Department of Legislative Services

Maryland General Assembly
2023 Session

FISCAL AND POLICY NOTE
Third Reader - Revised

Senate Bill 407 (Senators Ready and Hester)

Education, Energy, and the Environment Environment and Transportation

Drinking Water - Indirect Potable Reuse Pilot Program - Establishment

This emergency bill establishes the Indirect Potable Reuse Pilot Program within the Maryland Department of the Environment (MDE). The purpose of the pilot program is to authorize the regulated use of reclaimed water as a source for "drinking water treatment facilities." The bill authorizes MDE to review, permit, and regulate a process to use reclaimed water as a source for a drinking water treatment facility through a potable reuse permit under certain circumstances. The bill establishes provisions governing permit applications, the issuance and terms of permits, grounds for permit denial and revocation, and the renewal of permits. MDE must accept permit applications between July 1, 2023, and June 30, 2024. The bill establishes a related reporting requirement for MDE and authorizes MDE to adopt regulations. **Except for specified provisions relating to the renewal of permits, the bill terminates June 30, 2028.**

Fiscal Summary

State Effect: General fund expenditures increase by $25,000 in FY 2023; out-years reflect annualization and ongoing costs. General fund expenditures may increase further, as discussed below. State revenues are not affected; there is no permit fee.

(in dollars)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenues	$0	$0	$0	$0	$0
GF Expenditure	25,000	139,900	145,900	152,300	158,900
Net Effect	($25,000)	($139,900)	($145,900)	($152,300)	($158,900)

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

Local Effect: Although any participation is voluntary, the bill creates a potential novel source of drinking water for local governments. To the extent that a local government participates, local expenditures likely increase.

Small Business Effect: Minimal overall, but potential meaningful for certain small businesses, as discussed below.

Analysis

Bill Summary:

Key Definitions

A "drinking water treatment facility" is a facility that is used to treat water in a public water system. "Environmental buffer" means a reservoir, basin, or similar area above ground, the purpose of which is to store or impound source water for a drinking water treatment facility.

Authorized Review, Permitting, and Regulation

MDE may review, permit, and regulate a process to use reclaimed water as a source for a drinking water treatment facility through a potable reuse permit if (1) MDE determines that the process will meet or surpass safe drinking water standards before entering the distribution system; (2) the reclaimed water is stored in an "environmental buffer" for at least 180 days before intake into a drinking water treatment facility; (3) the reclaimed water meets specified requirements relating to contaminant levels, treatment for removal of pathogens that meets or exceeds specified levels, and controls for maximum concentrations of per- and polyfluoroalkyl substances (PFAS) chemicals established by MDE, as specified; (4) the reclaimed water undergoes testing and reporting to verify that those requirements are met; (5) the process includes reverse osmosis and ultraviolet disinfection; (6) emergency procedures are in place to protect and ensure the availability of the potable water supply, as specified; (7) the applicant gives MDE the right of entry on the permit site (at any reasonable time) to inspect or investigate any existing or potential violations of the potable refuse permit; (8) the applicant demonstrates to MDE's satisfaction that, at all times and under all operating conditions, the volume of reclaimed water entering the drinking water treatment facility contains no more than 10% by volume of reclaimed water that was delivered to the environmental buffer during any 24-hour period; (9) the process includes appropriate recordkeeping requirements; and (10) the process complies with all other applicable statutory and regulatory requirements.

An applicant may request that reclaimed water be stored in an environmental buffer for less than 180 days (but not less than 60 days) before intake into a drinking water treatment facility if (1) the process reliably and consistently meets the requirements of the potable reuse permit under varying operating conditions to MDE's satisfaction and (2) the applicant demonstrates to MDE's satisfaction that a lower residence time sufficiently protects public health.

Permit Applications and Issuances

MDE must accept applications for potable reuse permits between July 1, 2023, and June 30, 2024, inclusive. A successful application for a potable reuse permit must (1) demonstrate the ability to meet specified requirements to MDE's satisfaction and (2) include, among other things, a completed feasibility study.

Title 1, Subtitle 6 of the Environment Article, which governs public participation in the permitting process, governs the issuance of potable reuse permits.

MDE may refuse to issue a potable refuse permit under specified conditions. Among other things, MDE may refuse to issue a permit if the applicant fails to provide any requested information or fails to demonstrate compliance with the bill to MDE's satisfaction.

Permit Terms, Renewal, and Revocation

MDE may include in a potable reuse permit any term, condition, or requirement that it deems appropriate to protect the public health or the environment. The permit requirements are supplemental to, and do not override, any other statute, regulation, permit, order, or decree.

A potable refuse permit is effective for five years. Before a permit expires, MDE may renew a permit after administrative review in accordance with regulations that MDE adopts and in accordance with Title 1 Subtitle 6 of the Environment Article.

MDE may revoke a potable reuse permit under specified conditions. Among other things, MDE may revoke a permit if it finds that the application included false or inaccurate information, the conditions or requirements of the permit have been or are about to be violated, or the reclaimed water may threaten public health, safety, comfort, or the environment.

Except as otherwise provided in the bill, a public water system operating under a potable reuse permit is subject to requirements for public water systems that use surface water under the Code of Maryland Regulations (COMAR) 26.04.01, which, broadly speaking, governs the quality of drinking water in the State.

Reporting Requirement

By December 31, 2024, MDE must report to the Governor and the General Assembly on (1) the status of the pilot program; (2) whether the pilot program should be extended or made permanent; and (3) any recommended statutory or regulatory changes that MDE

recommends to permanently authorize the regulated use of reclaimed water as a source for drinking water treatment facilities, if appropriate.

Permit Renewal Provisions That Do Not Terminate

Beginning July 1, 2028, MDE is authorized to renew a potable reuse permit if (1) the renewal occurs before the previous permit expires and (2) the original potable reuse permit was issued by June 30, 2028. If MDE renews a permit in accordance with this provision, MDE must renew the permit (1) after administrative review in accordance with regulations adopted by MDE and (2) in accordance with Title 1, Subtitle 6 of the Environment Article. Unlike all the other provisions of the bill, these provisions do not terminate.

Current Law:

Public Water Systems and the Maryland Water Supply Program

Federal and State laws and regulations govern the activities of MDE's Water Supply Program, water utilities, and water users. The Safe Drinking Water Act (SDWA), originally passed in 1974 (40 Code of Federal Regulations §§ 141 and 143), is the main federal law that ensures the quality of drinking water in the United States. 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. SDWA was amended in 1986 and 1996 and requires several actions to protect drinking water and its sources (rivers, lakes, reservoirs, springs, and ground water wells). These standards generally do not apply to private drinking water wells. Rather, private well owners are responsible for the safety of their own wells after initial construction and certification is completed. MDE is responsible for primary enforcement of SDWA in the State.

Specific requirements for public water systems are included under COMAR 26.04.01. Among other things, before constructing a new public water system, or increasing the capacity or significantly modifying an existing public water system, a construction permit must be obtained from the approving authority. There are also several treatment requirements and maximum contaminant level standards.

Public water systems are systems that provide the public water for human consumption through pipes or other constructed conveyances and have at least 15 service connections or regularly serve at least 25 individuals.

Federal Clean Water Act and the National Pollutant Discharge Elimination System

The federal Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States. The National Pollutant

Discharge Elimination System (NPDES), a component of CWA, is a permit program that addresses water pollution by regulating point sources that discharge pollutants to U.S. waters. In Maryland, EPA delegates authority to issue NPDES permits to MDE. MDE's Water and Science Administration and Land and Materials Administration issue discharge permits to protect Maryland's water resources by controlling industrial and municipal wastewater discharges. Surface water discharges are regulated through combined State and federal permits under NPDES. Groundwater discharges are regulated through State-issued groundwater discharge permits.

Reclaimed Water

It is the policy of the State to promote and encourage the use of "reclaimed water" in order to conserve water supplies and to meet other stated goals. MDE is statutorily required to encourage the use of reclaimed water for irrigation. "Reclaimed water" is defined as sewage that has been treated to a high quality suitable for various reuses and meets water quality standards for certain contaminants. Reclaimed water is authorized for irrigation of farmland, golf courses, athletic fields, turf, landscaping, and any other use that MDE considers appropriate.

Graywater

Pursuant to Chapter 705 of 2018, the use of graywater is authorized for residential purposes, under specified conditions, and if the use is permitted under regulations established by MDE. However, as of the writing of this fiscal and policy note, MDE has not yet promulgated regulations authorizing the use of graywater. Pursuant to Chapter 705, "graywater" is defined as used, untreated water generated by the use of and collected from a shower, a bathtub, or a lavatory sink; the term does not include water from a toilet, a kitchen sink, or a dishwashing machine.

The use of graywater is currently regulated as sewage. A person may only dispose of sewage in accordance with an approved septic system permit or other method of disposal approved by the Secretary of the Environment (or designee). State law also prohibits a discharge of any wastewater, regardless of volume, into the waters of the State, without a permit from MDE.

Public Notice for Certain Permit Applications

Title 1, Subtitle 6 of the Environment Article establishes the general public participation requirements for a number of permits issued by MDE, including permits to discharge pollutants into waters of the State. When applying for a permit listed under § 1-601(a) of the Environment Article, the applicant must generally include, as part of the permit

application, the environmental justice (EJ) Score from the Maryland EJ tool for the census tract where the applicant is seeking a permit.

Pursuant to § 1-602 of the Environment Article, whenever MDE is required to publish notice, the notice must be published at least once a week for two consecutive weeks in a daily or weekly generally circulated newspaper in the geographic area where the proposed facility is located. Applicants bear all costs incurred by MDE in providing notice. Additionally, whenever MDE is required to publish notice of an application for a permit, MDE must (1) electronically post notice of the permit application on its website and (2) provide a method for interested persons to electronically request any additional related notices. The notice must include (1) the applicant's name and address; (2) a description of the location and nature of the proposed permitted activity; (3) a reference to applicable statutes or regulations; (4) the time and place of any scheduled information meeting or public hearing, or a description where that information and any other permit application information can be found; (5) the EJ Score for the census tract where the applicant is seeking a permit, the address for the MDE website to access the EJ score review, and a description of the EJ indicators contributing to the EJ Score for the census tract where the applicant is seeking a permit; and (6) any other information that MDE determines is necessary.

State Expenditures:

Maryland Department of the Environment

General fund expenditures increase by $25,022 in fiscal 2023, and by $139,858 in fiscal 2024, which assumes an implementation date of June 1, 2023. This estimate reflects the cost of hiring two contractual regulatory and compliance engineers to (1) establish the Indirect Potable Reuse Pilot Program; (2) develop drinking water standards and a process to evaluate potable reuse permit applications to ensure safe regulation of the use of reclaimed water as a source for a drinking water treatment facility; (3) accept and review permit applications; and (4) monitor operations and implementation for any facilities that are granted a potable reuse permit. It includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses. The information and assumptions used in calculating the estimate are stated below:

- MDE receives two permit applications and approves both applications; and
- this is a new type of permit for potable water and there are no applicable federal templates for similar programs, so MDE needs to develop program standards and review criteria, which is a time-consuming process.

	FY 2023	FY 2024
Contractual Positions (New)	2.0	0
Salaries and Fringe Benefits	$11,624	137,717
Operating Expenses	13,398	2,141
Total MDE Expenditures	**$25,022**	**$139,858**

Future year expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses through the termination of the pilot program on June 30, 2028. MDE anticipates that, based on estimated levels of participation, it can renew any qualifying potable reuse permits beginning July 1, 2028 using existing staff.

This estimate does not include any health insurance costs that could be incurred for specified contractual employees under the State's implementation of the federal Patient Protection and Affordable Care Act.

Maryland Department of Health

The Maryland Department of Health's (MDH) Laboratories Administration provides analytical support services for State agencies and program offices throughout the State and is the primary laboratory in the State that conducts water testing for MDE and local health departments. The Laboratories Administration advises that it is the only laboratory in the State that has the ability to perform PFAS testing, and that current staff trained to test for PFAS are oversubscribed. Thus, the Laboratories Administration anticipates that if it must process water tests for PFAS *for even a handful of permits*, additional full-time staff must be hired. The Laboratories Administration further notes that training an analyst to test for PFAS takes between six months to one year.

The Department of Legislative Services (DLS) acknowledges that the Laboratories Administration is oversubscribed and likely does not have the capacity to absorb any meaningful increase in workload. DLS also acknowledges that PFAS testing is complex and requires significant training. However, with only two anticipated program participants, the increase in testing generated by the bill is likely minimal. Also, there are out-of-state laboratories that might be able to handle the additional testing generated by the bill. Accordingly, while the Laboratories Administration appears to be understaffed, it is unclear that *this bill alone* justifies the need for additional staff. Nevertheless, *if* MDH must hire staff to be able to accommodate the additional testing generated by the bill, general fund expenditures increase (beginning as early as fiscal 2023) to hire staff.

Local Fiscal Effect: Although any participation in the pilot program is voluntary, local governments may benefit from the flexibility to use reclaimed water as a potential source for drinking water. However, to the extent that a local government applies for a potable

reuse permit, local expenditures likely increase, potentially significantly, to adequately treat reclaimed water.

Small Business Effect: The bill may provide new business and employment opportunities for small businesses involved in the treatment and use of reclaimed water as a source for a drinking water treatment facility. There could be opportunities for small businesses that create plans for using reclaimed water, that sell parts or equipment, and potentially, for those that provide installation or maintenance services.

Additional Information

Prior Introductions: Similar legislation has not been introduced within the last three years.

Designated Cross File: HB 848 (Delegate Rose) - Environment and Transportation.

Information Source(s): Maryland Environmental Service; Baltimore City; Montgomery County; cities of College Park and Frostburg; Maryland Department of the Environment; Maryland Department of Health; Department of Legislative Services

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