

Department of Legislative Services  
 Maryland General Assembly  
 2019 Session

FISCAL AND POLICY NOTE  
 First Reader

House Bill 1142 (Delegate Lehman, *et al.*)  
 Environment and Transportation

**Environment - Hazardous Materials - Disposal of Synthetic Turf and Turf Infill**

This bill establishes restrictions on the disposal and reuse of “synthetic turf” and “turf infill.” The Maryland Department of the Environment (MDE) must establish a system to track the chain of custody of synthetic turf and turf infill from generation to final disposal or reuse and must post the chain of custody on its website. An individual who violates the bill’s provisions is subject to existing injunctive action and the imposition of civil and administrative penalties.

**Fiscal Summary**

**State Effect:** General fund expenditures for MDE increase by \$121,100; future years reflect annualization and ongoing costs. State expenditures (multiple fund types) increase to track and dispose of synthetic turf and turf infill. The application of existing penalty provisions is not anticipated to materially affect State revenues.

| (in dollars)   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 |
|----------------|---------|---------|---------|---------|---------|
| Revenues       | \$0     | \$0     | \$0     | \$0     | \$0     |
| GF Expenditure | 121,100 | 117,700 | 121,500 | 125,600 | 129,900 |
| GF/SF Exp.     | -       | -       | -       | -       | -       |
| Higher Ed Exp. | -       | -       | -       | -       | -       |
| Net Effect     | (-)     | (-)     | (-)     | (-)     | (-)     |

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

**Local Effect:** Local expenditures increase, potentially significantly, to track and dispose of synthetic turf and turf infill. Local revenues are not affected. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Meaningful.

## Analysis

### **Bill Summary:**

#### *Restrictions on the Disposal and Reuse of Synthetic Turf and Turf Infill*

A person may only dispose of “synthetic turf” and “turf infill” (1) in a controlled hazardous substance facility or (2) at a “closed-loop recycling facility.” A person may not incinerate synthetic turf or turf infill. A person or controlled hazardous substance facility may only dispose of synthetic turf and turf infill in a manner that prevents the material from contaminating air, soil, or water.

Synthetic turf and turf infill can only be reused if the material is processed at a closed-loop recycling facility, broken down into its component parts, and used for manufacturing new synthetic turf and turf infill as part of a closed-loop recycling program.

A “closed-loop recycling facility” is a facility that accepts synthetic turf or synthetic turf infill for closed-loop recycling. “Closed-loop recycling” means a process by which the resources from a discarded product are reused to make the same product. “Synthetic turf” is plastic tufted carpet that (1) is intended to have, or incidentally has, an appearance that mimics grass and (2) functions as a replacement to grass. “Turf infill” is material poured on top of synthetic turf to hold synthetic turf blades in place, including shredded or granulated tires, rubber, or plastic.

#### *System to Track the Chain of Custody*

MDE must establish a system to track the chain of custody of synthetic turf and turf infill from its generation to its final disposal or reuse, including the manufacturer, the business or contractor that installs the turf or turf infill, the owner, the hauler that transports it to its final disposal site, and the controlled hazardous substance facility or closed-loop recycling facility that accepts it for disposal or reuse. MDE must post the chain of custody on its website.

### **Current Law/Background:**

#### *Solid Waste Infrastructure and Controlled Hazardous Substance Facilities*

The solid waste infrastructure in Maryland consists of both permitted and nonpermitted facilities, and solid waste is managed through a combination of recycling, composting, landfilling, energy recovery, and exporting for disposal or recycling. Privately and county-owned facilities make up the majority of facilities in the State.

A “controlled hazardous substance facility” is a disposal structure, system, or geographic area, designed by MDE for the treatment, storage related to treatment or disposal, or disposal of controlled hazardous substances. A controlled hazardous substance facility includes a low-level nuclear waste facility and an operating landfill that has a permit equivalent to a facility permit. Generally, a person must hold a facility permit before a person may own, establish, operate, or maintain a controlled hazardous substance facility in the State. A separate facility permit is required for each facility. Facility owners and operators must also apply to MDE for an identification number from the U.S. Environmental Protection Agency (EPA), which is discussed below. Additionally, there are restrictions and requirements for haulers that bring controlled hazardous substances to a facility for disposal.

MDE advises that there are no controlled hazardous substance facilities in the State that could dispose of synthetic turf or turf infill. MDE also notes that tipping costs at a controlled hazardous substance facility can be 10 times higher than fees at a nonhazardous waste disposal facility.

### *Definitions of Hazardous Waste*

A solid waste is determined to be hazardous if it is specifically designated as hazardous waste or component parts are designated as hazardous waste, or if it meets any of a number of criteria established in regulations. Although synthetic turf and turf infill can be composed of any number of materials, generally, synthetic turf made from plastic and turf infill composed of crumb rubber are not considered hazardous waste under State or federal laws.

### *U.S. Environmental Protection Agency’s Hazardous Waste Manifest System*

EPA’s hazardous waste manifest system is designed to track hazardous waste from the time it leaves the generator facility where it was produced, until it reaches the off-site waste management facility that will store, treat, or dispose of the hazardous waste. EPA recently began a push to digitize the system, which is known as the “e-manifest.”

According to EPA, the key component of its tracking system is the Uniform Hazardous Waste Manifest, a form required by EPA and the U.S. Department of Transportation for all generators who transport, or offer for transport, hazardous waste for off-site treatment, recycling, storage, or disposal. Currently, the manifest is a paper document containing multiple copies of a single form. When completed, the form contains information on the type and quantity of the waste being transported, instructions for handling the waste, and signature lines for all parties involved in the disposal process. Each party that handles the waste, signs the manifest and retains a copy. This ensures critical accountability in the transportation and disposal processes. Once the waste reaches its destination, the receiving

facility returns a signed copy of the manifest to the generator, confirming that the waste has been received by the designated facility. EPA charges user fees to receiving facilities for each manifest submitted. The per manifest fee ranges from \$5 for a fully electronic submission to \$15 for a mailed paper manifest.

Federal regulations require large and small quantity generators of hazardous waste to obtain an EPA identification (EPA ID) number using a specified form and to submit the completed form to the authorized state agency (or the EPA regional office, if applicable).

### *Maryland's Recycling Policy*

Maryland's recycling policy is generally guided by the Maryland Recycling Act, which sets mandatory recycling rates for State government and local jurisdictions in the State, as well as a voluntary statewide recycling goal of 55% by 2020. Each county (including Baltimore City) must prepare a recycling plan that addresses how the jurisdiction will achieve its mandated recycling rate. The plan must be submitted to the Office of Recycling within MDE for approval when the jurisdiction submits its water and sewerage plan at least every 10 years. The plan must address a variety of topics associated with recycling, including methods to reduce the solid waste stream; the feasibility of source separation of the solid waste stream generated within the county; and the strategy for the collection, processing, marketing, and disposition of recyclable materials.

### *Applicable Penalty Provisions*

Existing penalty provisions for water, ice, and sanitary facilities would apply to the bill's provisions. A violator is subject to injunctive action and a civil penalty up to \$10,000, which is collected in a civil action brought by MDE. MDE is also authorized to impose administrative penalties of up to \$10,000 per day, but those penalties may not exceed \$100,000 total, as specified. Penalties are deposited into the Maryland Clean Water Fund.

### **State Expenditures:**

#### *Maryland Department of the Environment – Administrative Costs*

General fund expenditures increase by \$121,062 in fiscal 2020, which accounts for the bill's October 1, 2019 effective date. This estimate reflects the cost of hiring one environmental compliance specialist and one administrative specialist within MDE to (1) develop and maintain a database with chain-of-custody tracking capabilities; (2) conduct outreach to, identify, and respond to questions from the regulated community, turf field manufacturers, installers, owners, haulers, and closed-loop recyclers of synthetic turf and turf infill; (3) post the chain of custody to MDE's website; (4) issue necessary approvals to in-state controlled hazardous substance facilities accepting synthetic turf and

turf infill from noncontrolled hazardous substance certified haulers; and (5) investigate any cases of noncompliance. It includes salaries, fringe benefits, one-time start-up costs (including the purchase of a vehicle), and ongoing operating expenses. The information and assumptions used in calculating the estimate are stated below:

- there are a significant number of affected synthetic turf fields that ultimately need to be disposed of;
- MDE must conduct extensive, ongoing outreach to identify members of the regulated community, capture them in the tracking system, and inform affected individuals of the bill’s requirements;
- there are several options for tracking the chain of custody, one of which is EPA’s Hazardous Waste Manifest system; however, regardless of whether MDE uses EPA’s system or develops a State-specific system, the department’s workload to provide oversight and ensure compliance increases.

|                                       |                  |
|---------------------------------------|------------------|
| Positions                             | 2                |
| Salaries and Fringe Benefits          | \$85,368         |
| Vehicle Purchase                      | 22,545           |
| Other Operating Expenses              | <u>13,149</u>    |
| <b>Total FY 2020 MDE Expenditures</b> | <b>\$121,062</b> |

Future year expenditures reflect full salaries with annual increases and employee turnover and ongoing operating expenses. The estimate does not include any potential costs to develop a State-specific database to track chain of custody information. Accordingly, costs could be higher if MDE chooses not to use EPA’s system.

*State Agencies, Generally – Costs to Dispose of Synthetic Turf and Turf Infill*

The regulated community is likely broad, and includes (1) private and public schools of all levels (pre-kindergarten through grade 12 as well as institutions of higher education); (2) local governments; and (3) any State agencies that own or maintain synthetic turf and turf infill fields. Thus, State expenditures (multiple fund types) for various State agencies that own or maintain synthetic turf and turf infill fields, including the University System of Maryland (USM), increase to dispose of or recycle synthetic turf and turf infill. An exact cost is unknown, but disposal costs are likely significantly higher under the bill. MDE advises that there are no controlled hazardous substance disposal facilities that can dispose of synthetic turf and turf infill located in Maryland, and that it is unknown if there are any closed-loop recycling facilities in Maryland. As a result, the regulated community may need to transport the material out-of-state.

USM advises that a moderately sized synthetic turf field could contain between 300,000 and 540,000 pounds of material, and the requirement to dispose of this material at

a controlled hazardous substance facility is extremely expensive. USM advises that synthetic fields need to be replaced approximately every 10 years. USM estimates that disposal costs increase by 10% to 20% as a result of the bill, which amounts to approximately \$400,000 to \$500,000 per project.

As owners of synthetic turf and turf infill, State agency expenditures may also increase to obtain an EPA ID and use EPA's tracking system if that is the method MDE chooses to use to track chain of custody under the bill.

**Local Expenditures:** As discussed above, the regulated community likely includes local school systems and local governments that own or maintain synthetic turf and turf infill fields. Thus, local government expenditures increase, likely significantly, to dispose of synthetic turf and turf infill as required under the bill. Expenditures will vary by jurisdiction depending on the extent to which local government entities use synthetic turf and turf infill for their fields and need to dispose of those materials. Local expenditures may also increase to obtain an EPA ID and use EPA's tracking system if that is the method MDE chooses to use to track chain of custody under the bill.

Montgomery County reports that it has two field replacements scheduled: one in fiscal 2021 and one in fiscal 2024. The county estimates that costs to dispose of the first field increase by \$100,000 in fiscal 2021, and costs to dispose of the second field increase by \$120,000 in fiscal 2024 as a result of the bill's provisions.

Baltimore County advises that it contracts with a company that recycles the synthetic turf portion of synthetic turf fields and that it reuses the infill primarily for horse riding rinks. Under the bill, the county cannot continue to reuse the infill, and likely cannot recycle the synthetic turf as it is currently recycled. Thus, costs for the county likely increase to dispose of the fields at a controlled hazardous substance facility.

**Small Business Effect:** The bill has a significant impact on any small business that sells, recycles, or otherwise disposes of synthetic turf and turf infill fields. The increase in disposal costs may reduce the market for these types of fields in Maryland. The bill also increases disposal costs for any small business that needs to dispose of and/or replace synthetic turf and turf infill. Small business expenditures may also increase to obtain an EPA ID and use EPA's tracking system if that is the method MDE chooses to use to track chain of custody under the bill.

The bill results in an increase in business for any closed-loop recycling facility that can process synthetic turf or turf infill, but it is unknown whether such a facility exists in the State.

**Additional Comments:** Expenditures for nonpublic schools increase, similar to the costs described above for local school systems.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Anne Arundel, Baltimore, and Montgomery counties; Northeast Maryland Waste Disposal Authority; Maryland Municipal League; Maryland State Department of Education; Maryland Higher Education Commission; Baltimore City Community College; University System of Maryland; Morgan State University; St. Mary's College of Maryland; Department of Budget and Management; Maryland Department of the Environment; Department of General Services; Department of Natural Resources; Baltimore City Public Schools; Montgomery County Public Schools; U.S. Environmental Protection Agency; Department of Legislative Services

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Analysis by: Kathleen P. Kennedy

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