

# Yahara River at Windsor

## Road Salt Monitoring Data Summary

### February – December 2011



Photo courtesy of Jim Beecher

**Volunteers:** Erin and Jake Vennie-Vollrath

#### Specific conductance summary:

- 8 measurements taken
- Minimum: 580  $\mu\text{S}/\text{cm}$  on 9/3/2011
- Maximum: 940  $\mu\text{S}/\text{cm}$  on 3/2/2011
- Mean: 780  $\mu\text{S}/\text{cm}$

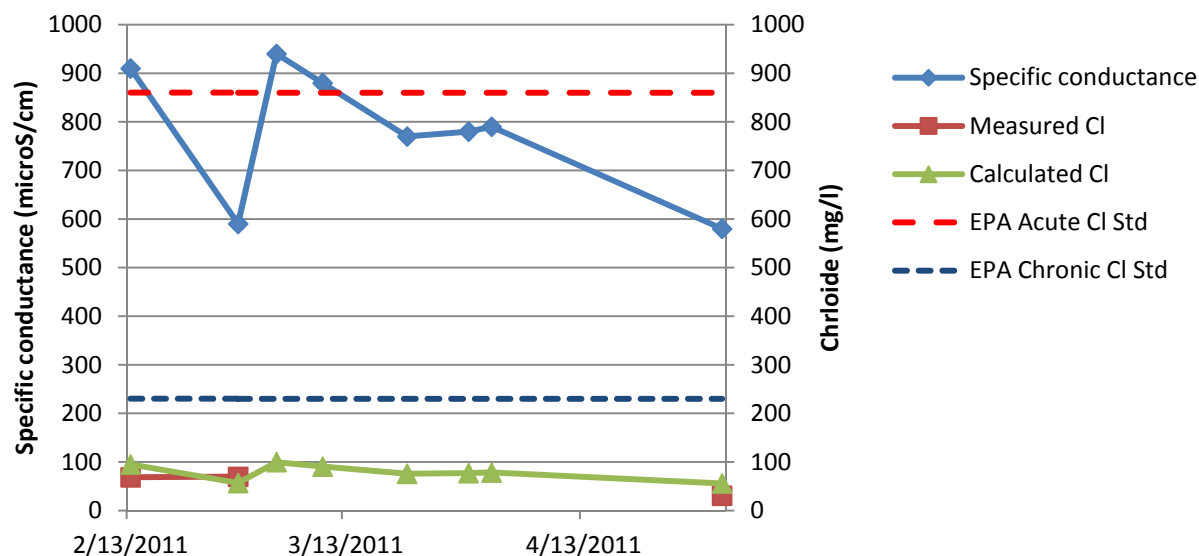
#### Chloride ( $\text{Cl}^-$ ) summary:

- 3 samples collected
- Minimum: 30.6 mg/L 9/3/2011
- Maximum: 69.6 mg/L 2/17/2011
- Mean: 56 mg/L

#### EPA Acute and Chronic Exceedences for Chloride<sup>1</sup>:

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

#### Results Over Time<sup>2</sup>:



<sup>1</sup> 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.

<sup>2</sup> 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  $\text{Cl} = 1.044 * (\exp(0.001609 * \text{SC} + 3.046))$ ,  $\text{adjR}^2 = 0.65$ .