

Snow, Ice, AND Clean Water

In December, St. Anthony hosted a new training on snow and ice removal practices for city staff. Mayor Faust set the tone with his opening remarks about the importance of taking care of our cities and water quality. Participants learned about environmental effects of deicing materials (such as salts and sand), equipment, and application rates and techniques for different conditions, so they can protect water quality while preventing slippery surfaces.

Salts, or chlorides, used for snow and ice control are a major pollutant of water and soil. *As little as one teaspoon of salt per 5 gallons of water is considered toxic to aquatic life.* Chlorides also damage vegetation and contaminate soils and groundwater. Because chlorides dissolve, they are very difficult to remove from groundwater, lakes and streams.

Even though homeowners use less salt than city staff, it still takes *5,000 gallons of water to dilute a 25 lb bag of salt to safe levels.* As we cope with the icy facts of winter, consider the following information to reduce your impact on water quality.

- ✧ Always shovel or plow first.
- ✧ Labels can be misleading. All materials have environmental impacts - despite the claims of labels. Sand adds sediment and other “natural” materials can deplete oxygen in our lakes and rivers. Also, labels do not usually report the lowest practical melting temperature.
- ✧ Pavement temperature, not air temperature, determines when salts melt ice.
- ✧ “Regular” salt (sodium chloride) only works when pavement temperatures are greater than 15 F. Calcium and magnesium chloride work at pavement temperatures as low as -20 and -10 F, respectively.
- ✧ Sand does not melt ice; it only provides temporary traction on slippery surfaces when it is too cold for salt to work. Do not mix sand and salt; they actually work against each other.
- ✧ Sweep up spills and leftover sand before it washes away (and reuse it later).

If you hire a private contractor for snow and ice removal, ask them to attend a workshop and become certified by the Pollution Control Agency in Winter Best Management Practices. Free trainings are being funded by a grant through the Clean Water Act and put on by the Mississippi Watershed Management Organization (MWMO).

Dissolved salt is nearly invisible, but it does not disappear. Instead, it washes down storm drains and directly into our river and lakes. The next time you are faced with icy sidewalks, consider your options and help keep our waters clean and safe for us to enjoy when it finally warms up.

For more information, contact the MWMO (651-287-0948) or visit www.mwmo.org.



If you still need salt after shoveling, apply it evenly using a drop spreader. Even in the worst conditions, three pounds (or about 3-4 cups) is the correct amount for a 1000 square foot area.