FROM THE MIRROR LAKE WATERSHED ASSOCIATION

Road salt, safe driving conditions and the environment

Road salt helps keep driving conditions safe in the winter months, but where does it go after that? Road salt, typically sodium chloride, does not disappear when it leaves our roads. Almost all of the rock salt spread by our highway departments finds its way into the water cycle, including our lakes, rivers and streams as well as groundwater. If we look at where salt typically goes, we find that 55 percent of rock salt used in road management is carried into streams by runoff from the roadways and the other 45 percent soaks into groundwater.

When road salt enters groundwater, it destroys soil structure, which leads to a significant increase in erosion. More erosion means that excess amounts of salt and other minerals enter our streams and lakes. Salt does not leave the aquatic ecosystems quickly, as it does not evaporate with surface water. Fish and other aquatic organisms are sensitive to water chemistry and salinity, and especially acidity. Rock salt changes water chemistry and icreases both salinity and acidity. Each species of fish has its own level of susceptibility to a higher salinity. The beautifully colored rainbow trout, for example, will die as a result of seven days exposure to a salinity level of one thousand milligrams of salt per liter of water.

Safe road conditions are important, but the protection of our aquatic wildlife must also be a priority. There are currently several alternatives to rock salt that are availble to our highway departments. Other compounds may be used to melt ice with equal positive effects. Calcium magnesium acetate and potassium acetate are two alternative compounds which melt ice as effectively as any chloride salt. While both compounds are considerably more expensive than chloride salt compounds, they are relatively harmless to the aquatic wildlife in the area. A third alternative is a new substance known as "Magic salt." Magic salt is plain rock salt, treated with liquid byproduct from agricultural processes mixed with magnesium chloride. This treatment creates a new de-icing agent which is less corrosive than distilled water and is biodegradable. It releases far fewer chlorides into waters than any standard chloride salt. Not only is magic salt far less harmful to our aquatic ecosystems, its effects on ice last much longer than that of plain rock salt. Using magic salt requires 30 to 50 percent less salt use than plain chloride salts, making it even more environmentally friendly.

The Mirror Lake Watershed Association greatly appreciates any support, and welcomes anyone with an interest in our aquatic ecosystems to attend our monthly meetings. The meetings take place on the second Monday of each month at 5 p.m. in the village beach house in Peacock Park.

For more information, contact Bill Billerman at 523-8925. Also, visit the MLWA Web site at www.mirrorlake.net.

Submitted by the Mirror Lake Watershed Association