Milwaukee River Estabrook Dam

Road Salt Monitoring Data Summary

February 2011 –December 2012

Photo courtesy of Jim Beecher

Volunteers: John Schafer and Jessica Zalewski

Specific conductance summary:

- 12 measurements taken
- Minimum: 560 µS/cm on 3/19/2011
- Maximum: 1240 µS/cm on 3/5/2011
- Mean: 831 µS/cm

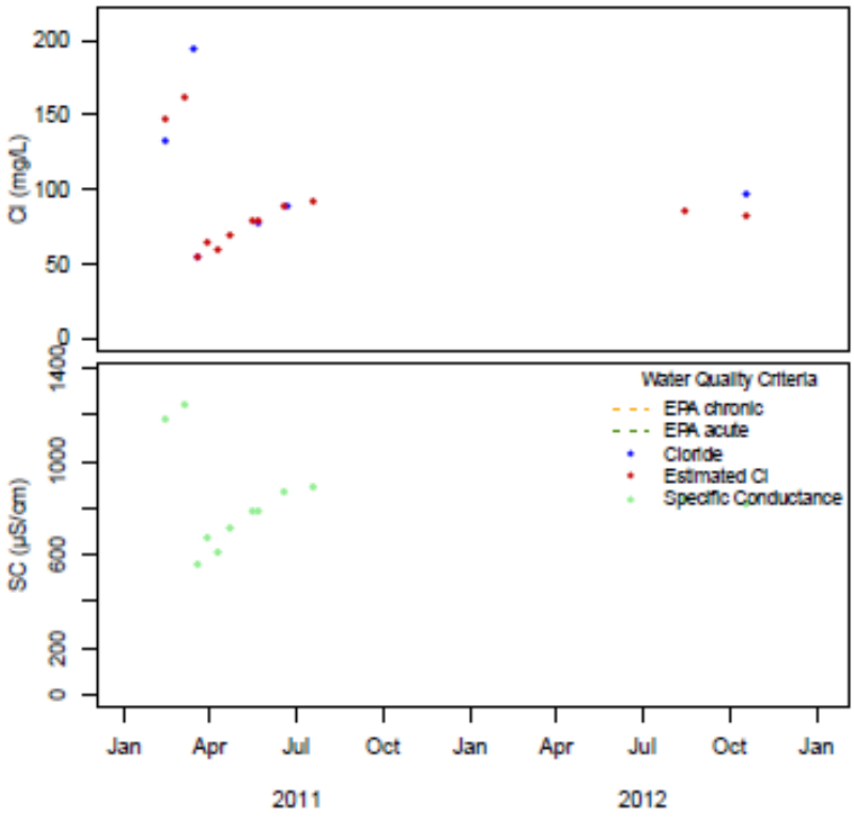
Chloride (Cl^-) summary:

- 6 samples collected
- Minimum: 54.7 mg/L on 3/19/2011
- Maximum: 194 mg/L on 3/15/2011
- Mean: 107 mg/L

EPA Acute and Chronic Exceedences for Chloride[1]:

Neither the EPA acute chloride standard of 860 mg/L nor the chronic chloride standard of 230 mg/L were exceeded at this site based on volunteer monitoring in 2011[2] or 2012.

Results Over Time[3]:



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

[2] http://watermonitoring.uwex.edu/level3/UrbanRoadSaltReports.html

[3] Calculated chloride: When SC >1540 µS/cm was Cl = 0.3441 * SC – 291, adjR^2 = 0.98; when SC was ≤ 1540 µS/cm was Cl = 1.044 * (exp(0.001609 * SC + 3.046)), adj R^2 = 0.65. Equations based on data from both Madison and Milwaukee.