

Root River at Layton Ave

Road Salt Monitoring Data Summary

February 2011–December 2013¹



Photo courtesy of Jim Beecher

Volunteer: Kevin Hensiak

Specific conductance summary:

- 43 measurements taken
- Minimum: 480 $\mu\text{S}/\text{cm}$ on 7/31/2012
- Maximum: 12300 $\mu\text{S}/\text{cm}$ on 1/28/2013
- Mean: 2859 $\mu\text{S}/\text{cm}$

Chloride (Cl⁻) summary:

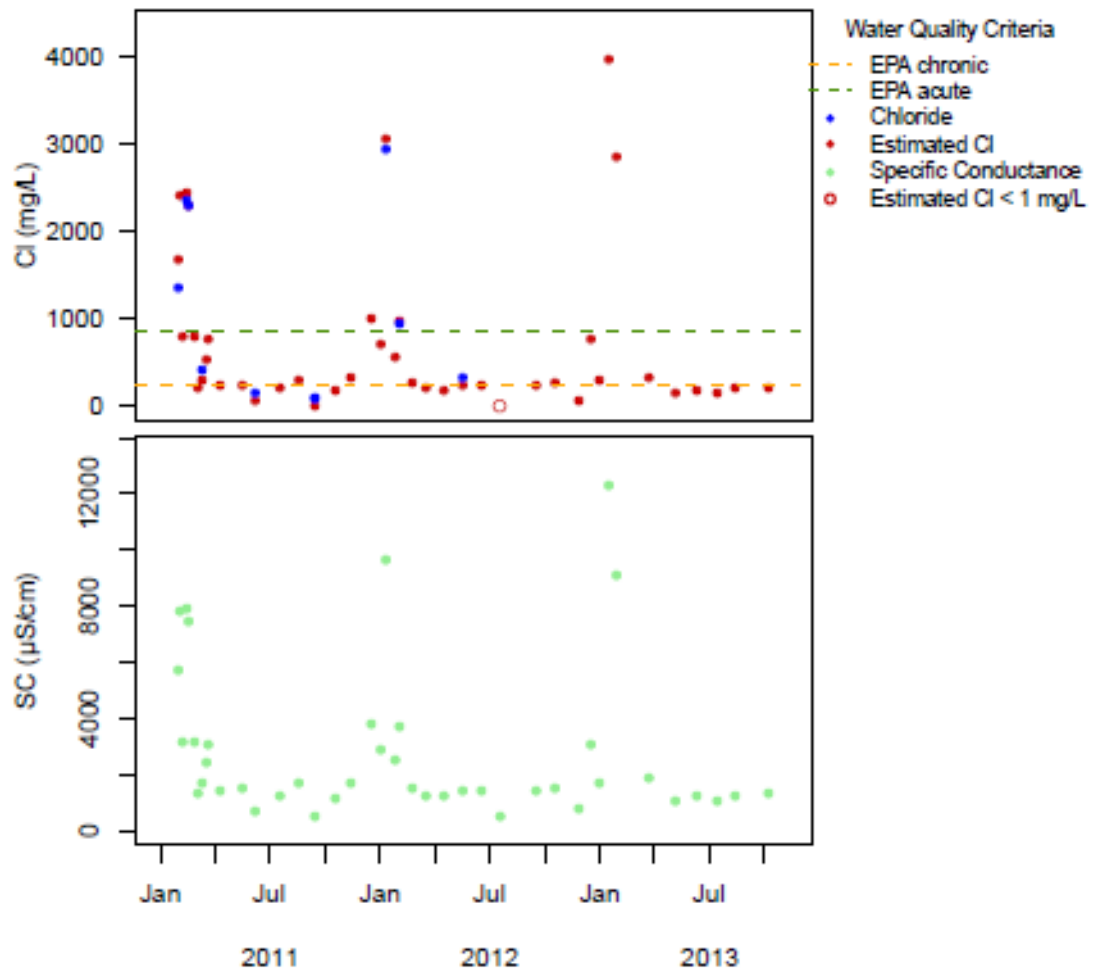
- 9 samples collected
- Minimum: 73.8 mg/L on 9/28/2011
- Maximum: 2930 mg/L on 1/23/2012
- Mean: 1198 mg/L

EPA Acute and Chronic Exceedences for Chloride²:

The EPA acute chloride standard of 860 mg/L was exceeded nine times based on volunteer monitoring efforts. These are shown on the graph below.

In addition, the EPA chronic chloride standard of 230 mg/L was predicted to have been exceeded 17 times at this site.

Results Through December 2013³:



¹ All data in SWIMS as of 8/26/2014 were downloaded

² Source: EPA. 1988. Ambient Water Quality Criteria for Chloride. EPA 440/6-88-001.

³ Calculated chloride: $\text{Cl} = 0.242 \times \text{SC} - 115.2$ $\text{adjR}^2 = 0.8$, except when $\text{SC} > 2250$, then $\text{Cl} = 0.346 \times \text{SC} - 309.8$, $\text{adjR}^2 = 0.97$