

Department of Legislative Services
 Maryland General Assembly
 2020 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 820 (Senator Klausmeier)
 Education, Health, and Environmental Affairs

Public Water Systems - Supplier Requirements (Water Quality Accountability Act of 2020)

This bill establishes several requirements for public water system suppliers, including to (1) conduct inspections of critical valves and hydrants; (2) develop a cybersecurity program; (3) develop mitigation plans under certain circumstances; (4) develop and submit asset management plans to the Maryland Department of the Environment (MDE); and (5) submit annual certifications of compliance with specified State and federal laws. MDE must adopt implementing regulations.

Fiscal Summary

State Effect: General fund administrative expenditures increase by \$613,100 in FY 2021; future years reflect annualization and ongoing costs. State expenditures (multiple fund types) increase to comply with water supply system requirements. State revenues are not directly affected, but nonbudgeted revenues for the Maryland Environmental Service (MES) increase to cover costs incurred under the bill.

(in dollars)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
NonBud Rev.	-	-	-	-	-
GF Expenditure	\$613,100	\$138,000	\$141,100	\$145,800	\$150,700
GF/SF/FF Exp.	-	-	-	-	-
NonBud Exp.	-	-	-	-	-
Net Effect	(-)	(-)	(-)	(-)	(-)

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

Local Effect: Significant increase in local expenditures to comply with the bill’s water supply system requirements. Local revenues are not directly affected. **This bill imposes a mandate on a unit of local government.**

Small Business Effect: Meaningful.

Analysis

Bill Summary:

Inspection of Critical Valves and Hydrants

A water supplier must (1) inspect each critical valve in the public water system that is owned or operated by the supplier, as specified, to determine the accessibility of the valve for operational purposes and the operating condition of the valve; (2) repair or replace any critical valve that is found to be broken or nonoperational; (3) inspect each critical valve at a frequency determined by the supplier and agreed to by MDE; (4) annually inspect the fire hydrants in the public water system to ensure operability unless more frequent inspections are required by local ordinance; (5) formulate and implement a plan for flushing fire hydrants and dead ends, as specified; (6) identify the geographic location of each critical valve and fire hydrant in the public water system, to the extent possible; and (7) record the characteristics and distinguishing identifiers of each hydrant in the public water system in a database available on the supplier's website. The bill establishes procedural requirements that a water supplier must fulfill when conducting the critical valve inspections.

A "critical valve" is a valve within a public water system that a water supplier deems critical, and includes a valve that is (1) 16 inches or more in diameter; (2) located at a hospital, dialysis center, nursing home, water treatment plant, or an emergency interconnection with a water supplier; or (3) a regulator or relief control valve.

Cyber Security Program

By February 1, 2021, a water supplier must develop a cyber security program that (1) defines and implements organization accountabilities and responsibilities for cyber risk management activities and (2) establishes policies, plans, processes, and procedures for identifying and mitigating cyber risks to the public water system. In accordance with the cyber security program developed under the bill, a water supplier must (1) conduct risk assessments and implement appropriate controls to mitigate identified risks to the public water system; (2) remain aware of potential cyber threats and vulnerabilities of the public water system; and (3) create and exercise incident response and recovery plans. An affected water supplier must submit a summary report to MDE within 30 days of developing a required cybersecurity program.

Mitigation Plans

If a water supplier receives a specified number of violation notices from MDE within a one-year period, the water supplier must submit to MDE a mitigation plan within 60 days.

The mitigation plan must include (1) an explanation of how the notice of violation will be addressed, as specified; (2) an implementation schedule for the mitigation plan; and (3) a report prepared by a licensed engineer that includes a technical analysis of the notices of violation and an explanation of how the mitigation plan will prevent the reoccurrence of the original violation.

Asset Management Plans

By April 1, 2022, a water supplier must develop and submit an asset management plan to MDE. An asset management plan must include (1) a water main renewal program designed to achieve a 150-year replacement cycle or any other appropriate replacement cycle, as determined by a detailed engineering analysis, as specified; (2) a water supply and treatment program designed to inspect, maintain, repair, renew, and upgrade wells, intakes, pumps, and treatment facilities in accordance with all federal and State regulations, standards established by the American Water Works Association, and any mitigation plans submitted pursuant to the bill; (3) capital expenditures required under a mitigation plan; and (4) any other programs, plans, or provisions required by MDE in regulation. The asset management plan must be certified by the water supplier or an engineer.

A water supplier must dedicate funds annually to address the highest priority projects identified in the asset management plan. By December 31, 2022, and annually thereafter, a water supplier must submit a report to MDE and the Department of Housing and Community Development (DHCD) on the implementation of the supplier's asset management plan. The report must include specified information. MDE, in consultation with DHCD, must establish an electronic portal on MDE's website for the submission of these reports, but a water supplier must submit the required report regardless of whether MDE has established such a portal. MDE must make the reports available for public inspection upon request.

Miscellaneous Certifications and Implementation Requirements

A water supplier must annually certify in writing to MDE that the supplier complies with all federal and State primary drinking water regulations, as specified, and the bill's requirements relating to valve inspection, mitigation plans, and asset management plans. The certification may be included with required consumer confidence reports. Upon request, a water supplier must make the certification available for public inspection. By December 31 of each year, a water supplier must inform its customers of compliance with this requirement.

Within three years of acquiring a new public water system, a water supplier must comply with the bill's requirements.

A water supplier may not receive any public funding unless the supplier can demonstrate that the supplier has developed, or is in the process of developing, an asset management plan and a cybersecurity program in accordance with the bill.

Current Law/Background:

The Maryland Department of the Environment's Water Supply Program

The mission of MDE's Water Supply Program is to ensure safe and sustainable supplies of water for drinking and other purposes to meet current and future needs of communities and ecosystems. This mission is accomplished through proper planning for water withdrawal, protection of water sources that are used for public water supplies, oversight and enforcement of routine water quality monitoring at public water systems, regular onsite inspections of water systems, and prompt response to water supply emergencies. The Water Supply Program's activities help to ensure safe drinking water for more than 5.7 million Marylanders. According to MDE, the department has oversight of almost 3,285 public water systems that range from serving 25 people to 1.8 million people.

Federal Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, the U.S. Environmental Protection Agency (EPA) sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. In 2018, SDWA was amended by the America's Water Infrastructure Act of 2018 (AWIA). AWIA § 2013 requires community (drinking) water systems serving more than 3,300 people to develop or update risk assessments and emergency response plans (ERPs). The law specifies the components of the risk assessments and ERPs, including the physical and cybersecurity of the systems, and establishes deadlines by which water systems must certify to EPA completion of the risk assessment and ERP.

Any facility that serves water to 25 or more people a day for more than 60 days per year is a public water system. MDE has primary authority to enforce federal SDWA requirements.

State Administrative Expenditures: General fund expenditures for MDE increase by \$616,859 in fiscal 2021, which accounts for the bill's October 1, 2020 effective date. This estimate reflects the cost of hiring two regulatory and compliance engineers to (1) assist with the development of a database, procedures, and tracking elements; (2) conduct statewide outreach to affected water suppliers; (3) establish policies and procedures to identify and mitigate cyber risks; (4) develop regulations; and (5) track, collect, and process data submitted to the department under the bill. It includes salaries, fringe benefits,

one-time start-up costs (including contractual expenditures to establish a database and the online portal), and ongoing operating expenses. The information and assumptions used in calculating the estimate are stated below:

- there are thousands of public water system suppliers affected by the bill, and MDE must conduct significant outreach and training to assist affected suppliers with implementation of and compliance with the bill’s requirements;
- MDE does not have the technical expertise to implement the bill, particularly with regard to the cybersecurity provisions;
- the scope of the data and reporting required under the bill and the number of affected entities necessitates the development of a tracking database and an electronic portal on MDE’s website for report submission and public use; and
- the bill increases the scope of MDE’s oversight requirements for public water systems such that current staff cannot implement the bill.

Positions	2
Salaries and Fringe Benefits	\$102,376
Contractual Database and Web Portal Costs	500,000
Other Operating Expenses	<u>10,733</u>
Total MDE FY 2021 Administrative Costs	\$613,109

Future year expenditures reflect full salaries with annual increases and employee turnover and ongoing operating expenses, including contractual costs to maintain the database and website portal.

DHCD can consult with MDE as necessary with existing budgeted resources.

State/Local/Small Business Effect as Owners/Operators of Public Water Systems: In order to comply with the bill’s requirements for water supply systems, the bill results in a significant increase in expenditures for State agencies (all/multiple agencies), local governments, and small businesses that own and/or operate public water systems. MDE advises that public water systems are owned by a variety of entities, including the federal government, State agencies, local governments, private entities, and entities with mixed ownership. For large water systems, MDE estimates that costs increase by \$200,000 to \$250,000 annually to meet the bill’s requirements. These costs are likely passed on to customers. MDE also notes that the bill could affect the funding that local governments receive from the State’s drinking water revolving loan fund.

MES, among other services, provides water supply services for its clients, including State and local agencies. Because the bill results in an increase in costs for water system suppliers, MES’ nonbudgeted expenditures increase. However, since MES is a

fee-for-service entity, these costs are ultimately borne by the various State agencies and local governments that contract with MES for services. As a result, MES nonbudgeted revenues increase correspondingly.

The Maryland Association of Counties and the Maryland Municipal League both advise that affected counties and municipalities incur significant capital and operating costs to comply with the bill's requirements. For example, Anne Arundel County estimates that costs increase by \$16.4 million annually to conduct annual inspections of fire hydrants, flush water mains, and inspect water main lines.

Additional Information

Prior Introductions: None.

Designated Cross File: HB 1416 (Delegate Miller) - Environment and Transportation.

Information Source(s): Anne Arundel County; Maryland Association of Counties; City of Laurel; Maryland Municipal League; Maryland Department of the Environment; Department of Housing and Community Development; U.S. Environmental Protection Agency; Department of Legislative Services

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rh/lgc

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