

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Deer Creek

Water Body Segment at a Glance:

Counties:	St. Louis and St. Louis City
Nearby Cities:	Maplewood and St. Louis
Water Body ID:	3826
Length of segment:	1.6 miles
Watershed Size:	36.8 square miles
Pollutants:	Chloride and Bacteria
Source:	Urban runoff/Storm sewers



Statewide Map Showing Location of Watershed

Scheduled for TMDL development: 2014-bacteria; 2017-chloride

Description of the Problem

Designated Beneficial uses of Deer Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health (Fish Consumption)
- Whole Body Contact Recreation – Category A
- Secondary Contact Recreation

Use that is impaired

- Protection of Warm Water Aquatic Life
- Whole Body Contact Recreation – Category A
- Secondary Contact Recreation

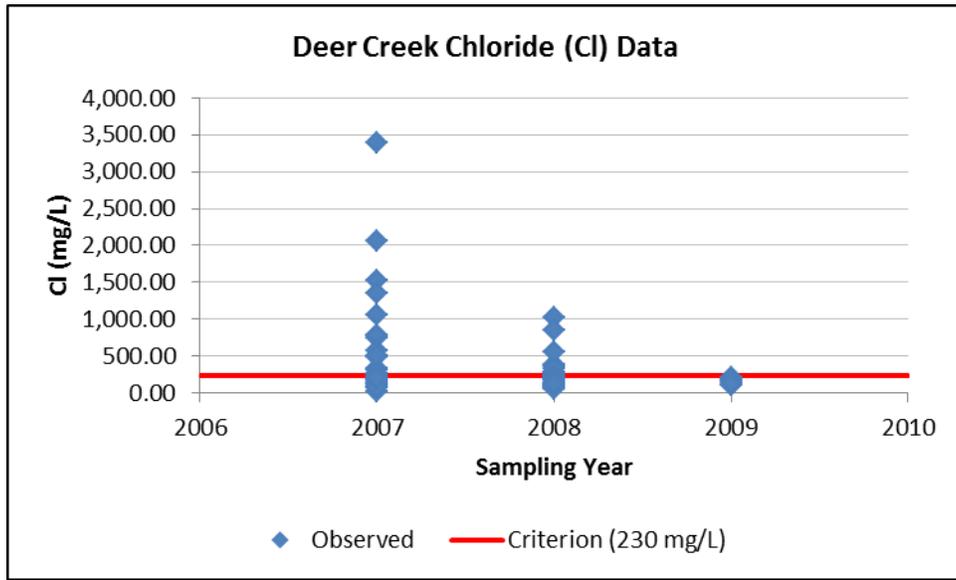
Standards that apply

- Numeric criteria for chloride are found in 10 CSR 20-7.031 Table A and are dependent upon water hardness and sulfate concentrations. However, the assessment of Deer Creek as impaired by chloride predates this current criteria and is based on the state's former chronic chloride criterion of 230 milligrams per liter (mg/L). An assessment based on the new hardness dependent criteria has not yet been completed.
- The criteria for bacteria are found at 10 CSR 20-7.031(4)(C), where it states that for category A waters, the *E. coli* bacteria count, measured as a geometric mean, shall not exceed 126 colonies per 100 milliliters of water (mL) during the recreational season. The recreational season is defined as being from April 1 – October 31. For secondary contact recreation, *E. coli* counts measured as a geometric mean during the recreational season shall not exceed 1,134 colonies per 100mL.

Background information and water quality data

Chloride Impairment

Deer Creek is an urban stream in St. Louis County that flows into the City of St. Louis and is a tributary of River des Peres. The Listing Methodology used to assess Deer Creek for chloride allows a water body to be judged as impaired if the criterion is exceeded more than once in the last three years of data when the stream is at stable flow conditions. Evidence for the impairment comes from data collected by the Metropolitan St. Louis Sewer District. Data collected from Deer Creek from 2007 to 2009 show that there were 21 exceedances of the chronic chloride criterion, ten of which were at stable flow conditions. For this reason, Deer Creek has been assessed as impaired by chloride.



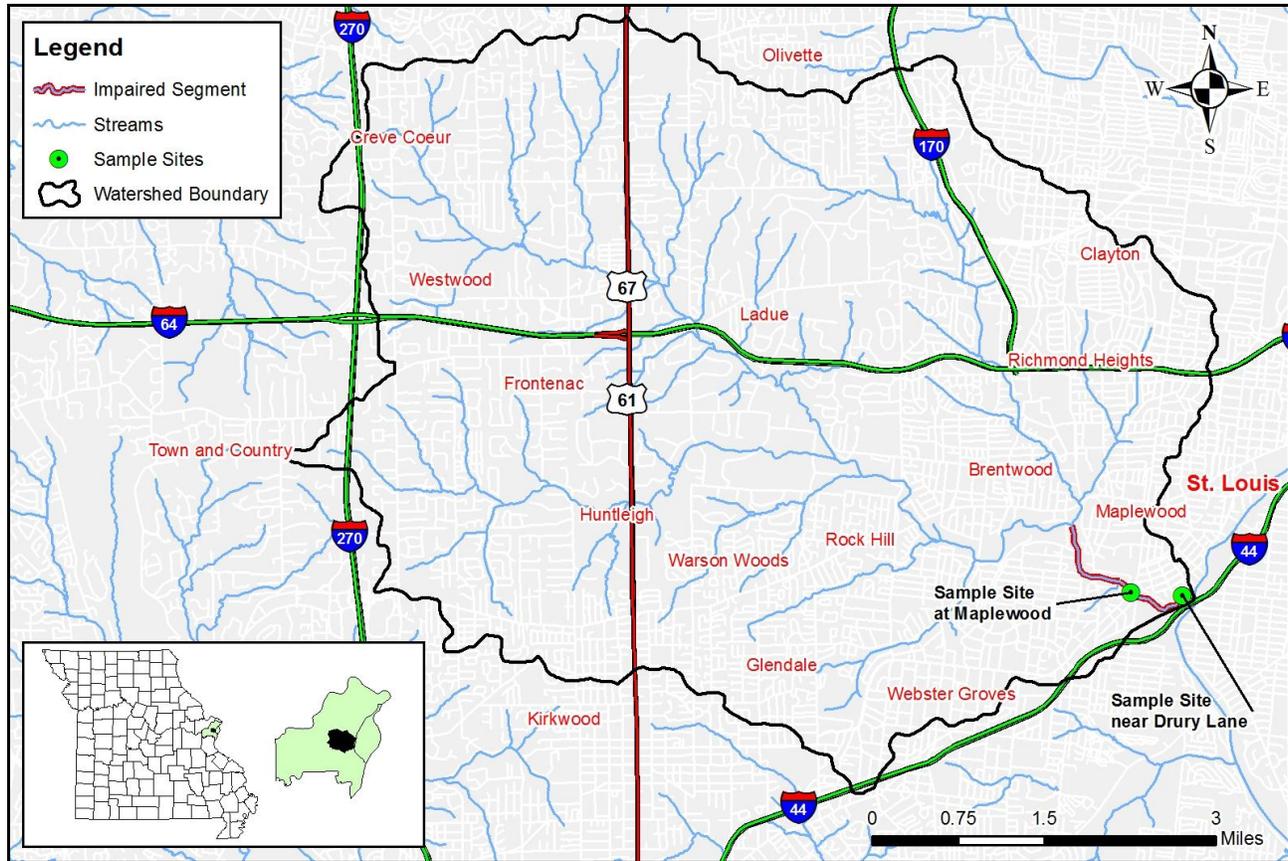
Bacteria Impairment

A stream is judged as impaired by bacteria if the water quality criterion is exceeded in any of the last three years for which there is a minimum of five samples taken during the recreational season. Adequate bacteria data for Deer Creek is available for 2007, 2008, and 2009. The whole body contact recreation category B criterion and the secondary contact criterion were both exceeded in 2009. For this reason, Deer Creek was judged to be impaired by bacteria.

2009 Recreational Season Bacteria Data

<i>Sample Date</i>	<i>E. coli (counts/100mL)</i>
July 7, 2009	2,060
Aug. 4, 2009	359
Aug. 26, 2009	598
Sept. 15, 2009	11,200
Oct. 7, 2009	714
Geomean:	1,287

Map showing the Deer Creek Watershed and Sample Sites



NOTE: The final Deer Creek TMDL will use the most recent and available data and information

For more information call or write:

Missouri Department of Natural Resources

Water Protection Program

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