

Department of Legislative Services
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FISCAL AND POLICY NOTE
Revised

House Bill 903

(Delegate Kramer, *et al.*)

Environmental Matters

Education, Health, and Environmental Affairs

Transportation - Road Salt Management - Best Practices Guidance

This bill requires the State Highway Administration (SHA), in consultation with the Maryland Department of the Environment (MDE), to develop a road salt management best practices guidance document by October 1, 2011, for use by local jurisdictions and the State to minimize the adverse environmental impacts of road salt runoff in the State. SHA must update the guidance document annually and make it available online.

Fiscal Summary

State Effect: SHA can develop and update the guidance document with existing budgeted resources; however, limited staff resources may be diverted from other responsibilities. Transportation Trust Fund expenditures may increase in FY 2012 and future years to the extent the guidance document prompts SHA to implement new road salt management best practices. MDE can consult with SHA using existing budgeted resources. Revenues are not affected.

Local Effect: Although not required by the bill, local expenditures may increase to the extent local governments choose to implement road salt management best practices.

Small Business Effect: Potential meaningful.

Analysis

Bill Summary: The road salt management best practices guidance document may:

- establish best management practices that protect the environment from the negative impacts of road salt;

- identify all activities that may result in the release of road salt into the environment, including road salt storage, the application of road salt on highways, and the disposal of snow that contains salt;
- take into consideration highway safety to the greatest extent possible;
- establish standards and procedures for identifying areas that are particularly vulnerable to road salt run off and practices to implement in these areas;
- establish goals for achieving a reduction of the environmental impact of road salt;
- include a training program for all State, local, and contract personnel who perform winter maintenance activities involving the use of road salt;
- establish response procedures to address uncontrolled releases of road salt; and
- establish recordkeeping and annual reporting procedures for road salt usage and road salt program training.

Current Law: SHA must construct, reconstruct, and repair State highways as necessary and maintain them in good condition. SHA is also required to keep all State highways reasonably clear of brush, snow, and other debris.

Background: SHA is responsible for more than 5,200 miles or approximately 16,800 lane miles of road, 2,500 bridges, 3,500 small stream crossing structures, and 80 miles of sound barriers. It also has responsibility for planning, designing, constructing, and maintaining these roads and bridges to safety and performance standards while considering sociological, ecological, and economic concerns.

Ensuring mobility and safety on roads during inclement weather is a priority for SHA as well as local governments, businesses, and homeowners. When ice does form on roads, salt (sodium chloride) is the most commonly used deicer. However, salt can have serious adverse effects on the environment. Among other things, MDE advises that salt can saturate and destroy a soil's natural structure and result in more erosion and sediment transport to the Chesapeake Bay; damage and kill vegetation; threaten fresh water ecosystems and fish; affect the taste of drinking water and exacerbate hypertension; and damage exposed rebar, bridges, and automobiles. While SHA primarily uses salt, other more environmentally benign materials such as sugar beet molasses and potassium acetate are also used to keep roads clear during the winter.

SHA employs anti-icing and deicing strategies in response to winter weather events. Anti-icing is a proactive preventive winter maintenance strategy of applying materials prior to, or at the onset of, precipitation in order to prevent snow and ice from bonding to pavement. Deicing is a traditional winter maintenance strategy that involves breaking the snow or ice bond after it has occurred. It requires more salt or other material to break the snow or ice bond than to prevent it. SHA is expanding its anti-icing operations in an attempt to lessen its overall salt usage.

Exhibit 1 summarizes SHA's winter road maintenance costs and salt usage from fiscal 1999 through 2009. Several large winter storms this year have resulted in historic snow levels and snow removal expenses. SHA allocated over \$100 million to winter road maintenance in fiscal 2010.

Exhibit 1
SHA Winter Operation Costs and Salt Usage

| <u>Fiscal Year</u> | <u>Costs (\$ millions)</u> | <u>Salt Used (tons)</u> |
|--------------------|----------------------------|-------------------------|
| 1999 | \$34.6 | 234,462 |
| 2000 | 36.6 | 229,884 |
| 2001 | 35.4 | 238,948 |
| 2002 | 20.2 | 94,301 |
| 2003 | 73.4 | 427,112 |
| 2004 | 50.0 | 316,879 |
| 2005 | 47.7 | 291,388 |
| 2006 | 34.9 | 157,508 |
| 2007 | 48.4 | 252,840 |
| 2008 | 46.4 | 201,401 |
| 2009 | 52.9 | 222,230 |

Source: State Highway Administration

Small Business Effect: The bill may have a meaningful impact on small businesses to the extent the development and implementation of the guidance document by the State and local governments affects private winter maintenance service businesses. Small winter maintenance service business costs increase to the extent they send drivers and equipment operators to road salt training programs. Also, small business costs increase to the extent they invest in new winter maintenance equipment and/or materials to minimize the adverse environmental impacts of road salt runoff.

Additional Information

Prior Introductions: None.

Cross File: SB 775 (Senator Kramer, *et al.*) - Education, Health, and Environmental Affairs.

Information Source(s): Charles, Frederick, Montgomery, and Somerset counties; City of Laurel; Maryland Department of the Environment; Maryland Department of Transportation; Department of Legislative Services

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Analysis by: Amanda Mock

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