

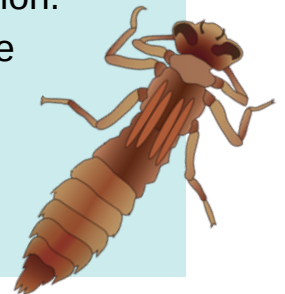
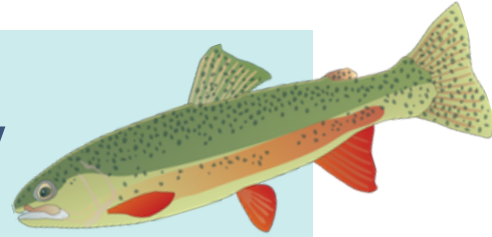
# Road Salt in the Environment



Chloride is a long-lasting pollutant in freshwater environments, commonly entering lakes, rivers, and streams from sources like road salt, household water softeners, and industrial runoff. Since chloride does not naturally break down, it can build up over time, causing stress to many different types of plants and animals and affecting the overall health of aquatic ecosystems.

## FISH, MACROINVERTEBRATES, AND PLANKTON

As chloride washes into streams and waterways, it acts as a hidden stressor to aquatic life. Chloride affects fish by stunting growth and impacting reproduction. Macroinvertebrates (stream “bugs”) and plankton may be even more sensitive than fish. These small organisms are the foundation of the food chain, but they quickly die off when water becomes too salty. Small planktonic crustaceans like daphnia are very sensitive to chloride pollution. Daphnia eat algae, so without daphnia, algae blooms can become more prevalent. The overabundance of algae will deplete oxygen from the waterways as it dies off and decomposes, causing problems for other aquatic life.



## AMPHIBIANS

Many amphibians use vernal pools (seasonal waterways produced by snowmelt and rainfall) to reproduce in the spring. As vernal pools have no discharge point, chloride from salt can build up overtime, causing a cascade of impacts. Amphibian embryos and larvae are particularly vulnerable. High salinity can cause malformations, reduced hatching rates, and increased susceptibility to disease.



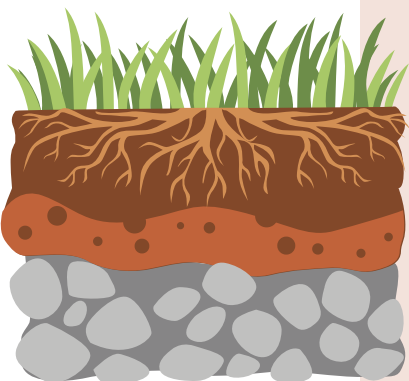
## PLANTS

Plants located next to sidewalks, parking lots, and roadways are most at risk from road salt pollution. While chloride is an essential micronutrient in trace amounts, high concentrations cause "salt burn," scorching leaf margins and drying out buds. In aquatic environments, excess chloride can shift plant communities toward invasive, salt-tolerant species, displacing native vegetation.



## SOILS

Excessive salt alters soil chemistry and structure, leading to compaction and poor drainage. It can also make soil more alkaline, which reduces the availability of essential nutrients and kills beneficial soil bacteria, increasing the risk of erosion. Chloride has also been shown to mobilize heavy metals in the environment.



## OTHER WILDLIFE

Road salt can encourage large mammals like deer and moose to encroach on roadways, using them as salt licks, which can lead to accidents. Some birds, such as finches and sparrows, can die from directly ingesting deicing salt crystals.



## WHAT TO DO

Want to find out how much chloride is in your local waterways? Visit [saltwatch.org](https://saltwatch.org) to learn more about smart road salting practices and to request your free Salt Watch Kit!