

Winter brings with it lots of fun outdoor activities, like sledding, ice skating and skiing. But winter also means mounds of snow to shovel and layers of slippery ice to remove from our sidewalks and driveways.

We often attempt to make the job easier by using various products to melt the snow and ice. However, many people do not realize that many of these products have hidden impacts. When the ice melts, the salt and chemicals dissolve and flow into street drains that lead directly to a lake or stream, that in the Clinton River Watershed, lead directly into the Clinton River and Lake St. Clair.

Does snow or ice need to be removed? If so, how much? We don't always need to see bare concrete to have a safe winter surface. Here are some tips to help you this winter.

- Shovel early and often. When it comes to snow removal, there is no substitute for muscle and elbow grease! Deicers work best when only a thin layer of snow or ice must be melted. So head out and shovel and move as much snow as you can during the storm if possible. You can also use a hoe to scrape ice off the surface before putting down a deicer.
- Reduce your use of deicing products. The most important step in deicing is to physically remove as much snow and ice as possible before applying a deicer. Use a shovel to break up the ice before you add deicer to your sidewalk. Adding more deicer without removing the ice that has melted can result in over-application, meaning more salt and chemicals end up in the river and Lake St. Clair. Reduce deicer use by limiting access to your home to one entrance. For every doorway that isn't used, there will be less deicer washing into your street's catch basin. Even if the surface you are applying a deicer to is relatively far from a street or stream, much of the product will not soak into the soil because the ground is frozen. It will instead runoff as the snow melts and as rain falls in early spring.
- Avoid fertilizers. Fertilizers, including those with urea (carbamide, ammonium, carbonyl diamide, etc.) don't contain chlorides but they contain nutrients. Potassium chloride (Potash) is another fertilizer used to combat snow and ice. Potassium chloride typically costs 3-5 times as much as sodium chloride and doesn't work as well at low temperatures.
- Limit your use of sand. Sand doesn't melt ice. Sand provides traction. When sand is washed off of our driveways and sidewalks into storm drains, it ends up in our lakes, rivers and streams, increasing the amount of sediment there. This extra sediment degrades and even eliminates important habitat for aquatic organisms. Sand is often used by municipalities on roads to help maintain traction. However, ice removal is more typically the concern of homeowners and businesses and therefore proper use of chemical alternatives may be more appropriate.
- Try an alternative. Calcium magnesium acetate (CMA) has fewer adverse environmental impacts than salt and doesn't cause corrosion. CMA is recommended for environmentally sensitive areas but is very expensive. Early studies indicate that sugar and corn products may have minimal negative environmental effects and are safe for surfaces. While these products are available to road commissions and municipalities, access to these products by the general public is limited in SE MI. Begin asking your local stores to stock these safer products.