Winter Salt Use and Water Quality

Now that we have our first major snowstorm under our belts, we can look back and think about how slippery the roads were that day. It took a while, but eventually the roads were cleared. Now we can look back and wonder what kind of price we paid for clear roads in terms of water quality.

Prior to the 1960’s road salt wasn’t used at all. With modern technology and advances, we have come to expect our roads to be completely clear of all snow--an expectation that can only be achieved with the help of salt. All the road salt that keeps our roads clear and safe doesn’t stay on our roads. It eventually ends up in snow melt and goes to our rivers and lakes through the storm drain or it soaks into the ground and ends up in our groundwater. Sound ridiculous? Several of Madison’s wells have exceeded the safe standards for sodium--18 times in the last 16 years. Water pouring out of the storm drains from city streets into our lakes and rivers is saltier than ocean water during some events. Chloride levels in our lakes continue to increase from year to year.

Where do we fit in? Do we contribute to the increase in salts by what we do at our own homes? We are left with a choice of how to manage snow removal at our own homes. Here are a few tips for reducing salt use. First, do I really need salt or can a shovel do the job? If salt is truly necessary, try applying salt down the center only—as it melts the snow, it will flow to the edges. You can also try mixing the salt with some sand. Sand will not actually melt snow and ice, but it does help give you traction and will act like a “filler”, meaning you will be using less salt. Another option is to try kitty litter (the old fashion kind—not clumping) instead of sand. If you end up with brown grass along your driveway and sidewalk every spring, this is a good sign that you have used too much salt. The salt is now in the soil at a high enough quantity to kill turf grass.

The bottom line is this—we have some tough environmental choices to face. We all need to realize that anything we put on the land will eventually end up in the water. That’s the way our ecosystem works. Armed with this knowledge, we need to think through our actions—and their consequences. Our water is a limited resource and every drop counts.