

# MAINTENANCE SERVICE AND ANTI-ICING PROGRAM Q & A

The City utilizes Pierce County as our service provider for maintenance services and their anti-icing program. Below is a Q and A that they put out in regard to the product that they use throughout the County and on our roads in the City of Edgewood.

## 1. **What kind of liquid chemicals does the county use to treat roads?**

Pierce County typically uses sodium chloride (salt) brine at 23.3 percent dilution with water. Sodium chloride is the safest and most cost-effective anti-icing product available for our needs in the Western Washington climate.

## 2. **Is salt corrosive? Will it damage my vehicle?**

All chloride products used for anti-icing can be corrosive. Fortunately, western Washington experiences relatively mild and brief winter storm activity, reducing the amount of salt needed over the course of the winter. Most winter storms are also followed by rain. Our wet Pacific Northwest weather quickly washes salt off the roads thus significantly minimizing vehicle corrosion concerns.

It is worth noting that vehicle manufacturing techniques have evolved in recent years. Many of the newer vehicles have components made of plastic, fiberglass, stainless steel and other materials that are less prone to corrosion than steel. In any case, it is advisable to wash your car periodically throughout the winter months to remove any chemical residue.

## 3. **Aren't there other anti-icer products that are less corrosive than salt?**

Yes, there are products that are shown to be less corrosive in laboratory studies. However, a Washington Department of Transportation multi-year field study showed that in Western Washington's wet climate, there is little to no difference in corrosion caused by salt in comparison to other corrosion inhibiting products. Also, the chloride products that include corrosion inhibitors are 200 to 300 percent more expensive.

## 4. **Will the salt you put on the roads hurt the environment?**

Since the volume of anti-icing products required to manage our Pacific Northwest winters is relatively low, environmental concerns are considered minimal.

The Washington State Transportation Center and Washington State University conducted a thorough scientific study of the effects of chloride anti-icing products on the environment. This study was conducted on a stretch of SR 97 near Leavenworth where high volumes of chloride products were used near a fish bearing stream. The results indicated that deicing activities along SR 97 had no measurable negative impact on Peshastin Creek. The full report can be viewed at: <http://www.wsdot.wa.gov/research/reports/fullreports/500.1.pdf>

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## 5. Why not use sand?

Sand is still used by Pierce County Public Works for improved traction under certain conditions. However, it too has drawbacks:

Sand gets picked up by tires and blown to the side of the road, instead of staying on the driving area of the roadway. In heavy traffic conditions, it is only effective for the first few vehicles.

Sand can clog roadway drains and ditches. Sand in streams may have an adverse impact on aquatic life.

Maintenance costs for sand are higher at the end of the season than salt or anti-icer chemicals due to the cleanup required.