Nine Springs at Lake Farm Park

Road Salt Monitoring Data Summary February –December 2011

Photo by Kris Stepenuck

Volunteers: Kris Stepenuck and Christophe Stoelinga

Specific conductance summary:

- 12 measurements taken
- Minimum: 700 µS/cm on 5/1/2011
- Maximum: 1070 µS/cm on 3/10/2011
- Mean: 853 µS/cm

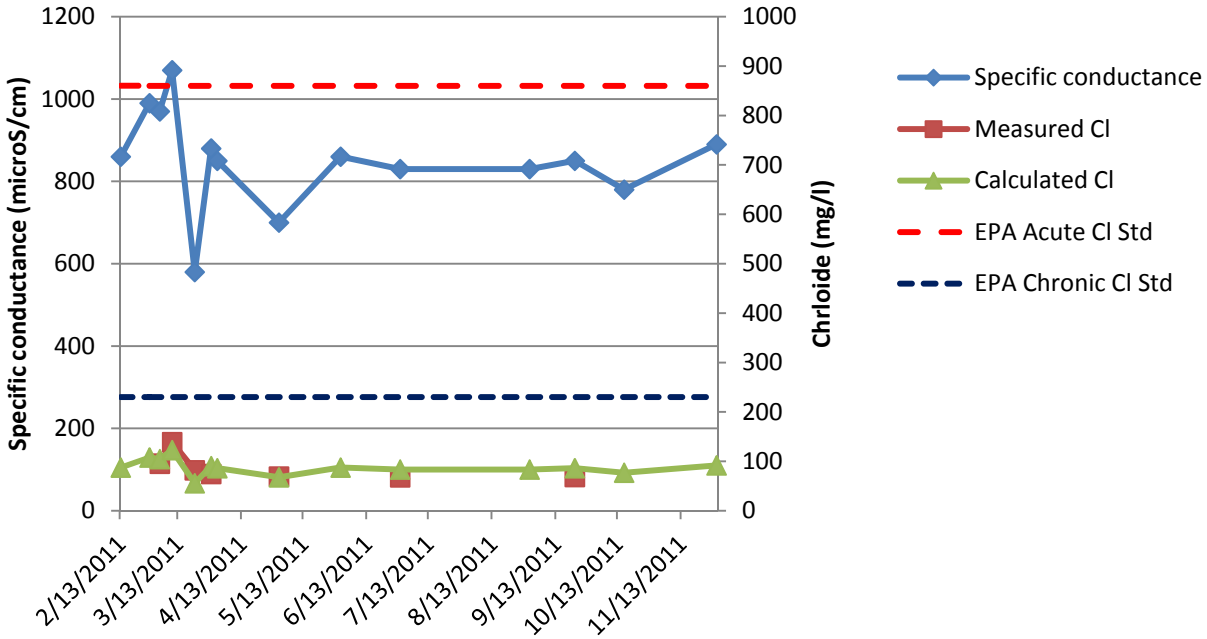
Chloride (Cl^-) summary:

- 8 samples collected
- Minimum: 67.7 mg/L 6/29/2011
- Maximum: 139 mg/L 3/10/2011
- Mean: 83 mg/L

EPA Acute and Chronic Exceedences for Chloride[1]:

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

Results Over Time:



[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 µS/cm was Cl = 0.3441 * SC – 291, adjR^2 = 0.98; and when specific conductance ≤ 1540 µS/cm was Cl = 1.044 * (exp(0.001609 * SC + 3.046)), adj R^2 = 0.65.