

Starkweather Creek, W. Br. at Daley Drive

Road Salt Monitoring Data Summary December 2011 – March 2014¹



Photo courtesy of Jim Beecher

Volunteers: Erin and Jake Vennie-Vollrath

Specific conductance summary:

- 32 measurements taken
- Minimum: 430 $\mu\text{S}/\text{cm}$ on 6/24/2013
- Maximum: 7700 $\mu\text{S}/\text{cm}$ on 1/28/2018
- Mean: 1667 $\mu\text{S}/\text{cm}$

Chloride (Cl⁻) summary:

- 7 samples collected
- Minimum: 35.1 mg/L on 6/24/2013
- Maximum: 2250 mg/L on 1/28/2013
- Mean: 551 mg/L

EPA Acute and Chronic Exceedences for Chloride²:

The EPA acute chloride standard of 860 mg/L was exceeded three times at this site:

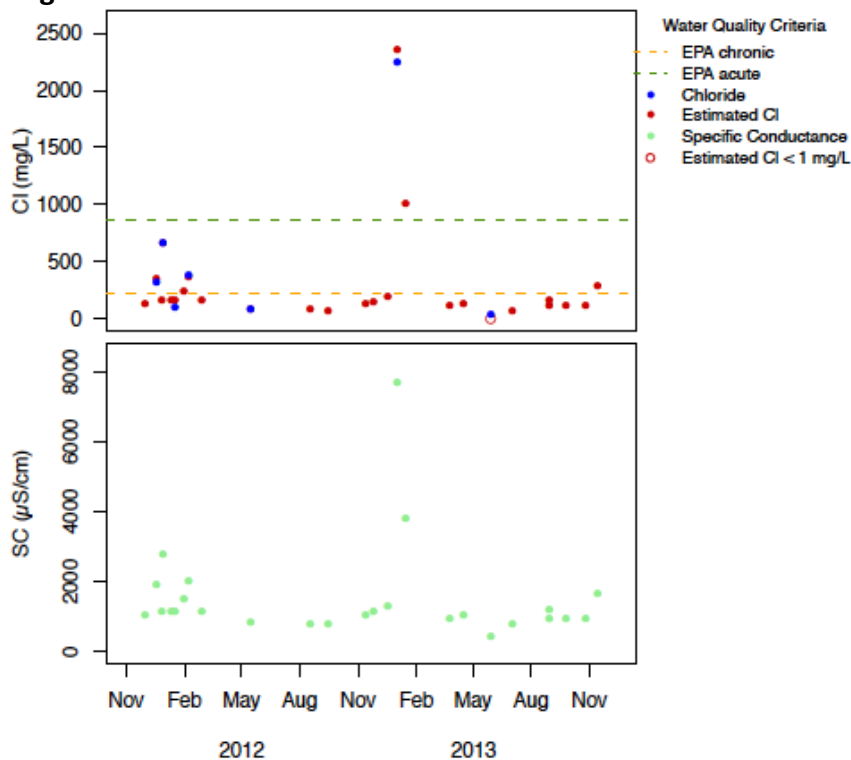
- 2250 mg/L on 1/28/2013 (measured)
- 1109 mg/L on 2/20/2014 (calculated)
- 1005 mg/L on 2/10/2013 (calculated)³

In addition, the EPA chronic chloride standard of 230 mg/L was exceeded eight times at this site.

In addition to the exceedences shown on the graph below, the following were predicted:

- 320 mg/L on 12/26/2013 (calculated)
- 369 mg/L on 1/19/2014 (calculated)
- 555 mg/L on 2/6/2014 (calculated)

Results Through December 2013²:



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 $\text{Cl} = 0.346 \times \text{SC} - 309.8$, $\text{adjR}^2 = 0.97$