

Department of Legislative Services  
 Maryland General Assembly  
 2020 Session

FISCAL AND POLICY NOTE  
 First Reader

House Bill 1428  
 Appropriations

(Delegate Solomon, *et al.*)

Environment - Higher Education Facilities - Mold Hazards and Mold or  
 Moisture Problems

This bill requires the Maryland Department of the Environment (MDE), in consultation with the Maryland Higher Education Commission (MHEC), the Department of General Services (DGS), and Maryland Occupational Safety and Health (MOSH), to adopt regulations to require periodic inspections of occupied higher education facilities in the State for the presence of a “mold hazard” or a “mold or moisture problem,” as specified. The bill outlines steps that must be taken if mold issues are identified. Waivers from the required inspections may be granted under specified circumstances. Before adopting the required regulations, MDE must gather specified information. The bill also establishes reporting requirements. **The bill takes effect July 1, 2020.**

Fiscal Summary

**State Effect:** General fund expenditures for MDE increase by \$1.1 million in FY 2021; out-years reflect ongoing costs. General fund expenditures for MHEC may also increase (not reflected below). Higher education expenditures increase, likely significantly, beginning in FY 2021, as discussed below. Revenues are not affected.

(in dollars)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	1,091,800	646,600	542,800	611,300	630,400
Higher Ed Exp.	-	-	-	-	-
Net Effect	(-)	(-)	(-)	(-)	(-)

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

**Local Effect:** Local community college expenditures increase, likely significantly, beginning in FY 2021. Costs may be partially offset by State grant funding; otherwise, revenues are not affected. **The bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Potential meaningful.

## Analysis

### Bill Summary:

#### *Relevant Definitions*

“Institution of higher education” has the meaning stated in the Education Article, and means an institution of postsecondary education that generally limits enrollment of graduates of secondary schools, and awards degrees at either the associate, baccalaureate, or graduate level. “Institution of higher education” includes public, private nonprofit, and for-profit institutions of higher education. “Higher education facility” means a building of an institution of higher education and includes (1) an academic building; (2) an administrative office; and (3) a dormitory.

“Mold” means a form of multicellular fungi that lives on plant or animal matter or in indoor environments. “Mold hazard” means a concentration of mold or mold spores within the interior of a higher education facility that exceeds a limit established by MDE pursuant to the bill. “Mold or moisture problem” includes any problem or concern in a higher education facility regarding mold growth, airborne mold spores, humidity levels, condensation, leaks, water damage, musty or moldy odors, or adverse human health effects associated with mold exposure, as specified.

“Technical guidance” means the most recent technical guidance issued by the U.S. Environmental Protection Agency (EPA) for mold remediation in schools and commercial buildings.

#### *Content of the Required Regulations*

Before adopting the regulations, MDE must gather information about the inspection processes, protocols, and efforts undertaken by each institution of higher education to address mold or moisture problems, including whether the institution of higher education has (1) knowledge of any mold or moisture problems present in a higher education facility and (2) a plan for inspection, and if appropriate, mold remediation.

The regulations adopted pursuant to the bill must (1) establish exposure limits for indoor concentrations of mold and mold spores that are protective of public health and safety; (2) establish procedures for inspecting, identifying, and evaluating the interior of higher education facilities for mold hazards and mold or moisture problems that are at least as stringent as EPA technical guidance; (3) establish mold remediation standards that are at least as stringent as EPA technical guidance; (4) phase in implementation of the required inspections, beginning with higher education facilities known to have mold hazards or mold or moisture problems present; (5) require inspections of higher education facilities

known to have mold hazards or mold or moisture problems present to be conducted by July 1, 2021; (6) establish the frequency for the required inspections; (7) address best practices and cost-effective inspections; (8) require MDE-approved entities to analyze the samples and information retrieved from inspections; and (9) require MDE to develop and maintain records detailing inspection results, the status of each higher education facility with regard to the presence of mold hazards and mold or moisture problems, and remedial measures taken or planned for each mold hazard or mold or moisture problem detected.

#### *Actions to Be Taken if Mold Hazards or Mold and Moisture Problems Are Present*

If the analysis of the inspection data indicates the presence of a mold hazard or a mold or moisture problem, the following steps must be taken: (1) the entity conducting the analysis must report the results to MDE, the institution of higher education inspected, MHEC, and the appropriate local health department; (2) the institution of higher education must take appropriate remedial actions in accordance with the regulations adopted under the bill; (3) an MDE-approved entity must conduct a follow-up inspection; and (4) notice of the presence of a mold hazard must be provided to students and faculty and staff employed at the institution of higher education. Notice must also be posted on the institution of higher education's website, as specified.

#### *Complaints and Waivers Related to Inspections*

MDE must develop and maintain a system for receiving and addressing public complaints concerning inspection practices, unaddressed mold hazards and mold or moisture problems, and incomplete remediation. The bill establishes conditions under which MDE, in consultation with MHEC, may grant a waiver from the required inspection to an institution of higher education or an individual higher education facility if certain conditions are met.

#### *Annual Report*

By December 1, 2021, and annually thereafter, MDE and MHEC must jointly report to the Governor and the General Assembly on the findings of the inspections required by the bill. The report must include the name and address of each higher education facility that was found to have a mold hazard present and any remedial measures taken or planned for each mold hazard detected.

**Current Law/Background:** Although State institutions of higher education generally have internal policies and response protocols to address mold hazards and mold or moisture problems, there is no broad State-level statutory requirement for inspections or mold remediation.

### *U.S. Environmental Protection Agency Technical Guidance*

EPA has a host of programs and an extensive list of resources to help states assist schools in creating comprehensive, sustainable strategies that promote healthy learning places for students. Among other things, these resources include information on [mold and indoor air quality in schools](#) and a guide to [mold remediation in schools and commercial buildings](#). EPA advises that there are no federal standards or threshold limit values for mold or mold spores, which means that sampling cannot be used to check a building's compliance with federal mold standards. However, surface sampling may be useful to determine if an area has been adequately cleaned or remediated. Similarly, MDE does not have any exposure limit standards for indoor concentrations of mold or mold spores.

### *Centers for Disease Control and Prevention Facts about Mold and Dampness*

According to the [Centers for Disease Control and Prevention](#) (CDC), molds are common in buildings and homes. Mold will grow in places with a lot of moisture, such as around leaks in roofs, windows, or pipes, or where there has been flooding. Mold grows well on paper products, cardboard, ceiling tiles, and wood products. Large mold infestations can usually be seen or smelled. Some people are sensitive to molds. For these people, exposure to molds can lead to symptoms such as stuffy nose, wheezing, and red or itchy eyes or skin. CDC's primary recommendation for preventing mold is to control humidity levels, ideally to between 30% and 50%.

### *University of Maryland, College Park Campus Mold Contamination*

University of Maryland, College Park Campus (UMCP) has had several well publicized mold outbreaks on campus in recent years. One outbreak of mold in one of the dormitories is said to have contributed to the death of a UMCP student in November 2018 from adenovirus. The full University System of Maryland [report](#) on the university's response to adenovirus and mold issues on campus can be found online. The report found that UMCP complied with recognized federal, State, and campus protocols. However, the fall of 2018 was marked by record rainfall and above-average measures for both temperature and humidity. According to the report, those conditions exceeded the design capacity of most campus HVAC systems and the standard resources and responses of residential facilities staff, which led to mold growth.

### **State Expenditures:**

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

General fund expenditures for MDE increase by approximately \$1.1 million in fiscal 2021, and by \$646,585 in fiscal 2022, which accounts for the bill's July 1, 2020 effective date

and the staggered hiring of new employees as the required inspection program is implemented. The fiscal 2021 estimate reflects the cost of hiring one program manager, two administrative specialists, and one industrial hygienist to (1) gather information on the current inspection processes and procedures; (2) develop exposure limits for indoor mold concentrations; and (3) develop and promulgate regulations. It includes salaries, fringe benefits, one-time start-up costs, ongoing operating expenditures, and contractual costs to build a tracking database and develop exposure limits for indoor concentrations of mold and mold spores. The fiscal 2022 estimate reflects the cost of hiring one environmental compliance specialist supervisor and three environmental compliance specialists to (1) conduct compliance and enforcement activities; (2) conduct oversight of inspector and inspection contracts; and (3) track and maintain compliance records. It includes salaries, fringe benefits, one-time start-up costs (including the purchase of vehicles, cell phones, and specialized testing equipment), and ongoing operating expenditures. The information and assumptions used in calculating the estimate are stated below:

- there are more than 50 colleges and universities (public and private) in the State, and MDE is responsible for tracking and maintaining compliance records for likely thousands of buildings;
- MDE does not currently have any certification process for mold inspectors or any standards for the analysis of mold inspection results, and there are no federal standards for exposure limits for indoor concentrations of mold and mold spores;
- MDE must enforce the standards established pursuant to the bill to ensure that institutions of higher education conduct the required inspections and remediate any found mold hazards or mold or moisture problems;
- there are approximately 1,000 types of mold in the United States, and individual sensitivities can complicate a decision on whether there is a mold hazard present in a building, which makes development of threshold levels for corrective action difficult; and
- the number and types of positions that MDE estimates are needed for the bill are based on experience with the department’s asbestos program and a program that oversees water lead testing and remediation in institutions of higher education in the State.

	<u><b>FY 2021</b></u>	<u><b>FY 2022</b></u>
New Positions	4	4
Salaries and Fringe Benefits	\$268,411	\$514,979
Contractual Costs for Database	500,000	—
Contractual Costs for Mold Standards	300,000	—
Vehicle Purchase/Operations	—	84,366
Other Operating Expenses	<u>23,400</u>	<u>47,240</u>
<b>Total MDE Expenditures</b>	<b>\$1,091,811</b>	<b>\$646,585</b>

Future year expenditures reflect salaries with annual increases and employee turnover and ongoing operating expenses, including annual contractual costs to maintain the tracking database beginning in fiscal 2024.

MDE assumes, and the Department of Legislative Services concurs, that, under the bill, institutions of higher education are responsible for paying for the required inspections. To the extent that MDE is responsible for paying for the inspections, general fund expenditures increase further, likely significantly.

### *Costs for State Institutions of Higher Education*

This estimate assumes that institutions of higher education are responsible for costs to conduct the required inspections (unless granted a waiver) and to remediate any mold hazards or mold or moisture problems found during the inspections. Given that the inspection standards will be established through regulation (including the frequency with which inspections must occur and the threshold standards for indoor mold and mold spore concentrations) and any remediation costs depend on the conditions found in individual higher education facilities, a reliable estimate of the total costs to State institutions of higher education cannot be made. However, inspection and remediation costs are potentially significant. Thus, this analysis assumes that higher education expenditures increase significantly under the bill, likely beginning in fiscal 2021. Examples from specified State institutions of higher education are as follows:

- University of Maryland, Baltimore estimates that expenditures for the university increase by approximately \$119,000 annually to hire an environmental health specialist and to pay for laboratory and sampling equipment, maintain the equipment, and obtain professional credentialing for the employee.
- Coppin State University estimates that costs increase by approximately \$120,000 annually to hire an employee and to hire an outside consulting firm to handle testing and reporting.
- Although UMCP did not provide a specific estimate of costs under the bill, the university notes that it spends an average of \$240,000 annually on mold remediation. UMCP anticipates that the bill could result in a substantial increase in expenditures, depending on the regulations developed.
- Towson University and Morgan State University estimate that costs could increase significantly to comply with the bill and its implementing regulations.
- St. Mary's College of Maryland estimates that the college needs to either hire permanent staff (at a cost of about \$80,000 annually) or procure ongoing third-party contractual support (at a cost of about \$128,000 annually) to implement the bill's inspection requirements.

- University of Maryland Global Campus, which offers online degrees, anticipates that the bill has minimal impact.

Expenditures for Baltimore City Community College, which is State-funded, also increase for mold inspection and remediation activities, likely beginning in fiscal 2021. However, these costs may be partially offset from State grant funding from the Community College Capital Grant Program or the Community College Facilities Renewal Grant Program, as discussed below under the Local Fiscal Effect section of this fiscal and policy note.

*Maryland Higher Education Commission, Department of General Services, and Maryland Occupational Safety and Health*

General fund expenditures for MHEC may increase to consult and coordinate with MDE on the required inspection program, including the issuance of waivers and the required annual report. However, MHEC is unable to predict any such impact without the knowledge of the volume of waivers that will be requested under the bill.

MOSH routinely responds to inquiries and complaints regarding mold and has experience with industrial hygiene issues, including mold. Thus, MOSH can likely consult with MDE to develop the required regulations using existing budgeted staff and resources.

DGS can consult with MDE to develop the required regulations using existing budgeted staff and resources.

**Local Fiscal Effect:** Expenditures for local community colleges also increase significantly, similar to the impact described above for State institutions of higher education. These costs likely begin in fiscal 2021. Community college costs may be partially offset from State grant funding from the Community College Capital Grant Program or the Community College Facilities Renewal Grant Program. However, there is likely not sufficient funding in these programs to cover all remediation costs, and inspection costs are not likely eligible for grant funding.

**Small Business Effect:** Certified industrial hygienists, other related professions, and environmental remediation companies may experience an increase in the demand for their services. Small private laboratories may also realize more business.

**Additional Comments:** Private institutions of higher education in the State also incur potentially significant additional costs to conduct inspections (unless granted a waiver) and complete any required remediation.

## **Additional Information**

**Prior Introductions:** None.

**Designated Cross File:** None.

**Information Source(s):** Maryland Higher Education Commission; University System of Maryland; Morgan State University; St. Mary's College of Maryland; Maryland Department of the Environment; Department of General Services; Maryland Department of Health; U.S. Centers for Disease Control and Prevention; U.S. Environmental Protection Agency; Department of Legislative Services

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