INSTITUTE FOR Local Self-Reliance
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House Committee on Environment & Transportation

House Bill 171 – Department of the Environment – Yard Waste and Food Residuals Diversion and Infrastructure – Study

Position: Support with Amendments

February 8th, 2017

Testimony by Brenda Platt, Co-Director, Institute for Local Self-Reliance, bplatt@ilsr.org

My name is Brenda Platt and I am the Co-Director of the Institute for Local Self-Reliance, a national nonprofit research and technical assistance organization. Our MD Composting Makes ene Project is advancing composting in the state as a key strategy to create jobs, enhance soils, protect the climate and regional watersheds, and reduce waste. I participated for two years on the MD Statewide Compost Work Group and have been pleased to support the development of new regs to permit composting sites. We are also founding members of the MD-DC Compost Council.

The Institute for Local Self-Reliance urges a favorable report on House Bill 171. We have worked closely with Delegate Robinson, the MD Department of the Environment, the Maryland Restaurant Association, the American Biogas Association, members of the MD-DC Compost Council, and other stakeholders on consensus language, which are reflected in the suggested amendments, attached to this written testimony.

This bill will stimulate investment in and expansion of needed capacity to handle recycling of food scraps and yard trimmings in Maryland. The study group will build critical stakeholder support for programs and policies to divert valuable organic materials to beneficial use and help the state achieve its waste reduction and recycling goals.

I offer the following reasons to support this bill:

1. **Composting Is Essential to Reach Higher Recycling Levels in Maryland**: Our 2013 report, *Pay Dirt*, found that there is an enormous opportunity to achieve higher recycling levels in Maryland with comprehensive composting. There's plenty of room to recover more leaves and yard trimmings; and most food scraps in the state are landfilled or burned. Almost half the garbage we set out at the curb is readily biodegradable in composting or anaerobic digestion facilities. The State's Zero Waste Plan calls for 90% recovery of food scraps and yard trimmings by 2040.
2. **Composting and Compost Use Will Create In-State Businesses and Jobs:** *Pay Dirt* found that for every 1 million tons of yard waste and food waste diverted to composting, with the resulting compost used within the state, 1,400 new jobs could be sustained. This underlines the importance of having the Department of Commerce at the table with the Department of Environment (MDE). We are talking about a new industrial sector for Maryland.
3. **Maryland Has Insufficient Capacity to Recycle Food Scraps**: More capacity is needed within Maryland to handle materials, particularly food scraps. The closing of the Peninsula composting facility in Wilmington, Delaware, underscores the need for MD-based operations. This bill is specifically designed to stimulate investment in in-state capacity.
4. **Policies Are Needed to Expand Composting and Compost Use In Maryland**: Local and state policies are needed to overcome lack of infrastructure and other obstacles to compost

expansion. MDE's permitting regulations for compost sites – promulgated summer 2015 – establish a clear regulatory path. This bill now focuses on the next logical steps: encouraging the building of facilities to meet those new regs. The study work group will look at food waste recycling requirements in other states, and identify means to encourage investment and provide economic incentives, including identification of properties or development zones.

5. **There Is an Immediate Need to Reduce Biodegradable Materials Landfilled or Burned**: Landfills are a top source of methane, which is an extremely potent greenhouse gas in the short term. As a result, methane regulation has significant short-term potential to slow climate change. The best alternative to landfill disposal for biodegradable materials is not municipal trash combustors, which continuously emit carbon dioxide, but composting and anaerobic digestion. When added to soil, compost sequesters carbon. If we want to stem climate change, we need to act now.

ILSR has produced a series of posters and infographics to highlight the many benefits of composting. Copies are attached to this testimony. Composting not only creates jobs and protects the climate, but it enhances soil and protects watersheds.

HB 171 does not put in place any requirements for food waste recovery. It will, however, bring pivotal stakeholders together, to develop a roadmap for how the state can best recover this valuable local asset to create jobs and healthy communities. It complements the development of new compost permit regulations finalized in 2015, as well as MDE's Zero Waste Plan that identifies diversion of organic materials as one of eight core priorities. This Zero Plan plan calls for disposal bans for organics and for universal recycling of organics.

About the Institute for Local Self-Reliance (ILSR): ILSR is a national nonprofit organization headquartered in Washington, DC. Since 1974 we have provided research and technical assistance on waste reduction, renewable energy, and other resource conservation issues to business, government, and citizens groups. We have worked in Maryland for decades to promote recycling-based businesses and jobs and prioritize waste reduction, reuse, and recycling over trash incineration and landfill disposal.

COMPOST: Impacts More Than You Think

Composting is the aerobic decomposition of organic materials by microorganisms. It transforms raw materials—such as leaves, grass clippings, garden trimmings, food scraps, animal manure, and agricultural residues—into compost, a valuable earthy-smelling soil conditioner, teeming with life.

One Person's Trash is...

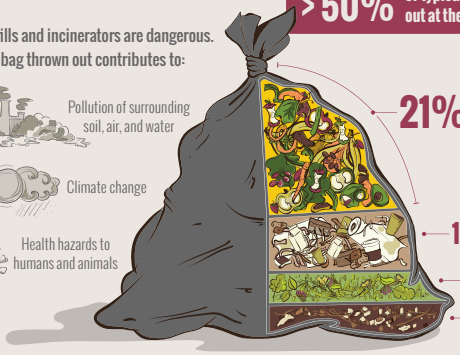
...another's black gold.

Every year, U.S. landfills and trash incinerators receive **167 MILLION TONS** of garbage.

> 50% of typical municipal garbage set out at the curb is compostable.

Landfills and incinerators are dangerous. Every bag thrown out contributes to:

- Pollution of surrounding soil, air, and water
- Climate change
- Health hazards to humans and animals



21% is food scraps alone

15% paper/paperboard

8% yard trimmings

8% wood waste

SOURCES:
Brenda Platt, Nora Goldstein, Craig Coker, and Sally Brown, *The State of Composting in the U.S.: What, Why, Where, & How*, Institute for Local Self-Reliance (ILSR), June 2015.
US EPA, *Advancing Sustainable Materials Management: Facts and Figures 2013*, June 2015, pp. 12, 46.
Brenda Platt, Eric Lombardi, and David Ciplet, *Stop Trashing the Climate*, Institute for Local Self-Reliance (ILSR), 2008.
Brenda Platt, Bobby Bell, and Cameron Harsh, *Pay Dirt: Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay*, Institute for Local Self-Reliance (ILSR), May 2013.
Mike Ewall, *Trash Incineration Factsheet*, Energy Justice Network web page, http://www.energyjust

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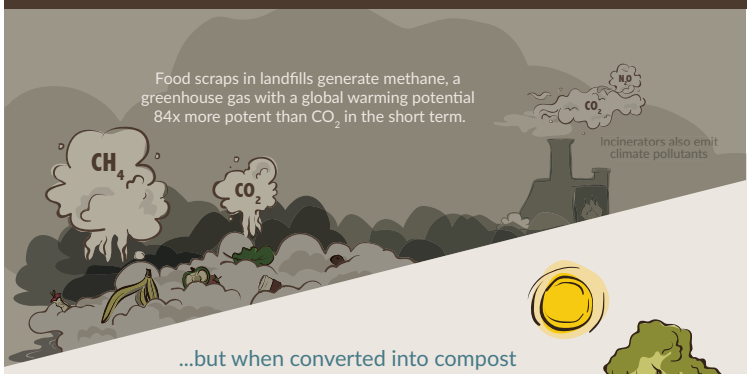
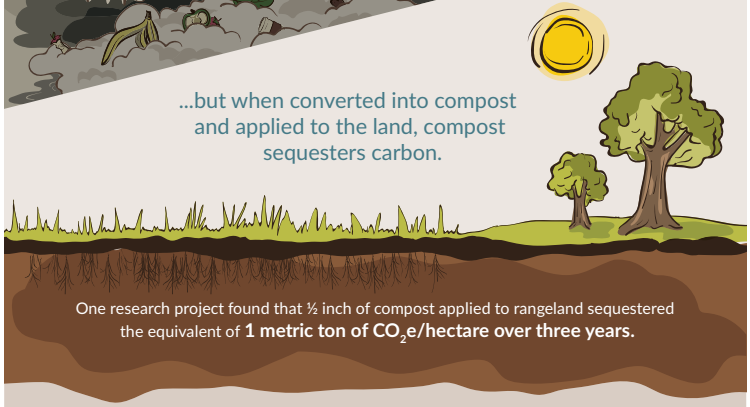
Composting Protects the Climate

Food scraps in landfills generate methane, a greenhouse gas with a global warming potential 84x more potent than CO_2 in the short term.



...but when converted into compost and applied to the land, compost sequesters carbon.



One research project found that ½ inch of compost applied to rangeland sequestered the equivalent of **1 metric ton of CO_2e/hectare over three years.**

This level of sequestration on half of California's rangeland would offset **42 million metric tons of CO_2e**, which is equal to the annual greenhouse emissions from California's commercial and residential energy sectors.

SOURCES:
Gunnar Myhre, Drew Shindell, et. al, Anthropogenic & Natural Radiative Forcing, Climate Change 2013: *The Physical Science Basis. Contribution of Working Group I to Fifth Assessment Report of Intergovernmental Panel on Climate Change*, Cambridge University Press, 2013, p. 714.
"Can Land Management Enhance Soil Carbon Sequestration?" Marin Carbon Project web site, accessed April 2016.
Rebecca Ryals and Whendee L. Silver, "Effects of organic matter amendments on net primary productivity and greenhouse gas emissions in annual grasslands," *Ecological Applications* (Ecological Society of America), 1 January 2013, 23:46-59. doi:10.1890/12-0620.1
Brenda Platt, Nora Goldstein, Craig Coker, and Sally Brown, *The State of Composting in the U.S.: What, Why, Where, & How*,
, 2008.

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To learn more, visit: ilsr.org/compost-impacts

Composting Creates Jobs

Jobs are sustained in each stage of the organics recovery cycle.

PER 10,000 TONS WASTE/YEAR	JOBS SUSTAINED
Incineration	1
Landfilling	2

On a per-ton basis, making compost alone, employs **2x more workers than landfills** and **4x more than incinerators.**

Manufacturing Compost — 4

Using Compost in Green Infrastructure

Green infrastructure uses compost in rain gardens, green roofs, bioswales, vegetated retaining walls, and on steep highway embankments to control soil erosion and storm water. Using compost in green infrastructure creates **even more jobs.** — 6

SOURCES:
Brenda Platt, Bobby Bell, and Cameron Harsh, Pay Dirt: *Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay*, Institute for Local Self-Reliance (ILSR), May 2013.
Brenda Platt, Nora Goldstein, Craig Coker, and Sally Brown, *The State of Composting in the U.S.: What, Why, Where, & How*, Institute for Local Self-Reliance (ILSR), June 2015.
Brenda Platt and Neil Seldman, *Wasting and Recycling in the United States 2000*, Institute for Local Self-Reliance (ILSR), 2000.

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To learn more, visit: ilsr.org/compost-impacts

Available as downloadable full-size posters on ILSR's web page at:

Ilsr.org/compost-impacts

Composting Enhances Soil and Protects Watersheds

Healthy soils are essential for protecting watersheds. Compost is the best way to add organic matter—which is vital—to soils.

When added to soil, compost can filter out urban stormwater pollutants by **an astounding 60-95%**

IT'S ALL ABOUT THE SOIL

COMPOST improves biological, chemical, and physical characteristics of soil.

Protects against soil desertification and soil erosion

Enhances plant disease suppression

Increases resilience to floods and droughts

Increases soil fertility

Converts nitrogen into a more stable and less mobile form and phosphorous into a less soluble form

Increases microbial activity

Reduces need for chemicals

Improves water retention

Improves soil structure

Improves ability to store nutrients (such as cation exchange capacity)

Adds humus, keeping soil particles stuck together

Compost serves as a filter and sponge. It immobilizes and degrades pollutants, improving water quality.

Compost helps reduce stormwater runoff because it can hold **~5x its weight** in water.

SOURCES:

Bobby Bell and Brenda Platt, *Building Healthy Soils with Compost to Protect Watersheds*, Institute for Local Self-Reliance (ILSR), June 2014.
Brenda Platt, Nora Goldstein, Craig Coker, and Sally Brown, *The State of Composting in the U.S.: What, Why, Where, & How*, Institute for Local Self-Reliance (ILSR), June 2015.
"Why Build Healthy Soil?" Washington Organic Recycling Council (WORC) Soils for Salmon Project, accessed April 2016.
United States Composting Council (USCC), "Specify and Use COMPOST for LEED & Sustainable Sites Projects: A Natural Connection"
"Soil Health Key Points," Natural Resources Conservation Service, USDA, February 2013.
"Increasing Soil Organic Matter with Compost," *Compost: The Sustainable Solution*, US Composting Council, July 2014.
"Strive for 5%," US Composting Council's campaign to promote 5% organic matter in soils, US Composting Council.

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To learn more, visit: ilsr.org/compost-impacts

PROPOSED AMENDMENTS TO HB 171

AN ACT concerning

Department of the Environment – Yard Waste and Food Residuals Diversion and Infrastructure – Study

FOR the purpose of requiring the Department of the Environment, in consultation with certain persons, to study, review, explore, identify, and make recommendations regarding certain matters that relate to the diversion of yard waste and other organic materials from refuse disposal facilities, including certain infrastructure; requiring the Department to report its interim and final findings and recommendations to the Governor and the General Assembly on or before certain dates; and generally relating to yard waste and food residuals diversion and infrastructure.

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND,

That:

(a) The Department of the Environment shall:

(1) study the diversion of yard waste, ~~and~~ food residuals, and other organic materials from refuse disposal facilities in the State, including any State laws or regulations governing the diversion of yard waste or food residuals;

(2) study the laws and regulations of other states, including but not limited to MA, CT, VT, CA, and RI, governing the diversion of yard waste or food residuals to identify best practices that can be applied to Maryland;

(3) review the status of infrastructure for the diversion of yard waste, ~~and~~ food residuals, and other organic materials in the State and other states, including the availability of infrastructure in relation to:

(i) large generators of food waste, identified by type, quantity of food waste generated by entity, and geographic distribution; and

(ii) organizations that use surplus food, identified by type and geographic distribution;

(4) explore ways to promote composting of yard waste and food residuals and other methods of organic waste reduction and diversion, including ways to encourage:

(i) a decentralized and diverse infrastructure, and

(ii) the prevention of organic waste generation;

(5) identify means to encourage investment in infrastructure and provide economic incentives to expand capacity for yard waste, ~~and~~ food residuals, and other organic materials diversion in the State, including identification of:

(i) properties or development zones where diversion infrastructure may be developed; and

(ii) any tax, grants, or other incentives that already exist to encourage and support infrastructure and economic development;

(6) ~~recommend a refuse disposal fee to finance a grant program that provides financial assistance to develop infrastructure and expand capacity for yard waste and food residuals diversion in the State;~~

identify the current process for permitting anaerobic digestion facilities and recommend improvements that should be made to the anaerobic digestion permitting process;

(7) recommend measures to promote the diversion of yard waste, ~~and~~ food residuals, and other organic materials in the State, including any necessary programmatic, legislative, or regulatory changes; and

(8) recommend a pilot program for the region in which Elkridge and Jessup are located to prioritize infrastructure development and food waste recovery from large food waste generators.

(b) In conducting the activities required under subsection (a) of this section, the Department shall consult with:

(1) the Department of Agriculture;

(2) the Department of Commerce;

(3) the Maryland Environmental Service;

(4) the MD–DC Compost Council;

(5) the American Biogas Council;

(6) the Restaurant Association of Maryland;

(7) the Maryland Retailers Association;

(8) the Maryland Food Bank;

(9) the Institute for Local Self–Reliance;

(10) the Maryland Recycling Network;

(11) the Maryland Farm Bureau;

(12) the Maryland–Delaware Solid Waste Association;

(13) the Chesapeake Foodshed Network;

(14) the Maryland Horse Council;

(15) the Johns Hopkins University Center for a Livable Future;

(16) the Future Harvest/Chesapeake Alliance for Sustainable Agriculture;

(17) the Maryland Association of Counties;

(18) the Maryland Municipal League; ~~and~~

(19) a private business based in the State that provides food waste collection services;

(20) the Chesapeake Sustainable Business Council;

(21) the University of Maryland;

(22) the Chesapeake Bay Foundation; and

(23) environmental organizations.

(c) On or before July 1, 2018, the Department shall report its interim findings and recommendations to the Governor and, in accordance with § 2–1246 of the State Government Article, the General Assembly.

(d) On or before July 1, 2019, the Department shall report its final findings and recommendations to the Governor and, in accordance with § 2–1246 of the State 18 Government Article, the General Assembly.

SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect July 1, 2017.