This bill establishes several prohibitions and requirements, effective January 1, 2022, that relate to the manufacture, sale, and distribution for sale or use in the State of specified products that contain “intentionally added” “PFAS chemicals.” Existing penalties apply to violations. The bill establishes related reporting requirements and authorizes the Maryland Department of the Environment (MDE) to adopt regulations to implement certain provisions of the bill. The bill takes effect July 1, 2021.

Fiscal Summary

State Effect: General fund expenditures increase by at least $427,700 in FY 2022; future years reflect annualization. State expenditures (multiple fund types) increase, potentially significantly, for State agencies to comply with the bill’s prohibitions. Minimal increase in general fund revenues from the application of existing penalty provisions.

<table>
<thead>
<tr>
<th>(in dollars)</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>GF Revenue</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>GF Expenditure</td>
<td>$427,700</td>
<td>$352,800</td>
<td>$359,700</td>
<td>$274,300</td>
<td>$279,500</td>
</tr>
<tr>
<td>GF/SF Exp</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net Effect</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

Local Effect: Potential significant increase in local expenditures. Local revenues are not affected. This bill imposes a mandate on a unit of local government.

Small Business Effect: Meaningful.
Analysis

Bill Summary:

Fire-fighting Foams Containing Intentionally Added PFAS Chemicals

The bill prohibits, beginning January 1, 2022, a person from using, manufacturing, knowingly selling, offering for sale, or distributing for sale or use Class B fire-fighting foam that contains intentionally added PFAS chemicals unless the addition of PFAS chemicals is required by federal law, as specified. If the federal requirement is revoked after the effective date of the prohibition, the prohibition applies beginning one year after the requirement is revoked.

A person that is authorized to use Class B fire-fighting foam that contains intentionally added PFAS chemicals may not release the foam directly into the environment, must implement specified containment measures, and must maintain documentation of any such measures. If there is a release of affected foam, the person who released the foam must report the release to MDE, as specified. In investigating compliance with these provisions, MDE, the Attorney General, a State’s Attorney, or a county or city attorney may request the required documentation, and a person who receives such a request must provide the documentation. A failure to meet these requirements does not preclude the use of Class B fire-fighting foam that contains intentionally added PFAS chemicals if the failure was a result of factors beyond the person’s control.

Unless exempted from the bill’s prohibition, as discussed above, a person who manufactures, sells, or distributes Class B fire-fighting foam that contains intentionally added PFAS chemicals after January 1, 2021, must recall the foam by March 1, 2022. In addition, the person must (1) reimburse the retailer or purchaser for the foam; (2) safely transport and store the foam; and (3) maintain documentation on the amount and storage location of the foam until MDE formally identifies a safe disposal technology. MDE, the Attorney General, a State’s Attorney, or a county or city attorney may request the required documentation, and a person who receives such a request must provide the documentation.

A person that manufactures, sells, offers for sale, or distributes for use Class B fire-fighting foam must establish a certificate of compliance to attest that the foam complies with the bill. MDE, the Attorney General, a State’s Attorney, or a county or city attorney may request a certificate of compliance, and a person who receives such a request must provide the certificate within 30 days.

A person is prohibited from disposing of Class B fire-fighting foam that contains intentionally added PFAS chemicals using incineration, as specified, or in a landfill.
Provisions Relating to New Rugs to Which PFAS Chemicals Have Been Intentionally Added

The bill prohibits, beginning January 1, 2022, a person from manufacturing, selling, offering for sale, or distributing for sale or use in the State a new rug or carpet to which PFAS chemicals have been intentionally added to serve an intended function in the rug or carpet. A person who manufactures, sells, offers for sale, or distributes for sale or use in the State a rug or carpet must establish a certificate of compliance to attest that the product is in compliance with the bill. A person must provide the certificate of compliance to MDE within 30 days of a request by MDE.

Existing Penalties Applicable to the Above Provisions

A person who violates any of the above provisions is subject to an existing civil penalty of up to $500 for a first violation and up to $1,000 for a second or subsequent violation.

Provisions Relating to Food Packages to Which PFAS Chemicals Have Been Intentionally Added

“Food package” means a package or packaging component that is designed for direct food contact, including (1) a food or beverage product that is contained in a food package to which a food package is applied; (2) a packaging component of a food package; and (3) plastic disposable gloves used in commercial or institutional food service.

The bill prohibits, beginning January 1, 2022, a manufacturer or distributor from manufacturing, selling, offering for sale, or distributing for sale or use in the State a food package or any product in a food package to which PFAS chemicals were intentionally added. A manufacturer or distributor who manufactures, sells, offers for sale, or distributes for sale or use in the State a food package or any product in a food package must establish a certificate of compliance to attest that the product is in compliance with the bill. A manufacturer must provide the certificate of compliance to MDE within 30 days of a request by MDE.

A person who violates any of these provisions is subject to existing civil and criminal penalty provisions. Specifically, a violator is subject to a civil penalty of up to $1,000 for each violation, not exceeding a total of $10,000 for any action. Each package or packaging component in violation constitutes a separate offense. Further, any person who has previously been assessed a related civil penalty and who willfully violates any of these provisions, is guilty of a misdemeanor, and upon conviction, is subject to a fine of up to $20,000.
Reporting Requirements

By December 31, 2021, MDE must report to the General Assembly on (1) the location and results of any testing for PFAS chemicals that MDE has conducted on waters of the State; (2) any plan MDE has for further testing for PFAS chemicals in waters of the State; and (3) any plan MDE has for remediation and public education in areas where the water has been found to be contaminated by PFAS chemicals.

By December 31, 2022, MDE and the Maryland Department of Health (MDH) must jointly prepare, in coordination with other relevant State agencies, the federal government, local governments, and the public, and submit to the General Assembly, a PFAS Action Plan that identifies strategies, actions, and funding alternatives to meet several specified objectives.

Relevant Definitions

With respect to the bill’s provisions that relate to fire-fighting foam and new rugs, “intentionally added” means the act of deliberately using a chemical in the formation of a product where its continued presence is desired in the product to provide a specific characteristic. With respect to the bill’s provisions that relate to food packages, “intentionally added” means the act of deliberately using a chemical in the formation of a package or packaging component when its continued presence is desired in the final package or packaging component to provide a specific characteristic. “PFAS chemicals” means a class of fluorinated organic chemicals that contain at least one fully fluorinated carbon atom, including perfluoroalkyl and polyfluoroalkyl substances.

Current Law:

Relevant State Law

Chapters 276 and 277 of 2020 generally prohibit, beginning October 1, 2021, the use of “Class B fire-fighting foam” that contains intentionally added “PFAS chemicals” for testing purposes, with specified exceptions, or training purposes. Nonfluorinated training foam must be used for fire-fighting training purposes. These Acts do not apply to fire-fighting foams used at the Baltimore-Washington International Thurgood Marshall Airport (BWI), nor did they restrict the manufacture, sale, distribution, discharge, or use of Class B fire-fighting foam that contains intentionally added PFAS chemicals in emergency fire-fighting or fire prevention operations. A person who violates these provisions is subject to a civil penalty of up to $500 for a first violation and up to $1,000 for a second or subsequent violation.
Relevant Federal Law and Recent Regulatory Action

The Federal Aviation Administration (FAA) requires that certified airports use foams that meet military specifications; all such foams contain PFAS. However, the FAA Reauthorization Act of 2018 directed FAA to stop the use of fluorinated foam by October 4, 2021.

Federal laws such as the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act, many of which are enforced at the State level, aim to reduce chemicals in the environment. EPA regulates the introduction of new or already existing chemicals under the federal Toxic Substances Control Act (TSCA) of 1976. EPA also responds to closed and abandoned hazardous waste sites under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). EPA has taken a range of regulatory actions to address PFAS substances in manufacturing and consumer products and is considering regulating PFAS substances as hazardous waste. EPA also developed an industry-implemented global stewardship program.

EPA announced on February 20, 2020, the agency’s preliminary decision to regulate PFOA and PFOS (two of the most widely produced and studied types of PFAS) in drinking water pursuant to the Safe Drinking Water Act. EPA is also evaluating whether to regulate PFAS contamination in the environment as a hazardous substance under CERCLA; EPA issued an advanced notice of proposed rulemaking on January 14, 2021, to evaluate this potential designation.

EPA has taken several actions under TSCA related to PFAS, including issuing multiple significant new use rules (SNURs). SNURs generally require any person who intends to manufacture or process an affected chemical to provide EPA with notice at least 90 days before starting or resuming use of the chemical. Most recently, on January 21, 2015, EPA proposed a SNUR, which would require any person who intends to manufacture or process affected chemicals to notify EPA at least 90 days before starting or resuming new uses of these chemicals in any products. Past SNUR action on PFAS was related to use in specific products. EPA has also been evaluating substitutes for certain PFAS for new chemicals pursuant to EPA’s New Chemicals Program under TSCA since 2000.

State Expenditures:

MDE Administrative Costs

General fund expenditures increase by $427,683 in fiscal 2022, which accounts for the bill’s July 1, 2021 effective date. This estimate reflects the cost of hiring two regular employees (one environmental compliance specialist and one chemist) and two contractual employees (both environmental compliance specialists) to (1) research, conduct outreach,
and identify affected brands, manufacturers, distributors, retailers, or industry users of affected products; (2) develop regulations; (3) conduct oversight, targeted inspections, and general enforcement activities; (4) ensure that affected Class B fire-fighting foam products are recalled and stored in a manner that protects the environment; (5) establish procedures for affected entities to submit certifications of compliance; (6) review certifications as necessary for enforcement actions; (7) conduct laboratory analysis and testing to verify whether products contain PFAS chemicals; and (8) write the required report on current and future PFAS testing conducted by MDE on waters of the State. It includes salaries, fringe benefits, one-time start-up costs (including the purchase of two vehicles) and ongoing operating expenses, including laboratory materials. The information and assumptions used in calculating the estimate are stated below:

- the range of affected products are varied, and MDE does not currently regulate rugs, carpets, or food packaging that contain intentionally added PFAS chemicals;
- MDE must conduct research and outreach to identify affected entities and products;
- MDE is primarily responsible for enforcing the bill;
- 250 samples must be analyzed annually, at a cost of at least $500 each;
- based on information provided by MDE, there are nearly 5,000 different PFAS compounds; and
- MDE needs to conduct research to determine safe disposal technologies and methods for the disposal of affected Class B fire-fighting foam.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Positions</td>
<td>2</td>
</tr>
<tr>
<td>Contractual Positions</td>
<td>2</td>
</tr>
<tr>
<td>Salaries and Fringe Benefits</td>
<td>$234,103</td>
</tr>
<tr>
<td>Laboratory Testing Costs</td>
<td>125,000</td>
</tr>
<tr>
<td>Vehicle Purchases</td>
<td>32,000</td>
</tr>
<tr>
<td>Other Operating Expenses</td>
<td>36,580</td>
</tr>
<tr>
<td><strong>Total FY 2022 State Expenditures</strong></td>
<td><strong>$427,683</strong></td>
</tr>
</tbody>
</table>

Future year expenditures reflect salaries with annual increases and employee turnover and ongoing operating expenses. Future year expenditures also reflect termination of the contractual employees after fiscal 2024. It is assumed that the bulk of the enforcement activity occurs in the first three years of implementation and that beginning in fiscal 2025, the two regular employees can handle ongoing implementation and enforcement.

**Costs to Develop a PFAS Action Plan**

MDE and MDH are unable to provide specific estimates related to the costs of developing the required PFAS Action Plan. However, MDE anticipates that it takes at least 2,500 hours to (1) form a workgroup of individuals with expertise in areas such as toxicokinetics
review, human and ecological risk assessments, and regulatory product development and registration; (2) develop PFAS exposure minimization strategies; (3) develop a cleanup plan for historical releases of PFAS by conducting or reviewing existing sampling data of sites where historical land uses indicate possible PFAS contamination; (4) conduct analysis of environmental justice and health inequities as it relates to PFAS contamination; (5) develop and implement educational and risk communication materials; and (6) draft the PFAS Action Plan, incorporating the substantive comments of the workgroup and the general public.

Given the tight timeframe required for the development of the PFAS Action Plan, MDE and MDH likely need to hire a consultant to develop the plan. Although the Department of Legislative Services (DLS) is unable to reliably estimate the costs of such a consultant, based on costs to develop comparable action plans, general fund expenditures could increase by at least $100,000 to hire a consultant.

**Impact of the Bill’s Prohibition on the Use of Class B Fire-fighting Foam and Other Products**

Although the bill authorizes a person to use, manufacture, sell, offer for sale, distribute for sale, or distribute Class B fire-fighting foam if required pursuant to federal law, the Maryland Aviation Administration (MAA) anticipates that the bill’s environmental containment and disposal requirements result in a *de facto* ban on using affected foam, at least initially because the State does not have the technology or infrastructure available to meet the bill’s requirements. MAA anticipates that the bill results in a cessation of fire training operations at BWI until a wastewater treatment plant is constructed that is capable of treating PFAS. In the short term, MAA advises that this means it must conduct training out of state. MAA is not able to provide a specific estimate of the costs to do so. Overall, however, MAA anticipates that the bill has a significant operational impact and could result in a potentially significant increase in Transportation Trust Fund expenditures.

State expenditures (multiple fund types) could also increase to purchase compliant products once the bill’s prohibitions take effect. DLS does not have enough information to be able to provide a magnitude of the cost difference between compliant and noncompliant products, however. Accordingly, a reliable estimate of any increase in costs cannot be made at this time.

**State Revenues:** General fund revenues increase minimally beginning as early as fiscal 2022 from the application of existing penalty provisions to the bill’s provisions.

**Local Expenditures:** The bill has a potentially significant impact on local governments (primarily local governments that have fire departments or locally operated airports) to obtain alternative products and/or to implement containment, treatment, and disposal...
measures of affected Class B fire-fighting foam with intentionally added PFAS chemicals. There is little time for affected local governments to utilize affected products that are in stock. Thus, local government expenditures increase both to purchase alternative products and to properly dispose of any existing noncompliant fire-fighting foam.

For example, the City of Annapolis advises that the city’s fire department uses foam that contains PFAS chemicals on boat and hydrocarbon fires. The city anticipates additional costs for the disposal and containment of noncompliant foam and for the purchase of new fire-fighting foam that complies with the bill. Prince George’s County estimates that costs to purchase compliant fire-fighting foam for the county’s fire department increase by approximately 25% (or $28,000 annually).

Local government expenditures could also increase to purchase food packaging and rugs and/or carpeting that meet the bill’s requirements.

**Small Business Effect:** The bill has a meaningful impact on small businesses that manufacture, sell, or distribute fire-fighting foam, carpets or rugs, or food packaging with intentionally added PFAS chemicals that are required to cease selling these products beginning January 1, 2022. Additionally, small businesses that manufacture, sell, or distribute fire-fighting foam, carpets or rugs, or food packaging without PFAS must develop and maintain certifications that those products are complaint with the bill. Small businesses that purchase PFAS-containing fire-fighting foam, rugs, or food packaging will no longer be able to purchase those products beginning January 1, 2022, and may realize an increase in costs to purchase alternative products. Finally, small businesses that manufacture, sell, or distribute PFAS-containing fire-fighting foam incur costs to recall the affected foam, reimburse retailers or purchasers, and/or safely transport and store the recalled foam.

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**Additional Information**

**Prior Introductions:** None.

**Designated Cross File:** HB 22 (Delegate Love) - Health and Government Operations.

**Information Source(s):** Caroline, Montgomery, and Prince George’s counties; Maryland Association of Counties; cities of Annapolis and Bowie; Maryland Municipal League; Maryland Department of the Environment; Maryland Department of Health; Department of State Police; Maryland Department of Transportation; Department of Legislative Services