Pike Creek at 41

Road Salt Monitoring Data Summary
February –December 2012

Photo courtesy of Jim Beecher

Volunteers: Katie Jones, Christine Blaine, Avila Hoffman, Rachel Martin, Tom Baran, and Jordan Burknolder

Specific conductance summary:

- 11 measurements taken
- Minimum: 445 µS/cm on 3/12/2012
- Maximum: 1860 µS/cm on 3/5/2012
- Mean: 1199 µS/cm

Chloride (Cl^-) summary:

- 12 samples collected
- Minimum: 80.7 mg/L on 3/12/2012
- Maximum: 483.9 mg/L on 2/17/2012
- Mean: 239 mg/L

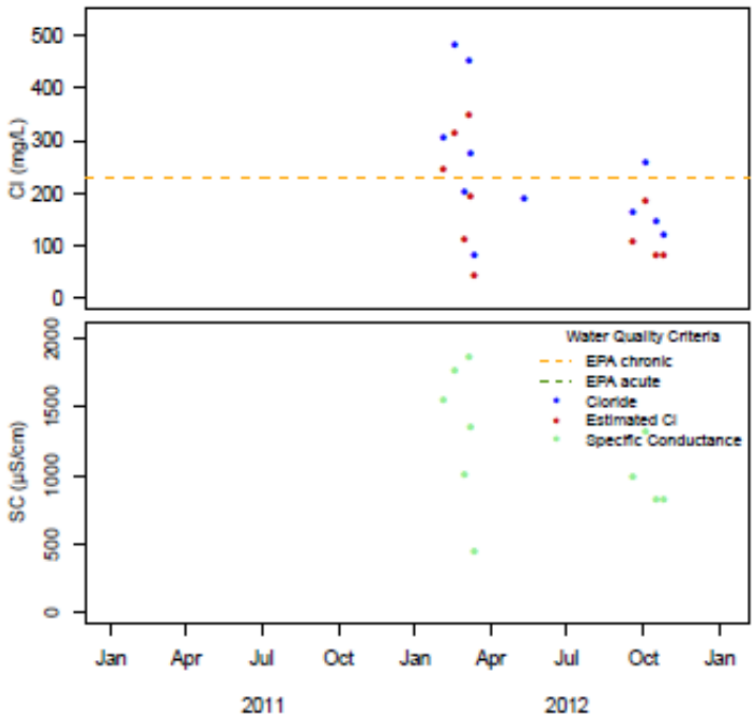
EPA Acute and Chronic Exceedences for Chloride[1]:

The EPA acute chloride standard of 860 mg/L was not exceeded at this site based on volunteer monitoring in 2012:

However, the EPA chronic chloride standard of 230 mg/L was met or exceeded five times in 2012 at this site:

- 259 mg/L on 10/4/2012 (measured)
- 276 mg/L on 3/7/2012 (measured)
- 305 mg/L on 2/3/2012 (measured)
- 452 mg/L on 3/5/2012 (measured)
- 484 mg/L on 2/17/2012 (measured)

Results Over Time[2]:



[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] 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.