

Department of Legislative Services
Maryland General Assembly
2025 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 930 (Senator Gile)
Education, Energy, and the Environment

Environment - Managed Aquifer Recharge Pilot Program - Establishment

This bill establishes the Managed Aquifer Recharge (MAR) Pilot Program in the Maryland Department of the Environment (MDE) to authorize the testing of the regulated use of treated reclaimed water as a source for groundwater augmentation through the issuance of MAR permits. MDE is authorized to review, permit, and regulate a process to test the use of treated reclaimed water from a demonstration facility for groundwater augmentation through an MAR permit under specified circumstances. A permit is effective for 10 years, and MDE is authorized to refuse, revoke, or renew a permit, as specified. The bill establishes annual reporting requirements for MDE and permittees. MDE is authorized to adopt regulations to carry out the pilot program.

Fiscal Summary

State Effect: Depending on the number of applications received and approved, general fund expenditures for MDE *may* increase, beginning as early as FY 2026, to implement the pilot program. General fund expenditures and corresponding revenues may also increase beginning as early as FY 2026 for the Maryland Department of Health’s (MDH) Laboratories Administration for water testing. State revenues are otherwise not materially affected; there is no permit fee.

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

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

Analysis

Bill Summary:

Key Definitions

A “demonstration facility” is an advanced water treatment facility approved under an MAR permit to treat reclaimed water for use as a source for testing groundwater augmentation. A “managed aquifer recharge permit” is a permit issued by MDE to authorize and regulate the treatment and underground injection of treated reclaimed water for the purpose of testing the feasibility of and requirements for safely conducting groundwater augmentation.

Authorized Review, Permitting, and Regulation

MDE may review, permit, and regulate a process to test the use of treated reclaimed water from a demonstration facility as a source for groundwater augmentation through an MAR permit if MDE determines that (1) the demonstration facility will address a groundwater supply or quality problem that is anticipated to occur in the next 25 years; (2) the proposed location of the demonstration facility is suitable to inform the eventual location of a full-scale or long-term implementation site; (3) the reclaimed water will be treated at a demonstration facility to meet or surpass specified requirements relating to contaminant levels, treatment for removal of pathogens, as specified, and maximum concentrations of per- and polyfluoroalkyl substances (PFAS) chemicals, as specified; (4) the treated reclaimed water will undergo testing and reporting to verify that those requirements are met; (5) the applicant has conducted an analysis to evaluate alternatives to aquifer recharge; (6) the applicant has a detailed testing and monitoring plan in place to demonstrate facility performance and groundwater compatibility during underground injection, as specified; (7) the applicant has submitted a mitigation plan to address environmental and safe drinking water risks; (8) 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 permit; (9) the process includes appropriate record-keeping requirements; and (10) the process complies with all other applicable statutory and regulatory requirements.

Permit Applications

A successful application for an MAR permit must:

- demonstrate to the satisfaction of MDE (1) the ability to comply with the applicable requirements; (2) the applicant’s available funding for the construction and operation of the demonstration facility; (3) the technical and administrative

- capacity to perform the process covered under the permit; and (4) that all necessary planning and engineering design is complete; and
- include any additional information requested by MDE.

Permit Issuance and Terms

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

MDE may include in a permit any term, condition, or requirement that MDE considers appropriate to protect public health or the environment. Permit requirements are supplemental to, and do not override, any other law, regulation, permit, order, or decree.

An MAR permit issued by MDE is effective for 10 years. Before a permit expires, MDE may renew a permit for an additional period or periods of 5 years after administrative review by MDE and in accordance with Title 1, Subtitle 6 of the Environment Article.

MDE may refuse to issue an MAR 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's requirements to MDE's satisfaction.

MDE may revoke a 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 treated reclaimed water may threaten public health, safety, comfort, or the environment.

Reporting Requirements

By September 1 each year, a permit holder must report to MDE on (1) the applied scientific results of any demonstration facility or groundwater augmentation activities conducted under the pilot program and (2) any recommendations for the pilot program based on the permit holder's experience.

By December 31 each year, MDE must report to the Governor and the General Assembly on (1) the status of the pilot program; (2) any scientific results and recommendations reported by permit holders; (3) whether the pilot program should be modified, extended, or made permanent; and (4) any statutory or regulatory changes that MDE recommends to permanently authorize the regulated use of treated reclaimed water as a source for groundwater augmentation, if appropriate.

Current Law:

Groundwater Discharges and 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.

COMAR 26.08.04, 26.08.02.09, and 26.08.07 establish specific requirements for the discharge or disposal of water or wastewater into the underground waters of the State and for underground injection control (UIC). MDE notes that it currently regulates MAR through existing UIC permits, called Class V wells governed under these COMAR provisions.

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 issues 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.

Indirect Potable Reuse Pilot Program

The Indirect Potable Pilot Program was established pursuant to Chapters 122 and 123 of 2023 to authorize the regulated use of reclaimed water as a source for drinking water treatment facilities. Under the program, 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 under certain circumstances. Permittees must also authorize MDE to inspect or investigate the site to check for existing or potential violations of the potable reuse permit.

MDE was required to accept applications for potable reuse permits between July 1, 2023, and June 30, 2024. A potable reuse 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.

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 and potable reuse permits.

Relevant Enforcement Provisions

The provisions of §§ 9-334 through 9-341 of the Environment Article, which are established under provisions relating to Title 9, Subtitle 3 of the Environment Article (Water Pollution Control), establish enforcement procedures that govern (1) the ability of MDE to issue complaints, conduct hearings, issue corrective orders, and obtain injunctive relief and (2) judicial review of final decisions. (Because the bill's provisions are codified under Subtitle 3 of Title 9 of the Environment Article, these enforcement provisions are applicable.)

Under § 9-343 of the Environment Article, a person who violates any provision of or fails to perform any duty imposed by Title 9, Subtitle 3 of the Environment Article, or who violates any provision or fails to perform any duty imposed by a rule, regulation, order, or permit adopted or issued under that subtitle, is guilty of a misdemeanor and on conviction is subject to a maximum fine of \$25,000 and/or imprisonment for up to one year for a first offense and a maximum fine of \$50,000 and/or imprisonment for up to two years for

a subsequent offense. The person may also be enjoined from continuing the violation. Each day on which a violation occurs is a separate violation.

In addition, a person is guilty of misdemeanor and on conviction is subject to a maximum fine of \$50,000 and/or imprisonment for up to two years if the person (1) knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the subtitle or (2) falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the subtitle or any rule, regulation, order, or permit adopted or issued under the subtitle.

Pursuant to § 9-344 of the Environment Article, the Attorney General is in charge of prosecuting and defending cases that arise on behalf of the State.

State Fiscal Effect:

Maryland Department of the Environment

The bill's effect on MDE depends on the number of applications that it receives, reviews, and approves. MDE anticipates that it can develop the MAR Pilot Program and review and issue one MAR permit within existing resources. However, if it receives, reviews, and issues two or more permits, additional staff are required and MDE expenditures increase. MDE notes that although it does not know how many applications will be submitted under the bill, it is not aware of any locations in the State where this would be a viable alternative for addressing water quantity concerns.

Because the bill does not *require* MDE to accept and review any permit applications, and because there are no known interested applicants at this time, this analysis does not reflect any immediate expenditures for MDE. To the extent that MDE receives two or more permit applications and issues two or more MAR permits, however, general fund expenditures increase.

For context, estimated costs to implement the Indirect Potable Reuse Pilot Program ranged from \$71,000 to \$80,600 on an annual basis to hire two contractual staff to establish the program, develop applicable standards, accept, review, and approve two permit applications, and monitor operations and implementation. MDE may also incur costs to reimburse MDH for testing water samples (discussed below).

The bill does not establish a permit application fee, so no additional revenues are anticipated from any permit applications submitted under the bill. Although permitted facilities may be required to obtain other MDE-issued permits (required under current law)

in order to operate, because it is assumed there will be a limited number of permittees under the bill, the bill is not expected to materially affect MDE's fee revenues.

Maryland Department of Health

MDH's 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 has a memorandum of understanding (MOU) in place with MDE to recoup related water testing costs. The Laboratories Administration also advises that it is the only laboratory in the State that has the ability to perform PFAS testing. Thus, the Laboratories Administration anticipates that it is likely responsible for any increased water testing under the bill.

Thus, general fund expenditures and revenues (from reimbursement under the MOU) for the Laboratories Administration may increase beginning as early as fiscal 2026 from any additional water testing resulting from the bill. The Laboratories Administration anticipates that testing costs and related revenues associated with one permitted facility are roughly \$17,000 annually. Actual impacts on MDH finances depend on the number of permitted facilities and the water testing requirements established under MDE's implementing regulations.

Penalty Provisions

The application of existing penalty provisions to violations of the bill is not anticipated to materially affect State finances.

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 groundwater augmentation. However, to the extent that a local government applies for an MAR permit, local expenditures likely increase, potentially significantly, to construct a demonstration facility, adequately treat reclaimed water, and comply with other permit requirements.

The application of existing penalty provisions to violations of the bill is not anticipated to materially affect local incarceration costs.

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 groundwater augmentation. 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

Recent Prior Introductions: Similar legislation has been introduced within the last three years. See SB 942 and HB 1131 of 2024.

Designated Cross File: HB 1296 (Delegate Pruski) - Environment and Transportation.

Information Source(s): Maryland Association of County Health Officers; Maryland Environmental Service; Anne Arundel, Baltimore, Charles, Dorchester, and Garrett counties; Maryland Association of Counties; Maryland Municipal League; Maryland Department of the Environment; Maryland Department of Health; Department of Legislative Services

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