

# Pike River north of mouth to Lake Michigan

## Road Salt Monitoring Data Summary February 2012 – May 2014<sup>1</sup>



Photo courtesy of Jim Beecher

**Volunteers:** Chris Blaine

**Specific conductance summary:**

- 36 measurements taken
- Minimum: 360  $\mu\text{S}/\text{cm}$  on 9/18/2012
- Maximum: 1700  $\mu\text{S}/\text{cm}$  on 2/6/2013
- Mean: 829  $\mu\text{S}/\text{cm}$

**Chloride ( $\text{Cl}^-$ ) summary:**

- 36 samples collected
- Minimum: 28.6 mg/L on 2/29/2012
- Maximum: 921.73 mg/L on 4/15/2014
- Mean: 170 mg/L

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

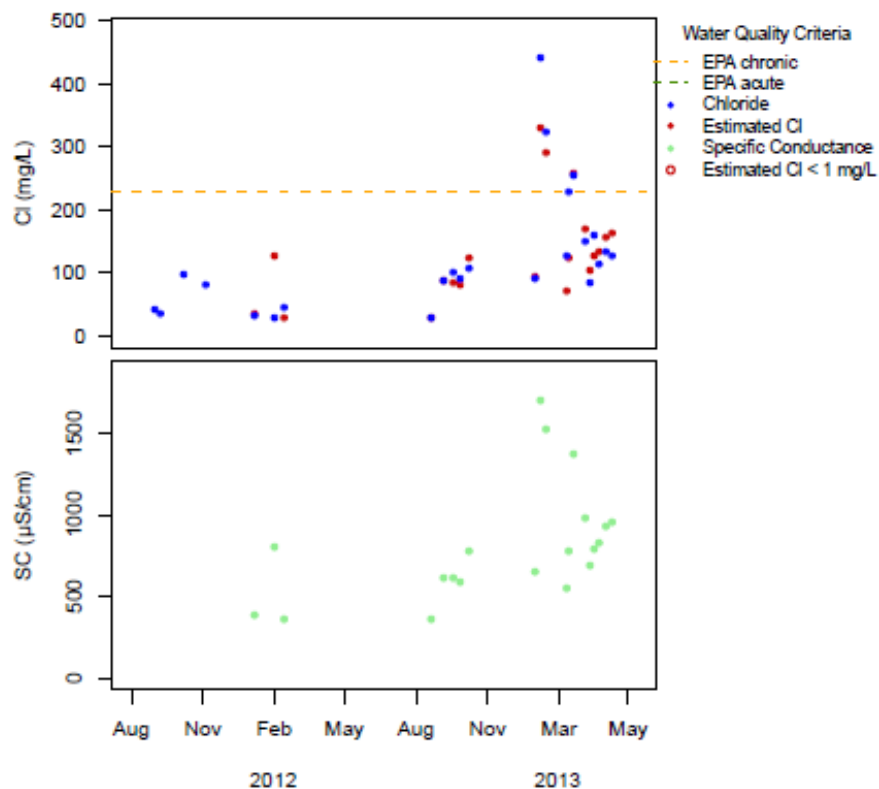
The EPA acute chloride standard of 860 mg/L was exceeded once at this site

- 922 mg/L on 4/15/2014 (measured)

Plus, in addition to exceedences shown on the graph below, the chronic chloride standard of 230 mg/L was exceeded five more times:

- 297 mg/L on 4/6/2014 (measured)
- 253 mg/L on 4/15/2014 (calculated)
- 308 mg/L on 5/1/2014 (measured)
- 345 mg/L on 4/10/2014 (measured)
- 424 mg/L on 4/28/2014 (measured)

**Results Through December 2013<sup>3</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:  $\text{Cl} = 0.225 \times \text{SC} - 52.3$   $\text{adjR}^2 = 0.74$ , except when  $\text{SC} > 2250$ , then  $\text{Cl} = 0.346 \times \text{SC} - 309.8$ ,  $\text{adjR}^2 = 0.97$