

**Department of Legislative Services**  
 Maryland General Assembly  
 2009 Session

**FISCAL AND POLICY NOTE**

House Bill 34 (Delegate Cardin)  
 Environmental Matters

**Environment - Impervious Surface - Statewide Database**

This bill requires each county to report the amount of its impervious surface area to the Maryland Department of the Environment (MDE), which, in consultation with the Maryland Department of Planning (MDP), must develop and maintain a database of impervious surface in the State. MDE is authorized to adopt regulations to implement the bill.

**Fiscal Summary**

**State Effect:** General fund expenditures increase by \$714,600 in FY 2010 for additional staff positions to establish the new program within MDE, the hardware and software purchases necessary to create a statewide impervious surface database. Future year expenditures include the cost of database maintenance and reflect annualization, salary increases, and inflation. No effect on revenues.

(in dollars)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	714,600	370,900	384,900	399,500	414,900
Net Effect	(\$714,600)	(\$370,900)	(\$384,900)	(\$399,500)	(\$414,900)

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

**Local Effect:** Most counties need to hire additional personnel to begin identifying impervious surfaces, maintaining impervious surface databases, and reporting the information to the required State agencies. Some counties already maintain this data as required by their National Pollutant Discharge Elimination System (NPDES) Phase I permit. **This bill may impose a mandate on a unit of local government.**

**Small Business Effect:** None.

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## **Analysis**

**Bill Summary:** “Impervious surface” includes structures, buildings, dwelling units, roads, parking lots, driveways, and areas that are covered with gravel, stone, shell, impermeable decking, pavers, or any other impervious material. The term does not include a fence or wall that is less than one foot in width and that has not been constructed with a footer, a wood mulch pathway, or a deck with gaps to allow water to pass freely.

**Current Law:** 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 local ordinances to be adopted and implemented by 1984. At this time, each local jurisdiction has a State approved and locally enforced stormwater management ordinance. However, the increasing amount of impervious surfaces within the Chesapeake Bay watershed is outpacing current stormwater controls.

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 enacted enabling legislation that allows localities to develop a “system of charges” to finance stormwater programs. According to MDE, to date, only three local jurisdictions (Montgomery County, Prince George’s County, and the City of Takoma Park) have developed a stormwater user charge. In the report, MDE noted its continuing support of the development of a system of charges by local governments to provide the funding needed to meet local obligations under State and federal law.

MDE recently proposed regulations to implement the Stormwater Management Act of 2007. These proposed regulations require the use of “environmental site design” to the maximum extent practicable in stormwater management practices. “Environmental site design” means using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of impervious surfaces from land development. These proposed regulations are anticipated to take effect in early 2009.

**Background:** Some studies have concluded that the percent of land covered by impervious surfaces is a key indicator of watershed well-being. Scientists have found

that the percent of impervious surfaces covering a watershed is highly correlated to various measures of watershed impairment. Therefore, methods of measuring impervious surface percentages can serve as a useful tool for those seeking to gauge the health of State waters.

While the Chesapeake Bay is America’s largest and most productive estuary, its health has declined significantly over the past several decades due to nutrient and sediment pollution. In 1999, the U.S. Environmental Protection Agency (EPA) identified the bay as an impaired water body. In 2000, the Chesapeake Bay partners (the bay states, the District of Columbia, the Chesapeake Bay Commission, and EPA) negotiated C2K, which specified restoration goals to improve the bay and remove it from EPA’s List of Impaired Waters.

Although numerous efforts to restore the bay’s water quality are already underway, the State is expected to fall far short of achieving its 2010 bay restoration goals. In fact, due to population growth and related development, EPA’s Chesapeake Bay Program reports that in some areas, conditions have deteriorated. A significant challenge in meeting bay restoration goals is the anticipated increase in Maryland’s population. By 2030, Maryland’s population is expected to increase by over 1 million. Over the next few years, the Base Realignment and Closure process alone is expected to bring an additional 40,000 to 60,000 defense-related personnel to the State. Increases in population often necessitate additional development and, consequently, a greater percentage of land covered by impervious surfaces.

**State Expenditures:** General fund expenditures increase by \$714,632 in fiscal 2010, which accounts for the bill’s October 1, 2009 effective date. This estimate reflects the cost for MDE to hire one regulatory and compliance engineer, one programmer analyst, one natural resource planner, and one secretary to establish the new program within MDE that implements the bill’s requirements, including database management and regulations development. It also includes a substantial one-time cost in fiscal 2010 of \$500,000, which is the approximate cost to purchase the equipment and software necessary to establish a database capable of managing statewide impervious surface data. The estimate includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses.

	<b><u>FY 2010</u></b>	<b><u>FY2014</u></b>
Positions	4	
Salaries and Fringe Benefits	\$192,615	\$302,040
One-time Database and Software Cost	500,000	0
Operating Expenses and Database Maintenance	<u>22,017</u>	<u>112,873</u>
<b>Total Expenditures</b>	<b>\$714,632</b>	<b>\$414,913</b>

Future year expenditures reflect full salaries with 4.4% annual increases and 3% employee turnover, 1% annual increases in ongoing operating expenses, and \$100,000 for annual maintenance and database upgrades.

The bill creates a new program that is not tied to MDE's existing regulation requirements. MDE does not have the staff or equipment to develop and maintain a new database of impervious surface for the entire State.

The bill requires MDE to consult with MDP in developing and maintaining the impervious surface database. MDP can likely handle any additional workload with existing budgeted resources.

**Local Expenditures:** Nine counties and Baltimore City already track impervious surfaces within their jurisdictions in order to comply with the source identification requirement of their NPDES permit. Montgomery County advises that, because of this activity, no additional expenses need be incurred to implement this bill. However, Legislative Services advises that, to the extent that the definition of impervious surface under this bill is different than the definition under the NPDES permit, there may be additional expenditures for these 10 jurisdictions to adjust their impervious surface data collection and reporting.

Smaller counties that do not already identify impervious surfaces within their jurisdiction may be required to hire additional personnel and purchase software and other equipment to comply with this bill's requirement. For example, Garrett County advises that it needs to hire a GIS assistant at a cost of \$38,938 in fiscal 2010. This accounts for the bill's October 1, 2009 effective date as well as fringe benefits, equipment and supplies.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Garrett and Montgomery counties, Maryland Department of Planning, Maryland Department of the Environment, Department of Legislative Services

**Fiscal Note History:** First Reader - February 3, 2009  
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