WM Organics

• **Almost 30% of the material that we manage are organic in nature** (excluding recycled paper, OCC, etc).

• We processed **2.4 million tons of organics into beneficial uses including composting, mulch operations**

• We collect **food waste from over 700,000 collection customers**

• We operate **40 Organics Facilities**

• We process SSO into an **engineered bioslurry using our CORe technology. Each batch is tested before being pumped into waste water treatment facility digesters**
Layers upon layers

The world we live in

Agriculture
- growing, harvesting

Energy
- Manufacturing
  - processing

Distribution
- transportation
  - wholesale, retailers

Consumption/Use
- consumer, institutions, restaurants

Recovery
- anaerobic digestion, composting

Landfill

Source reduction

Compost

Animal feed

Feed hungry people

Source reduction

Industrial use
- biogas recovery

Renewable energy

Anaerobic digestion

THINK GREEN®
Circles within circles

Policy Drivers
- State/local bans/mandates
- Integrated system cost incentives
- Regulations/enforcement

Education
- To reduce upstream
- To clean downstream

Quality

Customer

Logistics
- Generator logistics
- Collection logistics
- Feedstock quality

Participation

Cost/Price
What is the goal?

To reduce GHG emissions associated with food waste

Reduce wasted food for other environmental and social benefits

The goal isn’t to recycle large percentages of food waste; rather, it is to reduce GHG emissions. Recycling is one way to achieve the goal. Reduction is a better way to achieve the goal.
What does success look like?

- Measured reduction in GHG emissions from food
- Less wasted food
- Other environmental & social benefits
Quality trumps quantity
Foodwaste is a feedstock
Path Forward - logistics

Successful program development requires coordination and expertise throughout the entire organics recycling management chain

1. FEEDSTOCK SUPPLY
   - What types of materials should be included (start with the compost facility - what can it take)?

2. COLLECTION OPERATIONS
   - Collection vehicles and containers are determined by customer needs and also by the type of processing operations.

3. PROCESSING OPERATIONS
   - The type of processing capacity used or developed depends on the type and amount of materials

4. PRODUCT DEMAND
   - Product demand and pricing plays a significant role in the development of successful and sustainable organics programs.
Making peace with packaging

- Protects food, reduces food waste
- Creates packaging waste
- Can facilitate recycling
- Increases contamination

Should we ban, tax, recycle, compost, burn or landfill it?

Do we love packaging or do we hate it?

How can we minimize customer confusion?
Education to reduce wasted food

**Reducing Food Waste**

**What Schools Can Do Today**

An estimated 33% (133 billion pounds) of the overall food supply was wasted at the retail and consumer level in the U.S. in 2010.

- **Scheduling recess before lunch can reduce plate waste by as much as 30%**
- **Extending lunch periods from 20 to 30 minutes reduced plate waste by nearly one-third**

**Smarter Lunchroom Strategies:**

- Allowing students to keep school or breakfast foods for consumption later in the school day
- Using techniques listed on the Smarter Lunchrooms Self-Assessment Scorecard to help reduce food waste
- Setting up a table for kids to place items they are not going to consume (packaged or pre-prepared items)
- Sorting kids’ leftovers
- Composting food waste for school gardens
- Collaborating with local farmers on composting or food recovery projects
- Collecting excess wholesale food after mealtime to donate to worthy organizations
- Sign up for the U.S. Food Waste Challenge to share your story on how you are reducing, reusing, or recycling food waste

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**Ugly Fruit - From Treehugger**
Education and outreach for end-of-life recovery
Ongoing and focused efforts make a difference
Community engagement

Door-to-door education
What works? What doesn’t work?

Groceries stores, food manufacturers, and large restaurants that generate large volumes of food are most likely to participate. Some are green-minded businesses.

Challenges include contamination, staff training, the “Yuk Factor” and finding room for extra containers.

Even after 8 years we still don’t have the route density needed for this line of business to be profitable.

Contamination and route density are our greatest hurdles.

Compostable packaging is incredibly confusing for customers. Biodegradable labelling just makes it worse.
How do we define success?

Questions to consider:

• Will aggressive goals create unintended consequences?
• How can we keep the focus on reduction first, and on feedstock quality over quantity?
• Can we work along the entire value stream to coordinate programs and messaging?
• How much cost will customers bear? Will local policies support the cost of successful programs?
• Education, education, education. How do we monetize and measure the value of educate on upstream reduction as well as downstream quality?