

Nine Springs at Syene Rd

Road Salt Monitoring Data Summary

February 2011–December 2012

Volunteers: Kris Stepenuck and Christophe Stoelinga



Photo by Kris Stepenuck

Specific conductance summary:

- 27 measurements taken
- Minimum: 560 $\mu\text{S}/\text{cm}$ on 3/21/2011
- Maximum: 1030 $\mu\text{S}/\text{cm}$ on 3/10/2011
- Mean: 841 $\mu\text{S}/\text{cm}$

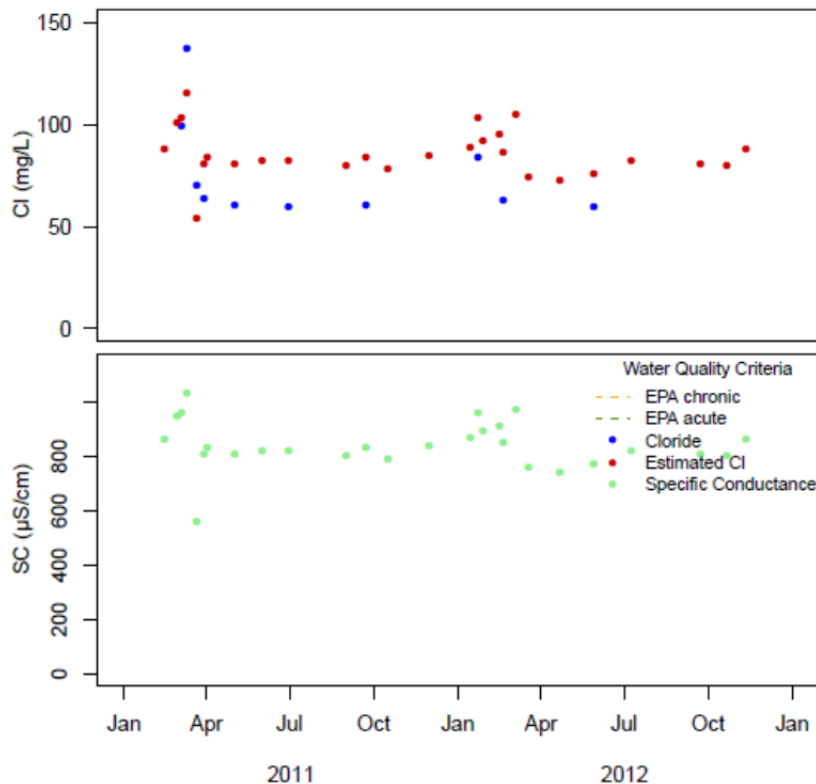
Chloride (Cl^-) summary:

- 10 samples collected
- Minimum: 59.3 mg/L on 5/28/2012
- Maximum: 137 mg/L on 3/10/2011
- Mean: 76 mg/L

EPA Acute and Chronic Exceedences for Chloride¹:

Neither the EPA acute nor chronic chloride standards was exceeded at this site based on volunteer monitoring in 2011² or in 2012.

Results Over Time³:



¹ EPA acute chloride standard: The one-hour average concentration should not exceed 860 mg/L more than once every three years on average. EPA chronic chloride standard: The four day average concentration should not exceed 230 mg/L more than once every three years on average. Source: EPA. 1988. Ambient Water Quality Criteria for Chloride. EPA 440/6-88-001.

² <http://watermonitoring.uwex.edu/level3/UrbanRoadSaltReports.html>

³ Calculated chloride: When $\text{SC} > 1540 \mu\text{S}/\text{cm}$ was $\text{Cl} = 0.3441 * \text{SC} - 291$, $\text{adjR}^2 = 0.98$; when $\text{SC} \leq 1540 \mu\text{S}/\text{cm}$ was $\text{Cl} = 1.044 * (\exp(0.001609 * \text{SC} + 3.046))$, $\text{adjR}^2 = 0.65$. Equations based on data from both Madison and Milwaukee.