

# Safe Sidewalks, Safe River

Think of the Huron River: snow and ice melting tips for homeowners

Because everything we throw down on our sidewalks, steps and driveways this winter impacts our surface waters, soil, and groundwater, keep these tips in mind . . .

## SHOVEL EARLY AND OFTEN

Limit your use of sand, salt and deicing chemicals. Snow and ice removal is best done with a shovel or snow plow. Sand, salt and chemical deicers wash into our waterways directly or through the nearest storm drain.

## CONSIDER A DEICER

Deicers can be environmentally better than salt (sodium chloride) for keeping heavy traffic areas safe. Magnesium chloride is a good choice as it is much less toxic to plant life and less corrosive to concrete and steel (and other iron alloys) than sodium chloride. Be sure it does not contain rust inhibitors with phosphorus.

## CHECK THE LABEL

Choose a deicer that fits your location and the weather conditions. Each kind works best at certain temperatures. Also consider the deicer's impact on nearby

plant life, concrete, vehicles, shoes, pets, carpets and any associated health hazards. For example, calcium magnesium acetate works in warmer temperatures and is subject to dilution and re-freezing, while calcium chloride is corrosive to metal and can leave residues that harm carpet, tile and shoes. Potassium acetate lowers oxygen levels in bodies of water and urea-based products contain large amounts of nitrogen, are expensive, and perform poorly below 20 degrees Fahrenheit. Both are best avoided altogether from a water quality standpoint.

## BUY EARLY, BEFORE THE SNOW FALLS

Purchasing your deicer in advance means you will have more river-friendly choices available at your local yard and garden or hardware store.

## APPLY EARLY AND SPARINGLY

Use as little as needed to get the job done. Consider applying a liquid deicer before a storm hits to prevent ice from forming in the first place rather than using granules after to melt ice that has hardened. Watch the weather reports for storm predictions

and time your application to minimize the possibility that the liquid deicer will wash off in the rain.

## TAKE CARE

Promptly remove slush and residual salt, sand or deicer from concrete surfaces to minimize polluted runoff and damage to concrete.

Remember: applying a deicer to your sidewalks and driveways involves balancing between a need for safety, potential environmental impacts, costs and convenience.

— Pam Labadie



Shoveling can be fun!  
photo: HRWC

*Resources: Mother Earth News, December/January 2003, "Safer De-icing Chemicals", Lindsey Hodel; Center for Watershed Protection, "Snow Road Salt, and the Chesapeake Bay", Tom Schueler; and Studies of Environmental Effects of Magnesium Chloride Deicer in Colorado, Prof. William M. Lewis, November 1999.*

## Crunching the Numbers for the Huron

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point in time) have decreased in tributaries and the Huron River. Recent concentrations were considerably lower (by 25-30%) than 2003-04 levels. Still, phosphorus concentrations in the lakes have not changed and remain above the TMDL. Phosphorus loading (the total amount of phosphorus moving through the system) has not changed much either. Finally, Dr. Lehman's studies show that the impoundments act as phosphorus sinks and store the nutrient in sediments. Phosphorus is being released in large concentrations when the lakes stratify by temperature in the summer. Keeping the lake mixed and the bottom oxygenated can reduce this effect considerably.

## STATE OF THE HURON

The analysis of the insect and habitat data shows two important things. First, almost

all of the sites have had stable health over the past decade. Only a few sites are getting better or worse. Remarkably, despite the pressures of development and impervious surface increase, the Huron River has maintained its quality over time. Second, Adopt-A-Stream data shows that the majority of streams in the watershed are classified as "fair" or "poor", which indicates a degraded condition. So while the sites are stable, they are still less healthy than is desirable.

For the middle Huron, local efforts to reduce phosphorus concentrations in the river appear to be successful. While this is very encouraging, these reductions have yet to result in reductions in phosphorus concentrations in Ford Lake. There may be methods to address phosphorus concentrations in the Lake directly, such as the

release of water from the bottom of the dam to keep the Lake mixed and oxygenated. Further work is needed to draw site-specific conclusions and to determine if these results can be applied across the watershed in other areas where over-nutrication is a concern.

HRWC will continue to place an emphasis on collecting quality data. This ongoing effort depends on the activism of HRWC Adopt-A-Stream volunteers. The data collected allows for an in-depth understanding of what is happening throughout the watershed and helps HRWC prioritize protection and restoration efforts.

Special thanks go to all of those who helped over the years! We would not have this knowledge without you.

— Paul Steen and Ric Lawson