



Brenda Platt

Director, Composting Makes \$en\$e Project

Institute for Local Self-Reliance

COMPOSTING & COMMUNITY RESILIENCE

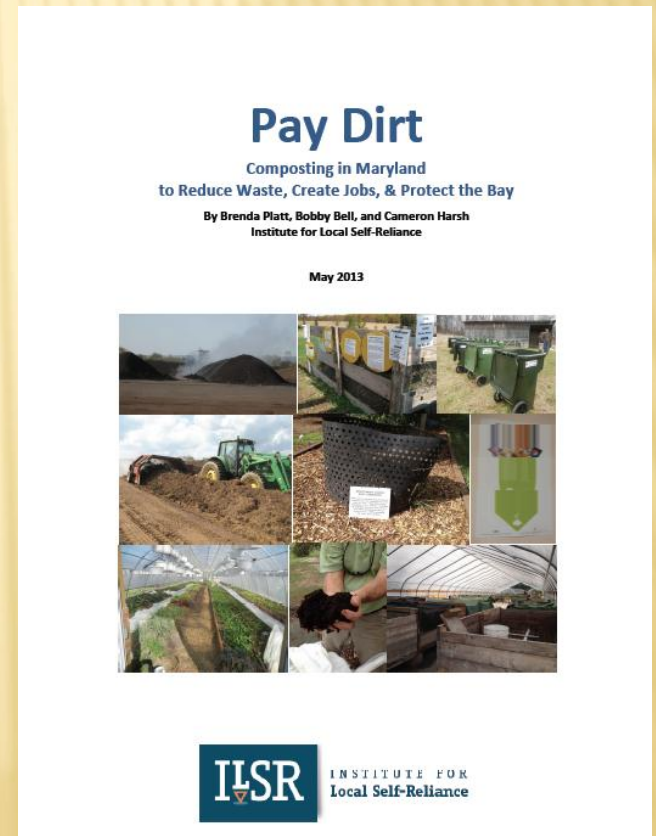
Prince George's County Planning Department Speaker Series
Upper Marlboro, MD, November 20, 2013



INSTITUTE FOR
Local Self-Reliance

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

ILSR

INSTITUTE FOR
Local Self-Reliance

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



HOWARD CO., MD: NEW RESIDENTIAL COLLECTION

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

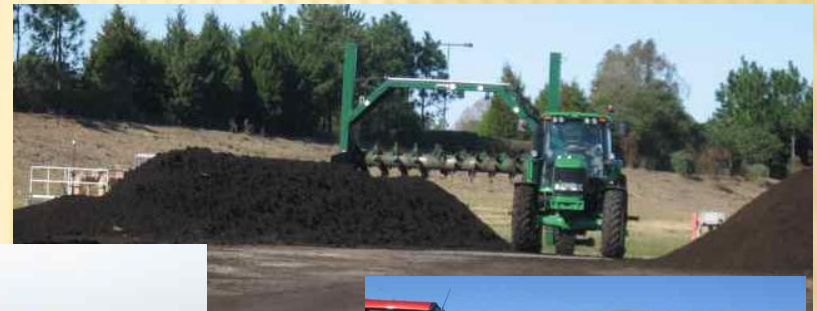


COMPOSTING, LOTS OF WAYS



EQUIPMENT

- ✖ Moving materials
- ✖ Aerating/turning
- ✖ Grinders
- ✖ Mixing
- ✖ Watering
- ✖ Screening

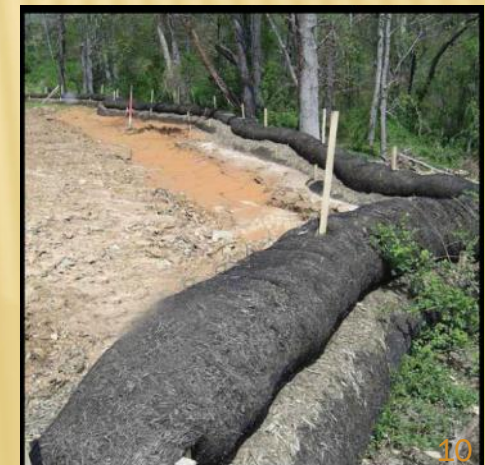
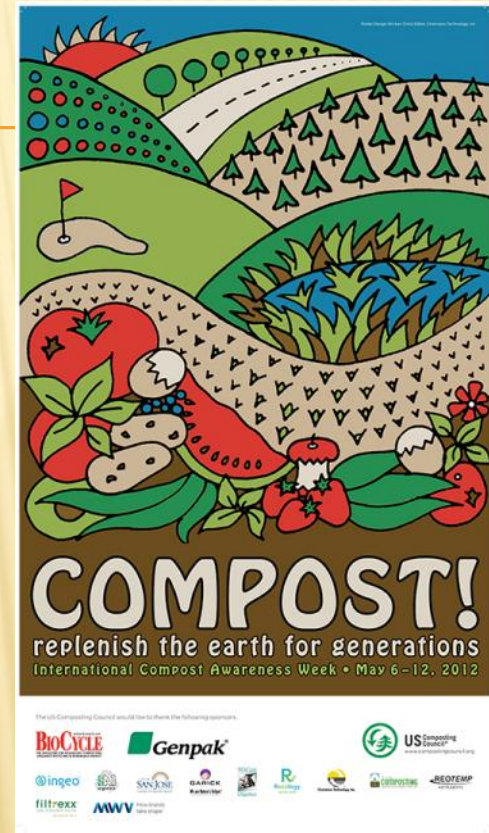
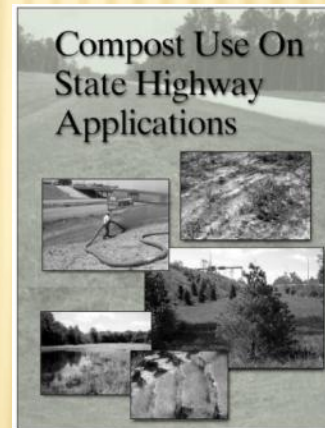


EQUIPMENT BEST FRIENDS FOR SMALL-SCALE SITES



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



Conservation landscape in partial shade catching runoff from adjacent property

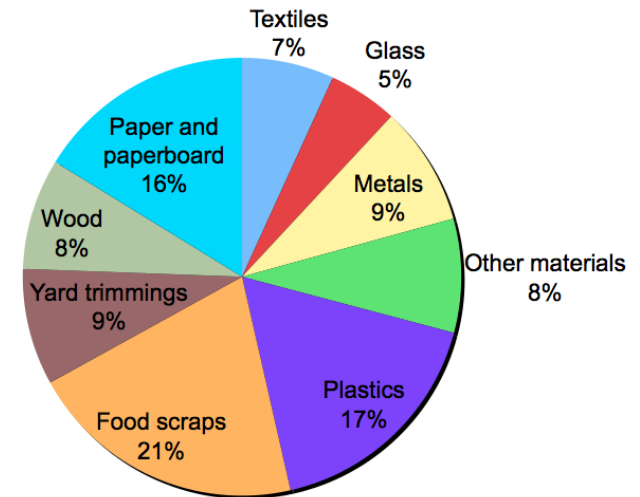


Native plants, grasses and shrubs catch runoff from large ballfield at Rockville High School

OTHER BENEFITS OF COMPOSTING & COMPOST

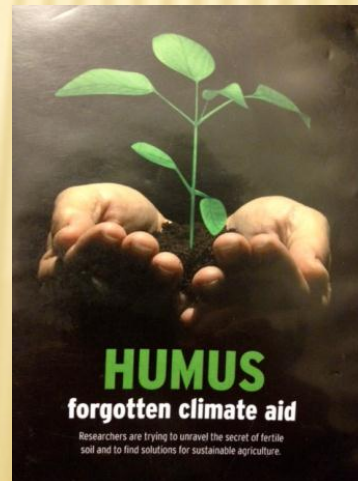
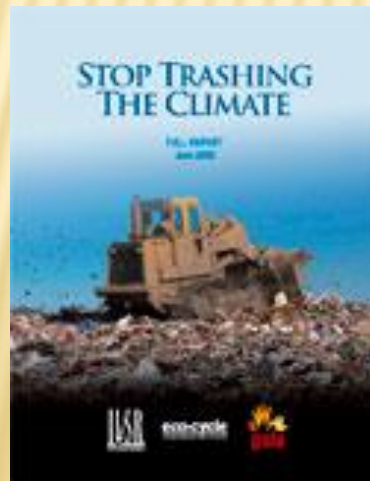
- ✗ Reduces waste
- ✗ Cuts emissions from landfilling & trash burning
- ✗ Reduces stormwater run-off & soil erosion
- ✗ Creates jobs & supports local economies
- ✗ Protects the climate

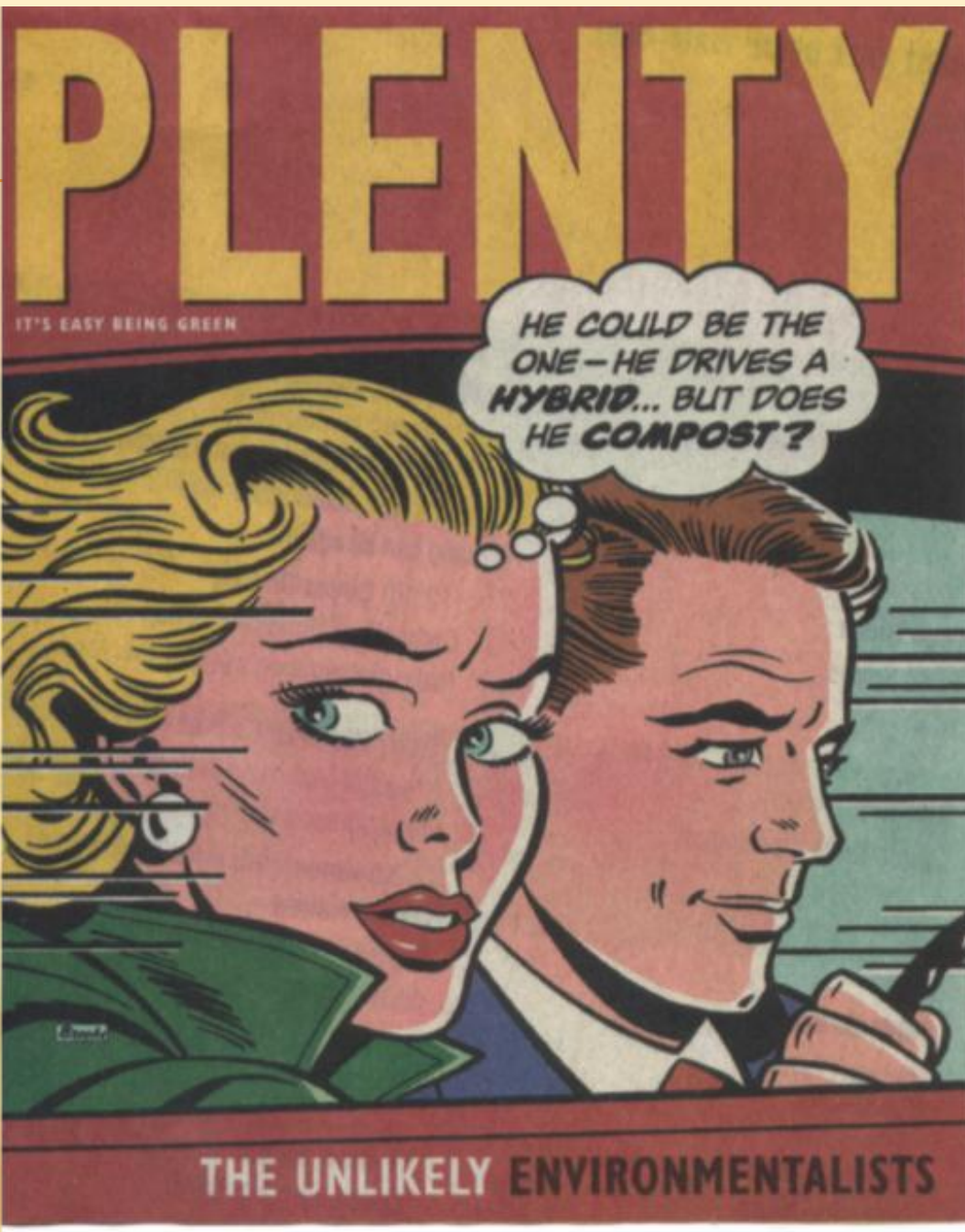
U.S. Municipal Waste Disposed (after recycling)



164.7 million tons in 2010

Source: US EPA, 2010 data
(<http://www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm>)





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

Source: David McDonald, Seattle Public Utilities & Washington Organic Recycling Council, Soils for Salmon Project.



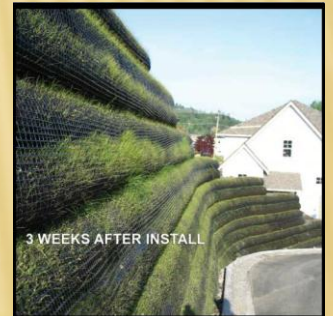
Sediment Trap



Slope
Protection and
Erosion Control
Blanket



Vegetated Walls



Above photos courtesy:
Filtrex

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*



Denbow, www.denbow.com



Credit: City of Portland, Oregon Bureau of
Environmental Services



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 local watersheds.¹ Naturally occurring (undisturbed) soil and vegetation provide important stormwater functions: water infiltration; nutrient, sediment, and pollutant adsorption; sediment and pollutant biofiltration; water interflow storage and transmission; and pollutant decomposition. These functions are largely lost when development strips away native soil and vegetation and replaces them with minimal topsoil and sod.² Organic matter is vital to soil quality and amending soil with compost is the best way to increase the organic matter in soil, which improves soil's ability to retain water.³

By improving soil ecosystems, compost can help states meet total maximum daily load (TMDL) limits.⁴ In an effort to restore impaired water bodies throughout the country, the federal Clean Water Act requires states to develop TMDLs (i.e. the maximum amount of a pollutant that a water body can receive and still meet state water quality standards) as part of their Watershed Implementation Plans (WIPs). In 2010 the US Environmental Protection Agency established the Chesapeake TMDL, a historic and comprehensive "pollution diet" and largest TMDL ever established.⁵ Many of the region's primary waterways, such as the Anacostia and Potomac Rivers in the Washington, DC metropolitan area, have become unfishable due to elevated levels of toxic pollution.⁶ Because most of the Bay and its tidal waters are impaired due to excess nutrient pollution and sedimentation, the Chesapeake TMDL is designed to achieve significant reductions in nitrogen, phosphorus, and sediment. Specifically, the Chesapeake TMDL mandates a 25% reduction in nitrogen, a 24% reduction in phosphorus, and a 20% reduction in sediment by the year 2025. Restoring the Bay watershed to meet these targets requires effective non-point source pollution control. Runoff from agricultural, urban and suburban lands carry nutrients, sediment and other pollutants to local waterways, causing eutrophication and harming aquatic life.⁷ Integrating compost and compost-based products into the region's soils is a key way to protect the watershed, while providing a number of additional benefits such as promoting higher crop yields, reducing greenhouse gases through carbon sequestration, diverting discarded biodegradable material from the waste stream, and creating "green" jobs.

The Institute for Local Self-Reliance (ILSR) is a national research and technical assistance nonprofit organization providing innovative strategies, working models, and timely information to support environmentally sound and equitable community development.

This paper was prepared under ILSR's Composting Makes Sense Initiative with funding support from the DC Water Resources Research Institute of the University of the District of Columbia and the Town Creek Foundation.

For more information on ILSR and how to get involved in promoting composting and compost use, visit www.ilsr.org.



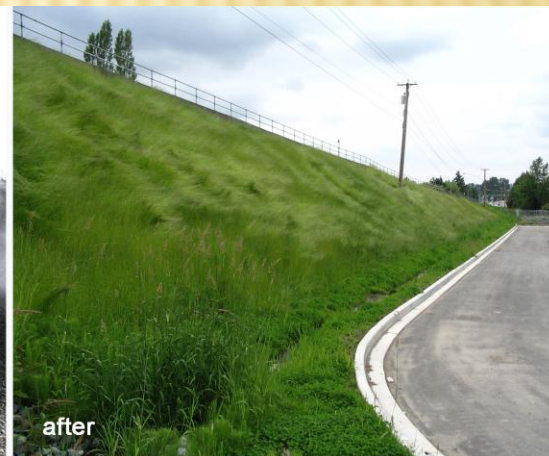
MCS Inc., www.mcsnjinc.com



www.ilsr.org/paydirt



installation



after



Denbow, www.denbow.com

PORTLAND GREEN STREETS



Street Planters, curb extensions, simple green strips

- ✕ 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

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



Complete yard conversion



Native landscaping can be integrated throughout yard, along borders, edges, and entries



RainScapes

Environmentally-Friendly Landscapes for
Healthy Watersheds

Rain Gardens

Why should I install a rain garden?



One inch of rain falling over a 1,000 square foot home on a small lot can produce over 5,000 gallons of stormwater runoff. Typically, roof downspouts release runoff directly onto lawns or hard surfaces such as driveways, streets, and sidewalks that prevent the water from soaking into the ground. When water cannot soak into the ground, it flows over the surface and enters storm drains that flow to streams. As it flows over hard surfaces and lawns, the stormwater picks up pollutants such as sediment, grease and oil from cars, and pesticides and fertilizers from lawns. The storm drain pipes collect the stormwater and send it into the streams in surges, which can cause downstream erosion, flooding, and stream habitat problems.

Rain gardens are functional landscaping features. In addition to making your landscape look more attractive, they can address flooding and erosion problems in your yard and neighborhood.

(continued on page 2)

What is a rain garden?

Rain gardens are attractive landscape features constructed to capture stormwater runoff from hard surfaces such as your roof, driveway, patio, or sidewalk. A rain garden is a garden with a shallow depression that collects and drains stormwater. Rain gardens typically are planted with native plants with deep roots that loosen the soil, so stormwater can soak into the ground more easily. Rain gardens help to meet the RainScapes' goal of using innovative natural approaches to reduce water pollution, stream channel erosion, and drainage problems caused by stormwater runoff.



Sunny rain garden - Fall summer



Shady rain garden - Fall growing season, attractive over time



Fall rain garden

Rain Gardens

page 1 of 11



DC RIVERSMART HOMES

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



THE DISTRICT OF COLUMBIA
DC.gov Home

District Department of the Environment

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DDOE Home Services Environmental Protection Energy in DC Resources Regulation & Law Initiatives About DDOE

Resources

- Applications, Licenses & Permits
- Environmental Data
- Environmental Maps
- For Businesses
 - Environmental Health & Safety
 - Eco-Friendly Living
 - Outdoor Activities
- RiverSmart Homes**
 - Becoming a RiverSmart Homeowner
 - RiverSmart Homes - Application
 - RiverSmart Homes - Overview
- Recycling, Waste and Hazards
- Stormwater and Flooding
- Grants and Funding
- Green Zone Canvass

RiverSmart Homes

The RiverSmart Homes program offers incentives to homeowners interested in reducing stormwater pollution from their properties.

Stormwater Pollution and the District of Columbia

Stormwater is simply rainwater that, rather than remaining on the land where it falls, it flows off of the site. Rainwater becomes stormwater when rain falls on impervious surfaces such as rooftops, driveways, roads, sidewalks and even lawns. As stormwater moves from our yards to our streams it picks up pollutants such as oil and grease from our roadways and driveways, nutrients from fertilizers on our lawns, and bacteria from pet waste and other animal excrement. Once in the stream, the fast-moving surges of water associated with storms cause erosion and destroy habitat for fish and other wildlife.

Thankfully, new development and large renovations of properties in the District are now required to install items that reduce stormwater pollution. Unfortunately, most of the District was developed before modern methods for controlling and treating stormwater were developed. If your home was built before the 1980s (and chances are it was), you probably do not have any stormwater controls installed on your property, but there are steps that you can take to reduce stormwater pollution and beautify your yard. RiverSmart Homes can help you.

Learn more about RiverSmart Homes:

- Program Overview
- Becoming a RiverSmart Homeowner
- Application Form
- FAQs
- Shade Tree Planting
- BayScaping
- Rain Gardens
- Pervious Pavers
- Rain Barrels
- RiverSmart Communities
- RiverSmart Rebates

RiverSmart Homes Event Photos

Skip the Bag - Save the River

District businesses selling food or alcohol will be charging \$0.05 for each disposable paper or plastic carryout bag. Find out about DC's Bag Law.

Sustainable DC

Learn more about Mayor Gray's plan to make DC the healthiest, greenest, most livable city in the country through the District's sustainability plan, Sustainable DC!

RiverSmart Homes

The RiverSmart Homes program offers incentives to homeowners interested in reducing stormwater pollution from their properties. Learn more >>>

GreenUp DC

GreenUp DC is an online tool to help District of Columbia property owners design, plan, and install green projects on their properties. You can learn more >>>

Office Hours
Monday to Friday, 9 am to 5 pm

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TTY: (800) 655-1000
Email: dooe@dc.gov

Ask the Director
Agency Performance

Keith A. Anderson
Director

<http://green.dc.gov/riversmarthomes>

COMPOSTING = LOCAL JOBS



On a per-ton basis, composting sustains 2 x more jobs than landfills and 4 x more than MD's three trash incinerators

- ✗ 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

JOBS SUSTAINED: COMPOSTING VS. DISPOSAL

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

FTE = full-time equivalent

TPY = tons per year

Source: Brenda Platt, et. al, *Pay Dirt: Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay*, ILSR, May 2013.
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



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SMALLER FACILITIES EMPLOY MORE PER TON

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

FTE = full-time equivalent

TPY = tons per year

Source: Brenda Platt, et. al, *Pay Dirt: Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay*, ILSR, May 2013.
www.ilsr.org/paydirt



LOCAL COMPOST USE = MORE DIRECT JOBS

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



Photo courtesy of Filtrexx International, LLC

CY = cubic yards FTE = full-time equivalent

Source: Brenda Platt, et. al, *Pay Dirt: Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay*, ILSR, May 2013. www.ilsr.org/paydirt. Personal communication with company reps.

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

JOB CREATION: COMPOSTING VS. DISPOSAL

| Type of Operation | Jobs/ 10,000 TPY | Jobs/\$10 million capital investment |
|--------------------------------|---------------------|---|
| Composting Facilities | 4.1 | 21.4 |
| Compost Use | 6.2 | n/a |
| Total Composting | 10.3 | |
| Disposal Facilities: | | |
| Landfilling | 2.2 | 8.4 |
| Burning (with energy recovery) | 1.2 | 1.6 |

*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)

Source: Brenda Platt, et. al, *Pay Dirt: Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay*, ILSR, May 2013.

www.ilsr.org/paydirt. Based on MD-specific composting and disposal facilities.



Photo courtesy of MCS, Inc

POTENTIAL NEW JOBS BY COMPOSTING 1 MILLION TONS OF ORGANICS DISPOSED IN MD

| Option | FTE Jobs |
|-------------------------|--------------|
| Burning | 120 |
| Landfilling | 220 |
| Composting | 740 |
| Compost Use | 620 |
| Total Composting | 1,360 |

FTE = full-time equivalent

Source: Brenda Platt, et. al, *Pay Dirt: Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay*, ILSR, May 2013.
www.ilsr.org/paydirt.



MCS Inc. worker installing growing media made from compost on green roof. www.mcsnjinc.com

PAY DIRT: KEY FINDINGS ON JOBS

- ✗ 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



CONTRIBUTION OF COMPOSTING YARD TRIM TO MD RECYCLING RATE, 2010

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

^a MRA = Maryland Recycling Act

^b Waste Diversion Rate = MRA Recycling Rate + Source Reduction Credit

^c Mid-Shore Regional Recycling Program includes Caroline, Kent, Queen Anne's, and Talbot Counties

CHEVERLY, MD, SHOWS 20% OF RESIDENTS WILL BACKYARD COMPOST, SAVING MONEY ON COLLECTION AND DISPOSAL FEES

- ✖ 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.



Food Scrap Pilot Curbside Program Report:

August 2010 – January 2011

Howard County, Maryland
Department of Public Works
Environmental Services – Recycling Division



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



Peninsula Compost



Chesapeake Compost

PRINCE GEORGE'S PILOT OPENS OCT. 2013



SAN FRANCISCO: AIMING FOR ZERO WASTE



COLOR-CODED COMPOSTABLE DESIGN, SF FESTIVAL



Courtesy of City of San Francisco

COMPOSTING & RECYCLING COLLECTION SYSTEM DESIGNED FOR HIGH DIVERSION



Glass and Plastic Bottles
Aluminum and Steel Cans
5%

Recycled Paper
21%



Food Scraps
20%



Yard Trimmings
5%

Compostable Paper
10%



Other
15%



Construction and
Demolition Waste
25%



EASY TO UNDERSTAND PROGRAM

1 Recycle

Place all bottles, cans, foil, paper and cardboard in the blue cart. **MAKING RECYCLING EASIER!**



not accepted
 auto shop oil
 paint, oil
 household
 auto air conditioning or light bulbs
 vacuum cleaner or sump
 pumps or other than auto
 parts only

2 Compost

Place all of your food scraps, food-soiled paper and yard trimmings in the green cart.



not accepted
 all law pesticides
 lawn oil
 fertilizers
 paint, paint cans or other
 liquids
 auto air conditioning fluids
 ready to cook oil

3 Garbage

Place what is left over - non-recyclables - into the black cart.

No hazardous materials. For household hazardous materials pickup, call 415-654-4325.



not accepted
 auto shop oil
 paint, oil
 household
 auto air conditioning or light bulbs
 vacuum cleaner or sump
 pumps or other than auto
 parts only

Sunset Scavenger

Call 415-330-1300 or visit www.sunsetscavenger.com

Composting Collection

All Food

fruits, vegetables, meats, poultry, seafood, shellfish, bones, fish heads, pickles, bread, cheese and eggs, etc.

Food-soiled Paper

waxed cardboard, napkins, paper towels, paper plates, paper milk cartons, tea bags, coffee grounds, filters, oatmeal, cereal, etc.

Plants

fresh landscaping, tree trimmings, bushes, grass clippings, weeds, etc.

Toda Comida

frutas, verduras, carnes, mariscos, aves, etc., huesos, papas, pan, queso, etc., etc.

Papel Manchado por Comida

cartón encerado, servilletas, platos y vasos de papel, filtros y papeles de café, trozos de cartón para leche, filtros de café, etc.

Plantas

ramas de flores y árboles, hojas, césped cortado, etc.

YOUR COLLECTION DAY IS

你的收集日是：
EL DÍA DE RECOLECCIÓN ES

Collection ends at 5:00 PM. No collection after 5:00 PM.
收集結束於下午五時。下午五時後不收集。
AFTER 5:00 PM NO COLLECTION

Collection ends at 5:00 PM. No collection after 5:00 PM.
收集結束於下午五時。下午五時後不收集。
AFTER 5:00 PM NO COLLECTION

¡No!

plastic, Styrofoam, paper plates, metal, cans, aerosols, oil, liquids, auto fluids, etc.

不要！
塑膠、保麗龍、紙盤、金屬、罐頭、噴霧劑、油、液體、汽車油等。

¡No!

plastic, Styrofoam, paper plates, metal, cans, aerosols, oil, liquids, auto fluids, etc.

不要！
塑膠、保麗龍、紙盤、金屬、罐頭、噴霧劑、油、液體、汽車油等。

Questions?

330-1300

DESIGNED FOR EASY PARTICIPATION



Kitchen Pail



Labeled Lids



Wheeled Cart

SIGNAGE AND OUTREACH



SEATTLE: COMPOSTABLE FOOD SERVICE WARE



SEATTLE PUBLIC UTILITIES

Reliable water, sewer, drainage & solid waste services.

Ray Hoffman, Director

[Home](#) [My Services](#) [Environment & Conservation](#) [Engineering](#) [For Businesses](#) [Documents](#) [Help & FAQs](#) [Translations](#) [About Us](#)

[Solid Waste](#) [Water](#) [Drainage & Sewer](#) [Landscapes](#) [Rates](#) [Green Your Business](#) [Construction](#)

Commercial Customers

Rates

Collection Guidelines

Compostable Items Flyer


Food Package Requirements

Businesses that Compost

Food & Yard Waste FAQs

Food Donation

[For Businesses](#) > [Solid Waste](#) > [Food & Yard](#) > [Commercial Customers](#)

 [Select Language](#) ▼

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







BIODEGRADABLE PRODUCTS INSTITUTE

3,664 certified
compostable products

**BPI**
Certified Products Catalog

3664 Products listed as of
Tuesday, November 19, 2013

About the BPI | [Links](#)



FoodserviceCups (hot)Cups (cold)CutleryFood Waste BagsYard Waste BagsResins & CoatingsFilm & Sheet

[Home](#) » [Foodservice](#)
Foodservice
Disposable food serviceware including plates, containers, cups, lids, straws and cutlery. These products are used to facilitate food-waste composting. By replacing plastic products with compostable substitutes, foodservice operations can compost large quantities of predominantly organic trash.
Result
[Asean](#)
[Click here for a list of products](#)
Asean Corporation produces a line of BPI approved, premium high performance table top products represented by three brands. "Stalkmarket" molded sugarcane fiber plates, bowls, cups and containers. "Jaya" biopolymer plant sugar PLA cold cups, lids and straws. "Planet Plus" hot cups, food containers and lids.

[Search for Companies or Products](#)
[How to get BPI Certified](#)
[Find a local composter](#)
[Making Compostable Products](#)
[Publish this Catalog on Your Website](#)
[About BPI](#)

**StalkMarket**
EARTH FRIENDLY PRODUCTS



ATLANTA AIRPORT DIRECT ASSISTANCE



Compostable Foodservice Ware Packet

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 there are no 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 Zones – Atlanta Participant, Hartsfield-Jackson Atlanta International Airport (HJIAA) 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 serveware 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. With a solid understanding of the compostable packaging requirements, operators are in a position to work with existing distributors 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**



Compostable Foodservice Ware Packet

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 Hartsfield-Jackson Atlanta International Airport (HJIAA). They are not recyclable at HJIAA. Compostable alternatives are now easily sourced and are no longer considered specialty items. Requiring food vendors 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 commingled with compostable packaging diverts one waste stream from landfills that was previously two waste streams. No cleaning or washing of compostable products is needed for recovery. Unlike traditional recycling of plastics and paper, compostable items do not have to be free of ice, liquids, grease, and other food residues in order to be composted. They can be put straight into the collection bin with any remaining food scraps; they will decompose together at the composting facility. Customer participation is an easy one-step process. Convenient 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 reuse, reconditioning, and remanufacturing of products or parts in another product. Similarly, "recycled content" includes products and packages that contain reused, reconditioned or remanufactured materials, as well as recycled raw material. "Compostable Products" will break down, or become part of usable compost (for example, soil-conditioning material or mulch), in a safe and timely 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 HJIAA requiring that food vendors use 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 of "biodegradability" or "biobased content" do not mean they are, in fact, compostable. Because the intent of HJIAA's program is to minimize landfilling, products designed to be "biodegradable" in a landfill are not acceptable. Be sure the products you buy are certified as compostable by the Biodegradable Products Institute (BPI) or accepted as compostable by Cedar Grove 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 resins, films, foodservice ware and other products. It is recognized by the US Composting Council (the trade association for the composting industry) as the leading industry organization for determining product compostability in North America. BPI-certified compostable products are being used successfully in numerous restaurants as part of diversion efforts throughout the US and Canada.

BPI-certified items have passed rigorous testing at reputable labs under one of two scientifically accepted standards: ASTM 6400 for plastics or ASTM 6868 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 certain regulated heavy metals such as lead). A product that only meets one or two of the elements but not all three will fail the standard.

PLASTIC BAGS COST MONEY



25% of operating costs at this facility

CONTAMINATION AT WESTERN BRANCH



TORONTO



**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)

IISR

INS
Local

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 centres.

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



1. Fill the bag with leaves and other yard waste, close it up and bring it to the curb for pick-up. Pour yourself a glass of lemonade and relax.



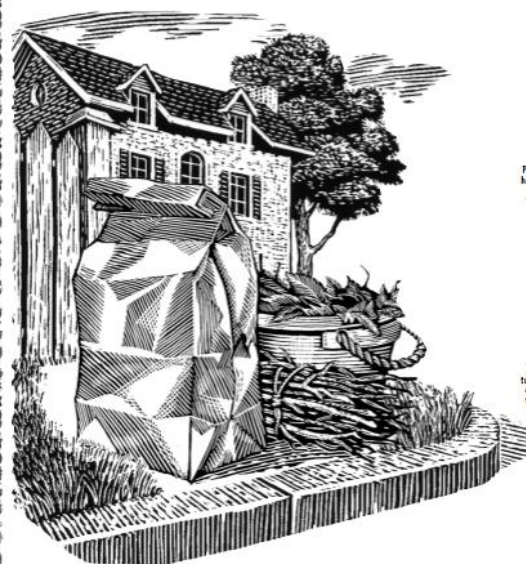
2. The bag's taken to a composting site. Paper's biodegradable, so the contents don't have to be separated from the bag. Yard waste is first shredded and then left outdoors in windrows, long rows of leaf and yard waste. Leaves go directly to the windrows.



3. About 6 months later, the materials have turned into compost, rich with plant nutrients, and microbes and organic fibre for healthier soil. Unlike chemical fertilizers, compost has a built-in time release mechanism.



4. This compost is distributed free of charge at sites across Toronto during the summer. Pick some up and begin the process all over again.



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

Toronto

For more info call 416-392-4546 or visit www.city.toronto.on.ca/compost/faq.htm

A DIVERSE AND LOCAL COMPOSTING INFRASTRUCTURE IS NEEDED

- ✗ 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.

PHILLY COMPOST

NEIGHBORHOOD

CONTACT for PRICING: jen@phillycompost.com 215-880-0465



To maintain the Compost Coop as an affordable residential composting option, Philly Compost is now providing organics collection service! Pick-ups will be by bike and processed right in the neighborhood. Support your local economy while reducing your carbon footprint!

AFFORDABLE ORGANICS COLLECTION

ALL ORGANICS ACCEPTED

A GENEROUS HELPING OF FREE COMPOST EACH YEAR

CLEAN BINS AT EACH COLLECTION

WASTE DIVERSION REPORTS AVAILABLE

SMALLEST CARBON FOOTPRINT IN COMMERCIAL COMPOSTING

LOCAL, WOMAN OWNED SMALL BUSINESS



with the support of:



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

Adapted from Richard Anthony Associates and Gary Liss Associates, Zero Waste Action Plan for the City of Glendale, California, December 2010.



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 Ross, and Melody Poland



Farmers have a vital role to play in producing and utilizing compost to grow crops and restore depleted soils.

COMPOSTING is inherently local; it supports local green jobs, farmers and other businesses. Indeed, farmers have a vital role to play in producing and utilizing compost to restore depleted soils. They also have land, a necessary factor for developing the capacity to compost. State permitting rules can facilitate on-farm and other small-scale operators, thus helping to expand and diversify the composting infrastructure.

Eleven states — Iowa, Maine, Massachusetts, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Washington, West Virginia and Wisconsin — are surveyed here for their noteworthy efforts and differing approaches in get-

ting more farms and other small-scale operators to compost, especially food scraps. (See Table 1 for a list of the state laws and date of passage.) It is still unclear which state policies are the most effective in boosting composting of food residuals. In addition, this is not a comprehensive analysis but focuses on the most salient composting regulations. Local policies such as those dealing with zoning can also facilitate or hamper on-farm composting.

Several states have permit exemptions for farms composting certain types of materials under a specified amount. Most states have high volume limits, or none at all when it comes to on-site generated feedstocks. New York has a 3,000 cubic yard/year (cy/yr) limit for yard debris. Pennsylvania allows farmers the option of a general permit, as an alternative to a full permit, provided they adhere to certain standards. To qualify for a general permit, the composting facility is not allowed to exceed 5 acres in size, accept more than 500 tons or 1,000 cy/yr of source separated food waste and or accept more than 3,000 cy/yr of total material (further provisions are included).

Wisconsin, among others, has no vol-

ume constraint for farm crop residue and manure when it comes to on-site farm composting. However, as the quantities of materials rise, so do the standards that facilities have to meet. Currently, Wisconsin allows up to 20,000 cy of on-site yard material and chipped wood at any one time before the requirements become more stringent.

A wide range of laws exist on acceptance of off-site (externally) generated food discards at permit-exempt composting facilities in terms of what exactly can be taken in and how much. Iowa allows no more than 2 tons/week of food residuals. For registered facilities, Rhode Island allows 1 ton/day of presorted vegetative material. In Ohio, operators of registered facilities are responsible for determining their own capacities and abiding by them. Table 2 includes more state examples involving food scrap thresholds.

THRESHOLD DETERMINATION:

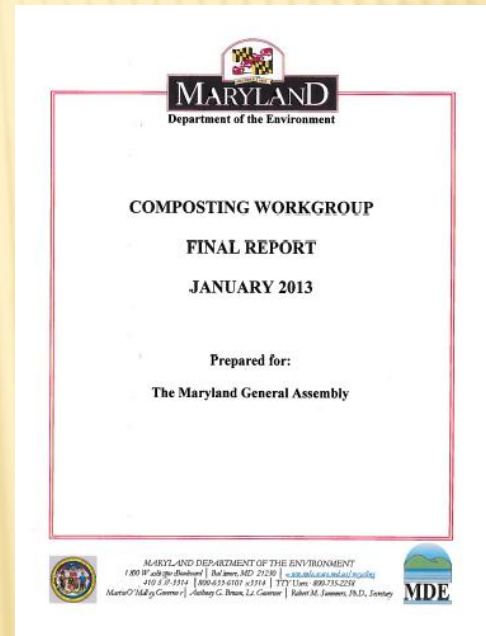
SCIENCE OR POLITICS? Thresholds are a crucial component to state policies that involve exemptions for small-scale composters. High

BioCycle

JUNE 2012 21

MD STATEWIDE COMPOST STUDY GROUP: RECOMMENDATIONS (SELECT)

- ✖ 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



Cultivating Leadership:

Building Leaders through the Master Composter Certificate Program

Jodie Colón, NYC Compost Project in the Bronx
Jenny Blackwell, NYC Compost Project in Brooklyn



WHY NOT INCINERATE?

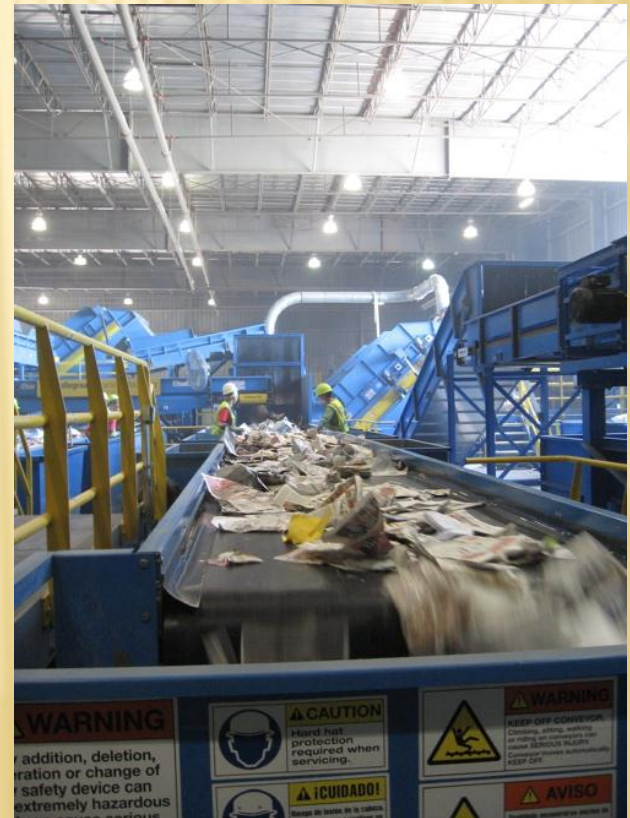


- ✗ Costs are high
- ✗ Capital intensive vs labor intensive
- ✗ Requires waste
- ✗ Pollutes
- ✗ Generates ash
- ✗ Regulations inadequate
- ✗ Inflexible technology
- ✗ Obstacle to reducing waste
- ✗ Bad for the climate

1,500 TON-PER-DAY INCINERATOR = \$600 MILLION INVESTMENT



1,500 TPD RECYCLING FACILITY = \$8 MILLION INVESTMENT



BURNERS MORE POLLUTING THAN COAL

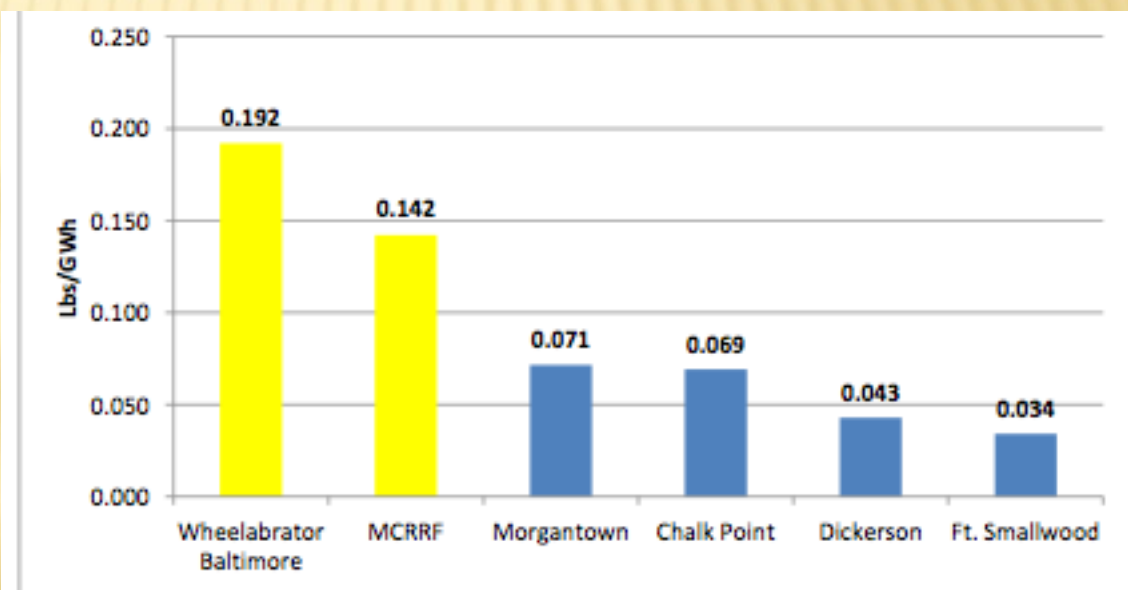
Waste-To-Energy:

Dirtying Maryland's Air by Seeking a Quick Fix on
Renewable Energy?



October 2011

2007-2008 Average Mercury Emissions (lbs/GWh)



COMMUNITIES WITH ZERO WASTE GOAL

California, USA

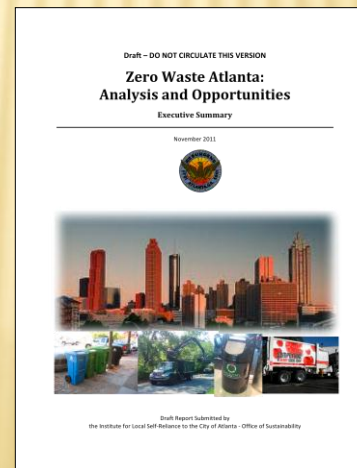
- Del Norte County
- San Luis Obispo County
- Santa Cruz County
- San Bernardino County
- San Francisco City and County
- City of Oakland
- Berkeley
- Burbank (informally)
- Palo Alto
- California Integrated Waste Management Board

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



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

AUSTIN ZERO WASTE PLAN

- ✗ “...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.”



CONTACT

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”



- ❖ 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



INSTITUTE FOR
Local Self-Reliance



INSTITUTE FOR
Local Self-Reliance