

Galloway Creek at Red Cedar River

Road Salt Monitoring Data Summary

November 2012 – August 2014¹



Photo by Lisa Ludwig

Volunteers: Ted Ludwig, Lindsey Provos, Megen Hines

Specific conductance summary:

- 69 measurements taken
- Minimum: 170 $\mu\text{S}/\text{cm}$ on 4/29/2014
- Maximum: 6400 $\mu\text{S}/\text{cm}$ on 2/11/2013
- Mean: 884 $\mu\text{S}/\text{cm}$

Chloride (Cl⁻) summary:

- 7 samples collected
- Minimum: 19.4 mg/L on 4/10/2013
- Maximum: 1550 mg/L on 1/29/2013
- Mean: 517 mg/L

EPA Acute and Chronic Exceedences for Chloride²:

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

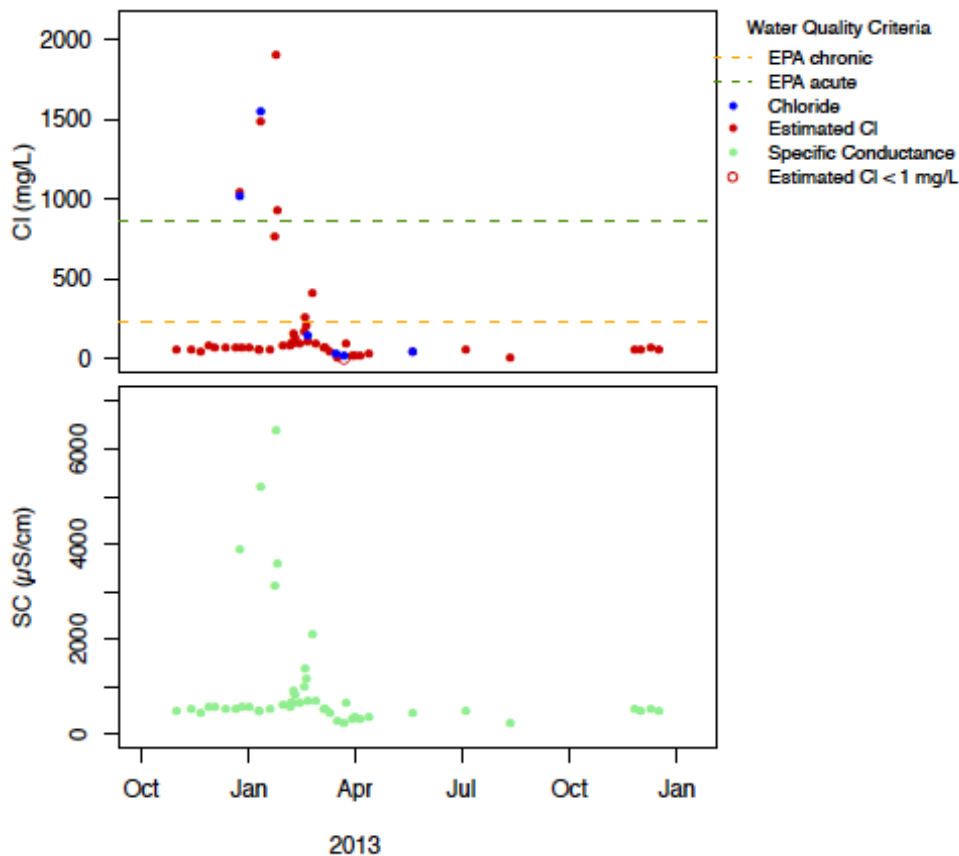
- 1020 mg/L on 1/11/2013 (measured)
- 1550 mg/L on 1/29/2013 (measured)
- 1905 mg/L on 2/11/2013 (calculated)
- 936 mg/L on 2/12/2013 (calculated)

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

The following exceedences were predicted in addition to those displayed on the graph below:

- 267 mg/L on 3/7/2014 (calculated)
- 763 mg/L on 3/10/2014 (calculated)

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: $\text{Cl} = 0.225 * \text{SC} - 52.3$, $\text{adjR}^2 = 0.74$, except if $\text{S} > 2250$, then $\text{Cl} = 0.346 * \text{SC} - 309.8$, $\text{adjR}^2 = 0.97$