

# Missouri Statewide Waste Composition Study 2016-2017

#### Presented by Anita Stansfield





## History

Three Studies

2006-2008 Second Study -2 Seasons -15 Facilities-MSW Sort (28 Material Categories) -15 Facilities-Non-MSW Survey

**1996- 1998 Inaugural Study** -3 Seasons over 2 years -19 Facilities-MSW Sort (26 Material Categories) -14 Facilities-Non-MSW Survey 2016-2017 Current Survey

-2 Seasons -16 Facilities-MSW Sort (48 Material Categories) -15 Facilities-Non-MSW Survey

#### <u>Similarities</u>

- Sample Sizes (200-250 lbs)
- Major Categories (MSW, Construction, Demo., Indus., Special, Other)
- Many of the same facilities
- Separated classifications for Residential and Cl
- Continued reporting on MSW and All Solid Waste

#### **Differences**

- Sampling Plan (Demographically)
- Sampling Methodology (more random and representative)
- Visual Surveying/ Gate Survey



## Methodology





## Methodology

Black Oak LF Bridgeton TS Central MO LF Champ LF Columbia LF Courtney Ridge LF F.W. Disposal TS Jefferson City LF Joplin TS Lee's Summit LF Lemons LF Maple Hill LF O'Fallon TS Ozarks TS Pink Hill Acres Demo LF Prairie View LF Springfield LF Springfield Relay TS St. Joseph LF St. Louis Waste TS Timber Ridge Town & Country TS

Figure E-1 Waste Characterization Host Facilities







Figure E-5 Statewide Divertibility of Disposed Wastes





Figure E-2 Missouri Solid Waste Disposal by Waste Type





Figure E-3 Missouri Statewide Waste Composition and Quantities Disposed (tons)



Figure E-4 Top 10 Most Prevalent Materials Statewide





Figure E-6 Missouri Statewide Municipal Solid Waste Composition





 MSW Organics is defined as food waste, wood both clean/untreated and painted/stained/treated, disposable diapers and sanitary products, yard waste and remainder/composite organic (residue remaining).



Food Waste 15.0% OCC/Kraft 8.5% Compostable Paper 8.1% Contaminated Film/Other Film 5.9% Wood - Painted/Stained/Treated 4.5% Mixed Recyclable Paper 4.0% Wood - Clean/Untreated 3.7% Remainder/Composite Organic 3.5% Bulky Items/Furniture 3.1% Disposable Diapers & Sanitary Prod. 3.1%

5.0%

10.0%

15.0%

20.0%

0.0%

Figure E-7 Top 10 Most Prevalent Materials in Statewide MSW Stream





Figure 4-10 Comparison of Residential MSW by Demographic Region



Figure 4-5 Comparison of Aggregate MSW Composition Percentage 2017 vs. 2008





- We developed infrastructure for collection of paper, cardboard, plastics, metal, glass, HHW, electronics and textiles.
- The Study shows we need to recycle more paper, cardboard and plastic and compost more organics.
- How do we do this? Through leadership of the Solid Waste Management Districts.



- Missouri has 20 solid waste management districts. Counties and cities are members.
- Districts plan and implement recycling services, composting and alternatives to landfill disposal at the local level.
- Districts administer grants to support these services. The Department of Natural Resources provides technical assistance.



- Grants to study for Organics Next Steps...
- E2016 and E2017 Project Central school education on recycling and composting
- E2016, E2017 and E2018 Bridging the Gap's Business Recycling & Composting Project
- H2017-008 Food Bank and L2016-020 Operation Food Search



- K2016-006 MU Extension Compost Training the trainer
- L2016, L2017 and L2018 Earth Day on Go, Training vendors and staff for events and Green Dining Alliance restaurant sustainability certification
- Compositing companies' and Compositing Association of Missouri support



- The Waste Composition Study shows us our path ahead: Composting organics, recycling paper, plastic and cardboard and developing markets for our collected materials.
- Missouri Statewide Composition Study
- https://dnr.mo.gov/env/swmp/specialprojects.htm
- <u>anita.stansfield@dnr.mo.gov</u>