

# Milwaukee River Estabrook Dam

## Road Salt Monitoring Data Summary

### February –December 2011



Photo courtesy of Jim Beecher

**Volunteers:** John Schafer and Jessica Zalewski

#### Specific conductance summary:

- 10 measurements taken
- Minimum: 560  $\mu\text{S}/\text{cm}$  on 3/19/2011
- Maximum: 1240  $\mu\text{S}/\text{cm}$  on 3/5/2011
- Mean: 831  $\mu\text{S}/\text{cm}$

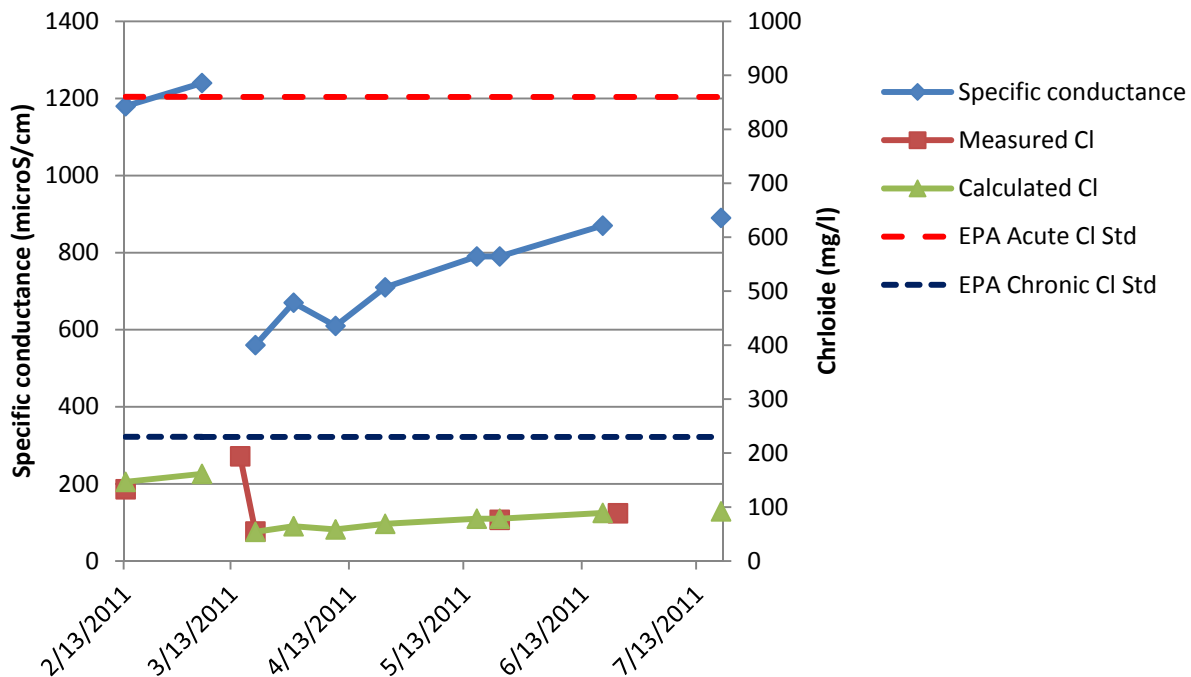
#### Chloride (Cl<sup>-</sup>) summary:

- 5 samples collected
- Minimum: 54.7 mg/L 3/19/2011
- Maximum: 194 mg/L 3/15/2011
- Mean: 109 mg/L

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

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 2011.

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



<sup>1</sup> 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.

<sup>2</sup> Calculated chloride: When  $\text{SC} > 1540 \mu\text{S}/\text{cm}$  was  $\text{Cl} = 0.3441 * \text{SC} - 291$ ,  $\text{adjR}^2 = 0.98$ ; when  $\text{SC}$  was  $\leq 1540 \mu\text{S}/\text{cm}$  was  $\text{Cl} = 1.044 * (\exp(0.001609 * \text{SC} + 3.046))$ ,  $\text{adjR}^2 = 0.65$ . Equations based on data from both Madison and Milwaukee.