

Pheasant Branch up from pond at bike path

Road Salt Monitoring Data Summary

February –December 2011



Photo courtesy of Jim Beecher

Volunteers: Eric Grazia and Jim Beecher

Specific conductance summary:

- 13 measurements taken
- Minimum: 770 $\mu\text{S}/\text{cm}$ on 8/8/2011
- Maximum: 1330 $\mu\text{S}/\text{cm}$ on 2/14/2011
- Mean: 890 $\mu\text{S}/\text{cm}$

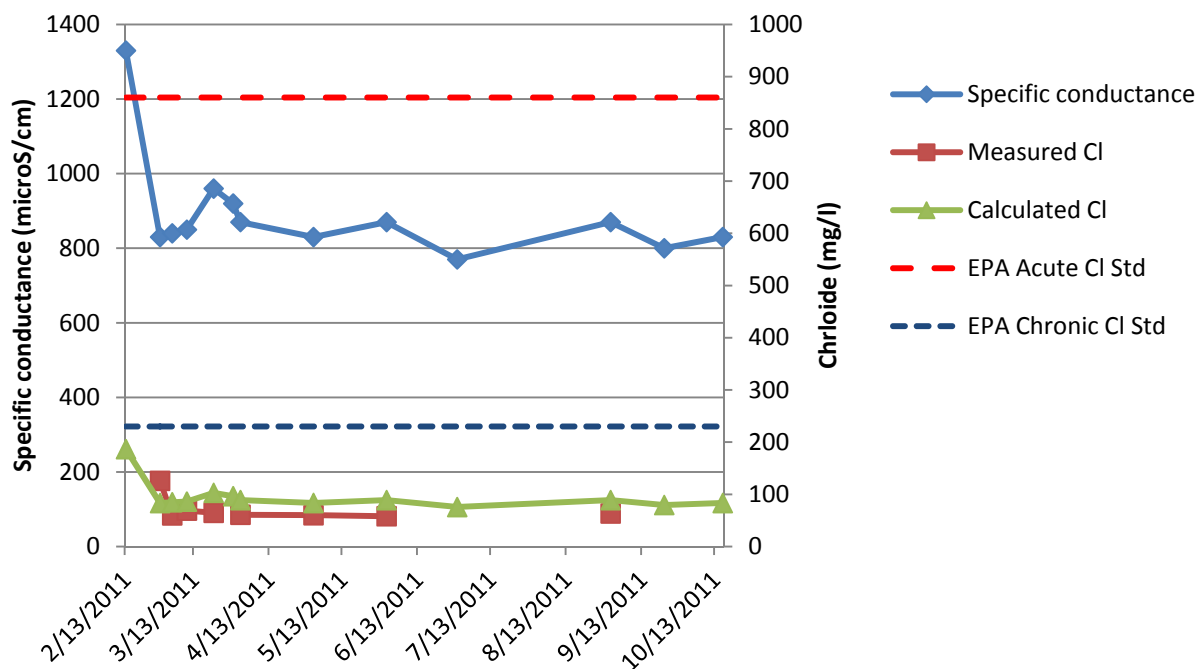
Chloride (Cl^-) summary:

- 8 samples collected
- Minimum: 58.1 mg/L 7/6/2011
- Maximum: 126 mg/L 2/17/2011
- Mean: 70 mg/L

EPA Acute and Chronic Exceedences for Chloride¹:

Neither the EPA acute nor chronic chloride standards were exceeded at this site based on volunteer monitoring in 2011.

Results Over Time²:



¹ EPA acute chloride standard: The one-hour average concentration should not exceed 860 mg/L more than once every three years. EPA chronic chloride standard: The four day average concentration should not exceed 230 mg/L more than once every three years on average. Source: EPA. 1988. Ambient Water Quality Criteria for Chloride. EPA 440/6-88-001.

² Two regression equations calculated based on specific conductance and chloride data collected from the Madison and Milwaukee areas collectively. The equation used when specific conductance $>1540 \mu\text{S}/\text{cm}$ was $\text{Cl} = 0.3441 * \text{SC} - 291$, $\text{adjR}^2 = 0.98$; and when specific conductance $\leq 1540 \mu\text{S}/\text{cm}$ was $\text{Cl} = 1.044 * (\exp(0.001609 * \text{SC} + 3.046))$, $\text{adjR}^2 = 0.65$.