Starkweather Creek at Atwood Ave

Road Salt Monitoring Data Summary

December 2011 – March 2014[1]

Photo courtesy of Jim Beecher

Volunteers: Erin and Jake Vennie-Vollrath

Specific conductance summary:

- 31 measurements taken
- Minimum: 460 µS/cm on 6/24/2013
- Maximum: 8000 µS/cm on 1/28/2013
- Mean: 1810 µS/cm

Chloride (Cl^-) summary:

- 7 samples collected
- Minimum: 46.6 mg/L on 6/24/2013
- Maximum: 2400 mg/L on 1/28/2013
- Mean: 622 mg/L

EPA Acute and Chronic Exceedences for Chloride[2]:

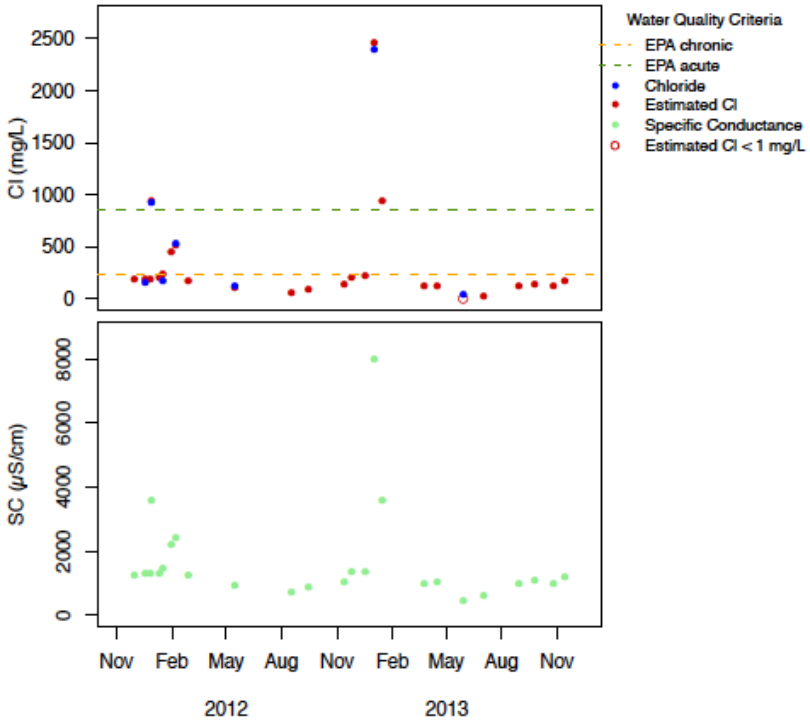
The EPA acute chloride standard of 860 mg/L was not exceeded four times at this site:

- 931 mg/L on 1/24/2012 (measured)
- 936 mg/L on 2/10/2013 (calculated)[3]
- 2400 mg/L on 1/28/2013 (measured)
- 1316 mg/L on 2/20/2014 (calculated)

In addition, the EPA chronic chloride standard of 230 mg/L was exceeded eight times. In addition to exceedences shown on the graph below, the following were predicted:

- 369 mg/L on 12/26/2013
- 340 mg/L on 1/20/2014
- 316 mg/L on 3/11/2014
- 417 mg/L on 1/9/2014
- 555 mg/L on 2/6/2014

Results Through December 2013[3]:



[1] All data in SWIMS as of 8/26/2014 were downloaded

[2] Source: EPA. 1988. Ambient Water Quality Criteria for Chloride. EPA 440/6-88-001.

[3] Calculated chloride: Cl = 0.242 x SC−115.2 adjR^2 = 0.8, except when SC >2250, then Cl = 0.346 * SC – 309.8, adjR^2 = 0.97