

Enjoy the snow while keeping Rock Creek safe!

With winter weather upon us, many community members are reaching for salt and other de-icers to manage icy sidewalks. These de-icing products can be effective when used correctly, but overuse harms Rock Creek and our local water systems.



Rock Creek looks beautiful with a fresh layer of snow - you can make sure winter weather doesn't bring pollution, too.

Road salt, like household salt, is composed of equal parts sodium and chloride. Chloride is toxic to aquatic life, and will harm or even kill organisms in high enough concentration. Salt can be diluted by water, but the high volumes of salt, like what we see spread on roads throughout the winter, can become concentrated in isolated clumps. These clumps create nutrient-deficient dead zones in aquatic ecosystems, and lead to more ecosystem-wide effects such as lower levels of dissolved oxygen, which can "choke" aquatic life from fish to frogs and DC's only endangered species, [the Hay's spring amphipod](#).

Salt is also a corrosive substance. Once it is carried by water into the sewer system, it can degrade and weaken piping infrastructure, causing further contamination from metals like lead entering the water. Over time, corrosion can compound and reduce the effective lifespan of infrastructure, requiring expensive replacements. In much of the Rock Creek Watershed, runoff from streets is carried by storm drains which do not intersect with sewer systems, and instead drain directly into waterways. While this eases the impacts of salt on infrastructure, it also means that salt can more easily enter waterways in large concentrations.

Once salt is in an ecosystem, it is very hard to remove. Water runoff carries salt into waterways, and being carried out by water is virtually the only way salt can later be removed. In low-flow waterways, such as Rock Creek, salt can accumulate through runoff if it has not been properly disposed of after being used to melt ice. Taking care to avoid over-salting is a great way to prevent salt accumulation in Rock Creek before it even happens.

It's as easy as 1,2,3...



[Image credit: Montgomery County Department of Environmental Protection]

According to Montgomery County's Department of Environmental Protection, a 12 ounce coffee mug full of salt is enough to treat a 20-foot driveway or 10 sidewalk squares. For added effectiveness, sugar and salt can be mixed to make a more potent de-icer. Sugar raises the melting point of ice and reduces the amount of salt you need to de-ice your sidewalk or driveway. Sugar is more easily removed from ecosystems than salt (plants and animals will use sugar just as readily as people will), so mixing your salt with sugar is a two-fold way to lower your impact on Rock Creek.

Along with being careful about your overall salt use, there are additional ways to limit the impact of de-icer in our local ecosystems. Shoveling snow soon after it falls helps prevent it from freezing into ice, which requires additional treatment. Making sure you follow behind your salt as the snow melts to sweep up any excess is another way to reduce its prevalence.

This winter, be saltwise and keep these simple rules in mind to help protect Rock Creek's water quality and the wildlife that live in our watershed.