

Department of Legislative Services
 Maryland General Assembly
 2014 Session

FISCAL AND POLICY NOTE

House Bill 1081 (Delegate S. Robinson, *et al.*)
 Environmental Matters

Composting and Anaerobic Digestion Facilities - Yard Waste and Food Residuals

This bill requires, beginning October 1, 2015, a person that disposes of yard waste, or at least two tons of food residuals per week, generated within 30 miles of a composting facility or an anaerobic digestion facility to separate the yard waste or food residuals from other solid waste and ensure that they are disposed of at one of these facilities that has the capacity, and is willing, to accept the waste. The bill also subjects anaerobic digestion facilities to specified laws (including the requirement to be permitted and relevant enforcement provisions) that currently govern composting facilities, and requires the Maryland Department of the Environment (MDE) to adopt regulations specific to anaerobic digestion. Finally, the bill defines “anaerobic digestion,” “anaerobic digestion facility,” and “food residuals.”

Fiscal Summary

State Effect: Special fund expenditures increase by \$127,300 for permit development, administration, and enforcement by MDE. Future year estimates reflect annualization and inflation. Expenditures (all funds) increase, potentially significantly, for any State agency that is a generator of yard waste or at least two tons of food residuals per week and is required to transport such waste to a composting or anaerobic digestion facility; the impact may be limited in FY 2015 due to current capacities of existing facilities. Revenues are not materially affected.

(in dollars)	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Revenues	\$0	\$0	\$0	\$0	\$0
SF Expenditure	127,300	130,900	136,900	143,100	149,600
GF/SF Exp.	-	-	-	-	-
Net Effect	(\$127,300)	(\$130,900)	(\$136,900)	(\$143,100)	(\$149,600)

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect

Local Effect: Local government expenditures increase, potentially significantly, for jurisdictions that are generators of yard waste or at least two tons of food residuals per week and are required to transport such waste to a composting or anaerobic digestion facility; the impact may be limited in FY 2015 due to current capacities of existing facilities. Local revenues decrease for jurisdictions that own or operate refuse disposal facilities and collect tipping fees upon the acceptance of solid waste; revenues may increase for any jurisdiction that owns composting or anaerobic digestion facilities. **This bill imposes a mandate on a unit of local government.**

Small Business Effect: Meaningful.

Analysis

Current Law: All yard waste collected separately from other solid waste may be transported to a composting facility. An owner or operator of a refuse disposal system may not accept truckloads of separately collected yard waste for final disposal unless the owner or operator provides for the composting or mulching of the yard waste.

Chapter 686 of 2013 required MDE to adopt regulations governing the permitting and operation of composting facilities and prohibited a person from operating a composting facility that is not in accordance with the regulations or any permit or order issued under specified composting laws. Chapter 686 also altered several definitions in order to treat compost and composting separately from more traditional regulation of solid waste.

Chapter 686 specifically authorized MDE to include in the new composting regulations (1) conditions for constructing and operating a composting facility; (2) a tiered system of permits for facilities based on size, feedstock type, or other factors; (3) design and operational conditions to protect public health and the environment and to minimize nuisances; (4) permit exceptions; and (5) an exemption for certain organic materials from designation as solid waste.

Background:

Composting

Chapter 363 of 2011 required MDE, in consultation with the Maryland Department of Agriculture (MDA) and the Maryland Environmental Service, to study composting in Maryland, including the laws or regulations governing composting, and to make recommendations about how to promote composting in Maryland. The composting workgroup established pursuant to Chapter 363 reviewed other states' composting requirements, determined ways to further encourage composting in Maryland, and

considered model composting regulations from the U.S. Composting Council. The workgroup made several recommendations for establishing a conceptual framework for the future regulation of composting facilities, and Chapter 686 of 2013 required MDE to adopt such regulations. The proposed regulations were published for public comment in the January 10, 2014 issue of the *Maryland Register*.

Prior to the enactment of Chapter 686, composting facilities were considered solid waste acceptance facilities subject to the requirements of a refuse disposal permit if the facility's primary purpose was the processing of solid waste. Because the former definition of solid waste included organic materials capable of being composted, composting facilities were typically required to obtain a refuse disposal permit. By altering the definition of solid waste and several other definitions, Chapter 686 allowed compost and composting facilities to be regulated separately and in a manner anticipated to reduce barriers to the construction of new facilities and to encourage additional composting in Maryland.

Generally, composting diverts waste from landfills; reduces methane emissions, a greenhouse gas; and provides an inexpensive source of natural fertilizer, among other economic and environmental benefits. According to the U.S. Environmental Protection Agency (EPA), yard trimmings and food residuals together constituted about 28% of the U.S. municipal solid waste generated in 2011.

MDE advises that it is aware of four composting facilities that accept food residuals in Maryland, although it is unclear which of the facilities, if any, have the capacity and willingness to accept food residuals under the bill. **Exhibit 1** shows the four facilities, as well as a 30-mile radius around each of the facilities. The total areal coverage of land within 30 miles of the four facilities includes a significant percentage of the State's population. MDE also advises that it is aware of at least 11 composting facilities that accept yard waste, which are registered with MDA, but that there are likely numerous additional facilities that are not registered. Finally, MDE estimates that, based on a study conducted by the Massachusetts Department of Environmental Protection and the relative population of the two states, there may be nearly 2,000 generators of two tons of food residuals per week in Maryland. Many of these generators include food manufacturers and distribution facilities, supermarkets, colleges, and correctional facilities.

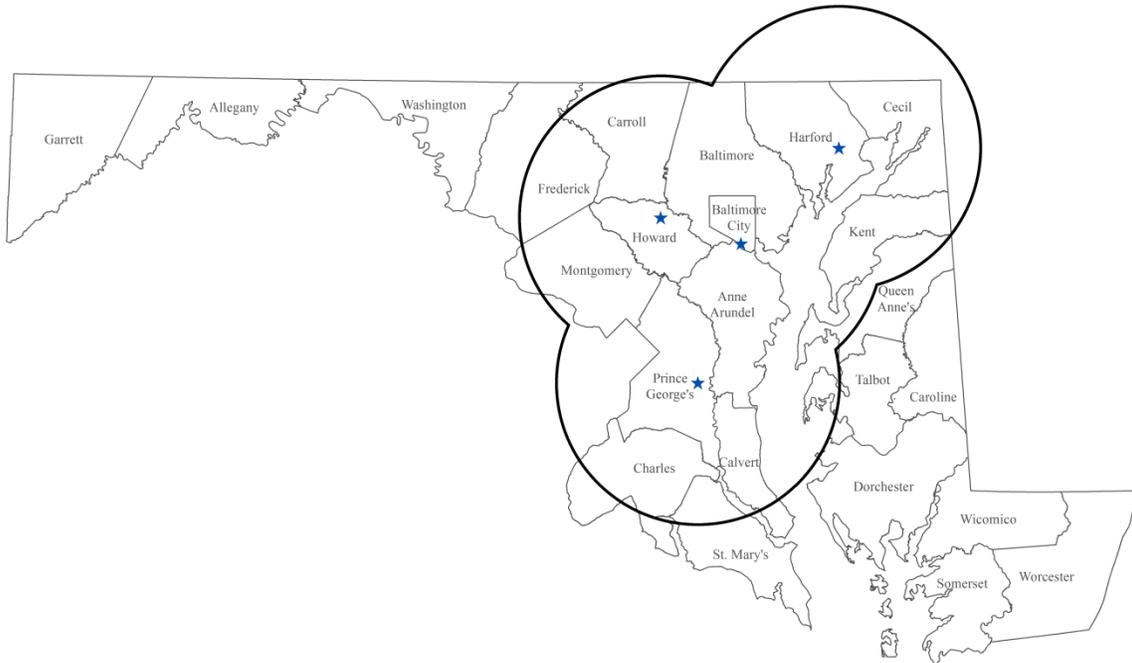
Anaerobic Digestion

According to EPA, anaerobically digesting food waste produces two valuable products, renewable energy and soil amendment. Additionally, EPA advises that, if 50% of the food waste generated each year in the United States was anaerobically digested, enough electricity would be generated to power 2.5 million homes for a year. MDE advises that

it is aware of two anaerobic digesters in the State, although both facilities are used for processing dairy manure, rather than food residuals or yard waste.

MDE published a final greenhouse gas reduction plan in July 2013 pursuant to the Greenhouse Gas Reduction Act of 2009 (Chapters 171 and 172). The extensive plan includes numerous strategies, programs, and initiatives that, in combination, are projected to achieve a 25% reduction of greenhouse gas emissions from 2006 levels by 2020. One of the major strategies included in the plan is a “zero waste” initiative, which is estimated to provide 8.7% of the emissions reductions – the fourth largest component of the plan. Anaerobic digestion is one component of the zero waste strategy envisioned by the plan.

Exhibit 1
Known Food Residual Composting Facilities and Their 30-mile Radii



Note: Each composting facility is denoted by a star, and areas within the 30-mile radius of each facility are contained within the shape outlined in black.

Source: Maryland Department of the Environment

State Expenditures: Special fund expenditures increase by \$127,279 in fiscal 2015, which accounts for the bill’s October 1, 2014 effective date. This estimate reflects the

cost of hiring one investigator and one natural resources planner within MDE’s Land Management Administration for permit development and administration for anaerobic digestion facilities, and for inspection and enforcement of the bill’s requirements; MDE can develop the new regulations with existing resources. The fiscal 2015 ending balance for the Maryland Recycling Trust Fund is projected at more than \$350,000. Thus, it is assumed that the bill’s additional expenditures are covered by special funds. However, general fund expenditures may increase to the extent that special funds are not available to support the additional positions in any fiscal year.

Positions	2
Salaries and Fringe Benefits	\$89,382
Start-up and Operating Expenses	<u>37,897</u>
Total FY 2015 MDE Expenditures	\$127,279

Future year expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses.

MDE advises that, if the bill is interpreted to require that generators of yard waste or food residuals be registered with MDE or subject to reporting requirements, then greater resources may be needed to register generators and/or process generator reports. This fiscal and policy note assumes that no additional resources beyond those described above are necessary, as it is unclear whether sufficient authority exists for MDE to require registration or reporting by yard waste and food residuals generators without express authority under the bill.

State expenditures (all funds) are more significantly affected for any State agency that is a generator of yard waste and/or at least two tons of food residuals per week. An agency subject to the bill’s generator requirements must contract with an additional solid waste hauler, or otherwise provide for the collection and transportation of yard waste and food residuals to a composting or anaerobic digestion facility with the capacity and willingness to accept such waste.

A reliable estimate of the increase in hauling costs cannot be made at this time without additional information about the cost of such services, the value of any marketable commodities that may be retained by such agencies, and any differential in the cost of tipping fees between composting or anaerobic digestion facilities and more traditional refuse disposal facilities, such as landfills. It is anticipated that costs may increase significantly for agencies to ensure that yard waste and food residuals are disposed of in accordance with the bill. However, it is unclear how many composting or anaerobic digestion facilities have the capacity and willingness to accept some or all of the additional materials required to be transported to such facilities; while limited capacity may exist in current facilities, the demand for such capacity created by the bill may result

in the establishment of numerous additional composting and anaerobic digestion facilities in the future. Thus, the impact on State expenditures may be greatest after fiscal 2015.

Local Fiscal Effect: Local government expenditures similarly increase for jurisdictions to contract for additional solid waste disposal services, or otherwise provide for such services, to comply with the bill's requirement to transport yard waste and food residuals to composting or anaerobic digestion facilities with the capacity and willingness to accept such waste. As noted above, the additional cost is unclear without additional information regarding the economics of composting relative to traditional solid waste disposal methods.

Local revenues may decrease to the extent that locally owned landfills and other refuse disposal facilities collect fewer tipping fees following a reduction in the amount of solid waste transported to such facilities. Local revenues may increase to the extent that a jurisdiction owns and operates a composting facility or anaerobic digestion facility.

Small Business Effect: Small businesses that generate yard waste and/or at least two tons per week of food residuals may incur a meaningful increase in waste disposal costs to the extent that the capacity and willingness to accept such waste exists in fiscal 2015 or future years. The bill's impact is also dependent on the manner of enforcement of the bill's requirements by MDE; as noted above, it is unclear whether the authority exists for MDE to require registration or reporting by generators, or whether MDE might exercise this authority.

Small businesses engaged in the collection, transport, or acceptance and processing of yard waste or food residuals may realize a meaningful increase in demand for their services. It is likely that numerous additional composting and anaerobic digestion facilities are established beginning in fiscal 2015 as a result of the bill; thus small businesses engaged in the engineering and construction of such facilities also benefit.

Additional Comments: MDE advises that the bill may result in duplicative and/or inconsistent permitting requirements for anaerobic digestion facilities. Currently, an anaerobic digestion facility is considered a refuse disposal system and must, therefore, obtain a refuse disposal system permit. The bill does not exempt anaerobic digestion facilities from the requirement to obtain a refuse disposal system permit.

MDE further advises that the bill may reduce the amount of yard waste that is converted to mulch. For example, the bill requires yard waste that is generated within 30 miles of a composting or anaerobic digestion facility (with the capacity and willingness to accept it) to be taken to such facilities. If the receiving facility is not located at a refuse disposal facility, or does not engage in mulching of yard waste, then the amount of mulch

produced in Maryland may decrease. However, as noted above, the impact of the bill may be limited in fiscal 2015 and following years due to current capacity constraints.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Kent and Worcester counties; Maryland Department of Agriculture; Maryland Department of the Environment; Northeast Maryland Waste Disposal Authority; U.S. Environmental Protection Agency; Department of Legislative Services

Fiscal Note History: First Reader - February 24, 2014
ncs/lgc

Analysis by: Evan M. Isaacson

Direct Inquiries to:
(410) 946-5510
(301) 970-5510