

Department of Legislative Services
 Maryland General Assembly
 2020 Session

FISCAL AND POLICY NOTE
 Third Reader

House Bill 836 (Delegate Grammer)
 Environment and Transportation Education, Health, and Environmental Affairs

Sewage Treatment Plants - Effluent Discharges - Impacts on Midge Populations

This bill requires the Maryland Department of the Environment (MDE) to (1) monitor effluent discharged from sewage treatment plants and (2) evaluate whether the effluent, and any nutrients in the effluent, impacts midge populations in the surrounding land and water areas, including whether the effluent contributes to the growth of phytoplankton. By October 1, 2021, and annually thereafter, MDE must report to the General Assembly on the activities conducted in accordance with the bill.

Fiscal Summary

State Effect: General fund expenditures increase by \$77,900 in FY 2021 and by \$19,900 in FY 2022. Revenues are not affected.

(in dollars)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	77,900	19,900	0	0	0
Net Effect	(\$77,900)	(\$19,900)	\$0	\$0	\$0

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

Local Effect: None.

Small Business Effect: None.

Analysis

Current Law/Background: According to the Maryland Department of Agriculture (MDA), midges are nonbiting flies or chironomids that commonly occur in inland and coastal natural and man-made bodies of water. These aquatic insects are tolerant of a wide

range of environmental conditions. Chironomid midges are found in swift moving streams, deep slow moving rivers, stagnant ditches, and in lakes and ponds that are rich in decomposing organic matter. The presence of certain chironomid midges is often used as an indicator of water quality. Although midges are not a health risk or a vector of human disease, in some situations, midges result in severe nuisance and economic problems to nearby residents and businesses.

According to MDA, bodies of water in urban and suburban areas are subjected to intensive human use through residential, recreational, and agricultural activities. Through runoff, these ponds and lakes often become exceedingly rich in nutrients. Consequently, the variety of organisms in such habitats is usually low with just a few pollution tolerant species developing large populations. Some species of chironomid midges that are tolerant of low dissolved oxygen conditions are often a major component of the bottom invertebrate organisms of urban and suburban lakes, ponds, and stormwater retention ponds.

In 2017, Governor Hogan signed Executive Order 01.01.2017.17, which required MDA, in partnership with the Department of Natural Resources, to begin eradication of the midge population in the Back River in Baltimore County. In response, MDA implemented the Midge Pilot Program to test the feasibility of Back River midge control and determine (1) the impact of *Bacillus thuringiensis israelensis (Bti)* in controlling midge populations in the area and (2) the most cost effective dosage and frequency of *Bti* treatments in the area. According to MDA, *Bti* is a naturally occurring soil bacterium that has been demonstrated to be nontoxic to humans, mammals, birds, fish, and most invertebrates.

State Expenditures: General fund expenditures increase by \$77,903 in fiscal 2021, which accounts for the bill’s October 1, 2020 effective date. This estimate reflects the cost of hiring two contractual natural resource planners within MDE to (1) take water samples and monitor at least five different sites; (2) conduct benthic macroinvertebrate and phytoplankton field sampling; (3) process taxonomy and perform data entry and analysis; and (4) write the initial annual report. It includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses.

Contractual Positions	2
Salaries and Fringe Benefits	\$63,970
Operating Expenses	<u>13,933</u>
Total FY 2021 State Expenditures	\$77,903

Future year expenditures reflect termination of the contractual employees in fiscal 2022 after the initial report is finished. This analysis assumes that MDE can conduct ongoing monitoring and submit future annual reports with existing resources.

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.

Additional Information

Prior Introductions: None.

Designated Cross File: None.

Information Source(s): Baltimore City; Howard, Montgomery, and Prince George's counties; Maryland Association of Counties; City of Bowie; Maryland Municipal League; Maryland Department of Agriculture; Maryland Department of the Environment; Department of Legislative Services

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Analysis by: Kathleen P. Kennedy

Direct Inquiries to:
(410) 946-5510
(301) 970-5510