

# **Salt Management Strategy (SaMS)**

## **1<sup>st</sup> Salt Tracking and Reporting Workgroup Meeting**

October 16, 2018

The first Salt Tracking and Reporting (STR) Workgroup meeting for the Salt Management Strategy (SaMS) was held from 9:30 am – 12:00 pm on October 16, 2018 at AlexRenew, 1800 Limerick Street, Alexandria, Virginia.

### **Attendance**

Seventeen (17) individuals, including three DEQ staff members and one staff person from the Interstate Commission on the Potomac River Basin (ICPRB; DEQ’s contractual support), participated in the meeting. Two of the participants joined the meeting via teleconference.

Christina Alexander, City of Fairfax  
Emily Bialowas, Izaak Walton League  
John Burke, Fairfax County  
Dave Evans, DEQ\*  
Camila Goncalves Diaz, Fort Belvoir  
Herb Holmes, City of Alexandria  
Martin Hurd, Fairfax County  
Will Isenberg, DEQ\*†  
Neely Law, Center for Watershed Protection  
Dave Lincoln, Friends of Accotink Creek

Stephen O’Connor, George Washington  
Memorial Parkway  
Merrily Pierce, McLean Citizens Association  
Robert Prezioso, Virginia Department of  
Transportation (VDOT)  
Niffy Saji, Fairfax Water<sup>#</sup>  
Erfaneh Sharifi, ICPRB\*  
Sarah Sivers, DEQ\*  
Greg Waters, Snow and Ice Management Co.†

\*Facilitator

†Participated via teleconference

<sup>#</sup> Stakeholder Advisory Committee member

### **Meeting Highlights**

At this meeting, members focused on identifying the scope of the workgroup, its audiences, expected workgroup outcomes, and began to explore mechanisms to better track and report salt usage and BMP implementation. The main take-aways from this meeting are:

- A high priority for this workgroup is to identify ways to encourage voluntary submittal of BMP implementation and salt use tracking information and define metrics for BMP effectiveness.
- The group suggested categorizing tracking practices based on the level of difficulty, from “coarse” to “refined”, and suggested starting with coarse approaches and refining them over time.
- The group agreed that top priority actions to track could be a modest set of predefined BMPs, with flexibility to also report on others.
- Directly reaching winter service operators will be essential to gain needed support for tracking and reporting, and frame recommendations that will not negatively affect operations.
- The STR workgroup members agreed that their audience includes both the private and public sectors, and different levels within each (from decision-makers to operators).

*Notes for Other Workgroups / Potential Areas of Overlap:*

- STR workgroup members noted that the metrics used in application rates, which was discussed in the Traditional BMP Workgroup, will be relevant to tracking metrics.
- Consistent tracking and reporting metrics should be developed for different kinds of impervious surfaces (e.g. roads, parking lots, and sidewalks). This topic may overlap with Traditional BMP Workgroup.
- STR workgroup members talked about staging BMP implementation and assessing cost-benefits/effectiveness, to know how well the implemented BMP(s) actually worked. This topic overlaps with discussions in the Traditional and Non-Traditional BMP workgroups.
- DEQ and workgroup members suggested to start by “coarsely” tracking salt use, a modest set of specified BMPs, and effectiveness of these practices relative to level of service goals, which will be discussed further in the two BMP Workgroup meetings.

**Follow-up Action Items:**

Workgroup volunteers are pursuing three follow-up action items, and DEQ a fourth, prior to the next meeting of the STR Workgroup:

1. Reach out to members of Fairfax County’s Emergency Response and Snow Team to learn what metrics they currently track when they activate for a storm; how they determine storm severity, prioritize areas to treat, and triggers for application of different anti- or de-icing materials. (Volunteers: John Burke, Fairfax County; and Martin Hurd, Fairfax County)
2. Identify BMPs used in existing operations to inform reporting options. (Volunteer: Christina Alexander, City of Fairfax)
3. Look at contracting used by HOAs for opportunities to support STR objectives. (Volunteer: Dave Lincoln, Friends of Accotink Creek)
4. Develop a straw proposal or options for “coarse” level tracking of salt use and BMP implementation in advance of second STR workgroup meeting (DEQ/ICPRB).

**Meeting Summary**

**Introductions**

The meeting started with brief introductory and opening remarks from DEQ. The focus of SaMS will be on finding the right balance among safety, accessibility, and protecting the environment. The STR workgroup will lay a foundation and emphasize use of metrics and data reporting for improved winter maintenance management. Participants then introduced themselves and provided their expectations and interests in the workgroup. Some common themes included learning how to be consistent and efficient in tracking and reporting, balancing public safety and liability with water quality, documenting the types and extent of paved areas, and the importance of engaging winter service operators in efforts to manage and track winter salt use.

**Membership, Roles and Expectations**

DEQ explained about the roles and expectations of primary and alternate workgroup members. Workgroup objectives were also discussed. The roles, expectations, workgroup purpose, and meeting goals can be found on DEQ’s [Salt Management Strategy Meeting Materials Webpage](#).

## **Workgroup Scope**

DEQ reviewed the scope of the STR Workgroup. DEQ explained that the meeting materials as well as general SaMS information are available on their [Salt Management Strategy Meeting Materials Webpage](#).

The primary purposes of this workgroup are to identify options to assess BMP implementation and effectiveness, methods to track and report salt usage, and incentives for improved salt use and BMP reporting. Identifying opportunities for operational cost savings is also relevant to this workgroup.

DEQ articulated the proposed scope, such as tracking salt usage and BMP practices, obtaining data to identify how effectively practices are implemented; and exploring incentives, cost-savings, and funding sources to support the mentioned efforts.

Feedback from workgroup members included:

- Involve the operational side of winter maintenance services to understand how practices are implemented, create guidelines to improve future operations, and develop communication materials describing why tracking is needed.
- Conduct a region-wide trend analysis for different types of storms and receive information from private contractors.
- Communicate between the workgroups about BMPs and how to capture and report relevant data.
- Develop methods to track salt supply and usage, define the audience(s), and identify what data are not currently collected.
- Quantify paved surfaces by categories, such as roads, streets, parking lots and sidewalks (private and public).
- Tracking salt use is easier than measuring BMP effectiveness. Need to find the best way to track BMP effectiveness in a regionally consistent manner.
- Identify programs like the Izaak Walton League's "Salt Watch Program" in which people report observed salt accumulations.
- Engaging winter service operators is critical and consistent regional messaging is important (a training video or similar tools were suggested).
- DEQ could participate in annual operator training held by Fairfax County, George Washington Memorial Parkway, and the cities of Alexandria and Fairfax.
- Identify metrics of how much salt is used and where (by magisterial districts), and measure the amount of impervious surfaces by district.
- Communicate with service providers, property managers, and subcontractors since most of the work is done by them.
- High priorities for this workgroup are to define metrics for BMP effectiveness and identify ways to encourage voluntary submittal of BMP tracking information.
- Automated, GPS enabled, equipment can facilitate tracking and reporting, and may help with liability concerns.
- Consider calculating salt usage based on the weather conditions at local weather stations.

## **Content Development**

DEQ asked for input on audiences to target, the top priority topics, public versus private, level of service goals, the final products of the workgroup, and how to reach the workgroup's goals efficiently.

Then the discussion started on salt use, implementation of BMPs and effectiveness of practices. DEQ mentioned that the level of service will be discussed further in the Non-Traditional BMP Workgroup.

### *Audiences*

The workgroup members agreed that the audience includes both the private and public sectors. Tracking and reporting will differ for different levels of audiences, from decision-makers to operators in both private and public sectors.

### *High Priority Topics*

The linkage of level of service to BMP effectiveness needs to be addressed in salt tracking and reporting metrics. Metrics should be developed for roads, parking lots, and sidewalks. The group talked about how the units used in application rates are relevant to tracking metrics. This topic is also being discussed in the Traditional BMPs Workgroup. Temperature, private or public operator, and type of storm are key variables for reporting and tracking salt use and BMP implementation. The group categorized practices based on the level of difficulty from “coarse” to “refined” and suggested defining coarse measures for initial tracking/reporting and refined measures to pursue longer-term.

The group suggested conducting research about how the winter severity index could be incorporated in our tracking and reporting recommendations. This will allow salt usage to be correlated with the severity of the storm and winter season variability. The group agreed that top priority actions to track could be a modest set of predefined BMPs, with flexibility to also report on others. This will involve close coordination with the BMP workgroups. It will be important to communicate with service providers, property managers, and subcontractors since they are most directly involved with on-the-ground implementation.

In terms of BMP effectiveness, the workgroup members discussed that staging BMP implementation can be practical and cost-effective. The effectiveness of any given practice should be evaluated with respect to meeting the approved level of service.

DEQ asked about the incentives for tracking and reporting. Workgroup members mentioned that incentives in the private sector are different from those in municipalities. Contracts, certification, and liability relief are all possible incentives. One idea to encourage private sector participation is by reducing their potential liability through a certification program. New Hampshire has a certification program that links to liability limits.

There are some important factors that relate to public expectations. Public awareness is key to acceptance of applying BMPs that reduce salt use needs, and is a long-term effort.

### *Products and Recommendations*

DEQ asked participants about their thoughts and recommendations for the final product of this workgroup. Members agreed that the final product of this workgroup should include recommendations for tracking and reporting (1) salt use and (2) BMP implementation and effectiveness.

Workgroup members talked about the current and feasible practices for tracking salt use and BMP implementation. It is important to identify limited desired reporting, and address differences between public vs private sector. Temperature, private or public operator, type of storm, and the amount of salt used were among the main items members discussed for reporting and tracking.

A workgroup member explained the current tracking efforts and equipment such as loading scales, GPS, and different calibration for different spreaders that relate to salt use reporting. The process of tracking starts with operations, continues with post-storm calculations, and culminates in reporting. Some of the current tracking practices use GPS to track the location of trucks and salt applications, local weather stations to estimate the road conditions, and mathematical formulas to then calculate how much salt is used per mile.

It was also noted that severe winter storm operations will affect tracking and reporting – emergency conditions impact the ability to attend to non-essential actions like tracking and reporting.

### **Meeting Wrap-up:**

The next meeting of this workgroup is expected in February 2019.

Handouts from the meeting are available on the SaMS Meeting Materials [webpage](#).

All information, questions, additional resources, etc. should be emailed to Dave Evans ([david.evans@deq.virginia.gov](mailto:david.evans@deq.virginia.gov)) and Sarah Sivers ([sarah.sivers@deq.virginia.gov](mailto:sarah.sivers@deq.virginia.gov)). DEQ will consolidate information received and distribute it to workgroup members as needed.

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Meeting notes were prepared and submitted to DEQ by the Interstate Commission on the Potomac River Basin.

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### **Additional Feedback Contributed to the Follow Up Survey:**

A survey was shared following the meeting to capture any additional thoughts workgroup members had following the meeting. Feedback is arranged below based on the sections of the agenda. Only sections where additional thoughts were provided are included:

#### **Welcome and Introductions**

*“Interesting to hear everyone's reasons for being on the committee.”*

#### **Next Steps**

*“Need to identify minimum reporting requirements, as noted by one participant for salt use. How do we want to QA/QC BMP's. Chart best practices for our own unique climate?”*

#### **Opportunity for Comment from Members of the Public**

*“In break conversations with other committee members, I asked one provider if they used a private weather service for accurate predictions. Could you, at the next meeting, reference the organizations or companies that provide this service. What weather service is generally used in our area if not the NWS? Thank you.”*

#### **Additional Thoughts**

*“In conversations with people in the community regarding salt management on private/commercial property, the one topic that comes up again and again is "liability." Glad to have the NH BMP example to share with interested parties.”*