SENSIBLE SALTING IN THE CHICAGO REGION

HOW TO MAINTAIN PUBLIC SAFETY WHILE REDUCING SALT USE

WHAT IS SENSIBLE SALTING?

While there are no chemical or technological options that can replace salt to manage snow and ice, **we can employ Best Management Practices (BMPs) that use the minimum amount of salt to provide safe conditions.** Sensible Salting BMPs include a variety of options that can be used depending on weather events, site conditions, available equipment, and budget.

STORE SALT PROPERLY

Protect salt from water by storing it on an impervious surface, preferably on high ground and away from stormwater inlets or drainage features. Always keep salt covered to prevent contact with rain or snow.

CALIBRATE EQUIPMENT

Make sure to calibrate equipment annually to accurately know how much salt you are dispersing.

USE ANTI-ICING TECHNIQUES

Anti-icing techniques prevent the formation of ice on roadways. This is commonly done by tracking the weather and applying brine in advance of a snow event. The brine prevents an ice bond from forming, enabling plows to remove snow more effectively without repeated applications of salt.

PRE-WET SALT

Road salt needs to be wet in order to be effective. Pre-wetting salt allows less salt to be applied and keeps the salt on the road, while dry salt tends to bounce off.

ATTEND TRAINING

Seek out opportunities for Sensible Salting training and certifications, including workshops held by county governments and trade organizations.

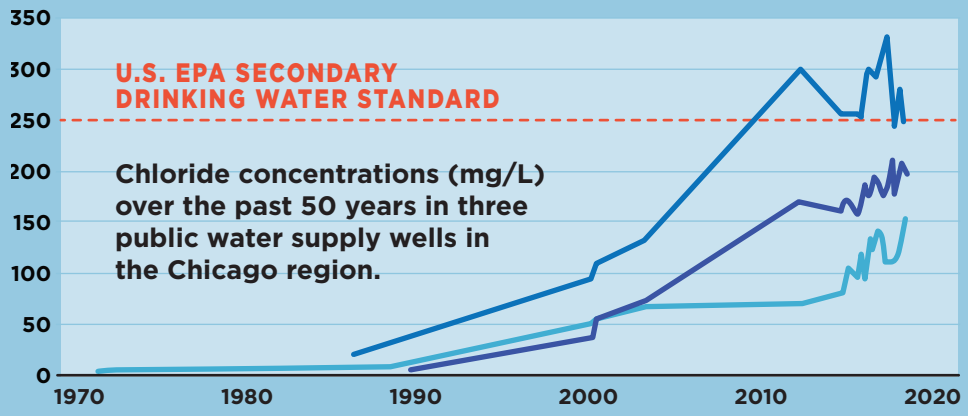
EMPLOY THESE BMPs TO PROTECT OUR WATER, WILDLIFE, PLANTS, AND INFRASTRUCTURE.

WHY CUT DOWN ON SALT USE?

Most of the road salt (sodium chloride) or other chemicals that are applied to melt ice and snow, either in solid or liquid form, ends up contaminanting our streams, lakes, and groundwater. **Once road salt is dissolved, there is no practical way to remove the chlorides from water resources.**

IT MAKES WATER RESOURCES SALTIER

Chloride and sodium are not toxic to humans; although, drinking water starts to taste salty when chloride levels are above 250 mg/L.



IT HARMS NATIVE WILDLIFE AND PLANTS

- Can be **toxic to aquatic wildlife**, such as fish, amphibians, and aquatic invertebrates at high levels.
- Excessive sodium in soils **can stunt plant growth, damage vegetation, or kill plants.** Salt-tolerant, invasive plant species often replace vulnerable native plants, leading to a **decrease in native plant diversity**.

IT DAMAGES OUR INFRASTUCTURE

Chloride is a major corrosive agent, especially of steel reinforcement in concrete. It can also accelerate corrosion to metal pipes, structures, and vehicles. The damage to roads and bridges due to deicing salts has been estimated to be in the hundreds of millions of dollars per year (Transportation Research Board, 1991, Highway de-Icing: Comparing Salt and Calcium Magnesium Acetate: National Research Council Special Report 235, Washington, DC, 158 p.).

THE LONGER WE WAIT TO MINIMIZE SALT USE, THE WORSE THESE PROBLEMS WILL GET.

NORTHWEST WATER PLANNING ALLIANCE

FOR MORE INFORMATION, VISIT WWW.NWPA.US OR CONTACT:

WALTON R. KELLY
Illinois State Water Survey
Prairie Research Institute
wkelly@illinois.edu

SCOTT KUYKENDALL
McHenry County
Chairman, NWPA Sensible Salting Committee
shkuykendall@mchenrycountyil.gov