



# Florida Department of Environmental Protection

## Waste Reduction & Recycling

# Organics in Florida: Part I

# "The State of Organics in Florida"

May 11, 2016





# Housekeeping

50% by 2015  
60% by 2017  
70% by 2018  
75% by 2020

- All attendees are in “listen-only” mode
- Please use the “Questions” tab to submit a question
- Questions will be answered at the end of the presentation
- The presentation and other material are available in the “Handouts” tab
- This session is being recorded and will be available on the DEP website for sharing
- Please complete the survey after the webinar



# Agenda

50% by 2015  
60% by 2017  
70% by 2018  
75% by 2020

- Kim Brunson
  - Publix Super Markets
- Frank Franciosi
  - US Composting Council
- Jay Bassett
  - EPA Region 4
- Miriam Zimms
  - Kessler Consulting



# Florida Department of Environmental Protection

## Waste Reduction/Recycling

**Frank Franciosi**

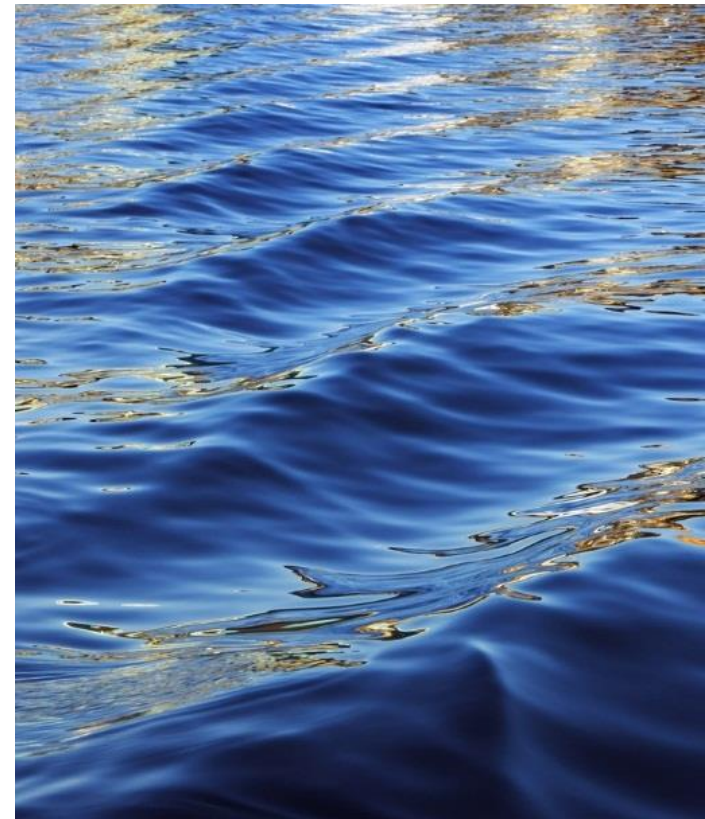
**US Composting Council**





# US Composting Council Update

Frank Franciosi-Executive Director





**US** Composting  
Council

Established 1990

- Who & What Are We?
- The US Composting Council (USCC) advances compost manufacturing and promotes compost use to enhance soils and provide economic and environmental benefits for our members and society.
- **Compost: Nature's Way To Grow!**

Nature's Way to Grow!



**US** Composting  
Council®



## **Vision Statement**

We believe that the recycling of organic materials is central to achieving healthy soils, clean water and a sustainable society.



# Areas of Engagement

- **Education**

- Annual Conference
- Composter Training Program

- **Market Development**

- Seal of Testing Assurance
- Consumer Use Programs

- **Advocacy**

- State Policy Support
- National Issues

- **Membership**

- Communication
- Database
- Organizational Management
- State Chapters

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# Educational Activities

- Compost Operations Training Course- 7<sup>th</sup> Year
  - Over 1,000 students from 23 states and three countries
  - 2015 In CA, VA, NC and FL
  - 2016 In CA, NY, NC and AZ
  - 2016 Certified Compost Operation Manager (CCOM)
- 2015 Compost Technician—GA
- 2015 Expanding to Food Scraps on a Farm—IA
- Specifying compost—CA
- Composting with Forced Air—CA
- One webinar—The role for Compostable Plastics in diversion



# Advocacy Activities – 2015

## Federal and National Issues

- Supported federal legislation targeting food waste
  - Maine & Minnesota
- Persistent Herbicides
  - Meeting with EPA re: re-registration process
  - Produced “Composter’s Guide to Persistent Herbicides”
- Compostable Products
  - Expanded CP Toolkit with grant from USDN
  - Conducted Webinar on role of CP in diversion programs
- Summit participation
  - NRC Sustainable Materials Management (June)
  - EPA Food Recovery (SC-November)
- Supported International Year of Soils



# State Chapters & Committees

- The US Composting Council Chapters is a vital partner to its chapters as the national organization providing coordination, visibility and access to national resources. As such, chapters recognizes their responsibility to the USCC to promote national membership growth, in local support of national promotions such as International Compost Awareness Week, encourage market development and use of STA/Certified compost, and to assist the national organization As such, chapters recognizes their responsibility to the USCC to promote national membership growth, regional training and national conferences and other programs benefitting the compost industry.*



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# Model Rules Template for State Regulations

[www.compostingcouncil.org](http://www.compostingcouncil.org)

State Regulations by State Map:

- <http://compostingcouncil.org/state-compost-regulations-map/>

Model Rules Template:

- <http://compostingcouncil.org/wp/wp-content/plugins/wp-pdfupload/pdf/14798/US-Composting-Council-Model-Compost-Rule-Template-v1.pdf>

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# Strategic Partnerships

- American Hort
- BioCycle
- IECA
- KAB
- National Foundation to End Senior Hunger-(NFESH)
- BPI
- Kimberly Clark Professional
- Soil Science Society of America

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Council®



# A GUIDE TO WORKPLACE COMPOSTING



US Composting  
Council

KEEP AMERICA  
BEAUTIFUL



Nature's Way to Grow!



US Composting  
Council®



# Online Resources

- A Guide to Workplace Composting
- <http://compostingcouncil.org/workplace-composting/>
- Compostable Plastics Toolkit
- <http://cptoolkit.org/>
- Curb-to-Compost Toolkit
- <http://compostfoundation.org/c2c>
- Fact Sheets & Free Reports
- <http://compostingcouncil.org/factsheets-and-free-reports/>

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# Composting Council Research & Education Foundation

- Received second \$75,000 grant to continue development of Certification Program from the 11<sup>th</sup> Hour Project
  - Develop test questions and administrative procedures
- Planning for transfer of Composter Training Program from USCC to CCREF
- Compostable Plastics Tool Kit Upgrade
- Scholarship program
- International Compost Awareness Week-ICAW

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# Market Development Activities

- Updated Compost: The Sustainable Solution
- Completed TMECC review & revision
- Created and introduced STA “Certified Compost”



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# Market Development Activities

- Contracted with Joe Lamp'1 (Growing a Greener World) to expand our outreach efforts nationally



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Council**

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***Seal of Testing  
Assurance®***



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Council®**



# Introducing Certified Compost®



**US Composting Council®**



**USCC STA**  
**Participants are:**  
**Compost**  
**Manufacturers!**



**US** Composting  
Council®



# Seal of Testing Assurance

## 2015 Program 'Stats'

Companies in the STA Program = 234

Compost Products = 298

Compost in the STA Program = Over 4 million tons or Approx. 8 million cy's

Labs in STA Program = 11

States with STA participants = 39

Florida has 11 STA Participants



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Council®



# Seal of Testing Assurance Compost *ONLY!*

## **CURRENT State Agencies Requiring STA Compost ONLY**

- AKDOT · CalTrans · CODOT · **FLDEP**
- MNDOT · NCDOT · NYDOT · ORDOT
- SCDOT · TXDOT WIDNR WIDOT
- WSDOT



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# Creating Demand for Infrastructure

- Policies and legislative action demanding soil restoration in conjunction with stormwater management.
  - Model Ordinances for Soil Restoration
  - Stormwater BMP's
  - Low Impact Development
  - Green Infrastructure ( USGBC ) LEED Certification
  - DOT ( use of STA Certified Compost )



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# Call for abstracts-May 2016



Nature's Way to Grow!



US Composting Council®





# Florida Department of Environmental Protection

## Waste Reduction/Recycling

**Jay Bassett**

**US Environmental Protection Agency**



# EPA's Call to Collective Action to Meet the U.S. 2030 Food Loss & Waste Goal



 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW



# Food Recovery Hierarchy

[www.epa.gov/foodrecovery](http://www.epa.gov/foodrecovery)

Most Preferred

## Source Reduction

Reduce the volume of surplus food generated

## Feed Hungry People

Donate extra food to food banks, soup kitchens, and shelters

## Feed Animals

Divert food scraps to animal feed

## Industrial Uses

Provide waste oils and food scraps to recover energy

## Composting

Create a nutrient-rich soil amendment

## Landfill/ Incineration

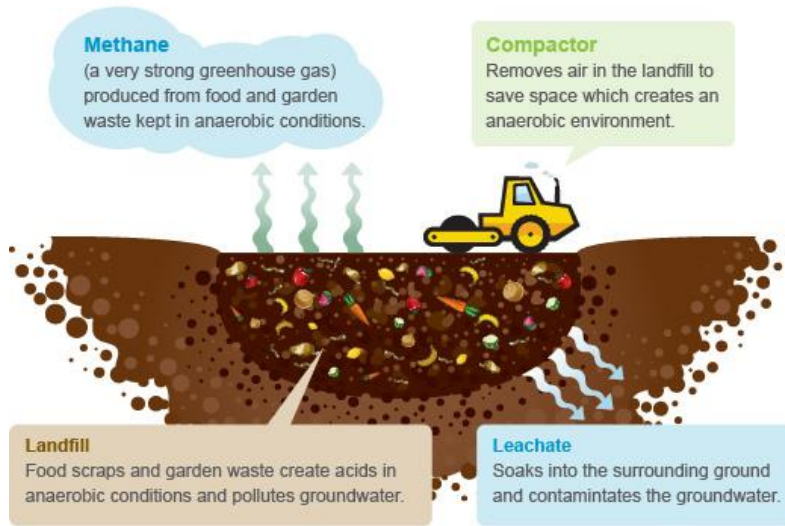
Last resort  
is disposal

Least Preferred

 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

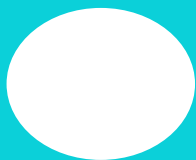
# The Cost of Wasted Food



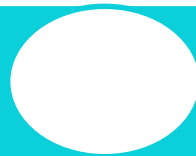
 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

# What a Waste



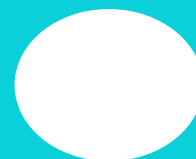
**Food loss & waste valued at \$161.6 billion**



**21% of the nation's waste stream; 35 million tons**



**5% capture rate**



**Production consumes 80% of the nation's water and half our land.**



**Yet, 48 million Americans are food insecure.**



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

# U.S. 2030 Food Waste Reduction Goal



On September 16, 2015, US EPA Deputy Administrator Meiburg and USDA Secretary Vilsack announced the United States' first-ever national food waste reduction goal - Reduce wasted food by 50% by 2030.



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

# Paris Agreement



The agreement was to limit global warming below 2 °C by 2100. 196 *parties* made pledges in an international agreement at the United Nations Conference of the Parties 2015 (COP21) to reduce greenhouse gas emissions.

Under current policies, the U.S. is not projected to fully realize its pledge by 2025. **The U.S. will fall short of its pledge by 0.36-0.57 billion tons of CO<sub>2</sub> in 2025**

Alamy



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# RECOVERY SUMMIT

Charleston, SC • November 16-18, 2015



250 leaders from across the country



Over 80 presentations



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

# Focus Areas



Increase public awareness



Improve data



Form and strengthen partnerships



Clarify date labels



Build infrastructure



Seek prevention strategies



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

# Tackling the Wasted Food Problem – A Partnership Among Key Players

**Commercial Food Operations** Producers, grocers, restaurants, institutions  
Changing operations to reduce wasted food.

**Public/Municipal and Private Operations**

Supporting source reduction, donation, composting.

**Food Banks and Support Networks**

Meeting needs of food insecure people.

**Government**

**Laws, policies, programs**

e.g. reduce liability risks, create incentives, technical assistance, research, public recognition programs, support infrastructure development.

**Other Supporters and Sponsors**

Volunteer, faith-based, and philanthropic organizations, “innovation community”

Supporting hunger relief through food recovery and donation programs.

 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

# Food Loss and Waste A Call to Action



**2030 Food Loss and  
Waste Reduction Goal**



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW



# ReFED

## Rethink Food Waste

*Economics and Data*

<http://www.refed.com/?sort=economic-value-per-ton>

[http://waste360.com/food-waste/seven-key-takeaways-refed-s-roadmap-reduce-us-food-waste-report?NL=WST-03&Issue=WST-03\\_20160408\\_WST-03\\_98&sfvc4enews=42&cl=article\\_1\\_b&utm\\_rid=CPEQW000003538826&utm\\_campaign=7194&utm\\_medium=email&elq2=c94645b7eba04fd78b578c1813183bea](http://waste360.com/food-waste/seven-key-takeaways-refed-s-roadmap-reduce-us-food-waste-report?NL=WST-03&Issue=WST-03_20160408_WST-03_98&sfvc4enews=42&cl=article_1_b&utm_rid=CPEQW000003538826&utm_campaign=7194&utm_medium=email&elq2=c94645b7eba04fd78b578c1813183bea)

### ABOUT REFED

ReFED is a collaboration of over 30 business, nonprofit, foundation, and government leaders committed to reducing United States food waste in the United States. ReFED seeks to unlock new philanthropic and investment capital, along with technology, business, and policy innovation, which is projected to catalyze tens of thousands of new jobs, recover billions of meals annually for the hungry, and reduce national water use and greenhouse gas emissions. ReFED was formed in early 2015 to create a Roadmap to Reduce U.S. Food Waste, the first ever national economic study and action plan driven by a multi-stakeholder group committed to tackling food waste at scale.

THE ROADMAP WAS MADE POSSIBLE WITH THE GENEROUS SUPPORT FROM THE FOLLOWING FOUNDATIONS:

AHEARN FAMILY FOUNDATION

ATTICUS TRUST

AGUA FUND, INC.



THE CLARELL FOUNDATION



Walmart Foundation

the David & Lucile Packard FOUNDATION

GRACE COMMUNITARIAN FOUNDATION



HENRY P. KENDALL FOUNDATION

IMPACTASSETS

LOCAL ECONOMIES PROJECT NEW WORLD FOUNDATION



Sharing how local governments can shift their community's solid waste stream away from disposal and towards waste reduction, materials reuse and recovery



<http://www.epa.gov/transforming-waste-tool>

A planning tool for...

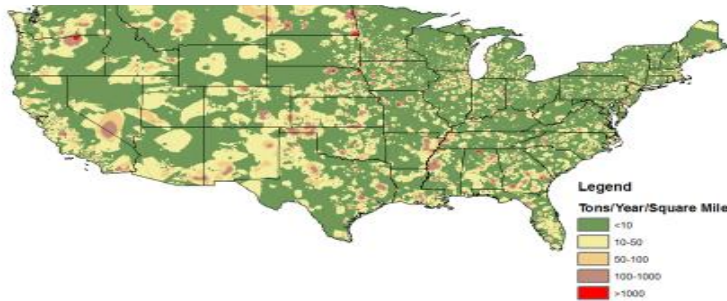
- > local or regional solid waste plan updates
- > zero waste plans
- > **ORGANICS RECOVERY PROGRAM DEVELOPMENT TOOL FOR COLLEGES AND UNIVERSITIES**



**DRAFT DATE: MARCH 31, 2016**

Environmental Policy and Management  
 Environmental Finance Center: Serving EPA Region 4  
 University of Louisville  
 Department of Sociology  
 Louisville, KY 40292  
 502-852-8042  
<http://louisville.edu/ceom>

## WASTED FOOD IN THE US: SOURCES, AMOUNTS AND ESTIMATION METHODOLOGIES



## Integrated Solid Waste Management

Developing a stakeholder driven roadmap for moving from a solid waste disposal based system to an integrated solid waste management system) and ultimately one founded or structured on the principles of Sustainable Materials Management.

Products include:

1. 2030 Vision for Integrated Solid Waste Management in EPA Region 4;
2. Guide to Integrated Solid Waste Management Accounting and System Funding; and
3. Benchmarking Analytics for New Program Expansions.

## Food: Too Good To Waste



<https://www.epa.gov/sustainable-management-food/food-too-good-waste-implementation-guide-and-toolkit>



# Florida Department of Environmental Protection

## Waste Reduction/Recycling

**Miriam Zimms**

**Kessler Consulting**





# Florida Organics Recycling *History and Current State*

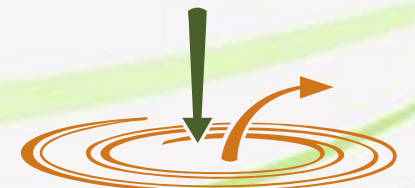
**Miriam Kessler, LEED AP®**

Lean Six Sigma Green Belt, USCC Compost and SWANA Certified

Florida Department of Environmental Protection

Organics in Florida: Part I "The State of Organics in Florida"

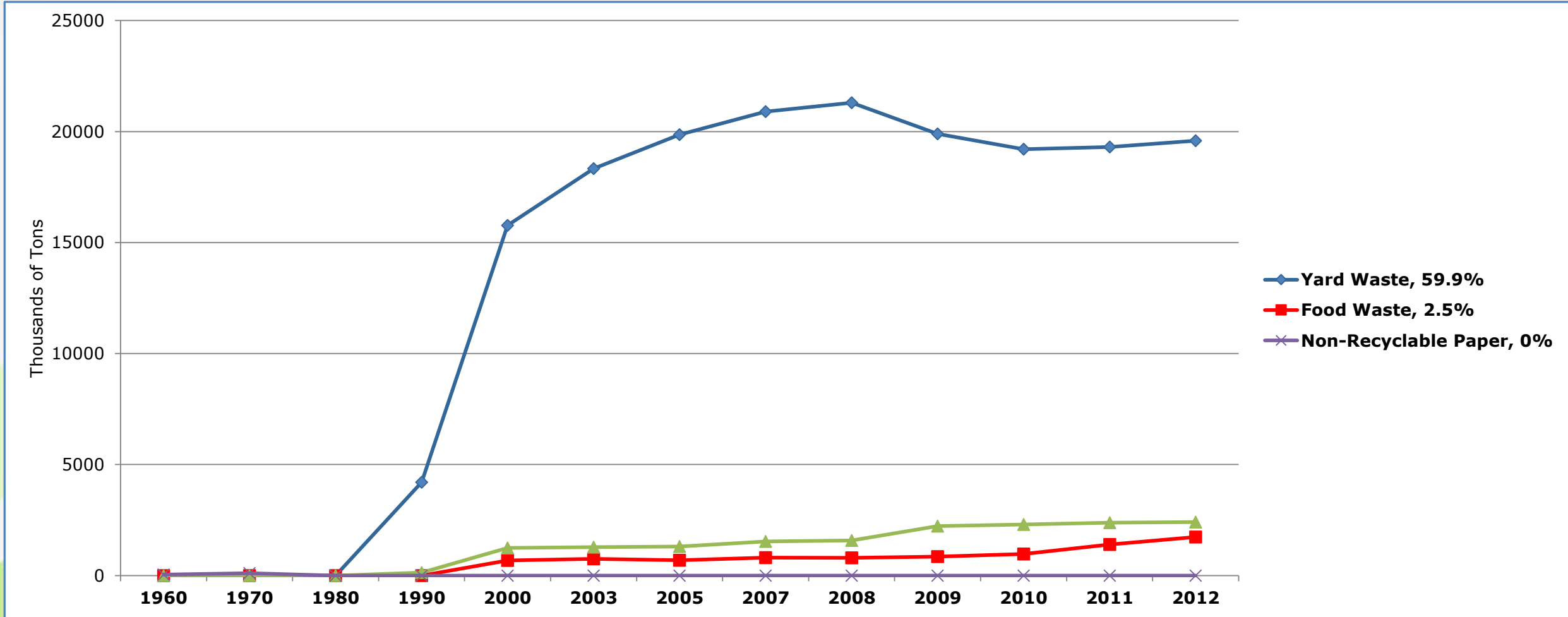
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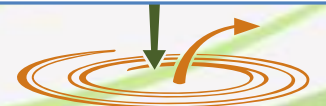
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# Recovery of Organics



Source: EPA MSW in the U.S., 2012

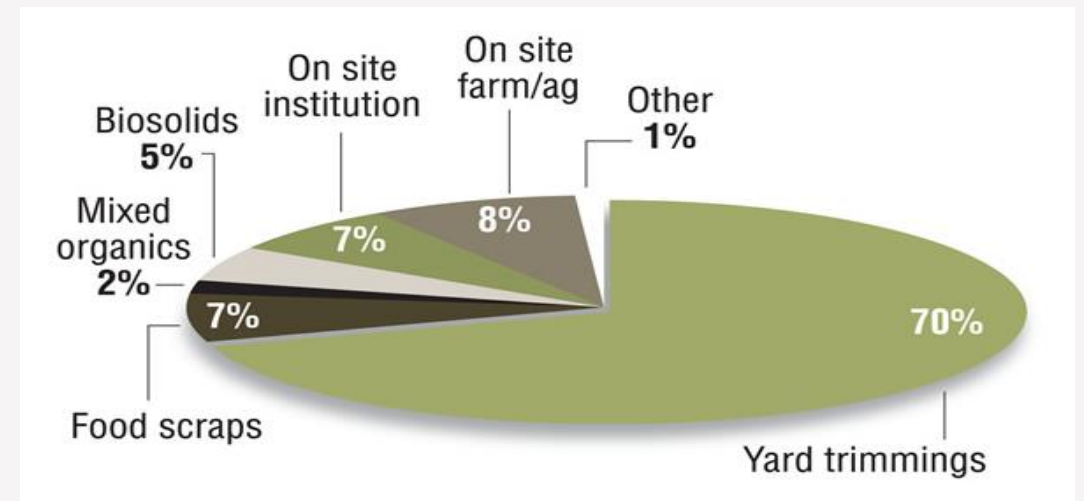


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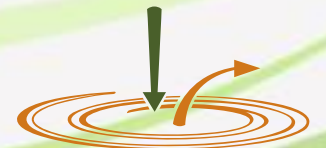
# Organics Recovery Infrastructure

- Over 4,900 composting facilities identified in the U.S.
- More than 180 communities collecting residential food scrap

Organics Recovery Facilities in U.S.

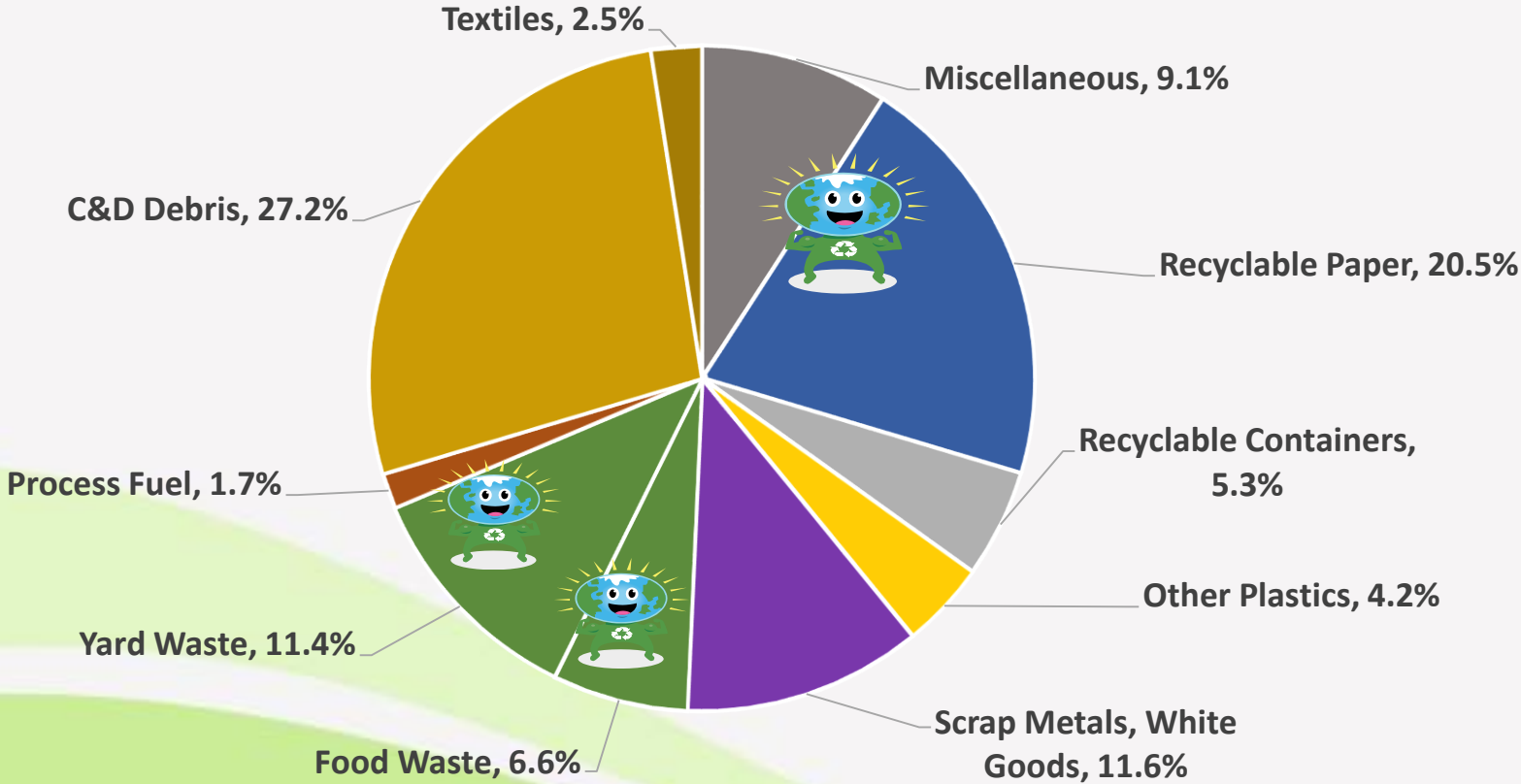


Source: Biocycle, 2014

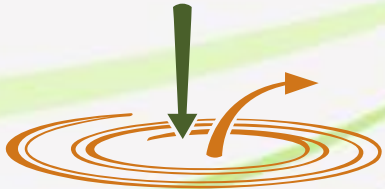


# FL MSW Waste Generation

MSW Generated in Florida 2014



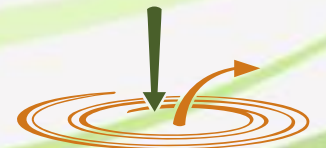
Source: DEP 2014 Data  
Graph: Kessler Consulting, Inc.



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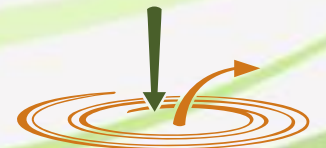
# Florida's Organics Recycling History

- 1988 Yard Waste Landfill Ban
- Started As Mulching State
- FORA – FL Organics Recycling Association
- RFT – Organics Committee, DOT Outreach, ELS Events
- FL DEP – Active Staff
- University Research, UF IFAS



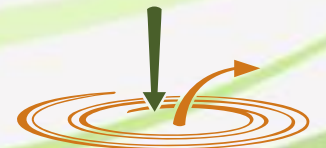
# Florida's History (continued)

- FORCE, the Florida Organics Recycling Center for Excellence
  - DACS, DOT, and UF IFAS Outreach
  - Research and Demonstration Projects
  - Marketing Workshops
  - Educational Material
  - Seven State Report
    - Formal Organics Committee
      - Regulatory Reform, FDEP Chapter 62-709
  - Statewide Operator Training Course in Three Parts of FL

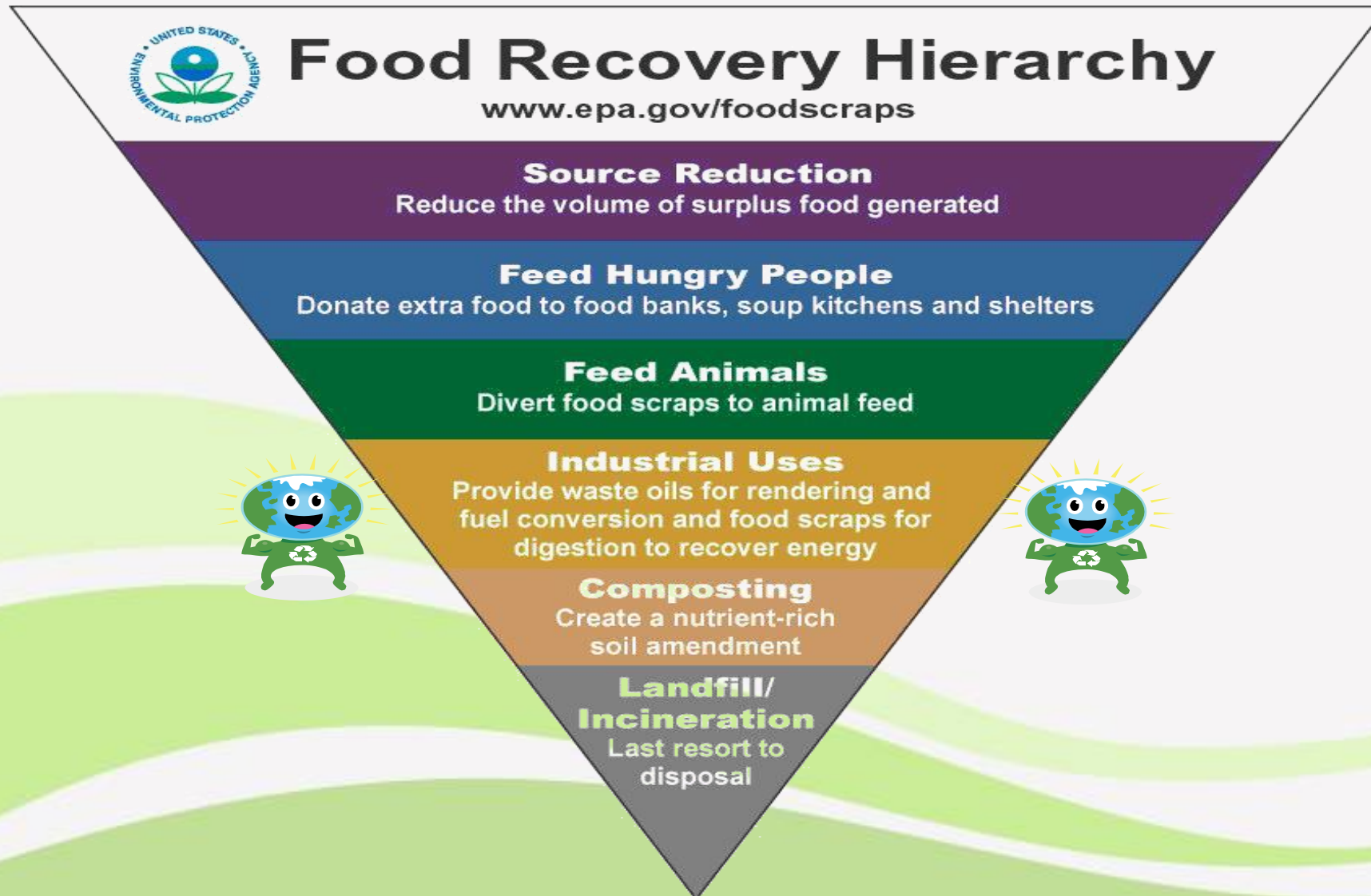


# Florida's History (continued)

- 2008, 75% Recycling Goal by 2020, HB 7135
- 2010, FL Repeals Yard Waste Landfill Ban
- Corporate Sustainability Programs
- Hauler Response to Corporate Demand
- Local Government Role
  - Residential – Backyard Composting
  - 75% Goal – Program Planning
  - Facilities
    - Yard Waste
    - Biosolids Composting



# EPA Food Hierarchy – Planning for Recovery



# Increase Recovery Goals

## Commercial Waste Stream



FW: KCI Waste  
Composition Data  
Average

© Kessler Consulting



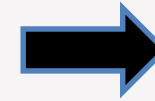
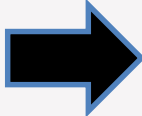
# Commercial/Institutional Programs



# Commercial Sector Example



Amalie Arena, Tampa Bay Lightning  
Food Waste Composting Program  
Source: Amalie Arena



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# Residential Program



## What Goes Where?

### Trash



### Recycling

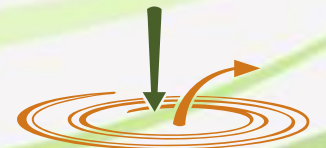


### Organics



FW: 10-18% of Single Family Waste Based on KCI WCS Data

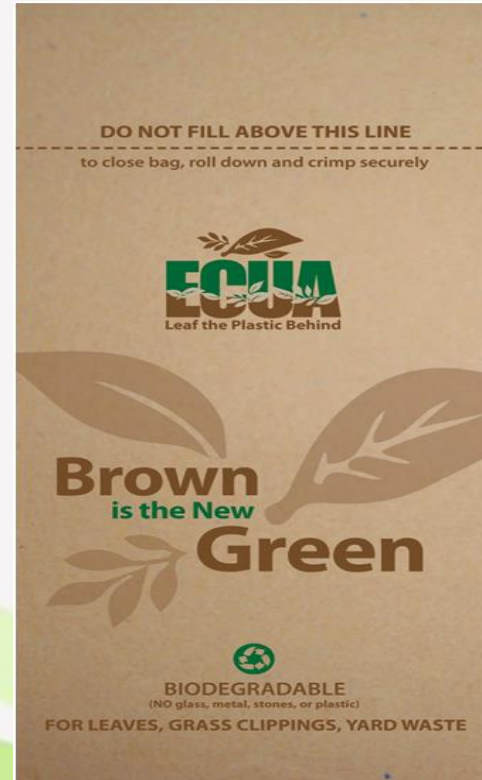
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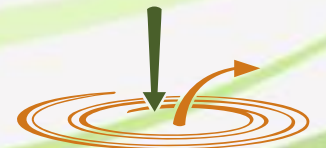
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# Local Government Example

## Emerald Coast Utilities Authority Biosolids and Yard Waste Compost Program

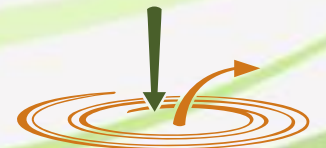


# Collection Infrastructure

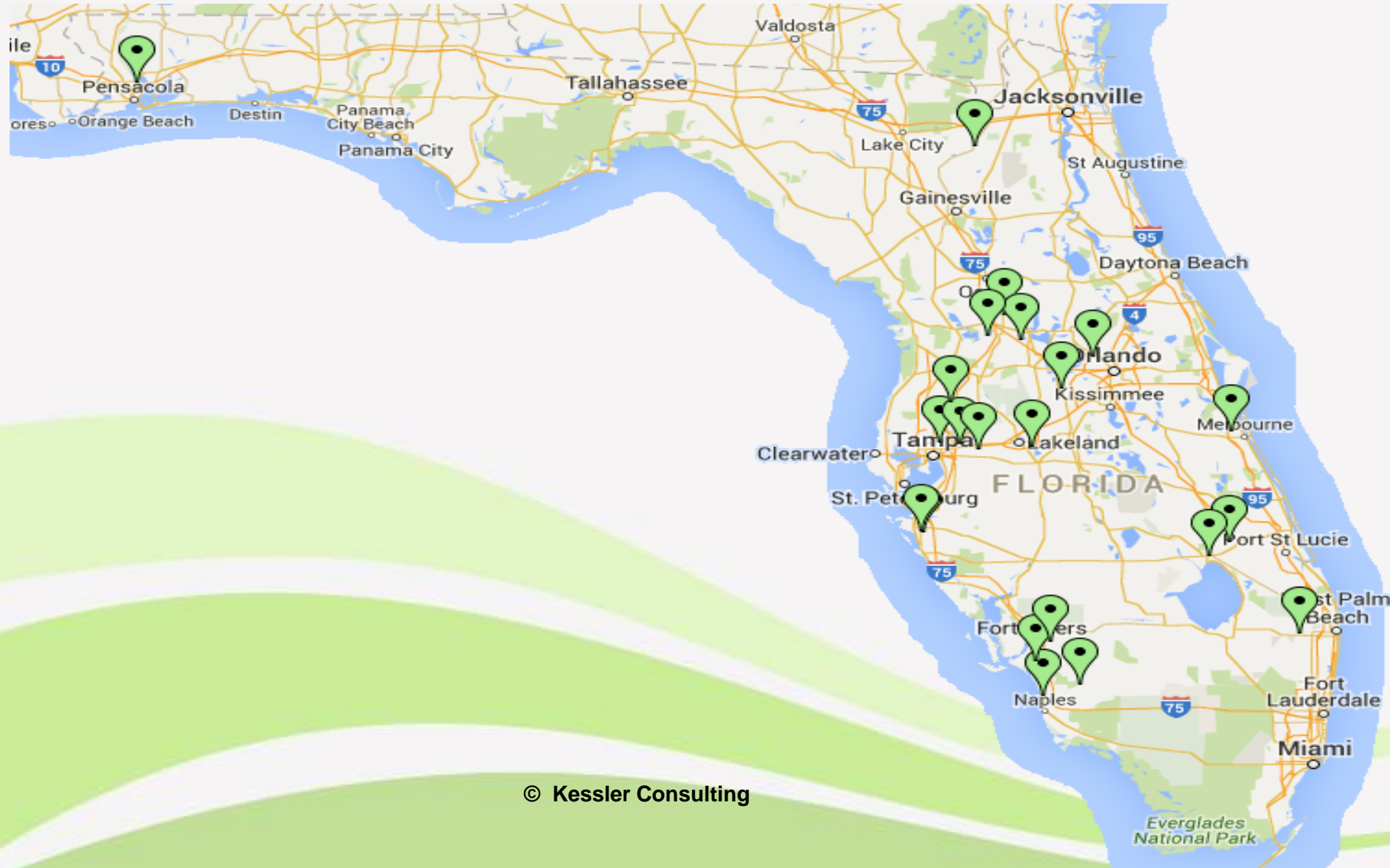


# Processing Infrastructure

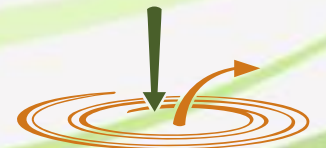
- Processing growth supports hauler service expansion
- Biosolids Facilities
- Yard Waste Facilities
- Food waste facilities in Florida



# Florida STA and Pre-Consumer Vegetative FW Facilities - 2016



© Kessler Consulting



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# Marketing Program and Moving Material

Market	Effort to Develop
Landscape	Low-Moderate
Nursery	High
Topsoil Blending	Low-Moderate
DOT	Moderate
Golf Course	High
Environmental	High
Agriculture	High
Retail (bagged)	High

© Kessler Consulting

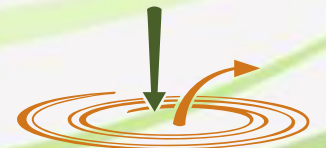




# Local Government Goals

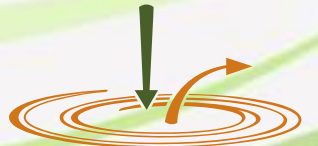
First Zero Waste Plan in the State of FL

- City of Key West, FL
  - 10% recycling rate with a phased in approach to 25% - 40% - 75% (over 10 years)
  - Does not include WTE in calculation, if it did the rate would be higher.



# Organics Recycling and Recovery Overview

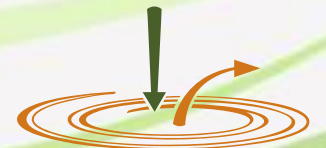
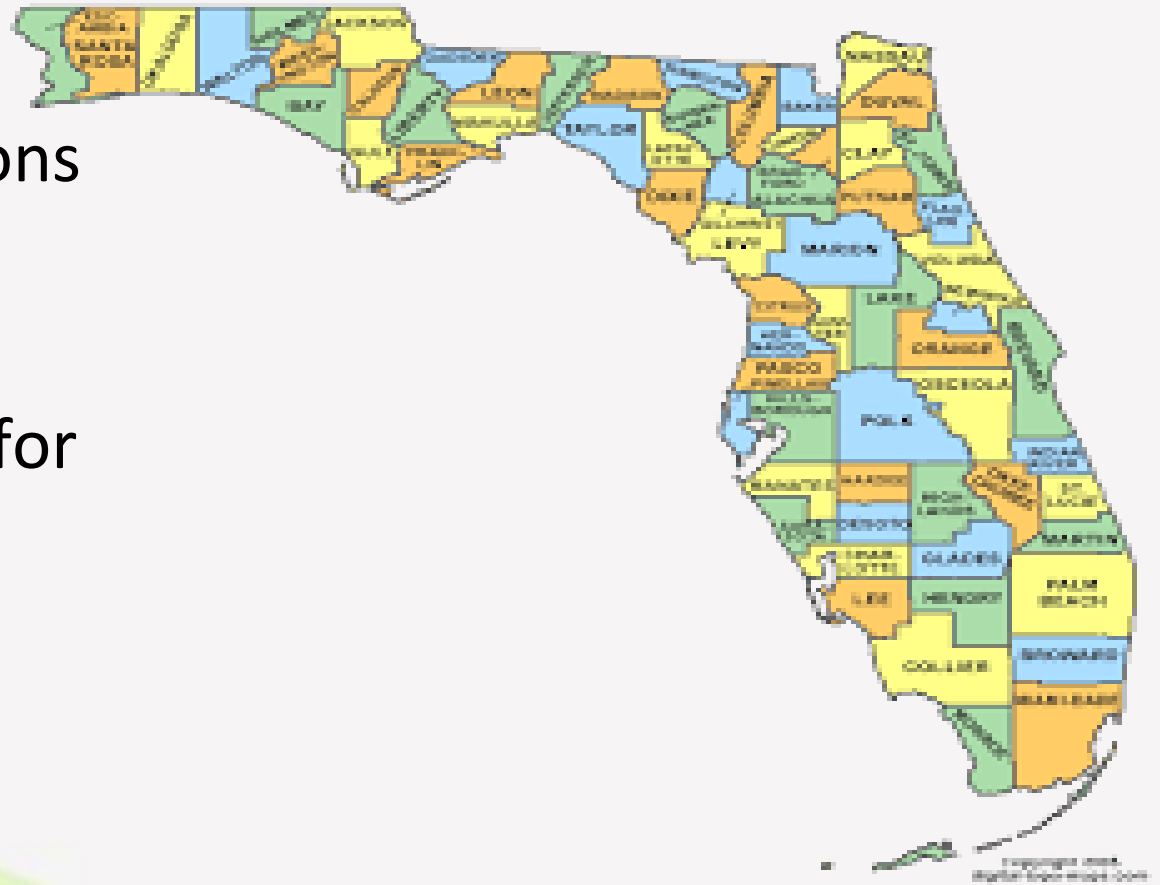
- Organics recycling facility capacity is growing to meet commercial and yard waste demand
- Food scrap collection and processing infrastructure are maturing because of the private sector
- Biosolids composting is growing in the public sector



# Organics Recycling and Recovery

## Florida's Next Steps

- A Champion, understanding definitions and the hierarchy of Materials Management
- Food scrap recovery is next frontier for meeting high diversion goals
- Food scrap recovery mandates / disposal bans



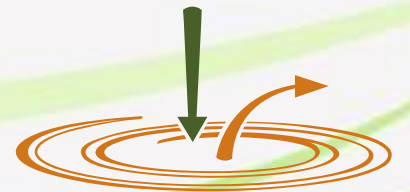
# Contact Information

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(813) 601-5047

[www.kesconsult.com](http://www.kesconsult.com)

[mzimms@kesconsult.com](mailto:mzimms@kesconsult.com)



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# Questions

- Please use the “Questions” tab in in the attendee panel to submit a question
- Use the “Raise Hand” option to be identified for follow up



# FDEP Waste Reduction Staff

- ***Karen Moore***
  - Environmental Administrator
  - [Karen.S.Moore@dep.state.fl.us](mailto:Karen.S.Moore@dep.state.fl.us) or 850-245-8864
- ***Shannan Reynolds***
  - Recycling: Solid Waste Management reports, Recovered Materials Dealer Certification and Reporting, Construction & Demolition Reporting Program, Public Sector Reporting Program
  - [Shannan.Reynolds@dep.state.fl.us](mailto:Shannan.Reynolds@dep.state.fl.us) or 850-245-8716
- ***Laurie Tenace***
  - Special Wastes Management: electronics, mercury, batteries, household hazardous waste, pesticides, pharmaceuticals
  - [Laurie.Tenace@dep.state.fl.us](mailto:Laurie.Tenace@dep.state.fl.us) or 850-245-8759
- ***Henry Garrigo***
  - Grants Management
  - Recycling Market Development
  - [Henry.Garrigo@dep.state.fl.us](mailto:Henry.Garrigo@dep.state.fl.us) or 850-245-8822



# Florida Department of Environmental Protection

## Waste Reduction/Recycling

### Organics in Florida: Part I

### "The State of Organics in Florida"

May 11, 2016

