Lake Wingra Arboretum Big Spring
Road Salt Monitoring Data Summary
February–December 2012

Volunteers: Roger Bannerman and Rex Merrill

Specific conductance summary:
- 5 measurements taken
- Minimum: 570 µS/cm on 2/24/2012
- Maximum: 1110 µS/cm on 5/17/2012
- Mean: 990 µS/cm

Chloride (Cl⁻) summary:
- 5 samples collected
- Minimum: 117 mg/L on 5/17/2012
- Maximum: 119 mg/L on 3/8/2012 and 6/6/2012
- Mean: 118 mg/L

EPA Acute and Chronic Exceedences for Chloride¹:
Neither the EPA acute chloride standard of 860 mg/L nor the chronic chloride standard of 230 mg/L was exceeded at this site based on volunteer monitoring in 2012.

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 Calculated chloride: When SC >1540 µS/cm was Cl⁻ = 0.3441 * SC – 291, adjR² = 0.98; when SC was ≤ 1540 µS/cm was Cl⁻ = 1.044 * (exp(0.001609 * SC + 3.046)), adj R² = 0.65. Equations based on data from both Madison and Milwaukee.