

# Root River at Grange Ave

## Road Salt Monitoring Data Summary

### February 2011– March 2014<sup>1</sup>



Photo courtesy of Jim Beecher

**Volunteer:** Kevin Hensiak

**Specific conductance summary:**

- 47 measurements taken
- Minimum: 510  $\mu\text{S}/\text{cm}$  on 9/28/2011
- Maximum: 12700  $\mu\text{S}/\text{cm}$  on 2/27/2011
- Mean: 3149  $\mu\text{S}/\text{cm}$

**Chloride (Cl<sup>-</sup>) summary:**

- 11 samples collected
- Minimum: 78.1 mg/L on 9/28/2011
- Maximum: 4130 mg/L on 2/27/2011
- Mean: 1398 mg/L

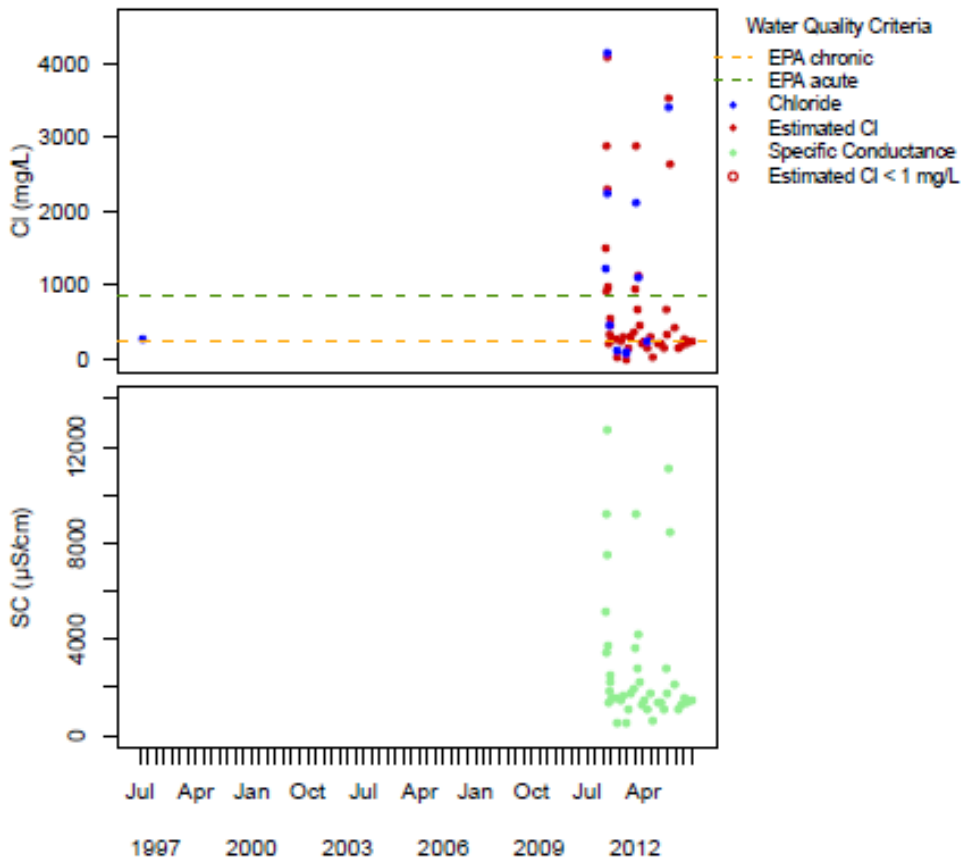
**EPA Acute and Chronic Exceedences for Chloride<sup>2</sup>:**

The EPA acute chloride standard of 860 mg/L was exceeded 14 times at this site, based on volunteer monitoring. These are shown on the graph below.

In addition, the EPA chronic chloride standard of 230 mg/L was exceeded 20 times. In addition to those exceedences shown on the graph below, the follow was predicted:

- 1074 mg/L on 3/14/2014 (calculated)

**Results Through December 2013<sup>3,4</sup>:**



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

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

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

<sup>4</sup> Note that the 1996 sample was collected by DNR previous to the current study.