

Village of Shorewood Hills

Salt Use Policy

I. Village Policy on Winter Salt Use

It is the policy of the Village of Shorewood Hills to minimize the use of salt on streets, sidewalks and parking lots during the winter months, while continuing to use salt to the extent that it may be necessary to reduce snow and ice for the safety of the drivers and passengers of vehicles, as well as pedestrians and property. The goal of salt use is safe travel at reduced speeds, rather than bare pavement.

II. Why the Village Seeks to Minimize Salt Use

The primary reason for minimizing salt use is to conserve and protect area water resources. The salt that is used on streets is contaminating area lakes, groundwater, and the aquifer that is the source of drinking water for both the Village and the City of Madison. This contamination of our water resources is reflected in increasing levels of sodium and chloride that have been linked to the use of salt on streets, sidewalks and parking lots.

For example, Well 14 on University Avenue, which is one of the wells serving the Village and parts of the University of Wisconsin, has shown dramatic increases in contamination since 2000. Levels of chloride have doubled in that period, and in December of 2016, it was reported that chloride levels were measured at 125 mg/L. At the same time, it was reported that levels of sodium were measured at 45 mg/L, which is higher than recommended for people with high blood pressure or on salt restricted diets.

Well 6, which is also on University Avenue, and which also serves the Village, is also showing increases in salt contamination. In 2016, the level of sodium in Well 6 water was measured at 24 mg/L, which is also above the EPA drinking water guideline for people with high blood pressure or on severe sodium restricted diets.

Chloride in Lake Mendota has been increasing about 1 mg/L per year since 1962. The levels of chloride averaged 50 mg/L in 2016, and have the potential to harm fish and other aquatic life.

Prudent reductions in the use of salt will also save the Village money. A ton of salt costs about \$84, and the salt that is used may cause significant damage to our infrastructure.

III. What the Village Has Been Doing to Minimize the Use of Salt

In recent years, the Village has reduced its use of salt by about 30%. It has done so by learning about the best winter maintenance practices, and by taking steps to implement those practices.

All of the Village operators of snowplows and salt trucks have been sent to Salt Wise classes conducted by the City of Madison, in order to learn techniques to lower salt use, while maintaining safe streets. The program includes training in recommended salt application rates, how to calculate the amount of salt to be applied on the basis of weather conditions, and alternatives to reduce the amount of salt that is applied.

In this context, the Village recognizes that operators must use discretion in seeking to minimize the use of salt on streets, sidewalks and parking lots, while balancing achievement of that goal with their judgment as to how much salt may be necessary to provide for safe travel. One factor in making these judgments is the 20 mph speed limit that is applicable for most Village streets, because the low speed limit permits reduced use of salt to achieve the goal of safety at the speeds vehicles ought to be traveling.

The Village has taken a number of additional steps to minimize the use of salt. For example, pre-treating streets with a brine solution before a winter storm may reduce the use of salt, and prevent snow from binding to the pavement. This year (2018) the Village has added beet juice to our salt brine treatments, which should cut the use of salt by an additional 10 to 15%.

While the Village generally does not plow if less than two inches of snow has accumulated, it recognizes that salt should not be spread on top of snow. The Village will plow salt routes, with lesser accumulations, in order to permit more effective use of salt and brine treatments. Salt routes include the streets around the Shorewood Elementary School, bus routes, and the commercial district, a number of intersections, and certain hills and curves that merit special attention. Salt is also applied to Village streets within 75 feet of an intersection or stop sign to assist vehicles in stopping.

The practices that the Village is employing include pre-wetting salt that is used on streets to make it less likely to blow away before it is able to melt ice, assuring that the equipment the Village uses to apply salt is properly calibrated, and using application rate charts to determine the amounts of salt that ought to be applied. The Village intends to continue its efforts to learn of steps it may take to minimize the use of salt, and will strive to implement further reductions in the amount of salt it uses during the winter months.