

Pike River at First Bridge at Northern Entrance

Road Salt Monitoring Data Summary February 2012 – May 2014¹



Photo courtesy of Jim Beecher

Volunteers: Chris Blaine

Specific conductance summary:

- 38 measurements taken
- Minimum: 154.4 $\mu\text{S}/\text{cm}$ on 9/24/2013
- Maximum: 2600 $\mu\text{S}/\text{cm}$ on 4/16/2013
- Mean: 954 $\mu\text{S}/\text{cm}$

Chloride (Cl⁻) summary:

- 40 samples collected
- Minimum: 73.53 mg/L on 10/1/2013
- Maximum: 718.42 mg/L on 2/20/2014
- Mean: 189.25 mg/L

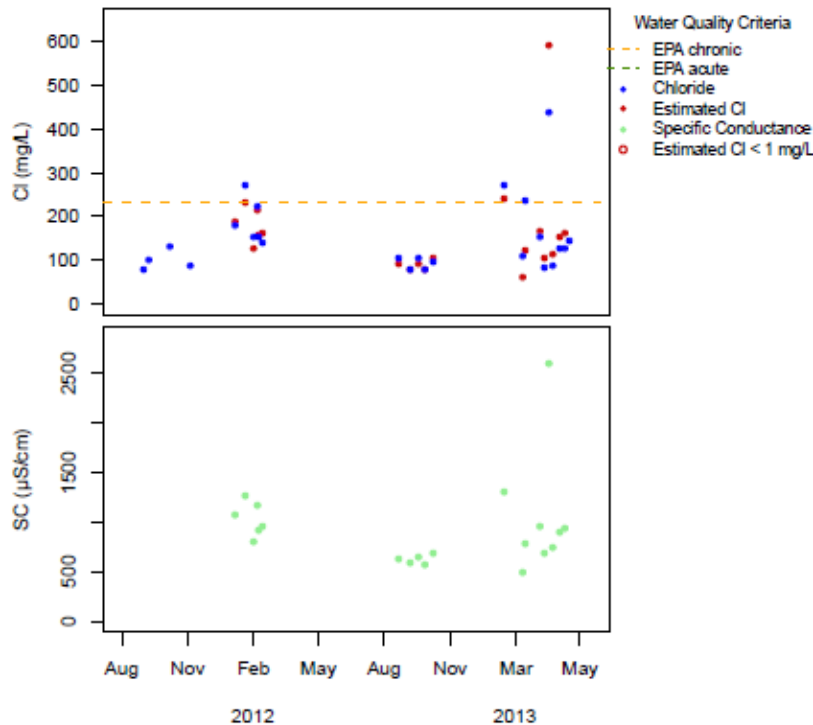
EPA Acute and Chronic Exceedences for Chloride²:

The EPA acute chloride standard of 860 mg/L has not been exceeded at this site based on volunteer monitoring.

However, the EPA chronic chloride standard of 230 mg/L was exceeded at this site four times prior to 2014, as shown on the graph below. In addition, the standard was met or exceeded eight times in 2014:

- | | |
|------------------------------------|------------------------------------|
| ○ 718 mg/L on 2/20/2014 (measured) | ○ 230 mg/L on 3/20/2014 (measured) |
| ○ 295 mg/L on 4/6/2014 (measured) | ○ 351 mg/L on 4/10/2014 (measured) |
| ○ 394 mg/L on 4/13/2014 (measured) | ○ 250 mg/L on 4/15/2014 (measured) |
| ○ 412 mg/L on 4/28/2014 (measured) | ○ 335 mg/L on 5/1/2014 (measured) |

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