

Prevent defense

Managing risk, profits and reputation



Prevention in winter management operations typically refers to methods used to preventing the bond of snow and ice to paved surfaces. There are several areas where a snow and ice management operation can consider employing standards for prevention. The following are the SWiM standards for prevention:

- 1 **Anti-icing** is a key method for preventing snow and ice from bonding to paved surfaces. The most efficient, productive and reliable method for implementing an anti-icing policy is to apply salt brine and other liquid applications before snow accumulates. Although anti-icing can be achieved with the use of solid salt applied to surfaces prior to the start of snow accumulation, brine is a required SWiM guideline.
- 2 **Personal protective equipment (PPE)** includes personal responsibility for your “3 E’s” — eyes, ears and extremities. All personnel that work or manage snow field operations should be provided eye and ear protection and the proper warm and wet weather clothing.
- 3 **Hazard assessment** processes and repairs include pre-season, pre-storm and post-storm implementation. Operators need to know what they are looking for at the start of a season and before working each storm event. Look for things that will hurt you and things you or your equipment will hurt, such as:
 - Raised surfaces / expansion joints
 - Obstacles that require marking or staking to avoid when snow-covered
 - Low-hanging objects, tree branches, and structures
 - Emergency access / egress areas
 - Melt and refreeze areas

➔ **EDITOR’S NOTE:** This article is the fourth in a series that discusses policy, methodologies and environmental stewardship through the lens of sustainability as it applies to winter management operations. Each issue will look at one of the six categories of SWiM policy standards:

- **Measure** what you want to improve
- **Calibrate** equipment capacity, manpower, response times, salt and other materials
- **Prevent** bonding of snow and ice, waste, re-work and safety incidents
- **Analyze** Level of service, data and variances
- **Improve** safety, level of service, productivity
- **Optimize** equipment, materials, time and data



- 4 **Specifications and contract terms** that incentivize efficient production and material/salt use is required for SWiM SITE certification. Contracts or specifications that compensate for quantities of time, frequencies and materials do not enable efficiency. The goal is for specifications that compensate for a performance result and prevent waste by eliminating budgets and payment structures that are solely based on quantities of time and materials.
- 5 **Reserve throughput capacity** is a required SWiM guideline that addresses two primary issues that generally occur in the industry, even to the best of companies with the best plans for recruiting, staffing and retention: Equipment reserves to replace down equipment due to mechanical failures and “no call / no show” operators.
- 6 **Training** is foundational for enabling prevention and other SWiM guidelines. Conducting daily and weekly training sessions are essential ingredients to success. Some of the best-developed training content can be delivered in five minutes or less in person or remote/online training on a daily/weekly basis.

The timing and cadence of your

MINIMUM TRAINING RECOMMENDATIONS

There is a minimum of four training categories for winter management: safety, science, equipment and techniques/engineering. Training in some form should be structured accordingly:

- **Preseason:** What you need to know
- **Pre- and post-event:** What you need to do
- **Postseason:** What lessons were learned

training is primarily up to you within the policies and goals of your organization. SWiM recommends weekly training for each of the four training categories.

To manage risk, continuously improve and enable sustainability in any business or organization, “Prevent” and other SWiM guidelines are designed to help get you started with a simple set of criteria. It’s up to you how you want to build from it. The sky’s the limit. **SB**

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