Brenda Platt
Director, Composting Makes $en$e Project
Institute for Local Self-Reliance

COMPOSTING & COMMUNITY RESILIENCE

Prince George’s County Planning Department Speaker Series
Upper Marlboro, MD, November 20, 2013
PAY DIRT: COMPOSTING IN MD TO REDUCE WASTE, EXPAND JOBS & PROTECT THE BAY

- What is compost and composting
- Why compost
- Current infrastructure in Maryland
- Potential to expand
- Benefits of expansion
  + Jobs
  + Watershed benefits
- Importance of diverse composting infrastructure
- Policies to overcome obstacles
- Ideas for moving forward
Composting Makes $en$e

- Expanding composting = supporting made-in-America industry
- 1,400 new jobs could be supported for every 1 million tons of food scraps and yard trimmings converted into compost and used locally
- These jobs could pay $23 million to $57 million in wages
- Small-scale community-based composting works
- Composting sustains 2x more jobs than landfilling and 4x times more than burning trash (on a per-ton basis)
- Healthy soils need organic matter like compost

Pay Dirt:
Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay

LEARN MORE www.ilsr.org/paydirt
WHAT IS COMPOST AND COMPOSTING?

**Compost:** A dark, crumbly, earthy-smelling material produced by the natural decomposition of organic materials.

**Composting:** The aerobic, or oxygen-requiring, decomposition of organic materials by microorganisms, under controlled conditions. During composting, the microorganisms consume oxygen. Active composting generates heat, carbon dioxide, and water vapor. Composting reduces the volume and mass of the raw materials while transforming them into a valuable soil conditioner.

ORGANIC MATERIALS

- Leaves
- Yard trimmings
- Brush and branches
- Food scraps
- Compostable packaging & paper
- Compostable plastics
Recycle Food Scraps!

Accepted:
• Fruit and vegetable scraps
• Egg shells
• Bread, pasta, rice, grains, cereal
• Cakes, pies, cookies, baked goods
• Nuts, beans, seeds
• Corn cobs and husks
• Coffee grounds, filters, tea bags (no foil or foil-backed products)
• Paper towels and napkins
• Uncoated paper plates
• Pizza boxes (remove non-food items)
• Ice cream containers
• Paper egg cartons and paper bags
• House plants
• Cut flowers
• Small quantities of:
  - Grass and leaves

Not Accepted:
• Meat or fish (including bones)
• Dairy (cheese, butter, ice cream, etc.)
• Fats, oils, grease
• Facial tissues
• Styrofoam
• Diapers
• Pet waste
• Plastic-coated paper plates or bowls
• Plastics of any kind, including bio-degradable plastics
• Milk cartons: Recycle in your blue bin/cart
• Waxed paper or waxed cardboard, aluminum foil, or plastic wrap
  Please recycle cardboard and clean aluminum foil in your blue bin or cart.

www.HowardCountyRecycles.org  410-313-6444
COMPOSTING, LOTS OF WAYS
EQUIPMENT

- Moving materials
- Aerating/turning
- Grinders
- Mixing
- Watering
- Screening
EQUIPMENT BEST FRIENDS FOR SMALL-SCALE SITES
COMPOST APPLICATIONS

- landscape and nursery
- agricultural and horticultural
- vegetable and flower gardens
- tree and shrub planting
- sod production and roadside projects
- wetlands creation
- soil remediation and land reclamation
- sports fields and golf courses
- sediment and erosion control
COMPOST ENHANCES SOIL

- Creates a rich nutrient-filled material, humus
- Increases the nutrient content in soils
- Improves soil tilth, aeration, and water-holding capacity
- Reduces or eliminate the need for chemical fertilizers
- Suppresses soil-borne plant diseases and pests
- Promotes higher yields of agricultural crops
- Helps regenerate poor soils
- Has the ability to cleanup (remediate) contaminated soil
- Saves gardeners the money used to buy alternatives such as peat moss, fertilizer, or vermiculite
OTHER BENEFITS OF COMPOSTING & COMPOST

- Reduces waste
- Cuts emissions from landfilling & trash burning
- Reduces stormwater run-off & soil erosion
- Creates jobs & supports local economies
- Protects the climate


U.S. Municipal Waste Disposed (after recycling)

164.7 million tons in 2010

[Image of pie chart showing composition of waste]

Image credit: STOP TRASHING THE CLIMATE
HUMUS
HE COULD BE THE ONE—HE DRIVES A HYBRID... BUT DOES HE COMPOST?

THE UNLIKELY ENVIRONMENTALISTS
COMPOST: FOUNDATION OF HEALTHY SOIL AND GREEN INFRASTRUCTURE

- Stormwater management (low-impact development)
- Water conservation (the cheapest “new supply” of water)
- Sustainable landscapes
- Sustainable local/regional agriculture

Added benefit of cost-effective waste diversion


Above photos courtesy: Filtrexx
WATERSHED BENEFITS OF COMPOST USE

- Non-point source pollution prevention
- Erosion & sedimentation control
- Improved water retention
- Reduced chemical needs
- Improved soil quality & structure
- Reduced costs
- Job creation

**Compost holds 20 times its weight in water**

Credit: City of Portland, Oregon Bureau of Environmental Services

Denbow, www.denbow.com

Filtrexx, www.filtrexx.com
Building Healthy Soils with Compost to Protect Watersheds

May 2013
By Bobby Bell and Brenda Platt

Summary

Healthy soils are essential for protecting our watersheds. A key element in agricultural water quality management is the use of organic amendments, such as compost. Compost can improve soil structure, increase water-holding capacity, and provide a source of nutrients. It also serves as a sink for nutrients and can help to reduce runoff of nutrients and sediment. In addition, compost can be used as a soil amendment to improve soil fertility and water retention, reducing the need for irrigation and chemical fertilizers. Compost also helps to improve soil aeration and can reduce the production of greenhouse gases. The Institute for Local Self-Reliance (ILSR) is a non-profit research and action organization that promotes local self-reliance through research, education, and community-based projects.

MCS Inc., www.mcsnjinc.com

www.ilsr.org/paydirt

Denbow, www.denbow.com
PORTLAND GREEN STREETS

- Cost-effective peak flow reduction of 80+%  
- Filtration of pollutants  
- Groundwater recharge  
- Soil rehabilitation  
- Improved pedestrian safety  
- Neighborhood beautification  
- Volume detention to handle most rain events  
- Provide more space to plant trees  
- Increase home values  
- Alleviate urban “heat island” effect

Street Planters, curb extensions, simple green strips

Source: David Elkin, landscape architect, GreenWorks, PC, Portland, OR.
www.sustainablecitynetwork.com
MONTGOMERY COUNTY, MD
RAINSCAPES REWARDS REBATE PROGRAM

- BMP for rain gardens: amending soil with compost
- Conservation landscapes: required to have 3-inch layer of compost (incorporated to create a 6-12 inch improved soil layer)
- Property owners offered rebate for low-impact development installations
  + $2,500 max for residential
  + $10,000 max for commercial, multi-family, or institutional
- Replicated in Gaithersburg & Rockville
  Over 100 Certified RainScapes Professionals
This District-wide program offers incentives to homeowners to reduce stormwater runoff from their properties. Homeowners receive up to $1,200 to adopt one or more landscape enhancements:

- Shade tree planting
- Rain barrels
- Pervious pavers
- Raingardens
- BayScaping

http://green.dc.gov/riversmarthomes
COMPOSTING = LOCAL JOBS

- Organics do not ship well
- Composting is small-scale
- Jobs are local
- Compost products are used locally
- Dollars circulate within local economies
- Local = good for local economies
- Composting linked to urban food production
- Composting diversifies farm products and saves money

On a per-ton basis, composting sustains 2 x more jobs than landfills and 4 x more than MD’s three trash incinerators
# Jobs Sustained: Composting vs. Disposal

<table>
<thead>
<tr>
<th>Company</th>
<th>Compost, Mulch, Natural Wood Waste</th>
<th>Incineration</th>
<th>Landfill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of facilities</td>
<td>23</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Range in size TPY</td>
<td>16 - 75,000</td>
<td>117,999 – 676,434</td>
<td>11,182 – 162,000</td>
</tr>
<tr>
<td>Range in FTE Jobs</td>
<td>1 - 26</td>
<td>43 - 68</td>
<td>5 - 46</td>
</tr>
<tr>
<td>Total TPY Processed</td>
<td>358,230</td>
<td>1,329,530</td>
<td>583,597</td>
</tr>
<tr>
<td>Total FTE Jobs</td>
<td>147</td>
<td>160</td>
<td>126</td>
</tr>
<tr>
<td>Jobs/10,000 TPY</td>
<td>4.1</td>
<td>1.2</td>
<td>2.2</td>
</tr>
</tbody>
</table>

FTE = full-time equivalent  
TPY = tons per year

www.ilsr.org/paydirt

**Types of Jobs at Compost Sites**

- Vehicle Drivers
- Other Equipment Operators
- Supervisors, Management,
- Administration, Dispatch
- Business Development
- Product Marketing and Development
- Communications, Public Relations
- Accounting
## Smaller Facilities Employ More Per Ton

<table>
<thead>
<tr>
<th>Company</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of facilities</td>
<td>10</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Range in size TPY</td>
<td>16 - 4,000</td>
<td>5,400 - 19,010</td>
<td>20,000 - 75,000</td>
</tr>
<tr>
<td>Range in FTE Jobs</td>
<td>1 - 8</td>
<td>2 - 10</td>
<td>5 - 26</td>
</tr>
<tr>
<td>Total TPY Processed</td>
<td>21,306</td>
<td>79,278</td>
<td>257,646</td>
</tr>
<tr>
<td>Total FTE Jobs</td>
<td>29</td>
<td>47</td>
<td>71</td>
</tr>
<tr>
<td>Jobs/10,000 TPY</td>
<td>13.6</td>
<td>5.9</td>
<td>2.8</td>
</tr>
</tbody>
</table>

FTE = full-time equivalent  
TPY = tons per year

www.ilsr.org/paydirt
LOCAL COMPOST USE = MORE DIRECT JOBS

These 13 companies sustain ~8 job positions for every 10,000 cubic yards of compost they use per year.

<table>
<thead>
<tr>
<th>Company</th>
<th>State</th>
<th>FTE Involved with Compost</th>
<th>CY Compost Used/YR Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtrexx of Silicon Valley</td>
<td>CA</td>
<td>1.5</td>
<td>2,000</td>
</tr>
<tr>
<td>Sustainable Env. Consulting</td>
<td>KS</td>
<td>5</td>
<td>17,778</td>
</tr>
<tr>
<td>Gold Leaf Group</td>
<td>MD</td>
<td>6</td>
<td>2,146</td>
</tr>
<tr>
<td>Oreg</td>
<td>MD</td>
<td>1</td>
<td>350</td>
</tr>
<tr>
<td>Eco-Constructors</td>
<td>MO</td>
<td>7</td>
<td>5,000</td>
</tr>
<tr>
<td>Eco-Fx</td>
<td>NC</td>
<td>9</td>
<td>10,000</td>
</tr>
<tr>
<td>Flitrexx Northeast Systems</td>
<td>NH</td>
<td>6</td>
<td>4,500</td>
</tr>
<tr>
<td>MCS Inc.</td>
<td>NJ</td>
<td>4</td>
<td>6,000</td>
</tr>
<tr>
<td>River Valley Organics</td>
<td>PA</td>
<td>10</td>
<td>12,500</td>
</tr>
<tr>
<td>Landscape Contracting and Irrigation Inc.</td>
<td>TX</td>
<td>2</td>
<td>2,500</td>
</tr>
<tr>
<td>USA Erosion Inc.</td>
<td>TX</td>
<td>4</td>
<td>10,000</td>
</tr>
<tr>
<td>Soil Express LTD</td>
<td>TX</td>
<td>8</td>
<td>4,139</td>
</tr>
<tr>
<td>Wims Environmental Construction LTD</td>
<td>TX</td>
<td>7</td>
<td>7,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>70</strong></td>
<td><strong>84,413</strong></td>
</tr>
</tbody>
</table>

CY = cubic yards  FTE = full-time equivalent

## JOB CREATION: COMPOSTING VS. DISPOSAL

<table>
<thead>
<tr>
<th>Type of Operation</th>
<th>Jobs/10,000 TPY</th>
<th>Jobs/$10 million capital investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composting Facilities</td>
<td>4.1</td>
<td>21.4</td>
</tr>
<tr>
<td>Compost Use</td>
<td>6.2</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Total Composting</strong></td>
<td><strong>10.3</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Disposal Facilities:
- Landfilling: 2.2 jobs/$10 million capital investment
- Burning (with energy recovery): 1.2 jobs/$10 million capital investment

On a per-ton basis, composting production and use sustain almost 5 times more jobs than landfilling and 9 times more than burning.

$ converted to constant 2010$

TPY = tons per year (for composting, tons represent original material, not the amount of compost produced)


Photo courtesy of MCS, Inc
### POTENTIAL NEW JOBS BY COMPOSTING 1 MILLION TONS OF ORGANICS DISPOSED IN MD

<table>
<thead>
<tr>
<th>Option</th>
<th>FTE Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burning</td>
<td>120</td>
</tr>
<tr>
<td>Landfilling</td>
<td>220</td>
</tr>
<tr>
<td>Composting</td>
<td>740</td>
</tr>
<tr>
<td>Compost Use</td>
<td>620</td>
</tr>
<tr>
<td><strong>Total Composting</strong></td>
<td><strong>1,360</strong></td>
</tr>
</tbody>
</table>

FTE = full-time equivalent

[www.ilsr.org/paydirt](http://www.ilsr.org/paydirt)

MCS Inc. worker installing growing media made from compost on green roof. [www.mcsnjinc.com](http://www.mcsnjinc.com)
Composting operations in Maryland already sustain more total jobs than the state’s three trash incinerators, which handle almost twice as much tonnage.

On a per-ton basis, composting in Maryland employs two times more workers than landfilling, and four times more than the state’s trash incinerators.

On a per-dollar-capital investment basis, for every $10 million invested, composting facilities in Maryland support twice as many jobs as landfills and 17 more jobs than incinerators.

Wages at composting facilities typically range from $16 to $20 per hour.

Jobs are sustained in each stage of the organics recovery cycle: manufacturing and using compost.

In addition to manufacturing compost, using compost in “green infrastructure” and for stormwater and sediment control creates additional jobs.

An entire new industry of contractors who use compost and compost-based products for green infrastructure has emerged, presenting an opportunity to establish a new made-in-America industrial sector.

Utilizing 10,000 tons of finished compost annually in green infrastructure can sustain one new business. For every 10,000 tons of compost used annually by these businesses, 18 full-time equivalent jobs can be sustained.

For every 1 million tons of organic material composted, followed by local use of the resulting compost in green infrastructure, almost 1,400 new full-time equivalent jobs could potentially be supported.

These 1,400 jobs could pay wages from $23 million to $57 million per year.

Composting and compost use represent place-based industries that cannot be outsourced abroad.
WHY NOT MD COMPOST?

Maine produced compost sold at Maryland retail outlets
RESIDENTIAL YARD TRIM COMPOSTING PROGRAMS WELL DEVELOPED IN MD

Grasscycling
Information for Landscape Contractors

- Please have the label facing the street for proper collection -

YARD TRIM
GRASS - LEAVES - BRUSH
Montgomery County, Maryland

INSTITUTE FOR
Local Self-Reliance
## Contribution of Composting Yard Trim to MD Recycling Rate, 2010

<table>
<thead>
<tr>
<th>County</th>
<th>MRA Recycling Rate (%)</th>
<th>Diversion Rate (%)</th>
<th>Composted, tons</th>
<th>MRA Recycled (including composted)</th>
<th>% Composted of MRA Recyclables</th>
<th>% Composted of MSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worcester</td>
<td>22.9%</td>
<td>22.9%</td>
<td>12,585</td>
<td>19,938</td>
<td>63.1%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Wicomico</td>
<td>18.9%</td>
<td>18.9%</td>
<td>2,872</td>
<td>22,573</td>
<td>12.7%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Washington</td>
<td>42.3%</td>
<td>43.3%</td>
<td>1,095</td>
<td>62,950</td>
<td>1.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>St. Mary's</td>
<td>36.6%</td>
<td>40.6%</td>
<td>7,478</td>
<td>32,041</td>
<td>23.3%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Somerset</td>
<td>18.4%</td>
<td>18.4%</td>
<td>6</td>
<td>4,057</td>
<td>0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Prince George's</td>
<td>40.4%</td>
<td>45.4%</td>
<td>77,410</td>
<td>339,400</td>
<td>22.8%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>47.2%</td>
<td>52.2%</td>
<td>174,569</td>
<td>500,425</td>
<td>34.9%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Mid-Shore⁵</td>
<td>50.3%</td>
<td>50.3%</td>
<td>12,061</td>
<td>107,051</td>
<td>11.3%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Howard</td>
<td>45.9%</td>
<td>49.9%</td>
<td>79,602</td>
<td>216,947</td>
<td>36.7%</td>
<td>16.9%</td>
</tr>
<tr>
<td>Harford</td>
<td>56.8%</td>
<td>59.8%</td>
<td>58,542</td>
<td>155,780</td>
<td>37.6%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Garrett</td>
<td>45.2%</td>
<td>46.2%</td>
<td>9,048</td>
<td>18,243</td>
<td>49.6%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Frederick</td>
<td>44.3%</td>
<td>49.3%</td>
<td>27,194</td>
<td>107,443</td>
<td>25.3%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Dorchester</td>
<td>19.0%</td>
<td>19.0%</td>
<td>1,126</td>
<td>9,001</td>
<td>12.5%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Charles</td>
<td>39.0%</td>
<td>44.0%</td>
<td>29,842</td>
<td>52,575</td>
<td>56.8%</td>
<td>22.2%</td>
</tr>
<tr>
<td>Ceci</td>
<td>45.9%</td>
<td>49.9%</td>
<td>49,701</td>
<td>70,540</td>
<td>70.5%</td>
<td>32.3%</td>
</tr>
<tr>
<td>Carroll</td>
<td>41.2%</td>
<td>46.2%</td>
<td>37,359</td>
<td>73,095</td>
<td>51.1%</td>
<td>21.0%</td>
</tr>
<tr>
<td>Calvert</td>
<td>26.1%</td>
<td>26.1%</td>
<td>1,275</td>
<td>16,464</td>
<td>7.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Baltimore County</td>
<td>41.0%</td>
<td>46.0%</td>
<td>97,825</td>
<td>433,207</td>
<td>22.6%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>27.0%</td>
<td>27.0%</td>
<td>4,234</td>
<td>188,170</td>
<td>2.3%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Anne Arundel</td>
<td>44.1%</td>
<td>47.1%</td>
<td>96,354</td>
<td>279,379</td>
<td>34.5%</td>
<td>15.2%</td>
</tr>
<tr>
<td>Allegany</td>
<td>25.2%</td>
<td>27.2%</td>
<td>6,061</td>
<td>21,922</td>
<td>27.6%</td>
<td>7.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>786,239</td>
<td>2,731,201</td>
<td>28.8%</td>
<td>11.8%</td>
</tr>
</tbody>
</table>

* MRA = Maryland Recycling Act  
* Waste Diversion Rate = MRA Recycling Rate + Source Reduction Credit  
* Mid-Shore Regional Recycling Program includes Caroline, Kent, Queen Anne’s, and Talbot Counties
April 2011, backyard composting program for 1,600 single-family homes began

SoilSaver compost bins available for half of usual $80 price

270 compost bins bought

10% decrease in tonnage and tipping fees

77 tons of food scraps and soiled paper reduced

$4,543 in avoided disposal fees in 2012

Total savings expected to be $168,000 over the 20-year life of the bins
FOOD SCRAP COLLECTION GROWING

Univ. of Maryland

Whole Foods
NEW RESIDENTIAL COLLECTION PROGRAMS

- Howard Co.
- Town of University Park
- City of Takoma Park
- Prince George’s Co.
LACK OF FOOD SCRAP COMPOSTING FACILITIES

- Recycled Green (closed to food scraps December 2011)
- Peninsula Compost – Wilmington, DE
- Chesapeake Compost Works – Baltimore (almost at capacity)
- Veteran Compost – Aberdeen (low volume)
- Eco City Farms – Edmonston (low volume)
- Howard County at Alpha Ridge Landfill (new, res. only)
- Prince George’s County Western Branch – (pilot 2013, ribbon cutting 10/23/13, full scale 12/31/15)
- Peninsula Compost – new planned facility
SAN FRANCISCO: AIMING FOR ZERO WASTE

All plates, cups, napkins, and utensils in this tent are compostable.

Compost Only

COMPOSTING: A BERRY GOOD IDEA!

IISR
INSTITUTE FOR
Local Self-Reliance
COLOR-CODED COMPOSTABLE DESIGN, SF FESTIVAL

Courtesy of City of San Francisco
COMPOSTING & RECYCLING COLLECTION SYSTEM DESIGNED FOR HIGH DIVERSION

Recycled Paper 21%

Glass and Plastic Bottles
Aluminum and Steel Cans 5%

Food Scraps 20%

Construction and Demolition Waste 25%

Yard Trimmings 5%

Compostable Paper 10%

Other 15%

Recycled Paper 21%

Courtesy of City of San Francisco
EASY TO UNDERSTAND PROGRAM

1. Recycle
   - Place all bottles, cans, foul paper and cardboard in the blue cart. Making recycling easier.
   - Not accepted: zip ties, wire, garden stakes.

2. Compost
   - Place all of your food scraps, food-soiled paper and yard trimmings in the green cart.
   - Not accepted: electronic waste, glass, lime and lime peels,生活助手, yard waste.

3. Garbage
   - Place what is left over — non-recyclables — in the black cart.
   - Can't throw away — microbe in my body. Paper towel and napkins.
   - Not accepted: perishable food, paper plates, plastic bags, yard waste, batteries, light bulbs.

Questions?
Call 415-330-1300 or visit www.sunsetsavenger.com

Composting Collection

- All Food: fruit and vegetable scraps, coffee grounds, tea bags, egg shells.
- Food-soiled Paper: paper plates, paper towels, coffee filters, napkins, lint.
- Plants: leaves, flowers, grass clippings, tree prunings, weeds.
- Animals: feathers, bones, leather, wood, yard waste.

YOUR COLLECTION DAY IS: EL DIA DE RECOLECCION ES
DESIGNED FOR EASY PARTICIPATION

Kitchen Pail
Labeled Lids
Wheeled Cart

Courtesy of City of San Francisco
SIGNAGE AND OUTREACH
SEATTLE: COMPOSTABLE FOOD SERVICEWARE
Food Service Packaging Requirements

Seattle’s New Food Packaging Requirements

The City of Seattle is requiring all food service businesses to find packaging alternatives to throw-away food service containers, cups and other products in all food service businesses - restaurants, grocery stores, delis, coffee shops and institutional cafeterias.

By July 1, 2010 all food service products designed for one-time use must be replaced with one-time use products that are either compostable or recyclable.

In addition, businesses that have customer dining area disposal stations where customers discard single use packaging must collect recyclable and compostable packaging in clearly labeled bins and send it to a recycling or composting facility for processing.

When does the ban take effect?

Phase one of the ordinance applied only to expanded polystyrene (EPS, sometimes called “Styrofoam”). The foam ban took effect January 1, 2009.

Phase two of the ordinance applies to all throw-away food packaging and service ware. The ban on disposables took effect July 1, 2010.

A temporary exemption is in place for utensils, straws, small portion cups, and foil-faced, insulated wrap until July 1, 2013. Please see below for more details.

Are there any product exemptions?

Leading up to the July 1 deadline, Seattle Public Utilities worked extensively with restaurant industry stakeholders and businesses in the food service packaging industry. Through this process, which has included restaurant industry comment and in-use testing of various products, SPU has determined that there are several types of products for which compostable or recyclable alternatives meeting acceptable performance standards or recyclability do not yet exist.

Ordinance 123307, which took effect June 19, 2010, permits Seattle Public Utilities to issue director’s rules for temporary waivers to the food service ware and packaging requirements set out two years ago in Ordinance 122751.
SEATTLE: COMPOSTING COLLECTION EVERYWHERE

- McDonald's
- Northgate Mall
- Dick's Drive In
- Flair Taco - taco truck
- Subway
- Starbucks Coffee
- Rancho Bravo taco truck
- Safeco Field
3,664 certified compostable products
Introduction

Many event venues, office buildings, malls, airports and other facilities with food court operations are embarking on the zero waste journey. One of the first steps in the journey is back-of-the-house organics collection for composting as these are no or minimal purchasing changes necessary.

Front-of-the-house collection of food waste and packaging is the next stage in zero waste practices and may involve significant modification to current foodservice packaging used by operators. With recent product innovations, there are many options available to food service operators.

As a Zero Waste Zone – Atlanta Participant, Hartsfield-Jackson Atlanta International Airport (HIAA) works closely with the Sustainable Food Court Initiative (SFCI), an Elemental Impact Task Force in partnership with the National Restaurant Association, to bring zero waste practices to the airport operations. The new concessionaire contracts going into effect beginning in 2012 include, among others, the following provision:

“Concessionaire shall use compostable serviceware along with consumer facing packaging and source separate all food service wastes for direct transport to off-airport composting facilities.”

This document’s intent is to provide clear, concise information:
1) To allow concessionaires to satisfy the contract provisions stipulated in the Request for Proposal; and
2) To ensure effective ongoing communication with product manufacturers and distributors.

The SFCI Team is available to support concessionaires with education and information on compostable packaging. Within 90 days of a solid understanding of the compostable packaging requirements, operators are in a position to work with existing vendors to order and distribute or discover additional options in the marketplace to satisfy the Compostable Foodservice Ware Packet evolution of their foodservice packaging.

For more details, please refer to the information provided below:
- Composting: what is it, why do it, and why it is important at the Atlanta Airport
- The importance of packaging in successful composting
- Compostable foodservice ware contract requirements
- Types of compostable foodservice ware products covered by contract restrictions
- Description of compostable foodservice product types
- Resources for more information
- Frequently Asked Questions

FAQs

Why require foodservice ware to be compostable?

Single-use foodservice ware products such as drink cups, take-out containers, and cutlery are thrown away as trash in large volumes at HIAA (Hartsfield–Jackson Atlanta International Airport). They are not recyclable at HIAA. Compostable alternatives are now easily sourced and are no longer considered specialty items. Requiring food service to use compostable products will reduce overall trash removal needs and costs, enable food residuals recovery, and help avoid contamination of collection bins for compostable materials.

Food residuals coming from with compostable packaging are easier to compost due to their low contents. Those that were previously two waste streams, biodegradable or non-biodegradable, are now being used together at the composting facility. Customer participation is an easy one-step process. Concession access to properly labeled bins is a critical component to ensure high customer participation levels.

What is the difference between recyclable and compostable products?

“Recyclable Products” include the usual recycling streams, and manufacturing of products or parts in another product. Similarly, “compostable products” includes products and packages that contain starch, recombinant or genetically modified materials, as well as recycled raw materials. “Compostable Products” will break down, in part, as part of available compost (examples: all-plant material or mixtures, in a stable and uniform manner in a commercial composting facility). Composting turns biodegradable materials into usable compost, which is a humus-like material that enriches and returns nutrients to the soil.

Why is HIAA requiring that food vendors are third-party approved products?

Unfortunately, there are many available products with misleading, deceptive or unsubstantiated claims of biodegradability or compostability. Buyer beware! Items with simple claims like “biodegradable” or “compostable” do not mean they are, in fact, compostable. Because of the intent of HIAA’s program is to minimize landfilling, products designed to be “biodegradable” or “compostable” are to be third-party approved. To see the products you buy are certified as compostable by the Biodegradable Products Institute (BPI) or accepted as compostable by Colombia Composting, which field tests the compostability of food service items in its state-of-the-art composting facility.

BPI is a third-party certifier of commercially compostable ware, film, foodservice ware and other products. It is recognized by the US Composting Council to issue the certified compostable logo. In Canada, BPI-certified compostable packaging is being used successfully in numerous restaurants as part of diversion efforts throughout the US and Canada.

BPI-certified items have passed rigorous testing under one of two scientifically accepted standards: ASTM D6400 for plastics or ASTM D6868 for plastic-coated paper. To pass these standards, products have to meet thresholds for three basic elements: biodegradation, disintegration, and safety (measured by ability to grow plants and limits on carbon derived heavy metals such as lead). A product that only meets one or two of the elements but not all three will fail this standard.
25% of operating costs at this facility
CONTAMINATION AT WESTERN BRANCH
SORRY. WE ONLY PICK UP LEAVES IN REUSABLE CONTAINERS OR KRAFT PAPER BAGS.

Remember, leaves and yard waste are recycled into compost. And while kraft paper bags break down into compost, sadly, plastic doesn’t. So this season use Kraft paper bags, bushel baskets or other large, open-top containers.

For more environmentally-friendly suggestions, visit www.city.toronto.on.ca/compost or call 416-392-4546.
For better digestion, brown bag it

Starting in March 2001, only kraft paper bags and rigid open-top containers will be acceptable for use in Toronto's leaf and yard waste collection program.

Clear plastic bags will no longer be accepted (you can still use clear plastic bags this fall).

Plastic bags don't compost, they contaminate the finished compost and require us to open, empty and dispose of each bag. Talk about waste!

We encourage you to try the kraft paper bags designed for leaf and yard waste this fall. You'll find them at hardware and grocery stores.

These bags compost right along with the leaves and yard waste. A better choice:

Reusable rigid open-top containers such as bushel baskets. Cost: nil (once you already have them, you can reuse for free)

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THE PAPER YARD WASTE BAG.

The whole, degrading story.

The City of Toronto is now collecting yard waste in kraft paper bags. (Sorry, no more plastic.) These bags are biodegradable, so they break down along with the yard waste, creating compost in the process. Better yet, put your leaves and twigs in rigid open containers, such as bushel baskets, or an extra garbage can. And bundle your brush.

You can buy kraft paper yard waste bags at hardware and grocery stores or garden centers.

For composting tips, or for a bin, call the Composting Helpline at 416-392-4689.

1. Fill the bag with leaves and cut off excess stems and branches. Tie it up. Never fill it more than halfway.

2. The bag's taken to a composting site. Paper's biodegradable, so the contents don't have to be removed from the bag. Just make sure you fill the bag to its top. Let it sit for 6 months. It's safe after 1 year.

3. After 6 months, the material has turned into compost rich with plant nutrients. You can put it back onto the ground or in the compost bin. Bonus: it's ready to use.

4. This compost is distributed free at some parks and community centres. Love it and use it!

We no longer pick up grass clippings. Instead, leave them on your lawn, use them for mulch around trees, or put in your garden or put them in your compost.

For more info call 416-392-4544 or visit www.city.toronto.on.ca/compostfaq.htm
Composting can take place effectively in a wide range of scale and sizes: from backyard bins and community gardens to large regional facilities.

Smaller composting facilities have a higher job-to-ton ratio.

Several small-scale food scrap composting operations have opened in Maryland the last three years, demonstrating the viability of locally-based systems.

Communities embracing a decentralized and diverse organics recovery infrastructure will be more resilient and better reap the economic and environmental benefits that organics recovery has to offer.
HIERARCHY OF FOOD SCRAP RECOVERY

- Source reduction
- Edible food rescue
- Food to animal feed
- Residential backyard composting
  (via subsidized distribution of compost units and intensive training for residents)
- On-site, small-scale, decentralized composting systems for gardens, institutions and businesses
- Centralized composting (or anaerobic digestion) of food residuals through curbside collection programs

LOTS AND LOTS OF EDIBLE FOOD
Challenges to Expanding Composting

- Lack of policies prioritizing composting and a decentralized infrastructure
- Perception that starting composting is too costly
- Lack of collection infrastructure
- Lack of composting capacity
- Siting difficulties
- Lack of regs/permitting to facilitate responsible compost operations
- Poorly operated compost facilities that ultimately give a bad name to composting
- Zoning regulations
- Competition with cheap disposal
- “Free” unlimited set-out of residential trash
- Landfill and incinerator industry vested interests
- Lack of training programs for onsite composting
- Lack of leadership

Promoting the Practice

Supportive Rules for Small-Scale Composting

Eleven states are surveyed for their noteworthy efforts and differing approaches to encourage more farms and other small-scale operators to compost, especially food scraps.

Brenda Platt, Rachel Rea, and Victoria Pelant

Composting is inherently hard. It supports food green- dle, forestry and other bio- processes. Yet, composting poses a vital role to play in positive land stewardship as well as the decompos- ition of the food web and the formation of soil. To support this process, states have begun to develop rules and regulations that facilitate the composting process. Several states have permit regulations for farms that compost certain types of materials under specific guidelines. These rules have been designed to ensure the sustainability of the composting process and to minimize the environmental impact. However, these regulations can be daunting and require significant investment. It is important to note that the regulations differ from state to state, and it is crucial to research the specific requirements of your location.
Update and streamline regulations/permitting
- Adopt performance-based permitting regs
- Promote on-farm composting
- Build and maintain comprehensive web site
- Share best practices
- Characterize how much organics generated
- Build markets for compost
- Promote compost and compost-related products as best management practices for controlling stormwater run-off and erosion
- Target large generators by providing resources and technical assistance
- Share sample zoning ordinance language
NEEDS: SOME IDEAS

- Local and state policies to support decentralized infrastructure
- Technical assistance and tools for on-site systems (schools, restaurant districts, supermarkets, malls)
- Development of model small-scale systems
- National Master Composting Training Program clearinghouse and advocacy program
- Network of training locations to provide hands-on training for local compost production and its use in growing local food.
- Standards and specifications for compost use in green roof media, stormwater manuals
WHY NOT INCINERATE?

- Costs are high
- Capital intensive vs labor intensive
- Requires waste
- Pollutes
- Generates ash
- Regulations inadequate
- Inflexible technology
- Obstacle to reducing waste
- Bad for the climate
1,500 TON-PER-DAY INCINERATOR = $600 MILLION INVESTMENT
1,500 TPD RECYCLING FACILITY = $8 MILLION INVESTMENT
Waste-To-Energy: Dirtying Maryland’s Air by Seeking a Quick Fix on Renewable Energy?

2007-2008 Average Mercury Emissions (lbs/GWh)

October 2011
COMMUNITIES WITH ZERO WASTE GOAL

California, USA
- Del Norte County
- San Luis Obispo County
- Santa Cruz County
- San Bernardino County
- San Francisco City and County
- City of Oakland
- Berkeley
- Burbank (informally)
- Palo Alto
- California Integrated Waste Management Board

Other USA
- Atlanta, GA
- Austin, TX
- Boulder County, CO
- Summit County, CO
- Carrboro, NC
- Seattle, WA
- Central Vermont Waste Management District

Other North America
- Halifax, Nova Scotia Regional District
- Nelson, British Columbia Regional District
- Kootenay Boundary, British Columbia Regional District
- Cowichan Valley, British Columbia
- Central Kootenay, British Columbia
- Smithers, British Columbia Regional District
- Nanaimo, British Columbia
- Toronto, Ontario
- Sunshine Coast Regional District, British Columbia

Source: Gary Liss, Zero Waste International Alliance, www.zwia.org
KEYS TO RECORD-SETTERS

- Accept many materials
- Compost
- Mandate recycling
- Institute pay-as-you-throw trash fees
- Target all sectors
- Augment curbside with drop-off
- Educate, educate, educate
- Market materials
UNIT-BASED PRICING SENDS A CLEAR MESSAGE

Worcester, MA
Population 173,000

San Francisco, CA
Population 775,000

Unit based pricing is just a different way of paying for waste

Source: Kristen Brown, Green Waste Solutions, www.thewastesolution.com
“...decentralized composting processes can reduce the carbon footprint of collection and transportation while consuming organics in more localized situations that do not require large organized collection programs.”
Brenda Platt
Institute for Local Self-Reliance
bplatt@ilsr.org
www.ilsr.org/paydirt

For model policies, please visit: http://www.ilsr.org/initiatives/composting/ and click on “Rules”

Composting Makes $en$e

- Expanding composting = supporting made-in-America industry
- 1,400 new jobs could be supported for every 1 million tons of food scraps and yard trimmings converted into compost and used locally
- These jobs could pay $23 million to $57 million in wages
- Small-scale community-based composting works
- Composting sustains 2x more jobs than landfilling and 4x times more than burning trash (on a per-ton basis)
- Healthy soils need organic matter like compost

Pay Dirt:
Composting in Maryland to
Reduce Waste, Create Jobs & Protect the Bay

LEARN MORE www.ilsr.org/paydirt