



Key Findings

Pay Dirt

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

by Brenda Platt et al.

Institute for Local Self-Reliance

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Composting can divert significant materials from disposal

- Composting yard trimmings already diverts more than 780,000 tons per year of Maryland's waste from disposal, representing more than a quarter of material recycled.
- Expanding composting for food scraps will be important for counties to meet higher recycling levels.
- Almost one-half of typical household garbage set out at the curb is compostable. A pilot food scrap collection and composting program in Howard County indicates that food scraps alone make up one-quarter of residential material.
- Communities elsewhere, such as San Francisco, that have comprehensive composting programs including food scrap recovery, have surpassed 75% recycling levels.
- In Maryland, the potential to expand composting is enormous; more than 1 million tons of yard trimming and food scraps are estimated disposed each year.

Composting and using compost create jobs

- Composting (including mulching and natural wood waste recycling) operations in Maryland already sustain more total jobs than the state's three trash incinerators, which handle almost twice as much tonnage.
- Jobs are sustained in each stage of the organics recovery cycle: manufacturing compost as well as using compost.
- 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.
- In addition to manufacturing compost, *using* compost in "green infrastructure" and for stormwater and sediment control creates even more jobs. Green infrastructure represents low-impact development such as rain gardens, green roofs, bioswales, vegetated retaining walls, and compost blankets on steep highway embankments to control soil erosion.

- 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 job 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 each year.
- Composting and compost use represent place-based industries that cannot be outsourced abroad.

Compost can help protect the Chesapeake Bay watershed

- Healthy soils are essential for protecting the Chesapeake Bay and other watersheds.
- Compost is the best way to add organic matter – which is vital to soil quality – to soils.
- When added to soil, compost:
 1. Reduces non-point source pollution by binding pollutants and absorbing water, reducing erosion and sedimentation,
 2. Improves the quality of soil, retaining moisture and reducing the need for fertilizers, pesticides, and fungicides.
- Compost helps reduce stormwater runoff because it can hold up to 20 times its weight in water.
- Compost helps manage nutrient-laden stormwater and agricultural runoff by serving as a filter and a sponge. Its high porosity and permeability allow contaminated stormwater to infiltrate at much higher rates than most existing soils, especially those compacted via human development. Once in compost-amended soil, toxins and pollutants begin to break down. Compost immobilizes and degrades pollutants, improving water quality. It has the ability to bind heavy metals, pesticides, herbicides, and other contaminants, reducing both their leachability and absorption by plants.
- Compost-based products are identified as best management practices for controlling erosion and sediment in construction activities and for post-construction stormwater management. Examples: compost socks to trap sediment and for slope stabilization, compost vegetated cover, compost engineered soil, compost vegetated filter strips, and compost bioswales.
- Compost-based products for erosion control and stormwater management have the ability to filter and remove up to 99% of bacteria, 73% of heavy metals, 92% of nutrients, and 99% of hydrocarbons from stormwater.
- Compost, when added to soil, can reduce contamination of urban pollutants by an astounding 60 to 95%.

A diverse and local composting infrastructure is needed

- Composting can take place effectively in a wide range of scale and sizes: small backyard bins, community gardens, onsite systems at schools and hospitals, rural and urban farm-based operations, and large low-tech and high-tech regional facilities.
- Smaller composting facilities have a higher job-to-ton ratio. In Maryland, on a per-ton basis, small-scale composting facilities employ six times the number of jobs as landfills and eleven times more than incinerators.
- Several small-scale food scrap composting operations have opened in Maryland the last three years, demonstrating the viability of locally-based systems: ECO City Farms, an urban farm in Edmonston; Chesapeake Compost Works, a private enterprise in Curtis Bay, Baltimore; and a Howard County government site to process material from a residential pilot.
- Communities embracing a decentralized and diverse organics recovery infrastructure – one that first prioritizes food rescue, backyard composting, onsite institutional systems, community composting, and urban and rural on-farm composting before the development of centralized regional facilities – will be more resilient and will better reap the economic and environmental benefits that organics recovery has to offer.
- By developing a diverse infrastructure, Maryland can become a model for other states to emulate.

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, such as permitting restrictions. Permitting and regulations are top challenges to composting facilities' financial viability and their opportunities for expansion. Maryland composters also point to financing and lack of demand for compost as obstacles to expansion.
- An emerging industry of companies that use compost and compost-based products for erosion control and watershed protection is looking to expand in Maryland and the Mid-Atlantic region, and can benefit if policies that promote composting and compost use are implemented.
- The State has a critical role in supporting and encouraging composting at the local level. It can provide technical assistance to local jurisdictions, for instance, on best management practices, but it also needs to take a leadership role in facilitating the development of an expanded compost infrastructure. New rules are needed to clarify environmental requirements, exempt small facilities, and ensure all facilities protect public health and the environment by meeting performance standards.
- The MD General Assembly should address all 15 recommendations of a Statewide Composting Workgroup, convened in 2012 as a result of MD House Bill 817, and should consider many additional policies that would support expanding composting in Maryland (e.g., pay-as-you-throw trash systems, encouragement of a decentralized composting infrastructure, a moratorium on building new trash burners, implementation of a per-ton surcharge on all disposal facilities to fund recycling and composting initiatives, establishment of a 75% recycling goal by 2030, and compost-amended soil requirements).