WHY PRACTICE SMART SALTING?
One teaspoon of salt permanently pollutes 5 gallons of water. Salt runs off of paved surfaces and settles in lakes, wetlands, and soil. This disturbs fish habitat and raises risk for surface and groundwater impairments now and in the future. Slow down and observe site needs to keep our surfaces safe while avoiding excess. Help make careful application a norm.

DE-ICING DON’Ts:
• Don’t apply more assuming it will work faster. The chemical reaction takes the same amount of time.
• Don’t apply on a warm day - melting ice can get diluted with water and become ineffective.
• Don’t apply salt to loose snow.
• Don’t apply dry salt to dry pavement.
• Don’t leave salt on the ground after ice has melted.

DE-ICING DOs:
• Practice spot treatment for high use areas.
• Use a proper application rate then adjust if needed. A 12 oz coffee mug holds ~1 lb. of salt.
• Store de-icer products in an airtight container to maintain effectiveness.
• Use salt as a tool to break-up ice and break the bond to pavement. This makes shoveling and scraping easier.
• Sweep up, store, and re-use salt that remains after ice has melted.
• Spread salt crystals to land with a 3” spread.
• Create a plan before winter with a variety of tools and products. Use sand or grit for quick, reliable traction.

SHOVEL AND SCRAPE:
• Shovel and scrape first to reduce the need for de-icer.
• Clear walkways and other areas before compacted snow turns into ice.
• Keep a variety of shovels and scrapers in a convenient location.

TEMPERATURE:
• Rock salt loses effectiveness when temperature drops below 15 °F.
• Use sand or grit for traction in colder temperatures and sweep up when no longer needed.
• Buy the right product. Check labels for specific ingredients and temperature ranges.

WORKING WITH CONTRACTORS:
• Discuss expectations early on or before winter.
• Seek contractors who are certified in winter maintenance with the MPCA: https://www.pca.state.mn.us/water/training
If your current provider isn’t certified, encourage them to obtain it and adapt smart salting practices.
• Ensure there is a plan for equipment use and calibration.
• Use mechanical methods first. Understand how various de-icer products work at different temperatures and conditions.
• Alert your contractor when too much salt has been applied.

Pavement temp. °F    Rock salt (NaCl) melt times
30°                  5 min.
25°                  10 min.
20°                  20 min.
15°                  1 hour
10°                  N/A

Chemical: Check package    Lowest practical melting temp.
CaCl₂ (Calcium Chloride)    - 20 °F
KAc (Potassium Acetate)     - 15 °F
MgCl₂ (Magnesium Chloride) - 10 °F
NaCl (Sodium Chloride/rock salt)  15 °F
CMA (Calcium Magnesium Acetate) 20 °F
Blends    Check with manufacturer

Dry salt is ineffective. Risk for blowing or getting kicked off surface.

Pre-treatment:
Applying a pre-treatment brine (salt + water) before a storm can prevent ice from bonding to a surface. To pre-treat, dissolve salt in hot water and apply it with a watering can or pump sprayer in high traffic areas or sloped walkways high risk for falls. Strive for 50-70% coverage. Apply carefully, liquid salt can’t be swept up like dry salt.

Chemical: Check package

CaCl₂ (Calcium Chloride)    - 20 °F
KAc (Potassium Acetate)     - 15 °F
MgCl₂ (Magnesium Chloride) - 10 °F
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Sand and abrasives provide traction but don’t melt. Clean-up required.

Thank you for keeping our lakes on a “low-salt” diet.