SB 264

Department of Legislative Services

Maryland General Assembly
2026 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 264 (Senator Brooks)
Education, Energy, and the Environment

Drinking Water - Regulation - Control and Prevention of Waterborne Disease

This bill sets requirements for certain building owners and water suppliers, including (1) mandatory minimum detectable disinfectant residual levels in public water systems and related testing and (2) notice of water distribution system disruptions. Among other requirements, the Maryland Department of the Environment (MDE) must (1) conduct investigations of violations of minimum detectable disinfectant residual standards; (2) establish a public database of water distribution system disruptions; and (3) sample and test public water systems upon notice of a diagnosis of Legionnaires' disease. The Maryland Department of Health (MDH) must (1) develop standards and conduct testing and investigations of Legionnaires' disease cases and establish a registry of related case data, and (2) develop a public awareness campaign and targeted consumer education program. The bill establishes regulation and reporting requirements for MDE and MDH.

Fiscal Summary

State Effect: General fund expenditures increase by $1.9 million in FY 2027; future years are annualized and reflect ongoing costs and inflation. State expenditures (all/multiple funds) increase by an additional indeterminate amount beginning in FY 2027, as discussed below. The application of existing penalty provisions to violations of the bill is not anticipated to materially affect State revenues.

(in dollars)	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Revenues	$0	$0	$0	$0	$0
GF Expenditure	1,919,600	1,784,200	1,844,800	1,906,100	1,967,500
All/Mult. 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, beginning in FY 2027, for at least some jurisdictions. Local revenues are not directly affected. **This bill imposes a mandate on a unit of local government.**

Small Business Effect: Meaningful.

Analysis

Bill Summary: The bill establishes a definition for "disruption in the water distribution system" that applies under a new Part III, Control and Prevention of Waterborne Disease, under Title 9, Subtitle 4 of the Environment Article. The term means any disruption to normal water transmission within a public water system and includes (1) a change in the water treatment process, including temporary changes from the use of chlorine to the use of chloramine (or vice versa); (2) any planned or unplanned event that reduces water delivery pressure below 20 pounds per square inch; (3) a lead service line replacement; (4) a new construction tie-in; (5) a source water change; (6) water treatment plant maintenance or changes; (7) changes in directional water flow; (8) flooding; (9) the replacement of valves, hydrants, or meters; (10) pumping failures; (11) pipeline or water main breaks; (12) system repairs; or (13) emergency conditions.

Required Levels of Detectable Residual Disinfectant – Implementation and Enforcement

Requirements for Water Suppliers: Notwithstanding current law requirements that prohibit State primary drinking water regulations from being more stringent than specified national primary drinking water regulations or from requiring the addition of any substance for preventive health care purposes unrelated to the contamination of drinking water, by January 1, 2026, a water supplier must maintain – in all active parts of the public water system – a detectable disinfectant residual level of at least 0.5 milligrams per liter (mg/L) of free chlorine or 1.0 mg/L of monochloramine. Additionally, a water supplier must, at frequent and regular intervals, conduct disinfectant residual testing to determine the amount and type of detectable disinfectant residual at different points in the public water system.

Related Regulations: By October 1, 2027, MDE, in consultation with MDH, must adopt regulations to (1) require nitrification plans for public water systems that use monochloramine and (2) establish monitoring requirements for public water systems during construction activities that may affect the public water system.

MDE is also authorized to adopt regulations, in consultation with MDH, that (1) increase minimum detectable disinfectant residual level requirements for public water systems, or (2) establish additional disinfectant or testing requirements for public water systems to

minimize the growth and transmission of *Legionella* bacteria. MDE is prohibited from reducing the required minimum detectable disinfectant residual level requirements established under the bill.

Investigation of Violations: If a water supplier violates the bill's minimum detectable disinfectant residual standards, MDE must investigate the violation. MDE may delegate investigative responsibilities to a third-party. MDE must develop procedures and guidelines regarding such investigations that meet minimum standards, as specified. Among other things, the procedures and guidelines must include the development of a notice to inform the persons served by a water supplier if the water supplier fails to maintain the minimum detectable disinfectant residual levels required under the bill.

Water Distribution System Disruptions – Notice Requirements and Public Database of Records

Notice Requirements: A water supplier must provide timely written notice of any disruption in the water distribution system that could result in increased levels of *Legionella* bacteria to its customers located in the area affected by the disruption. The notice must meet requirements established in regulation by MDE and include specified minimum information, such as (1) the estimated length of time that *Legionella* bacteria may remain elevated and (2) information on the possible sources of *Legionella* bacteria in the public water system and measures consumers can take to reduce or eliminate *Legionella* bacteria exposure.

A water supplier must also provide written notice to MDE about water distribution system disruptions as soon as possible, but not later than 24 hours after the occurrence of a disruption. MDE must establish on its website a publicly accessible database of the records of water distribution system disruptions received by the department.

Required Regulations: By January 1, 2027, MDE must adopt regulations, in consultation with MDH, that specify the form and manner of the required notices of water distribution system disruptions and the specific information that must be included in the notices. MDE must publish the regulations on its website.

Investigations, Testing, and Publication of Public Health Information Related to Diagnosed Cases of Legionnaires' Disease

Legionnaires' Disease Case Investigations: For each reported diagnosis of Legionnaires' disease, MDH must (1) conduct a comprehensive investigation of the reported case; (2) advise the diagnosed individual about the availability of related MDH testing; and (3) with the consent of the diagnosed individual, sample and test fixtures and water-using equipment at the "water exposure points" (a location where an individual diagnosed with

Legionnaires' disease resided, was employed, or frequently visited within the 14 days immediately preceding the individual's diagnosis) for the presence of *Legionella* bacteria. Each test must be conducted by a certified laboratory. MDH must develop procedures and guidelines regarding the investigation of each reported diagnosis of Legionnaires' disease that meet minimum standards, as specified. MDH may delegate testing and investigation responsibilities to local health departments (LHDs), as specified.

Public Registry of Legionnaires' Disease Cases: MDH must establish on its website a publicly accessible registry of de-identified data regarding reported cases of Legionnaires' disease. MDH must make every effort to include location-specific information regarding Legionnaires' disease cases to the nearest city block or general neighborhood description.

Required Notice and Testing: MDH must immediately notify MDE of any reported diagnosis of Legionnaires' disease, including the addresses where the individual resided, frequently visited, or was employed in the month immediately preceding the diagnosis. Upon receipt of such a notice, MDE must sample and test the public water system for the presence of *Legionella* bacteria at all locations identified in the notice. Testing must be done by a certified laboratory and in accordance with MDE sampling and testing methods, as specified. If *Legionella* bacteria are detected, MDE must conduct (or require the water supplier to conduct) further testing to confirm the presence of the bacteria in any source that MDE determines is necessary.

Water Management Program for Covered Building Owners

"Covered building" means a building that meets the criteria set forth in the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) Standard 188-2018. By October 1, 2027, the owner or operator of a covered building must implement a water management program to minimize the growth and transmission of *Legionella* bacteria in the building's water system, consistent with ASHRAE Standard 188-2018. The water management program must be available upon request to employees of MDE, MDH, or any other State or local department with licensing or inspection authority for the building. MDE, MDH, and other State or local departments with licensing or inspection authority are authorized to enforce these requirements.

Public Awareness Campaign and Targeted Consumer Education Program

By January 1, 2027, MDH must develop a public awareness campaign and targeted consumer education program to educate consumers, especially vulnerable populations, about *Legionella* bacteria and related protection measures and the bill's notification requirements. The bill establishes minimum information that must be included in the public awareness campaign and education program.

Reporting Requirements

By October 1, 2027 and annually thereafter, MDE, in conjunction with MDH, must report to the Governor and the General Assembly on (1) the number of reported cases of Legionnaires' disease in the State in each of the previous 10 years; (2) the number and type of violations of the new control and prevention of waterborne disease provisions established under the bill for which penalties were assessed; and (3) legislative recommendations to further control *Legionella* bacteria and other waterborne pathogens, as specified.

Penalties for Violations

Existing civil and administrative penalty provisions apply to violations of the bill. Any penalties collected pursuant to the bill must be distributed to a special fund in MDH and used only to support the development of a public awareness campaign and targeted consumer education program to educate consumers on *Legionella* bacteria.

Current Law:

Federal Safe Drinking Water Act and State Implementation

MDE is responsible for the primary enforcement (primacy) of the federal Safe Drinking Water Act (SDWA) in Maryland. This means MDE is charged with ensuring that water quality and quantity at all public water systems meet the needs of the public and comply with federal and State regulations. According to MDE's Safe Drinking Water Act Annual Compliance Report for Calendar Year 2024 to the U.S. Environmental Protection Agency (EPA), routine compliance activities include regular on-site inspections of water systems to identify any sanitary defects, technical assistance, and a permitting process that helps ensure that systems obtain the best possible source of water. Maryland regulates 3,218 public water systems (460 community water systems, 541 nontransient noncommunity water systems, and 2,217 transient noncommunity water systems).

SDWA includes the Disinfectants and Disinfection Byproducts Rules (DBPR), which were introduced to reduce drinking water exposure to disinfection byproducts that can cause health risks. The maximum residual disinfectant level (MRDL) under DBPR for chlorine and chloramines (both types of chemical disinfectants) is 4.0 mg/L, and compliance is based on a running annual average that is calculated quarterly. Residual disinfectant levels cannot exceed the MRDL. If levels must be exceeded temporarily to address microbial contamination issues (for distribution line breaks, source water contamination, or cross-connections), the super-chlorinated water is considered "non-potable" and must be flushed until the residual is an acceptable level. MDE notes that the current industry standard for free chlorine residual is 0.2 mg/L.

Routine Monitoring and Sampling

Public water systems are required to sample and monitor for a variety of contaminants on a routine basis depending on the population served, source type, and historical monitoring data of the water system. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting requirements. Violations can occur (1) when contaminants are found at levels exceeding the federally established maximum contaminant level; (2) for failure to monitor and/or report as required; (3) for failure to use required treatment techniques; or (4) for failure to notify the public under certain circumstances.

Notice Requirements for Drinking Water Violations, Generally

A water supplier must give notice to MDE and people served by the water system and give written notice to noncollegiate educational institutions, public schools, family child care homes, and child care centers when the water system (1) fails to comply with an applicable maximum contaminant level, treatment technique requirement, or testing procedure prescribed by a drinking water regulation or fails to perform required monitoring; (2) is subject to a variance granted for an inability to meet a maximum contaminant level or an exemption; (3) fails to comply with the requirements set by a variance or exemption; or (4) has concentration levels of an unregulated contaminant for which the State may require notice due to the risk of public health.

MDE is also in the process of promulgating related regulations to establish guidelines and requirements for public water systems when there are outages, flooded wells, and flooded springs. Among other things, the regulations and an anticipated guidance manual will (1) provide instructions to water systems on when and how to issue and lift a boil water advisory in response to an outage or flooded well or spring; (2) update public notice standards for when an outage or flooded well or spring occurs; (3) establish related disinfection procedures and standards; and (4) establish related water quality sampling standards that will dictate when a boil water advisory may be lifted.

Applicable Penalties

Various penalties apply to violations of Maryland's drinking water laws. In addition to any other remedies available, there is a graduated system for assessing administrative penalties for violations of drinking water provisions for public water systems. The maximum administrative penalty that may be imposed is based on the population of the area being served by the water supplier.

A water supplier serving a population of more than 10,000 is subject to a penalty of up to $1,000 per day not exceeding $25,000 total for each violation. A water supplier serving a

population of 3,301 to 10,000 is subject to a penalty of up to $500 per day not exceeding $12,500 total for each violation. A water supplier serving a population of 501 to 3,300 is subject to a penalty of up to $250 per day not exceeding $6,250 total for each violation. The penalty that may be imposed on a water supplier serving a population of 500 or less is up to $100 per day not exceeding $5,000 total for each violation. MDE must assess a penalty only after considering nine criteria, such as the willfulness of the violation, the actual harm to the environment or human health, and the extent to which the current violation is a part of a recurrent pattern committed by the violator.

In addition, a water supplier who willfully violates specified provisions of Title 9, Subtitle 4 of the Environment Article (including failing to comply with the bill's provisions) is subject to a civil penalty of up to $5,000 for each day on which the violation exists.

All penalties collected under Title 9, Subtitle 4 of the Environment Article, which governs drinking water, are paid into the Maryland Clean Water Fund.

Legionella Bacteria

State statute is silent regarding Legionnaires' disease and the *Legionella* bacteria. Further, EPA does not directly regulate Legionnaires' disease under the National Primary Drinking Water Regulations, but EPA believes that if *Giardia* and viruses are removed/inactivated according to treatment techniques in the Surface Water Treatment Rule (SWTR), *Legionella* will also be controlled. SWTR requires water systems to filter and disinfect surface water sources and establishes treatment techniques and rules designed to minimize health risks from disinfection byproducts.

However, EPA is currently examining opportunities to enhance protection against *Legionella* bacteria through revisions to the Microbial and Disinfection Byproduct Rules (MDBP) and is evaluating information on unregulated disinfection byproducts, including chlorate and nitrosamines. EPA anticipates proposing MDBP rule revisions in summer 2027.

MDH regulations (COMAR 10.06.01.03) establish mandatory reporting for any cases of legionellosis (a respiratory disease caused by the *Legionella pneumophila* bacterium). Health care providers and laboratories must report any cases immediately. MDH and LHDs currently investigate all reported cases.

State/Local/Small Business Effect:

Maryland Department of the Environment

MDE general fund expenditures increase by $613,960 in fiscal 2027, which accounts for

the bill's October 1, 2026 effective date. This estimate reflects the cost of hiring nine full-time employees (five administrative specialists, three natural resource planners, and one regulatory compliance engineer) to (1) collect and track disinfectant residual testing results from water suppliers; (2) develop and adopt regulations, including regulations establishing requirements for nitrification plans, water monitoring for public water systems, and notification requirements for water distribution system disruptions; (3) develop procedures and guidelines to investigate violations of minimum detectable disinfectant residual requirements and conduct investigations; (4) establish and maintain a publicly accessible database with records of water distribution system disruptions; (5) fulfill reporting requirements; and (6) conduct enforcement actions. It includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses, including annual training for staff. The information and assumptions used in calculating the estimate are stated below:

- the bill's requirements for water suppliers affect approximately 3,200 public water systems;
- MDE must increase coordination with MDH and LHDs to investigate Legionnaires' disease cases, conduct environmental investigations, track violations, and oversee corrective actions; and
- as the bill's requirements are not mandated by federal requirements, general funds are needed.

Positions	9
Salaries and Fringe Benefits	$518,958
Operating Expenses	95,002
FY 2027 MDE Expenditures	**$613,960**

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

MDE notes that funding for delegation agreements with LHDs is likely also needed. Thus, general fund expenditures may increase further. However, MDE did not provide a specific estimate of these increased costs.

Maryland Department of Health

MDH general fund expenditures increase by $1,305,594 in fiscal 2027, which accounts for the bill's October 1, 2026 effective date. This estimate reflects the cost of hiring five full-time employees (one public health laboratory specialist, one environmental sanitarian, one administrative specialist, one epidemiologist, and one community health educator) to (1) develop and coordinate procedures for guidelines for investigating reported cases of Legionnaires' disease; (2) coordinate program efforts and share required

data between MDH and MDE and assist with regulation development; (3) develop, implement, and maintain the publicly accessible registry of de-identified Legionnaires' disease case data on its website; (4) develop and implement the public awareness campaign and targeted consumer education program; and (5) fulfill reporting requirements. It includes salaries, fringe benefits, one-time start-up costs (including costs to develop and disseminate the public awareness campaign and targeted consumer education program), and ongoing operating expenses (including laboratory supplies, equipment, and specialized software). The information and assumptions used in calculating the estimate are stated below:

- there are approximately 200 cases of Legionnaires' disease annually in the State and the bill significantly increases MDH's environmental testing responsibilities for these cases;
- even if MDH delegates certain responsibilities to LHDs, existing MDH staff do not have the capacity to handle the increased workload under the bill;
- testing for *Legionella* bacteria must be conducted by specialized laboratories, and given the relatively high cost of commercial testing (approximately $400 per sample) and the investigatory nature of the required testing under the bill, MDH's Division of Environmental Sciences conducts most of the additional testing (an estimated 3,250 tests annually) in-house; and
- costs for the public awareness campaign and targeted consumer education program are based on past costs to conduct vaccine outreach and awareness to the public.

Positions	5
Salaries and Fringe Benefits	$367,202
Laboratory Software	45,938
Laboratory Supplies and Equipment	321,750
Public Outreach and Education Materials	505,000
Other Operating Expenses	65,705
FY 2027 MDH Expenditures	**$1,305,594**

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

Under the bill, existing penalty provisions apply for violations. Any penalties collected must be distributed to a special fund in MDH and used only to support the development of MDH's public awareness campaign and targeted consumer education program. The application of existing penalty provisions is not anticipated to materially affect special fund revenues. However, to the extent sufficient penalty revenue is available to offset a portion of MDH's costs to develop the public awareness campaign and consumer education program, the need for general funds decreases.

Effect on the State, Local Governments, and Small Businesses as Water Suppliers and Owners/Operators of Covered Buildings

Impacts on Water Suppliers: The bill establishes a number of new requirements for water suppliers in the State, including the requirement to immediately maintain specified minimum detectable disinfectant residual levels of free chlorine or monochloramine in all active parts of a public water system, conduct disinfectant residual testing at frequent and regular intervals, provide additional notice to public water system users and MDE of disruptions in the water distribution system, and potentially conduct additional water system testing in response to diagnosed cases of Legionnaires' disease. These requirements result in increased expenditures for most water suppliers beginning in fiscal 2027. The impact on some water suppliers is significant.

Water suppliers in the State include State agencies, local governments, and small businesses, including mobile home parks, private schools, campgrounds, mini-marts, golf courses, and gas stations.

Other than costs for the Washington Suburban Sanitary Commission (WSSC), which are discussed separately below, the costs to comply with the detectable disinfectant residual level requirements are likely most significant for water supply systems that currently do not use chemical disinfectants (such as UV treatment) or that use a non-chlorine or chloramine chemical disinfectant. According to MDE, there are approximately 198 water systems in the State that need to install a new disinfection treatment to meet the bill's requirements. MDE also advises that while many systems meet current goals, mandating a 0.5 mg/L residual amount through the entire distribution system creates operational and fiscal challenges. Water suppliers may incur substantial capital costs for infrastructure improvements, such as looping distribution lines, replacing oversized mains, and installing storage tank mixers, and may need to hire additional staff or increase operator hours to manage the required testing and "spot-flushing."

MDE, along with several respondents from a limited survey of State and local government agencies, including the Maryland Environmental Service, WSSC, and the Maryland Association of County Health Officers, also note that maintaining the required detectable disinfectant residual levels under the bill will put many systems into regulatory conflict with federal DBPR MRDL limits. MDE notes that meeting both the new State and federal MRDL limits for chlorine and chloramine will be a particular challenge for medium and large systems and those using surface water or located on the Eastern Shore of Maryland.

WSSC advises that its water system is unable to reliably meet the bill's 0.5 mg/L free chlorine disinfectant residual level requirement without risk of DBPR noncompliance and that large-scale water treatment enhancements will be needed to maintain compliance

with both the new State and federal standards. WSSC anticipates that it needs to replace filter media at the Potomac Water Filtration Plant in the near term to increase treatment for disinfection byproduct control before implementing larger scale equipment replacement to permanently enhance disinfection byproduct removal. WSSC estimates immediate costs of nearly $50.0 million in fiscal 2027, escalating to $136.0 million by fiscal 2031, for system equipment replacement. These costs are borne by WSSC customers in Montgomery and Prince George's counties.

Most local governments and State agencies that own or operate public water systems that responded to requests for information regarding the fiscal effects of the bill indicated that they anticipate additional costs and that they may need to hire staff to meet the bill's requirements. Other than costs for WSSC, estimated annual costs to implement the bill range from $50,000 to millions of dollars annually (for the University System of Maryland). Costs vary depending on the size of a water system and the type of disinfection treatment system currently in place.

Impacts on Owners/Operators of Covered Buildings: Any owner or operator of a building that meets the ASHRAE Standard 188-2018 criteria also needs to implement a water management program to minimize the growth and transmission of *Legionella* bacteria. The Department of Legislative Services did not obtain sufficient information to evaluate the scope of affected buildings in the State, but it could potentially affect buildings owned by the State, local governments, and small businesses. Baltimore City Public Schools noted that they already have *Legionella* bacteria plans in place for their buildings that have HVAC systems that include cooling towers.

Effect on Small Businesses that Provide Services Required Under the Bill

For small businesses that provide goods and services needed to meet the bill's requirements, such as water sampling and testing services and supplies, certified testing laboratories, plumbing companies, and companies that provide the materials necessary to upgrade systems, the bill may result in a meaningful increase in the demand for their products and services.

Additional Information

Recent Prior Introductions: Similar legislation has been introduced within the last three years. See SB 512 of 2023.

Designated Cross File: HB 204 (Delegate Allen) - Environment and Transportation.

Information Source(s): Maryland Association of County Health Officers; Maryland Environmental Service; Baltimore City; Harford, Montgomery, and Wicomico counties; Maryland Association of Counties; Washington Suburban Sanitary Commission; cities of College Park and Frostburg; Maryland Municipal League; Judiciary (Administrative Office of the Courts); 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; Department of Juvenile Services; Maryland Department of Labor; Department of Public Safety and Correctional Services; Maryland Department of Transportation; Baltimore City Public Schools; Montgomery County Public Schools; U.S. Environmental Protection Agency; Department of Legislative Services

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