

# The Pembroke Stormwater Times

Fall 2019



## UNDERSTANDING ROAD SALT

The use of road salt and other deicing materials is an effective tool in keeping our roadways, sidewalks, pathways, and driveways clear of ice and snow. However, it is important to manage its use by using practices that lessen the impact road salt has on our water resources and the environment.

Throughout New Hampshire, numerous water bodies are at risk or already are polluted with chloride due to road salt application. Road salt, which is comprised of sodium and chloride ions, separates as snow and ice melts. The ions then enter waterbodies through runoff and snow melt, degrading the water quality and altering soil composition. These effects can be toxic to aquatic life and vegetation and also affect water used for drinking and household uses. Road salt can also cause harm to our urban environment as well.

### TIPS FOR STORAGE AND USE OF DEICING MATERIALS

- ✓ Store in dry enclosures, avoiding areas near reservoirs, aquifers, wetlands, and other surface waters.
- ✓ Prevent deicing materials from being washed or blown from storage piles or trucks by keeping it covered and not overloaded. If a spill occurs, materials should be collected and returned to the pile.
- ✓ Only wash spreaders and vehicles at locations where the wash water is properly treated before being released into the environment.
- ✓ Storage and distribution should only be conducted during the fall and winter season.
- ✓ Steps should be taken to reduce any type of pollution into stormwater runoff.
- ✓ Businesses can hire Certified Green SnowPro applicators, who are trained in the most up to date technologies and snow management practices. Under RSA 508:22, certified applicators and those who hire them are granted liability protection from claims arising from snow and ice conditions.

**DID YOU KNOW?**



The amount of road salt used on roads in the U.S. each year.



The amount of road salt used per person living in the U.S. each year.

*Data Source:  
The Cary Institute of  
Ecosystem Studies*

# What are the impacts of all that road salt?

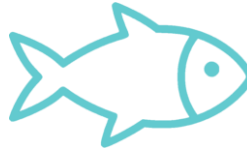


## HUMAN

Degrades quality of water bodies and aquifers, including the water supply for wells used for drinking water and other household uses.

## AQUATIC LIFE

Increasing concentrations threaten species health, survival, and reproduction, as well as food sources.



## PETS & WILDLIFE

Irritating to paws and skin upon contact and harmful upon ingestion.

## INFRASTRUCTURE

Accelerates corrosion of porous materials, such as metal, concrete and brick, affecting vehicles, roads, bridges, sidewalks, driveways, houses, and other buildings.



## VEGETATION

Damaging to various species from direct spray, splash or salt laden snow. Dissolved salt absorbs groundwater, leaving less water for vegetation consumption and altering the soil's natural chemical composition.

## SOIL

Alters soil chemistry through infiltration. Degrades soil's depletion and permeability, which can prevent water infiltration, reduce soil stability, and decrease pH and overall fertility.



## ADDITIONAL RESOURCES:

**Think Blue Suncook**  
[www.thinkbluesuncook.org](http://www.thinkbluesuncook.org)

**NH-MS4 Regional Stormwater Coalitions**  
[www4.des.state.nh.us/nh-ms4/](http://www4.des.state.nh.us/nh-ms4/)

**UNH Stormwater Center**  
[www.unh.edu/unhsc/](http://www.unh.edu/unhsc/)

**NH Department of Environmental Services Stormwater**  
[www.des.nh.gov/organization/divisions/water/stormwater/index.htm](http://www.des.nh.gov/organization/divisions/water/stormwater/index.htm)

**NH Department of Environmental Services Road Salt Reduction**  
<https://www.des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/index.htm>

**UNH Technology Transfer Center Green SnowPro & SALT Applicator Certification Information**  
<https://t2.unh.edu/green-snowpro-salt-applicator-certification-training>

This flyer is intended for educational purposes as part of Pembroke's Municipal Separate Storm Sewer System (MS4) requirements.



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