

**Upper Mississippi River Conservation Committee
Resolution Regarding Chloride Contamination
in the Upper Mississippi River Basin**

6-26-20

Whereas the UMRCC objectives are to promote the preservation and wise utilization of natural and recreational resources of the Upper Mississippi River;

Whereas the UMRCC is tasked with providing recommendations to governing State bodies in support of the objectives of the UMRCC;

Whereas winter de-icing salt application and municipal wastewater treatment discharge into surface waterbodies throughout the Upper Mississippi River watershed are resulting in rising chloride levels;

Whereas state chloride monitoring programs beginning as early as 1961 have observed that chloride concentrations are increasing in the Upper Mississippi River Basin¹;

Whereas the U.S. Environmental Protection Agency published ambient aquatic life water quality criteria for chloride in 1988 that found chloride concentrations greater than 230 mg/L (chronic exposure) and 860 mg/L (acute exposure) impact aquatic organisms and the ecosystem by interfering with osmoregulation, inhibiting vegetation growth, impairing reproductive cycles, salinizing soils and groundwater, and ultimately reducing the biodiversity in a waterbody;

Whereas chloride contamination corrodes infrastructure (e.g., roadways, dams and drinking water infrastructure) and de-icing accelerates rusting of automobiles;

Whereas existing solutions for reversing chloride contamination are limited and expensive;

Whereas road salt application techniques exist that minimize chloride runoff while ensuring public safety while substantially reducing winter road maintenance costs for municipalities, cities, states, and private applicators;

Whereas Minnesota's *Smart Salting* program (applicator training and certification for private contractors) shows that strategic applications can reduce road salting rates by 30 to 70 percent in the Twin Cities Metro Area;

Whereas states may offer limited liability protection to road salt applicators against ice-related injuries and property damage to provide incentives to minimize salt application;

Whereas the general public is mostly unaware of trends in chloride contamination and the associated impacts as well as methods to minimize chloride runoff;

Therefore, Be it Resolved, that the U.S. Environmental Protection Agency should refine the science related to chloride toxicity in aquatic organisms;

¹ Wisconsin DNR: [Long-term River Water Quality Trends in Wisconsin](#)
Missouri DNR: [Chloride Trend Analysis](#)
Minnesota PCA: [Water Quality Trends for Minnesota Rivers and Streams](#)
Illinois EPA: [Chloride at UMR Ambient Sites 1999-2015](#)
Iowa DNR: [Chloride Trends](#)

Therefore, Be it Resolved, that Upper Mississippi River Restoration- Long Term Resource Monitoring should reinstate chloride monitoring;

Therefore, Be it Resolved, that UMRCC will work with its member states and federal agencies with water quality responsibilities to develop educational materials, implement a communications strategy and develop press releases for the purposes of increasing awareness of chloride trends, externalities of excessive use, and best management practices to minimize runoff;

Be it Further Resolved, that UMRCC will work collaboratively with state and federal water quality and transportation agencies as well as municipalities and private organizations to secure resources needed for monitoring and research as well as implementing best management practices through applicator training certification programs and limited liability protection.