



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!**



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



US Composting
Council®



Educational Activities

- Compost Operations Training Course- 7th 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



US Composting
Council®



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



US Composting
Council®



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.*



US Composting Council®



Model Rules Template for State Regulations

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>



US Composting
Council®



Strategic Partnerships

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



US Composting
Council®



A GUIDE TO WORKPLACE COMPOSTING



US Composting
Council

KEEP AMERICA
BEAUTIFUL



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/>



US Composting
Council®



Composting Council Research & Education Foundation

- Received second \$75,000 grant to continue development of Certification Program from the 11th 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



US Composting
Council®



Market Development Activities

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



US Composting Council®



Market Development Activities

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



US Composting
Council®





**US Composting
Council**

***Seal of Testing
Assurance®***



**US Composting
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



US Composting
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



US Composting
Council®



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)



US Composting
Council®



Call for abstracts-May 2016



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

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

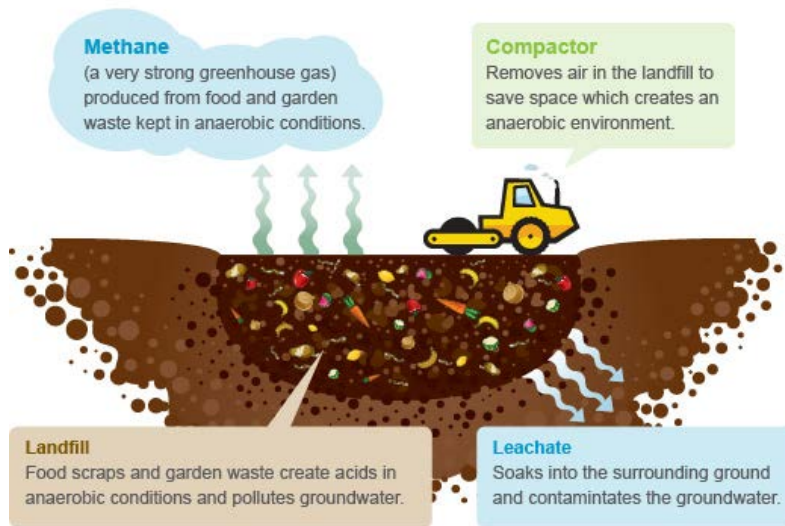
Last resort
is disposal

Least Preferred

 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

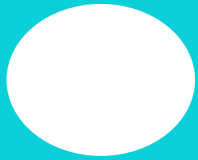
The Cost of Wasted Food



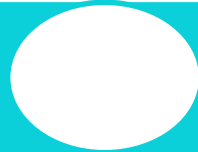
 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

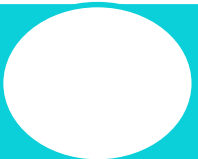
What a Waste



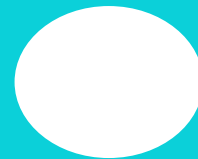
Food loss & waste valued at \$161.6 billion



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.

 **Rethink**

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 CO₂ in 2025**

© Alamy



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW



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

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 COMMUNICATIONS 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

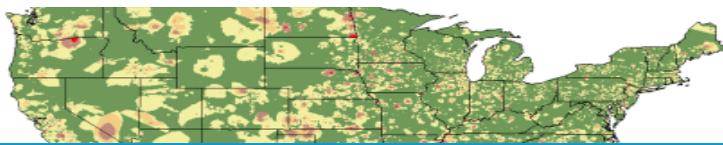
ORGANICS RECOVERY PROGRAM DEVELOPMENT TOOL FOR COLLEGES AND UNIVERSITIES



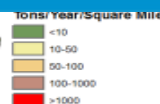
DRAFT DATE: MARCH 31, 2016

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/ceem>

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



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW



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

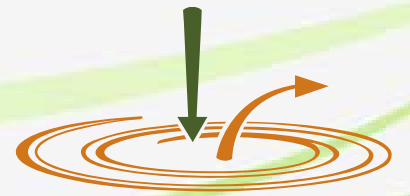




Florida Organics Recycling *History and Current State*

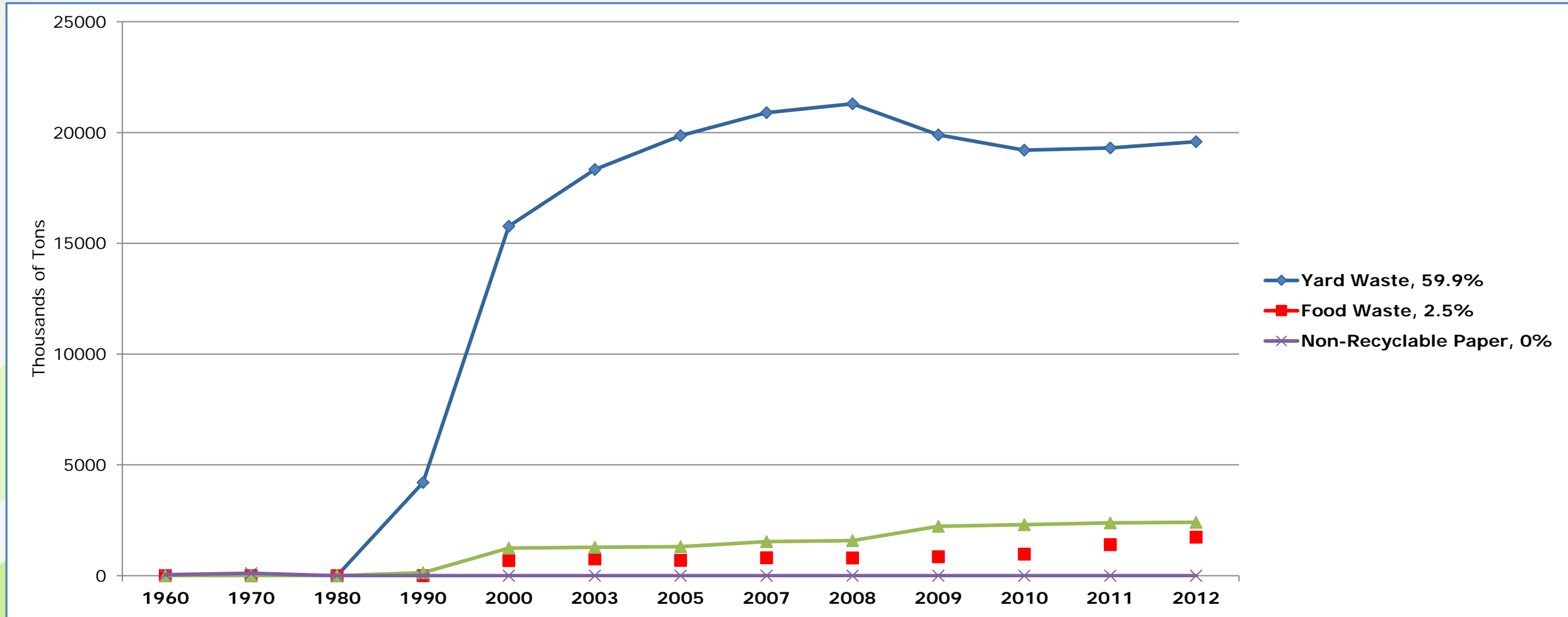
Miriam Kessler, LEED AP®
Lean Six Sigma Green Belt, USCC Compost and SWANA Certified

Florida Department of Environmental Protection
Organics in Florida: Part I "The State of Organics in Florida"
May 11, 2016



kes ler cons It
ive waste solutions

Recovery of Organics



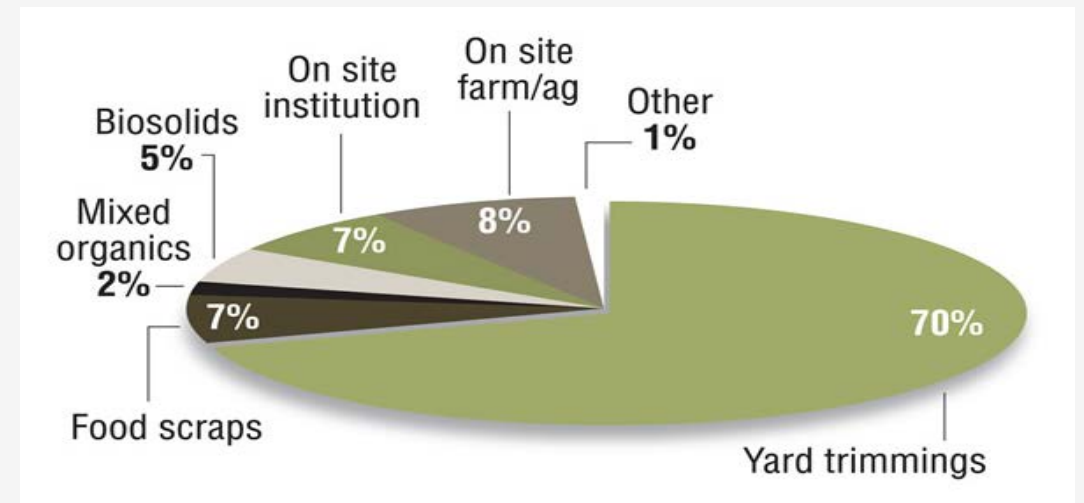
Source: EPA MSW in the U.S., 2012



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.

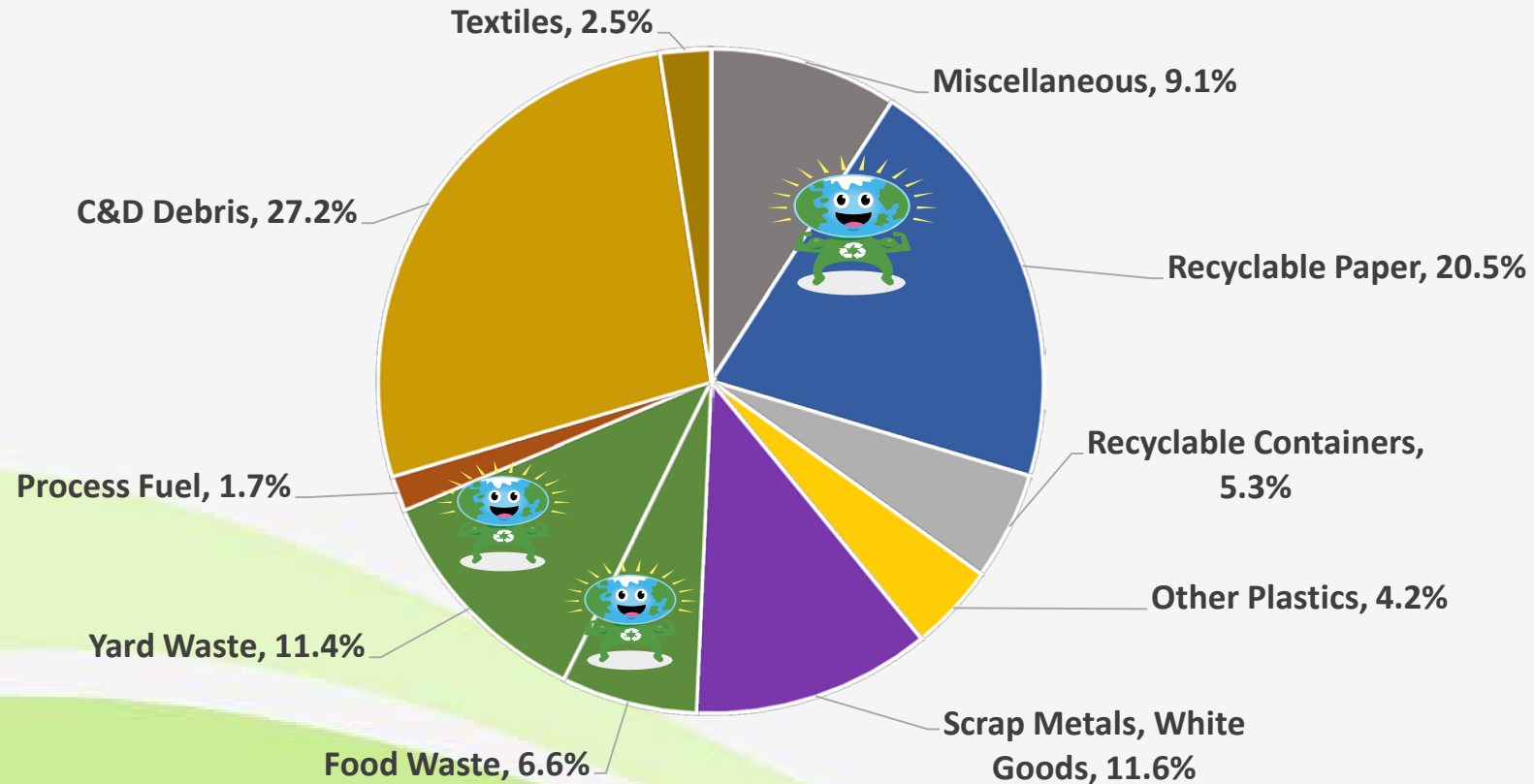


Source: Biocycle, 2014

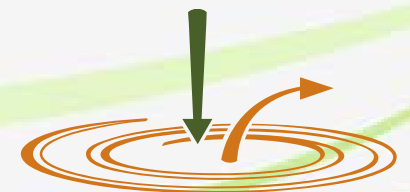


FL MSW Waste Generation

MSW Generated in Florida 2014



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



kes ler cons It
ive waste solutions

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

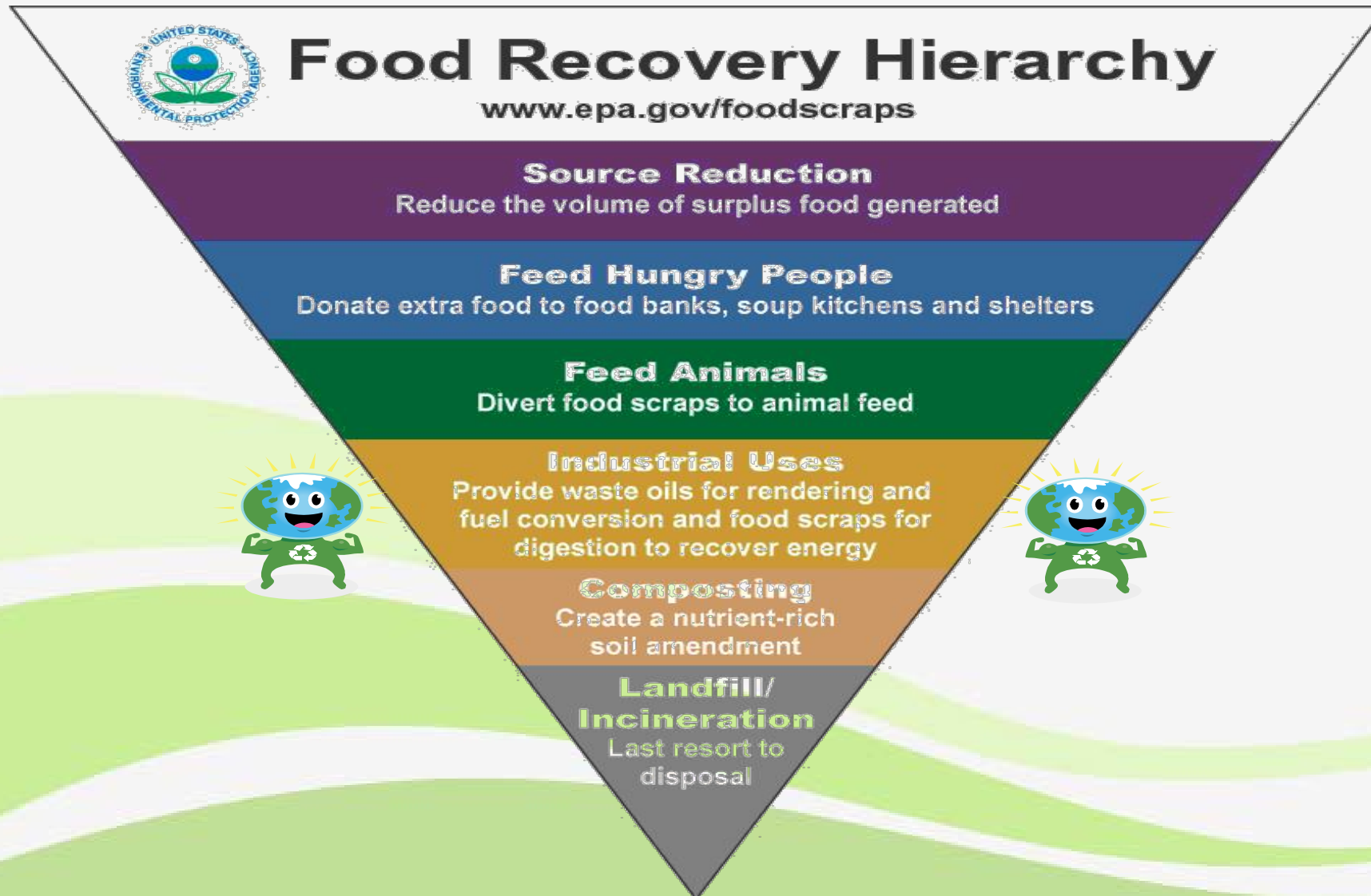


Florida's History (continued)

- 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

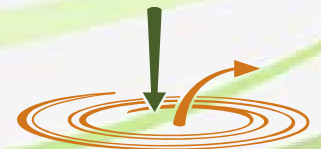
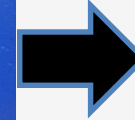
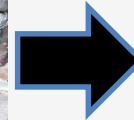
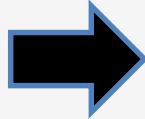
Commercial/Institutional Programs



Commercial Sector Example



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



kes ler cons It i
lutions

Residential Program



What Goes Where?

Trash



Recycling

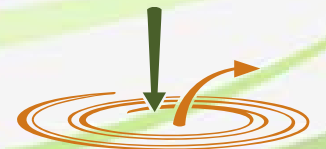


Organics



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

© Kessler Consulting



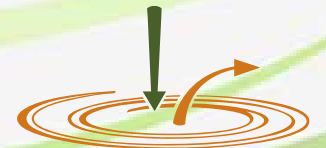
kes ler cons It
lutions

Local Government Example

Emerald Coast Utilities Authority Biosolids and Yard Waste Compost Program

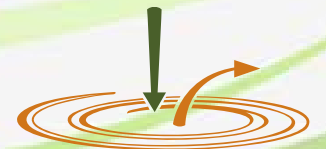


Collection Infrastructure

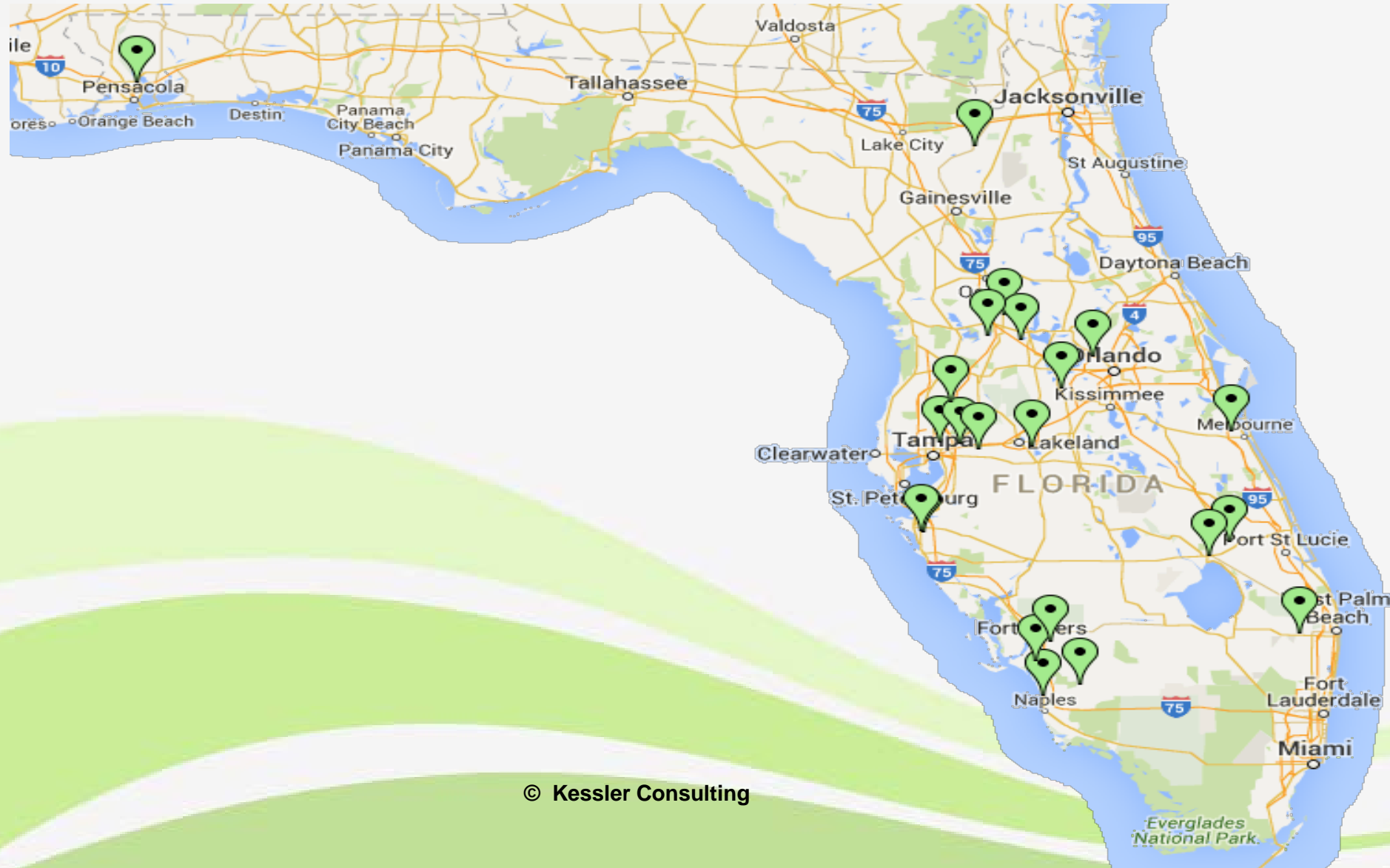


Processing Infrastructure

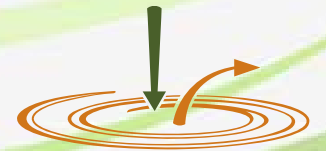
- Processing growth supports hauler service expansion
- Biosolids Facilities
- Yard Waste Facilities
- Food waste facilities in Florida



Florida STA and Pre-Consumer Vegetative FW Facilities - 2016



© Kessler Consulting

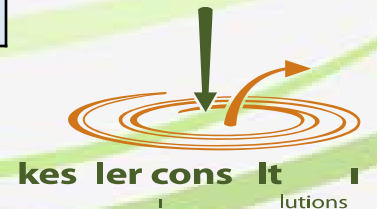


kes ler cons It
lutions

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

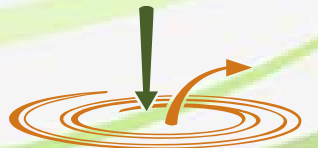
First Zero Waste Plan in the State of FL

- 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

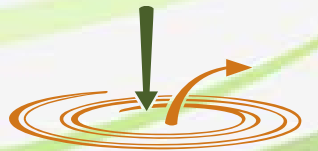
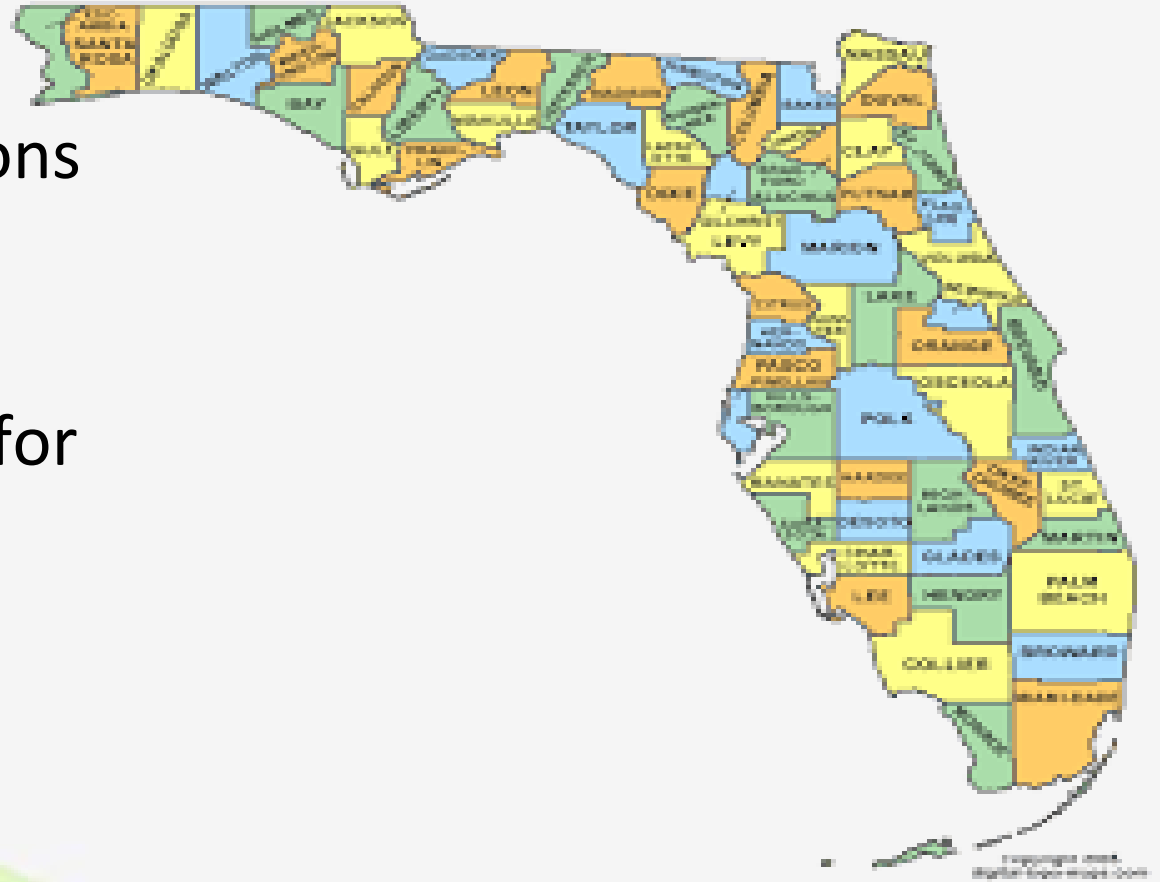
- Organics recycling facility capacity is growing to meet commercial and yard waste demand
- Food scrap collection and processing infrastructure are maturing because of the private sector
- Biosolids composting is growing in the public sector



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



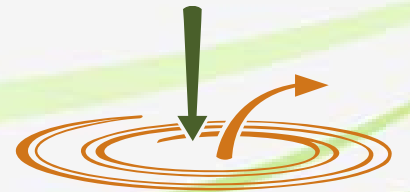
Contact Information

Miriam Kessler
Kessler Consulting, Inc.

(813) 601-5047

www.kesconsult.com

mzimms@kesconsult.com



kes ler cons It |
ive waste solutions



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 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 or 850-245-8716
- ***Laurie Tenace***
 - Special Wastes Management: electronics, mercury, batteries, household hazardous waste, pesticides, pharmaceuticals
 - Laurie.Tenace@dep.state.fl.us or 850-245-8759
- ***Henry Garrigo***
 - Grants Management
 - Recycling Market Development
 - 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

