

Living in the Northland...

Tell someone from a warmer climate you're from northern Wisconsin or Minnesota, & one of the first questions you may get is, "How can you live somewhere so cold?"

Living in the Northland does present us with a challenging climate in the winter. Besides having to dress for sub-zero temperatures, we also have to deal with the consequences of the cold; snow & ice.

It is in these winter months that we turn to salt & sand to aid our traction on roads, parking lots, & sidewalks. While using salt & sand is at times necessary for safety, they also pose a hazard to our local streams, rivers, & Lake Superior.

In the spring, melting snow drains into storm sewers & into our waterways, bringing sand & salt with it. Excessive levels of chlorides & sediment can negatively impact both plant & animal species.

and simple, when & how to use salt & sand effectively while minimizing negative impacts on our waterways.

Remember:

-Only use de-icer prior to a storm or after it has stopped snowing.

-Only use as much de-icer as is actually needed.

-Excessive salt & sediment use have a negative impact on plants, animals, & water quality.

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Salt & Sand Use in the Winter

A how-to guide on the proper use of salt & sand in the winter to minimize negative impacts on water quality

To Safely & Effectively Remove Snow & Ice, Follow These Guidelines...

- ❄️ Shovel as much snow off of driveways & sidewalks as possible before applying any product. De-icers are not effective when snow has accumulated to more than 3 inches.
- ❄️ Apply de-icers to high-use areas where ice removal is critical.
- ❄️ Don't use de-icers to completely melt snow or ice; use just enough to make removal easier. De-icers melt down through ice & snow & spread underneath, loosening them for easier removal.
- ❄️ Once most remaining snow/ice has been removed, apply sand sparingly for better traction.
- ❄️ Make sure to use only as much sand &/or de-icer that is actually needed. When over-used, all chloride compounds & excess sediment can be harmful to the environment.
- ❄️ Sweep up any un-dissolved product. It can be reapplied before the next storm.
- ❄️ Use the table to find the most effective & least harmful product for the temperature & area the de-icer is to be spread.
- ❄️ In the spring, sweep any remaining sand into grassy areas or dispose of in the trash. This will prevent it from being washed into a storm drain. *Never sweep sand into the street.*



*“Your yard is
the shore of
Lake Superior”*

De-icers & Concrete...

- ❄️ De-icers may cause scaling on concrete surfaces. Scaling results from the freezing & thawing of water that has been absorbed into concrete. De-icers perpetuate this cycle.
- ❄️ New concrete should be air dried for at least 30 days prior to the first freeze. Properly cured concrete is more resistant to scaling.



De-icers & Vegetation...

- ❄️ Excess salts impede uptake of nutrients. As a result, plants cannot absorb sufficient water even in a moist environment.
- ❄️ Symptoms of salt injury include bud death, twig dieback, and leaf tips & margins that appear burned.
- ❄️ To prevent salt injury, cover plants with burlap or minimize use of de-icers near landscaping.
- ❄️ Avoid shoveling snow containing de-icers directly onto plants.
- ❄️ For more information, visit the University of Wisconsin-Extension website at <http://www.uwex.edu/resource-center/> and search using the key phrase “winter salt injury”.

Common De-icers	Lowest Effective Temp	Damage to Plants	Soil Damage	Water Pollutant	Damages Concrete, Metals
Salt (Sodium Chloride)	+15° F	High	High	Yes	Yes
Calcium Chloride	-20° F	Medium	Medium	Yes	Yes
Calcium Magnesium Acetate	+15° F	Low	Low	No	No
Urea	+15° F	Medium	Low	Yes	Yes

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