

**Department of Legislative Services**  
 Maryland General Assembly  
 2012 Session

**FISCAL AND POLICY NOTE**

Senate Bill 827 (Senator Pipkin)  
 Education, Health, and Environmental Affairs

**Environment - Sewage Disposal Systems**

This bill prohibits the State from prohibiting the installation of any on-site sewage disposal (septic) system until at least three years after any sewage overflow of at least 100,000 gallons from a sewage pumping station that occurs on or after August 1, 2011, is mitigated and the sewage pumping station responsible for the overflow is sufficiently upgraded with capital improvements to prevent future overflows.

The bill takes effect June 1, 2012.

**Fiscal Summary**

**State Effect:** General fund revenues increase, potentially by over \$300,000, beginning in FY 2013 due to a reduction in the number of subtraction modifications against individual income taxes claimed, which are based on a prohibition against the installation of certain septic systems that will likely no longer apply under the bill. General fund expenditures increase by more than \$15,600 annually beginning in FY 2013 for the Maryland Department of the Environment (MDE) to hire an additional part-time environmental sanitarian to oversee the additional septic systems anticipated under the bill. The part-time sanitarian is expected to become a full-time employee by FY 2017 as workloads increase. State expenditures (all funds) may increase to the extent additional nutrient reductions are required to offset the decrease in nutrient reduction contributions anticipated from septic systems. Even though the bill takes effect June 1, 2012, it is assumed that State finances are not materially affected in FY 2012.

(in dollars)	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
GF Revenue	-	-	-	-	-
GF Expenditure	\$15,600	\$29,500	\$47,000	\$65,400	\$85,400
GF/SF Exp.	-	-	-	-	-
Net Effect	(\$15,600)	(\$29,500)	(\$47,000)	(\$65,400)	(\$85,400)

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

**Local Effect:** Local government expenditures may increase to the extent the bill results in capital improvements to locally owned sewage pumping stations. Additionally, local workloads increase for monitoring and enforcement of additional septic systems; expenditures may increase to the extent the additional workloads cannot be handled with existing resources. Finally, local government expenditures may increase to the extent that additional nutrient reductions are required to offset the decrease in nutrient reduction contributions anticipated from septic systems under current law.

**Small Business Effect:** Meaningful.

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## Analysis

**Current Law:** MDE currently has authority over sewerage system planning for new development and may prohibit the installation of septic systems. For example, land platted for subdivision may not be offered for sale or development, or developed with a permanent building unless a statement of the proposed sewerage service for the subdivision and other information MDE deems necessary is submitted to MDE. Additionally, MDE must adopt rules and regulations to, among other things:

- control, limit, or prohibit the installation and use of water supply and sewerage systems;
- carry out specified water supply, sewerage, and refuse disposal system provisions;
- require that consideration be given to specified issues prior to installation of individual water supply or sewerage systems; and
- require an area to be served by community water supply, sewerage, or solid waste facilities.

Chapter 280 of 2009 prohibits a person from newly installing or replacing an on-site sewage disposal (septic) system on property in the Chesapeake and Atlantic Coastal Bays Critical Area unless it utilizes the best available nitrogen removal technology. Chapter 280 also created a subtraction modification against the personal income tax for the cost of upgrading a septic system, less any specified assistance provided, for those subject to that prohibition.

### **Background:**

#### *The Bay TMDL and the Watershed Implementation Plan (WIP) Development Process*

In December 2010, the U.S Environmental Protection Agency (EPA) established the Total Maximum Daily Load for the Chesapeake Bay (Bay TMDL), which (1) sets the

maximum amount of pollution the bay can receive and still attain water quality standards; and (2) identifies specific pollution reduction requirements. **Exhibit 1** illustrates Maryland's pollution reduction goals in the Bay TMDL. All pollution reduction measures must be in place by 2025, with at least 60% of the actions complete by 2017.

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**Exhibit 1**  
**Maryland's Pollution Reduction Goals in the Bay TMDL**  
**(Million Pounds Per Year)**

<u>Pollutant</u>	<u>2010 Loads</u>	<u>Bay TMDL Target Load</u>	<u>Percent Reduction</u>
Nitrogen	52.76	41.17	22.0%
Phosphorus	3.30	2.81	14.9%
Sediment	1,376	1,350	1.9%

TMDL: Total Maximum Daily Load

Note: Target loads as revised by EPA in August 2011.

Source: Maryland Department of the Environment; U.S. Environmental Protection Agency

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In 2010, each bay jurisdiction submitted a Phase I WIP that details how the jurisdiction will achieve its individual pollution reduction goals under the Bay TMDL. The Phase I WIP focused on the following three approaches for bridging the remaining loading gap: (1) developing new technology and approaches before 2017; (2) increasing the scope of implementation of existing strategies such as upgrading wastewater treatment plants, upgrading septic systems, and increasing the number and efficiency of stormwater runoff controls; and (3) improving regulatory requirements. The Phase I WIP establishes that all nutrient impacts from future growth must be offset if the Bay TMDL is to be met. Of the major sources of nutrient pollution in Maryland, septic systems contribute about 6% of the nitrogen entering the bay from Maryland sources, and that sector will be required to contribute to just under 10% of the nitrogen reduction under Maryland's Phase II WIP.

On January 26, 2012, Maryland released for public comment a draft of the State's Phase II WIP, which provides implementation strategies for the five major basins in Maryland (the Potomac River basin, Eastern Shore, Western Shore, the Patuxent River basin, and Maryland's portion of the Susquehanna River basin).

### *Administration Bills Seek to Restrict Septic System Usage*

The Administration has introduced legislation (SB 236/HB 445) that seek to, among other things, reduce the number of septic systems installed to support future residential development. The bills prohibit MDE from approving certain residential subdivisions served by septic systems under specified conditions. The bills also restrict the use of septic systems within certain areas that are to be designated by local planning authorities. Finally, the bills aim to steer residential growth from more rural areas, where the use of septic systems is currently more prevalent, to areas that are already served by public sewer service or where sewer service could be extended.

### *Combined Sewage Overflows and the WIP*

According to the Phase II WIP, a number of communities with combined sewage overflows (CSOs) have recently completed required upgrades: Snow Hill in 2002, Baltimore City in 2006, Salisbury in 2008, and Federalsburg in 2010. Currently, CSO-related consent orders are in effect in six communities: Allegany County, Cumberland, Frostburg, La Vale, Westernport, and Cambridge. Long-term Control Plans to address the elimination of these overflows have been developed and submitted to MDE. The Cambridge CSO upgrade is scheduled to be completed by 2013. The remaining CSO communities are in the process of evaluating, designing, and completing various stages of the upgrades by 2023.

### *Reported Sewage Overflows*

According to MDE's Maryland Reported Sewer Overflow Database, between August 1, 2011, and February 28, 2012, there were 171 sewage overflows of over 100,000 gallons, although it is unclear how many of these overflows occurred at a sewage pumping station. The number of sewage overflows during this period may be unusual and attributable to several large storms that occurred in the fall of 2011. For example, the database attributes 29 of these sewage overflows to Tropical Storm Lee, and another 27 overflows to Hurricane Irene. Over the same period from the previous year, there were 78 fewer overflows.

Since January 1, 2009, MDE has implemented a new enforcement initiative to address unauthorized discharges of pollutants resulting from sanitary sewer overflows. Under this initiative, MDE has begun assessing penalties for all sewage overflows, with the exception of permitted CSOs, unless the owner or operator of the system clearly demonstrates that the overflow was beyond their control and in spite of taking all reasonable steps to properly operate, maintain, and improve the system. Previously, MDE targeted only those systems with numerous sewage overflows or large volume overflows for enforcement actions. Between July 2009 and December 31, 2011, MDE collected \$798,341 in penalties from enforcement of sewage overflow violations.

**State Revenues:** This analysis assumes that the bill’s prohibition takes effect as it is unclear whether or when all sewage pumping stations that are responsible for overflows of more than 100,000 gallons will be upgraded to prevent future overflows. One result of the bill’s prohibition is that MDE would no longer be able to prohibit the installation of conventional septic systems in the Critical Area and require the use of best available technology systems instead, as required by Chapter 280 of 2009. Chapter 280 of 2009 also created a subtraction modification against the personal income tax in an amount equal to the additional cost of a septic system utilizing best available technology for a person that was prohibited from installing a septic system in the critical area. According to the Comptroller’s Office, there were 21 subtraction modification claims in calendar 2010 (the most recent year for which data are readily available) with a value of \$123,477. The Comptroller’s Office projects that the value of these claims continues to increase and is projected to total about \$300,000 in fiscal 2012. Thus, general fund revenues likely increase, potentially by more than \$300,000 beginning in fiscal 2013, to the extent the prohibition established by Chapter 280 is nullified by the bill.

**State Expenditures:** General fund expenditures increase by \$15,638 in fiscal 2013, which assumes a 120-day start-up delay. This estimate reflects the cost for MDE to hire one part-time environmental sanitarian to oversee the additional septic systems likely to be installed as a result of the bill and to monitor the additional septic system malfunctions expected under the bill. It includes a salary, fringe benefits, one-time start-up costs, and ongoing operating expenses

Position	0.2
Salary and Fringe Benefits	\$10,658
Start-up Costs	4,485
Operating Expenses	495
<b>Total FY 2013 MDE Expenditures</b>	<b>\$15,638</b>

Future year expenditures reflect a full salary with annual increases and employee turnover as well as annual increases in ongoing operating expenses. MDE advises that it expects the workload of the sanitarian to increase, by the equivalent of one-fifth of a full-time employee each year, such that by fiscal 2017, the sanitarian will be full time.

State expenditures (all funds) to implement the WIP may also increase to the extent that additional nutrient reductions are required to offset the decrease in nutrient reduction contributions anticipated from this source sector.

**Local Expenditures:** Local government expenditures may increase to the extent the bill results in capital improvements to locally owned sewage pumping stations. The bill does not require such improvements, but to the extent that the bill significantly interferes with the State’s regulation of water pollution control activities and the implementation of the

WIP, local governments may be encouraged to upgrade sewage pumping stations so that the bill's prohibition would no longer apply.

Local health department workloads are likely to increase to oversee the additional septic systems likely to be installed and to monitor the additional septic system malfunctions expected under the bill. Local expenditures may increase to the extent these workloads cannot be handled with existing resources.

Local government expenditures to implement the WIP may also increase to the extent that additional nutrient reductions are required to offset the decrease in nutrient reduction contributions from this source sector anticipated under the WIP. The WIP assumes nutrient reductions from septic system regulation in the State. Without these planned reductions, additional measures may be required, which may be the responsibility of local governments. For example, additional stormwater management measures may be necessary.

**Small Business Effect:** Small businesses engaged in the installation and maintenance of septic systems may realize a meaningful benefit in revenues to the extent the bill results in an increase in septic systems installed. However, some small businesses that receive a disproportionate share of revenues from the production or installation of best available technology systems may experience a meaningful reduction in demand for their services, as MDE would no longer be able to prohibit the installation of a conventional system. Other small businesses may also be affected to the extent that the bill results in additional sewage pumping station work or a change in the source of planned nutrient reductions under the WIP.

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### **Additional Information**

**Prior Introductions:** SB 22 of the 2011 special session, a similar bill, was referred to the Senate Rules Committee, but no further action was taken.

**Cross File:** None.

**Information Source(s):** Montgomery and Prince George's counties, Maryland Department of the Environment, Comptroller's Office, U.S. Environmental Protection Agency, Department of Legislative Services

**Fiscal Note History:** First Reader - March 4, 2012  
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