

# Salt Management Strategy Summary

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## **Background:**

The Accotink Creek Chloride Total Maximum Daily Load (TMDL) was the first time the Virginia Department of Environmental Quality (DEQ) has identified chloride associated with winter deicing/anti-icing activities as contributing to a water quality impairment, and developed a pollutant reduction plan (the TMDL) to address it. The TMDL was developed with a focus on best management practice (BMP) implementation, such as training and certification programs and improved salt application equipment and practices. Given that existing snow and ice management practices are not limited to watershed boundaries, it is likely the issues identified in the Accotink Creek chloride TMDL are not isolated to this watershed. As a result, the development of the Salt Management Strategy (SaMS) will be developed with the entire Northern Virginia Region in mind.

## **Purpose:**

The proposed SaMS is an effort to proactively address an emerging water quality concern associated with chloride (salt) products used during winter storm events in the Northern Virginia Region while also addressing the water quality impairment for chlorides in the Accotink Creek watershed. The effort will provide a clearer understanding of the costs and benefits of improved chloride (salt) application in snow and ice management and also promote improvements in best management practices (BMPs) to more efficiently and effectively apply these products.

## **Goals and Desired Outcome:**

The broad goals of the SaMS effort are to: (1) prepare a strategy capable of achieving the target chloride loads identified in the Accotink Creek TMDL and that is relevant to the broader surrounding region, and (2) foster collaboration among all stakeholder groups involved in winter deicing/anti-icing activities to encourage long-term support for improved practices that protect public safety and lessen environmental, infrastructure and public health effects. To accomplish these goals, the SaMS development process will:

- 1) Develop a suite of salt-related BMPs.
- 2) Produce a guiding document that outlines all aspects of the issue (environment, infrastructure, health, and cost) and provide resources for addressing those issues.
- 3) Develop a comprehensive public education and outreach campaign.
- 4) Explore all possible funding opportunities to assist in implementation of salt-related BMPs.
- 5) Develop options for effectiveness monitoring.
- 6) Organize options for reporting and tracking salt usage.

Based on implementation initiatives and experiences in Minneapolis and St. Paul, Minnesota and other states such as New Hampshire, this form of BMP implementation holds the promise of improving water quality while saving costs and maintaining public safety.

## **Development Approach:**

Development of the SaMS will follow the DEQ public participation processes and guidelines consistent with TMDL and TMDL Implementation Plan development. This includes a public meeting and comment period at the onset of the project, various work group and Stakeholder Advisory Committee (SAC) meetings throughout

the development process, and a public meeting and comment period to present the draft SaMS document at the end of the development process. The SAC will be comprised of members from all of the different work groups. Driven by stakeholder input, work groups will be structured around topics that aim to discuss and detail the project's objectives.

The work groups and the SAC will inform various aspects of the final document. However, because this is the first time DEQ is developing a strategy to address salts used in winter deicing/ant-icing practices, and because of the wealth of knowledge and perspective that exists in the stakeholder community, there will be a large reliance on stakeholder input for this project. Stakeholders involved in the development of the SaMS will collaboratively identify strategic improvements in BMPs to benefit water quality, infrastructure, and program costs, while protecting public safety and limiting liability concerns.

### **Timeline:**

The SaMS development process will begin in January 2018, with an anticipated conclusion at the end of 2019.

### **Anticipated Stakeholders:**

The list below outlines the breadth of stakeholders that will be invited to join the SAC and the work groups.

**MS4 Permittees** – Institutional and Municipal (e.g., VDOT)

**Environmental Groups** – Local and Regional

**Public Health** – Water Purveyors and VDH

**Public Safety Entities** – Police/Sherriff and Fire Rescue

**Property Owners and Managers** – Commercial, Governmental, Institutional, Homeowners Associations, and Public Roads (VDOT)

**Winter Maintenance Services** – Applicators, Equipment and Supply Providers, and Associations (e.g., SIMA)

**Commissions/Other Government** – Regional planning commission(s), other state and federal technical and natural resource agencies.