

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

**FISCAL AND POLICY NOTE**

Senate Bill 614 (Senator Raskin, *et al.*)  
Education, Health, and Environmental Affairs

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**Stormwater Management - Watershed Protection and Restoration Program**

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This bill requires each county and municipal corporation, by July 1, 2013, to adopt local laws or ordinances necessary to establish an annual stormwater remediation fee and a local watershed protection and restoration fund to provide financial assistance for the implementation of local stormwater management plans. However, the bill exempts a jurisdiction that has enacted and implemented a similar watershed protection and restoration program by July 1, 2012, that is consistent with the bill. The bill also establishes specified reporting requirements for local governments. The Maryland Department of the Environment (MDE) is authorized to adopt regulations to implement and enforce the bill.

The bill takes effect July 1, 2012.

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**Fiscal Summary**

**State Effect:** General fund expenditures increase by about \$185,500 in FY 2013 for MDE to hire an additional engineer and for contractual assistance in implementing the bill. Future years reflect annualization, inflation, and ongoing expenses. In addition, to the extent that local stormwater remediation fees assist the State in achieving federal Chesapeake Bay restoration mandates, State expenditures (all funds) that would otherwise support these efforts may be reduced or redirected. Revenues are not affected.

(in dollars)	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	185,500	78,500	83,700	87,600	91,600
Net Effect	(\$185,500)	(\$78,500)	(\$83,700)	(\$87,600)	(\$91,600)

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

**Local Effect:** Local revenues to local watershed protection and restoration funds increase significantly likely in FY 2013 or 2014 depending on when the stormwater remediation fee is implemented by each jurisdiction. Local expenditures from local watershed protection and restoration funds increase commensurately to fund local stormwater management activities and reasonable administrative costs. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Potential meaningful.

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## Analysis

**Bill Summary:** Each county and municipality must determine the method, frequency, and enforcement of the collection of the stormwater remediation fee. The stormwater remediation fee established for *residential property* owners must (1) be the same for all owners within the jurisdiction; (2) vary based on the type of residential property, including single-family or multi-unit properties; or (3) be graduated, based on the amount of impervious surface on each property. For *nonresidential property*, each jurisdiction must set the fee in an amount that is greater than or equal to the fee assessed on residential property. The fee for nonresidential properties must consist of a base amount that is the same for all properties and a separate amount that is graduated based on the amount of impervious surface of each property. Each county and municipal corporation must establish a procedure for a property owner to appeal a stormwater remediation fee.

A property may not be assessed a stormwater remediation fee by both a county and a municipal corporation, though a municipality may authorize a county to impose a fee in place of a municipal fee. A stormwater remediation fee established under the bill is separate from any existing or future stormwater management charges that a jurisdiction establishes for new development, including fees for permitting, review of stormwater management plans, inspection, or monitoring.

A county or municipal corporation may establish MDE-approved policies that reduce a portion of a fee that is based on the amount of impervious surfaces so as to account for on-site systems, facilities, services, or activities that reduce the quantity or improve the quality of stormwater discharged from a property. These policies must include various guidelines, methods, and procedures specified by the bill.

Fee revenue from each jurisdiction must be deposited into its local watershed protection and restoration fund established under the bill, and it may not revert or be transferred to a local general fund. Each fund must also consist of interest or other investment income and any other money made available to the fund. Money in each fund is intended to be used only to support additional (not existing or ongoing) efforts for:

- capital improvements for stormwater management, including stream restoration projects;
- operation and maintenance of stormwater management systems and facilities;
- public education and outreach relating to stormwater management or stream and wetland restoration;
- stormwater management planning, including mapping and assessment of impervious surfaces;
- stormwater management monitoring, inspection, and enforcement activities to carry out the purposes of the watershed protection and restoration fund;
- review of stormwater management plans and permit applications for new development, *only if* fees established under current law to support these activities associated with new development are also deposited into the new watershed protection and restoration fund;
- grants to nonprofit organizations for specified watershed restoration and rehabilitation projects; and
- reasonable administrative costs.

Beginning on July 1, 2014, and every two years thereafter, each county and municipal corporation is required to make a publicly available report on the number of properties subject to a stormwater remediation fee, the amount of money deposited into the watershed protection and restoration fund for the previous two fiscal years, and the percentage of funds spent on each of the purposes authorized by the bill.

The bill also alters the definition of “environmental site design” (ESD) by specifying that “impervious surface” means a surface that does not allow stormwater to infiltrate into the ground, which includes rooftops, driveways, sidewalks, or pavement.

**Current Law:** Generally, unless a particular activity is exempt, a person may not develop any land without an approved final stormwater management plan from the approving agency (generally, a county or municipality). The owner/developer must certify that all land development will be done according to the approved plan. Current regulations exempt, among other activities, additions or modifications to existing single-family detached residential structures under specified conditions and any developments that do not disturb over 5,000 square feet of land area.

MDE is required to adopt regulations establishing criteria and procedures for stormwater management in Maryland. Each county and municipality is required to adopt ordinances necessary to implement a stormwater management program. Every three years, MDE is required to review local programs and evaluate their effectiveness. MDE is also required to provide technical assistance, training, research, and coordination services to local

governments in the preparation and implementation of their stormwater management programs. Additionally, the governing body of a county or municipality may adopt a system of charges to fund the implementation of stormwater management programs.

## **Background:**

### *Stormwater Management in Maryland*

According to MDE, while nitrogen loading to the Chesapeake Bay from agricultural and wastewater sources in Maryland has been decreasing since 1985, stormwater runoff has been increasing from newly developed impervious surfaces. The State began reducing the adverse effects of stormwater runoff in 1982 with the passage of the Stormwater Management Act. State regulations followed in 1983, which required each county and municipality to adopt ordinances necessary to implement a stormwater management program. Maryland's stormwater management regulations were significantly strengthened in 2000 with the adoption of the Stormwater Design Manual in State regulations. Chapters 121 and 122 of 2007 attempted to further enhance the State's stormwater management program by requiring a new form of management practice known as ESD. ESD involves using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Emergency regulations to implement Chapters 121 and 122 were approved in April 2010.

### *Role of Stormwater Management in Meeting Federal Bay Restoration Requirements*

In December 2010, the U.S. Environmental Protection Agency (EPA) established the Total Maximum Daily Load for the Chesapeake Bay (bay TMDL) that (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 TMDL. All pollution reduction measures must be in place by 2025, with at least 60% of the actions complete by 2017.

In 2010, each bay jurisdiction submitted a Phase I Watershed Implementation Plan (WIP) that details how the jurisdiction will achieve its individual pollution reduction goals under the 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 TMDL is to be met.

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

<u><b>Pollutant</b></u>	<u><b>2010 Loads</b></u>	<u><b>Bay TMDL Target Load</b></u>	<u><b>Percent Reduction</b></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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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). Maryland's Phase II WIP builds on existing State-directed restoration efforts and identifies strategy options to reduce nitrogen and phosphorus from all major sources, including stormwater runoff. Of the major sources of nutrient pollution in Maryland, stormwater runoff contributes about 18.1% of the nitrogen and 22.1% of the phosphorus entering the bay from Maryland sources, and it will be required to contribute to just under 17% of the nitrogen reduction and just under 45% of the phosphorus reduction under Maryland's Phase II WIP.

*Anticipated Costs of Implementing Stormwater Management Controls in the WIP*

To determine the cost of implementing the bay TMDL, MDE began investigating the potential cost of local stormwater control measures in early spring 2011. As part of this investigation, MDE commissioned a study by the University of Maryland Center for Environmental Science and the Johns Hopkins University to examine costs related to stormwater best management practices (BMPs) and assess revenue-generating options for Maryland counties. The study was completed in October 2011 and provided estimated costs of various stormwater BMPs, including the average unit cost over 20 years.

**Exhibit 2** shows the preliminary estimated cost of implementing the Phase II WIP from all sectors. Among other things, the exhibit illustrates that stormwater BMPs likely represent the largest costs to local governments in implementing the TMDL.

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**Exhibit 2**  
**Estimated Phase II WIP Costs for Interim and Final Targets Under the Bay TMDL**  
**(\$ in Millions)**

<b><u>Source Sector</u></b>	<b><u>Cost of 2017 Strategy</u></b> <b><u>2010-2017</u></b>	<b><u>Cost of 2025 Strategy</u></b> <b><u>2010-2025</u></b>
<b>Agriculture</b>	<b>\$498</b>	<b>\$928</b>
<b>Municipal Wastewater</b>	<b>2,384</b>	<b>2,384</b>
Major Municipal Plants	2,322	2,322
Minor Municipal Plants	62	62
<b>Stormwater</b>	<b>3,826</b>	<b>7,607</b>
Maryland Department of Transportation	467	1,500
Local Government	3,359	6,107
<b>Septic Systems</b>	<b>799</b>	<b>3,746</b>
Septic System Upgrades	336	2,533
Septic System Connections	439	1,125
Septic System Pumping	24	88
<b>Total</b>	<b>\$7,507</b>	<b>\$14,665</b>

Note: Exhibit does not reflect costs associated with controlling combined sewer and sanitary overflows or the implementation of the Healthy Air Act.

Source: *Phase II Watershed Implementation Plan*; Maryland Department of the Environment

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The cost of implementing local stormwater management controls was also addressed in the work of the Task Force on Sustainable Growth and Wastewater Disposal, which was established by Governor O'Malley under Executive Order 01.01.2011.05. During the course of its work, the task force explored increasing the existing bay restoration fee in order to not only cover the existing shortfall in the Bay Restoration Fund for wastewater treatment plant upgrades, but also to help fund other WIP requirements associated with developed land BMPs, including stormwater management. Under one recommendation, the task force envisioned transferring 15% to 25% of the gross bay restoration fee revenue generated within each local jurisdiction to local governments for the implementation of approved stormwater BMPs.

Legislative Services advises, however, that the legislation that has been introduced by the Administration to increase the bay restoration fee (SB 240/HB 446) would not result in an increase in revenue sufficient to support that recommendation, nor would it expand the authorized uses of the Bay Restoration Fund to allow it to be used for the implementation of stormwater BMPs.

### *Current Financing of Stormwater Management*

Chapters 121 and 122 of 2007 required MDE to evaluate options for a stormwater management fee system and an appropriate fee schedule necessary to improve enforcement of stormwater management laws. In its May 2008 report, developed in response to that charge, MDE noted that Maryland's stormwater management program is implemented locally with little financial support from the State, and that it does not have the authority under current law to assess fees or charges at the State level. In 1992, the General Assembly adopted enabling legislation that allows localities to develop a "system of charges" to finance stormwater programs. Legislative Services is aware of six local jurisdictions (Montgomery and Prince George's counties and the cities of Annapolis, Frederick, Rockville, and Takoma Park) that have developed programs to raise revenues dedicated for stormwater management to date, although several others have explored the creation of dedicated stormwater revenue sources.

In the May 2008 report, MDE noted its continuing support for the development of a system of charges by local governments to provide the funding needed to meet local obligations under State and federal law. Bills were introduced in the 2007, 2009, 2010, and 2011 sessions to generate local funding for stormwater management. These bills would have established fees based on the amount of impervious surface on certain types of property. In turn, the fees would have generally been used to fund the remediation, upgrade, and expansion of stormwater management systems statewide.

State funding for stormwater management projects is also available from several sources. Chapter 6 of the 2007 special session established a Chesapeake Bay 2010 Trust Fund to be used to implement the State's tributary strategy. The fund is financed with a portion of existing revenues from the motor fuel tax and the sales and use tax on short-term vehicle rentals. Subsequently, Chapters 120 and 121 of 2008 established a framework for how the trust fund money must be spent by specifying that it be used for nonpoint source pollution control projects and by expanding it to apply to the Atlantic Coastal Bays. In fiscal 2012, \$7.28 million from the fund was used to support Local Implementation Grants for high-priority local stormwater and other nonpoint source pollution control projects. While no funding has been included in the fiscal 2013 budget for Local Implementation Grants, an increase of roughly the same amount has been included in the budget for the Natural Filters program within the Department of Natural Resources, which supports the creation of riparian buffers and wetlands in priority watersheds within 15 counties. Maryland also provides ongoing support for stormwater management through a portion of expenditures from the Water Quality Revolving Loan Fund, which is capitalized by federal funds.

**State Expenditures:** General fund expenditures increase by \$185,513 in fiscal 2013, which accounts for a 90-day start-up delay. This estimate, which is based on information

provided by MDE during the 2011 session for a similar bill, reflects the cost for MDE to hire an engineer to develop regulations and a new model ordinance, draft guidance for local governments, and oversee implementation. Currently, the stormwater management program at MDE is staffed by two full-time employees. Last year, MDE advised that existing staff cannot draft the regulations and new model ordinances and coordinate with local governments to implement the bill. Thus, this estimate includes a salary, fringe benefits, one-time start-up costs (including the purchase of an additional automobile), and ongoing operating expenses. Additionally, for similar legislation introduced in the 2011 session, MDE advised that it would need to contract with an outside vendor to develop a tracking system, which includes hardware and software costs, at an estimated cost of \$100,000 in the first year only.

Position	1
Salary and Fringe Benefits	\$56,118
Contractual Services	100,000
Start-up Costs and Operating Expenses	<u>29,395</u>
<b>Total FY 2013 MDE Expenditures</b>	<b>\$185,513</b>

Future year expenditures include a full salary with annual increases and employee turnover as well as annual increases in ongoing operating expenses.

Also, to the extent that local stormwater remediation fees assist the State in achieving federal Chesapeake Bay restoration mandates, State expenditures (all funds) that would otherwise support these activities may be reduced or redirected.

**Local Fiscal Effect:** Local government revenues increase from the collection of the stormwater remediation fee established as a result of this bill. Legislative Services advises that the amount of local revenues generated by the bill cannot be estimated as the bill does not specify or mandate the amount of the charge for each jurisdiction. However, many local governments have recently begun developing plans to implement the WIP and examining the methods for and associated costs of doing so. For example, Howard County estimates that the stormwater management costs of compliance with its municipal separate storm sewer system (MS4) permit and the WIP is between \$30 million and \$40 million per year. Additionally, Calvert County advises that it has proposed to establish a county stormwater utility as part of its WIP implementation planning process. Therefore, it may be assumed that many counties or municipal corporations may attempt to set a stormwater remediation fee required by the bill in an amount to cover some or all of the stormwater management costs estimated to implement their WIP requirements.

Although it is not possible to develop a reliable estimate of the statewide revenues for local jurisdictions generated under the bill, using the estimated local stormwater costs in



the WIP shown in Exhibit 2 may be instructive. While the cost estimates provided in the Phase II WIP are only preliminary and advisory, they may represent the upper bound of the stormwater remediation fees that local governments may set under the bill. Thus, *for illustrative purposes only*, assuming an average residential stormwater remediation fee of \$60 annually, local revenues may increase statewide by roughly \$130 million annually beginning in the first full year of implementation. This is based on property data from the State Department of Assessments and Taxation (SDAT) and the following information and assumptions:

- an annual residential fee of \$60 is assessed on detached single-family residential properties, with a \$30 fee for apartments, condominiums, and townhouses;
- SDAT data indicates that the average number of units per apartment is about 38;
- the average collection of stormwater fees from nonresidential properties, which must be greater than the fee for residential properties, generates seven times more revenue per property;
- jurisdictions that currently impose similar stormwater management charges do not raise additional revenue under the bill, although it is likely that most or all current jurisdictions will be required to adjust their fee structures to be consistent with the bill; and
- the estimate does not account for any offset or adjustment policies that may be adopted by local governments if approved by MDE.

Under the illustrative scenario, about 79% of revenue is collected from residential properties and 21% from nonresidential properties. Of the residential revenue collected, about 82% is derived from detached, single-family properties, and about 18% is from other properties, classified as apartments, townhouses, or condominiums within SDAT data.

Legislative Services advises that, as noted above, total stormwater-related costs for local governments to comply with the Phase II WIP are preliminarily estimated to be about \$6.1 billion through 2025, or about \$470 million annually between calendar 2013 and 2025. Therefore, under the information and assumptions discussed above, a much greater fee – likely well over \$100 annually for most households and a greater fee on nonresidential properties – would be required to *fully* fund the preliminary cost estimates for local stormwater management activities needed under the WIP, though it is unlikely that all jurisdictions will attempt to pay for all WIP-related stormwater activities solely through a stormwater remediation or similar fee. In addition, this estimate only reflects gross revenue collections and does not account for administrative expenditures, which may be significant, as discussed below.

Although local governments have broad authority to set the fee at any level they desire, smaller jurisdictions may find that stormwater remediation fee revenues generated from a reasonable fee do not provide a significant amount of funding for stormwater management activities once administrative costs are paid. For example, the Town of Bel Air estimates that the total administrative costs, including for additional personnel, necessary to implement a stormwater utility is about \$73,000 in fiscal 2013 and more than \$176,300 annually beginning in fiscal 2014. With an estimated 4,419 households, administrative expenditures alone would amount to the equivalent of nearly \$40 per household just to cover administrative costs related to accounting, collections, and disbursement of funds. If the residential stormwater remediation fee were set at \$45 per household, revenues available for stormwater management activities after covering administrative costs would be roughly \$22,600 annually, excluding additional fee revenue paid by nonresidential properties.

Several other local governments contacted for information regarding the fiscal impact of the bill also estimated significant administrative costs. For example, the Town of Leonardtown estimated costs of about \$61,700 in fiscal 2013 (though less in future years); the City of Salisbury estimated annual administrative costs of more than \$217,500; and the Town of Riverdale Park did not provide an estimate but advised that the town would hire two additional personnel.

Legislative Services advises that, as of April 2010, there are 63 jurisdictions in the State with a population of less than 1,000. In these jurisdictions, fee revenue is likely to be minimal and may not be sufficient to cover the administrative costs of implementing the bill unless the fee is set at a level that far exceeds the average stormwater utility fee. However, the bill specifically authorizes municipal corporations to allow a county to impose a fee in place of a municipal fee. Therefore, due to the significant administrative expenses estimated by several municipal corporations, it may be reasonable to assume that many municipalities, particularly smaller jurisdictions, will allow counties to impose a fee in lieu of establishing a local fund and fee, or may attempt to collaborate with other nearby jurisdictions to avoid duplicative costs and reduce overall administrative expenditures.

It is assumed that all revenues collected result in corresponding expenditures from local watershed protection and restoration funds for the uses specified in the bill, including reasonable administrative costs.

In jurisdictions that have a charter limit on their property taxes, establishing a stormwater remediation fee may necessitate an offsetting reduction in some other property tax, to the extent the fees established under the bill are considered property taxes.

**Additional Comments:** Legislative Services advises that net revenues generated by local stormwater remediation fees under the bill may reduce future local expenditures that may otherwise be necessary to achieve the mandates of the State WIP and the bay TMDL. In the absence of a dedicated funding source such as a stormwater remediation fee, it is assumed that local governments will need to generate additional revenue through an increase in other fees, charges, or taxes to comply with the WIP.

For contextual purposes, Legislative Services advises that the stormwater fee discussed in the illustrative example above represents about 10% of the current average of county water and sewer charge revenues, based on a survey of the most recent financial reports for Baltimore, Howard, and St. Mary's counties and the anticipated revenues for each county under the bill. The average water and sewer revenue per capita for these three counties is about \$192, while the average per capita fee generated in the scenario described above for these three counties is about \$19. The fee may represent an even smaller amount of average municipal water and sewer charge revenues, which tend to collect a greater amount, per capita, than counties.

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### **Additional Information**

**Prior Introductions:** Similar legislation was introduced in the 2011, 2010, and 2009 sessions. HB 1064 of 2011 and HB 999 of 2010 received hearings in the House Environmental Matters Committee, but no further action was taken on either bill. SB 686 of 2010 received a hearing in the Senate Education, Health, and Environmental Affairs Committee, but no further action was taken on it. SB 672 of 2009, passed with amendments on second reading in the Senate but failed on third reading. Its cross file, HB 1457, was referred to the House Rules and Executive Nominations Committee, but no further action was taken.

**Cross File:** Although HB 987 (Delegate Hucker, *et al.* - Environmental Matters) is designated as a cross file, it is different.

**Information Source(s):** Calvert, Howard, and Montgomery counties; the towns of Bel Air, Leonardtown, and Riverdale Park; the City of Salisbury; State Department of Assessments and Taxation; Maryland Department of Planning; Maryland Department of the Environment; Department of Legislative Services

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