US EPA
Sustainable Food Management
“Feed People Not Landfills”
21 August 2012
www.epa.gov/foodrecovery
What is “waste”?

“to fail or neglect to use; squander”

Business 101:

Waste = Inefficiency
34 Million Tons of Food Waste
Disposed

= 67,580,000,000 pounds
(that's billions of pounds)

#1 MSW Commodity
Sent for Disposal

2010 Materials Discarded (M tons)
Where does it all go?

....to a landfill
(a.k.a the dump)
And this is a landfill
It doesn’t go away … it’s neatly and safely stored in the ground

Cross-section of an active landfill:

- **Daily cover**: No landfill refuse is left exposed overnight – at the end of each day, all refuse is covered with at least six inches of compacted soil.
- **Refuse cell**: Compacted garbage surrounded by soil from daily cover.
- **Leachate collection**: Perforated pipes in a layer of sand collect rainwater that has filtered through the landfill (leachate).
- **Plastic liner**: Prevents soil and water contamination.
- **Clay barrier**: Prevents soil and water contamination.
Forever – there is no “away"
(even for “biodegradables & compostables)

* Landfills are the 3rd largest source of Methane
  21+ times more potent carbon dioxide

* Generating Methane gas for decades
  … and food waste is a major cause of landfill Methane
HUGE wasted resource

• Even a small percentage recovered could feed millions!
• Let’s first *Feed People – Not Landfills*
Then feed the soil
Adding compost to soil:

• For every 1% of organic matter, the soil can hold 16,000 gallons of plant-available water per acre of soil down to one foot deep!

• Soil organic matter also:
  – Reduces drought & reduces need for irrigation
  – Reduces or prevents soil erosion
  – Reduces the need for fertilizers & pesticides
  – Restores damaged & contaminated soils
Which in Turn - Feeds People

Model for Sustainability

Balancing Profits, Planet, People

Save Money - Labor, Products, Waste disposal costs

Protect Natural Resources

Help People
Sustainable Food Management

• Instead of constantly trying to manage this fast growing waste stream ... let’s reduce it FIRST

• How? ...... follow the Food Recovery Hierarchy
Food Recovery Hierarchy

1. Source Reduction
2. Feed Hungry People
3. Feed Animals
4. Industrial Uses
5. Composting
6. Incineration or Landfill

Most Preferred

Least Preferred

www.epa.gov/foodrecovery
• **Step #1: Source Reduction** - reducing waste at the “source”
  – Reducing over-buying & processing wastes
  – Reducing over preps & plate waste

• **Step #2: Feed Hungry People**
  – Donating wholesome food, supplies and prepared foods to food banks, rescues, pantries, and kitchens
Source Reduction

“Back of the house”
- Analyze your food waste stream
  - Mohegan Casino in CT found that 37.5% of their waste stream was food waste

“Front of the house”
- Trayless dining has been shown to reduce food waste by up to 40% 
- Offer a wider variety of portion sizes
Donations Make a Difference!

- **Walmart**
  - 2010: donated 256 million pounds (128,000 tons) of food to hunger relief organizations. *The equivalent of 197 million meals*
  - By 2013, the company expects to donate more than 1.1 billion pounds of food.
  - 1.1 B lbs = 550,000 tons

- **Confederated Tribes of Umatilla**
  - Materials Exchange center that serves as a distribution center for donated items
Making the Most of Your Resources

• **Step #3: Feed Animals**
  – Local farmers use food scraps as animal feed; food scraps processed into animal feed

• **Step #4: Industrial Uses**
  – Fat, oil and grease (FOG) can be converted into soaps, cosmetics, and biodiesel fuel; anaerobic digestion of food waste for energy production **w/residuals then being composted**
• Step #5: Composting
  – Composting on-site or sending to off-site composting operation

• Step #6: Landfill/Incineration
  – Last resort is disposal
    • Includes anaerobic digesters where the digestate (residual) is landfilled or WTE where the ash is landfilled
Sustainable Food Management

What is actually happening to the food resources (materials) – where do they ultimately go?

Model of Sustainability
(cradle to cradle)

Food User/Waste Generator (maximize food waste prevention)

Food / crop Production

Zero Waste

Soil Amendment/Composting

Food Donation (surplus edible food)

Un-Sustainable
(cradle to grave)

Food User/Waste Generator

Energy Production

Landfill/Incinerator

• Energy production combined with soil amendment production/composting of the residuals comes in above plain composting.
• BUT energy production with disposal of the residuals falls below composting.
EPA Tools & Resources:
Waste Audit Sheets, Calculators, Guides...

www.epa.gov/foodrecovery
US EPA Offers “Challenge” to Business & Industry

• Food Waste: Huge Problem & Opportunity

• Take the Food Recovery Challenge and together – let’s take a bite out of food waste!

• Participating organizations can receive national recognition for their outstanding Challenge achievements & leadership

www.epa.gov/foodrecoverychallenge
Food Recovery Challenge

Four Easy Steps!

1. **Assess It!** Conduct baseline food waste assessment within first 90 days of joining

2. **Set a Goal!** Set a three year goal to increase food reduction/diversion by 5% in the first year.

3. **Do It!** Undertake food waste reduction and recovery activities to meet your goals!

4. **Track It!** Report annually using ReTRAC
What’s In It For You...

- Reduce your costs
- Feed your communities
- Protect your environment

EPA United States Environmental Protection Agency
We Need Champions - Join Us!

To Do List:

- **Join Us at:**
  
  www.epa.gov/foodrecoverychallenge

- **Do a Waste Audit** – *Know What You Throw*
  
  (free tools on Food Recovery & WasteWise web pages)

- **Contact Your Local Food Bank & Rescues**

- **Find a Local Composter** *(www.FindAComposter.com)*

- **Modify Your Service Contracts**
Thank You

Questions?

For more info …

www.epa.gov/foodrecovery

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