/SW Master Plan

## David Gregory, Orange County

- Landfill capacity to 2038
- National recycling goal of 50% by 2030
- Promote circular economy
- Identify infrastructure needs and potential partners
- Seeking input from many perspectives
- Plan for 10, 20, 30+ years





# CentralFloridaRecycles.org

## Cindy Harpel, Orange County

- Regional communications campaign with the goal of raising recycling awareness in the Central Florida region
- Joint website launched in April 2021
- Billboards to market the campaign
  - Coming soon







# Winter Park Downtown Core Recycling

Sara Miller, City of Winter Park

## Outcomes

- Increased awareness
- Continued contamination was not worth the recycling cost
- Cardboard recycling increased

## Continued Obstacles

- Space
- Aesthetics
- Billing
- Contamination

## Opportunities

- WP Chamber of Commerce
- Green Business Recognition Program
- Park Avenue District



## where does it go?



## helpful reminders

- ALL cardboard boxes must be flattened
- Complimentary cardboard valet service offered Monday thru Saturday placed curbside before noon
- Cardboard dumpster lids need to remain closed
- Plastic wrap and bags should be placed in trash compactors
- Glass bottles need to be secured in bags prior to placing in trash compactors
- Front of dumpsters should remain clear [please do not park next to the dumpsters]
- Area around dumpsters should be free of debris [items left around dumpsters will not be picked up]

**thank you**

for helping keep Center Street clean!





# OCPS Waste Audits

**Karly Pulido, Orange County Public Schools**

## Audit Makeover

- Turning recycling audits into waste reduction audits
- Looking at the complete picture (recycling, food waste, education, and single-use mitigation)
- Relationship building and better incentives

## Challenges

- 59% average today vs. 71% average then
- 2030 goal 80% audit performance and 75% total diversion
- Silver lining: overall performance tripled





# Mandatory Recycling Policy

## Joe England, City of Orlando

- Commercial and multi-unit residential buildings in Orlando, Florida will be required to offer recycling
- Building owners must provide recycling containers, arrange for recyclable material collection, and maintain and submit verification records.
- Included as part of Business Tax Receipt (BTR) process
- Covers new and existing buildings over 4-year period



### THE BUSINESS CASE FOR RECYCLING

Recycling reduces your monthly bill because collection is commonly discounted 50% over garbage collection. A typical office can recycle 50% of their waste and reduce the total waste bill by more than 20%.

#### NOT RECYCLING

36 total cubic yards collected per week



\$496.94  
8 yard dumpster  
with 2 dumps per week

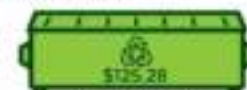
TOTAL MONTHLY FEE:  
**\$496.94**

#### RECYCLING

Drop one day of trash pickup and add one day of recycling pickup  
36 total cubic yards collected per week



\$348.47  
4 yard dumpster  
with 2 dumps



\$125.28  
8 yard dumpster  
with 1 dump per week

TOTAL MONTHLY FEE: **\$373.75** **SAVINGS \$123.19, or 25%**

\*Rates based on City of Orlando garbage and recycling services.



# TRP Contamination Rates

## Joe England, City of Orlando

- 2 grants
  - Multifamily focus
  - LMI
- Helped 100s of properties with compliance
  - 4,500 totes distributed
  - 15,000 educational flyers distributed
  - 3rd party waste composition study





# Other City of Orlando Programs



**GREEN WORKS  
ORLANDO**



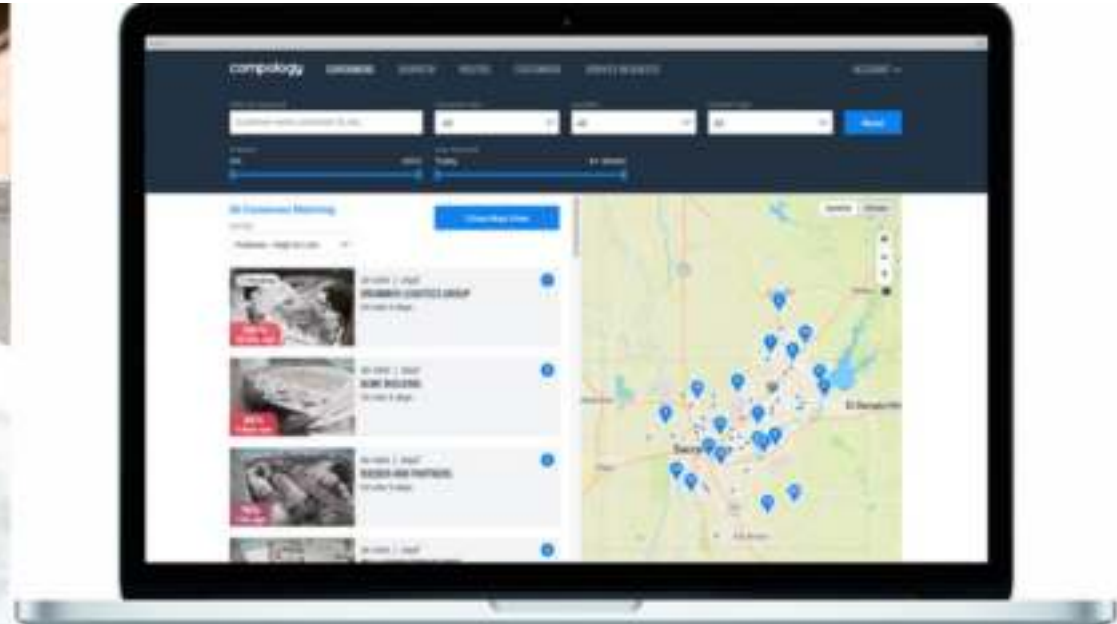
# Downtown & Public Space Recycling

- Expanding recycling and food waste collection in Downtown core.
- Established 10+ recycling bins at Lake Eola
- Establishing 20+ bins



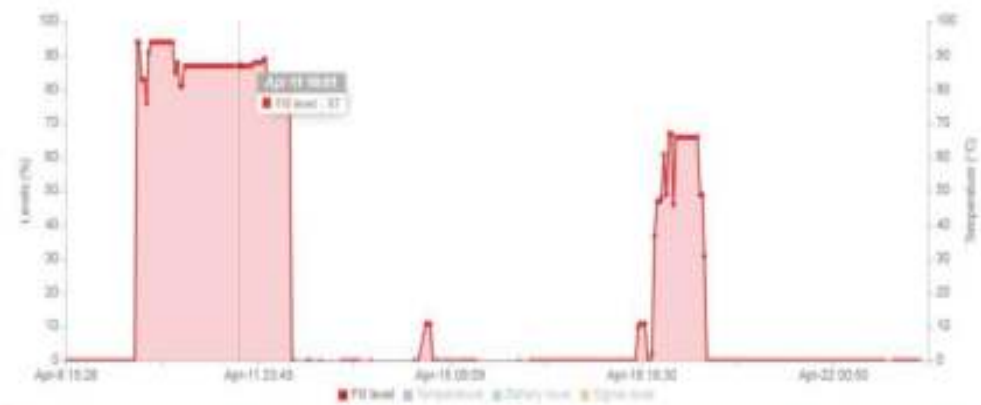


# Smart Dumpsters



- **Smart Dumpster sensors provide:**
  - Real-time monitoring of commercial dumpsters
  - Save businesses money on collection
  - Save City money on improving efficiency

History



From:

2019-04-01

To:

2019-04-23



# ORL Collects App



# FOOD WASTE

## ACCEPTABLE ITEMS:



### **Pastries, muffins, bagels, biscuits, donuts**

Productos de repostería  
Ponmkèt, pen, biskwit, donòt



### **Butter, spreads, dressing**

Mantequilla, cremas para untar, aliños  
Bè, Konfiti ak vinegrèt



### **Dry goods, flour, sugar**

Harina, azúcar  
Atik pou kote ki sèk Farin, sik



### **Eggshells**

Cáscara de huevo  
Po Ze



### **Fruit and vegetable prep waste**

Frutas, vegetales y residuos de preparación  
Fatra ki sot nan fwi & legim



### **Fruits and vegetables**

Frutas y vegetales  
Fatra ki sot nan fwi & legim



### **Grains, pasta, beans, rice, bread, cereal**

Granos, pasta, frijoles, pan, cereal  
Grenn, espageti, pwa, diri, pen, sereyal



### **Meat and dairy**

Carnes y productos lácteos  
Vyann ak pwodwi ki gen lèt

**DO NOT INCLUDE:** Packaging, metal, glass, plastic or any non-biodegradables.



# Residential Backyard Composters

- Cost-avoidance for City operations
- Residents can sign up for FREE Earth Machine composters
  - Free home delivery
  - Assembled
- **7,000+ composters delivered since February 2016**
- [Cityoforlando.net/composter](http://Cityoforlando.net/composter)





# Public Food Waste Drop-off

- Provide free food waste drop-off locations throughout the City
- Currently at farmers markets and neighborhood centers
- Services homeowners and apartment dwellers without a backyard





# Commercial Food Waste Collection

- In-house Food waste collection program
- Services restaurants, hotels, conference centers
- Diverts food waste to Compost USA facility
- Over 3 million pounds of food waste collected since 2017





# Used Cooking Oil Recycling

- Community Center Collections
- Free to Recycle
- Creates BioDiesel

## RECYCLE YOUR COOKING OIL



**COOL**

After cooking, let oil cool down.



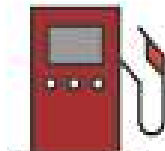
**STORE**

Pour into any shatterproof container.



**DROP OFF**

Take to your nearest drop off site to be recycled.



**FUEL**

Your cooking oil is processed into clean biodiesel!

For more information and for drop off locations, visit [orlando.gov/grease](http://orlando.gov/grease) or call 407.246.2657.



**KEEP THE PEACE, RECYCLE YOUR GREASE!**

**GREASE FIGHTER**

JUST TRY TO STOP MY SEWER OVERFLOWS, GREASE FIGHTER!

POURING OIL AND GREASE DOWN THE DRAIN IS THE LEADING CAUSE OF SEWER BACKUPS IN HOMES.

**GREASE MONSTER**

THE CITY OF ORLANDO WATER RECLAMATION DIVISION OFFERS **FREE RECYCLING** OF YOUR USED COOKING OIL. AFTER COOKING OIL HAS COOLED, POUR IT INTO ONE OF OUR FREE SHATTER PROOF CONTAINERS. ONCE YOUR JUG IS FULL, BRING IT INTO ONE OF OUR DROP-OFF LOCATIONS AND PICK UP AN EMPTY JUG TO CONTINUE THE FIGHT AGAINST SEWER BACKUPS.

**TYPES OF OIL ACCEPTED:**

- LEFTOVER GREASE FROM COOKING ANIMAL FAT (I.E. BACON)
- ALL VEGETABLE OIL
- CORN OIL
- OLIVE OIL
- PEANUT OIL
- SESAME OIL
- SOY BEAN OIL
- SUNFLOWER OIL
- CANOLA OIL
- LARD

**NO MOTOR OIL, PLEASE.**

RECYCLE YOUR GREASE HERE!

FOR THE FULL LIST OF DROP-OFF LOCATIONS, PLEASE VISIT [CITYOFORLANDO.NET/GREASE](http://CITYOFORLANDO.NET/GREASE) OR CALL 407.246.2657

**CITY OF ORLANDO**



# BREAK

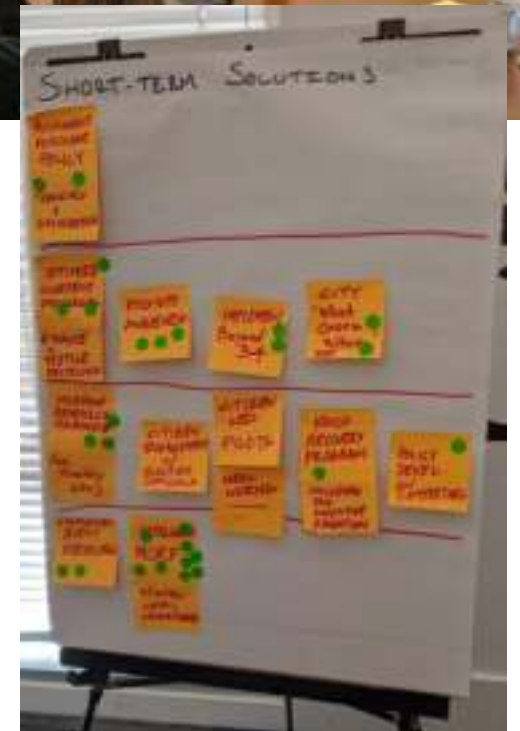
- 10 minutes





# Future Ready Roundtable Findings

- Private companies need to reduce and create better packaging
- Identify residential strategies to reduce garbage flow
- Establish policies and governance for waste reduction
- A lack of a carbon tax makes landfills less expensive
- Challenges with availability of after-market technologies and how to boost these industries
- Shift behaviors and perception of what recycling currently looks like
- Invest in new specialized equipment that allows the separation of organic material
- Solve challenges with source reduction
- Regional approach to localize waste infrastructure





# Phase I Goals: Beyond 34

- Demonstrate a scalable process at a local economy level for improving recycling and reuse rates
- Provide a blueprint demonstrating optimized recovery of a common suite of focus materials
- Develop a strategic partnership throughout the value chain at the state and local level
- Raise awareness of barriers and opportunities for transition to the circular economy.







# Phase II Goals: Beyond Waste

- Deeper focus and branding on zero waste/circular economy
- Develop and pass zero waste policies that lead by example for our region
- Orlando as a living lab for zero waste solutions
- Localize infrastructure and solutions to the greatest extent possible
- Elimination of contamination, litter, & illegal dumping (education, policy, auditing, and service/program updates, enforcement)
- Develop shovel ready funding scopes and opportunities





# Anticipated Outcomes

- Development of the City of Orlando's Zero Waste by 2040 Roadmap
- Feed into the development of Orange County's Sustainable Materials Management Plan (SMMP)
- Launch and sustain a long-term task force with dedicated facilitator to follow through on projects and support new developments





# Guiding Principles

- Adhere to waste hierarchy
  - prioritize upstream solutions over of downstream management
- Issue (zero waste) over institution
  - How do we reduce the largest amount of waste possible in the most environmentally and socially responsible way that is fiscally reasonable?
- Prioritize highest and best use of resources
  - food waste to compost before energy
- Equity
  - siting of facilities, access to solutions, workforce development





# Timeline

- ✓ #1 (May): **Kickoff & Welcome**
- #2 (June): **Sectors, Streams, & Policy**
- #3 (July): **Infrastructure & Education Needs**
- #4 (August): **Emerging Tech, Business, & Economics**
- #5 (September): **Partnerships, Measuring Success, & Wrap Up**
- October: **Voting survey of strategies**
- October – December: **Draft ZW Roadmap**
- 2023: **Launch Taskforce Meetings**





# "Homework"

- Virtual or in person?
  - Take survey in chat
- Choose your org's best rep for next session (**Sectors, Streams, & Policy**) and be prepared to answer breakouts:
  - What is your organizations largest waste stream(s)? Does it fit into any of the identified focus waste streams listed?
  - What is the most difficult waste stream for your organization to find a solution for?
  - Could these (or other) progressive policies work here? Why or why not?





# Questions? Thank You!

## Primary Contact:

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Zero Waste

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407-246-4355

**See you in June!**

- **Exact date, time, platform TBD**

