

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Fee Fee Creek (new)

Water Body Segment at a Glance:

County:	St. Louis
Nearby City:	Maryland Heights
Water Body ID:	1704
Length of segment:	1.5 miles
Watershed Size:	17.3 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 Fee Fee Creek

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

Use that is impaired

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

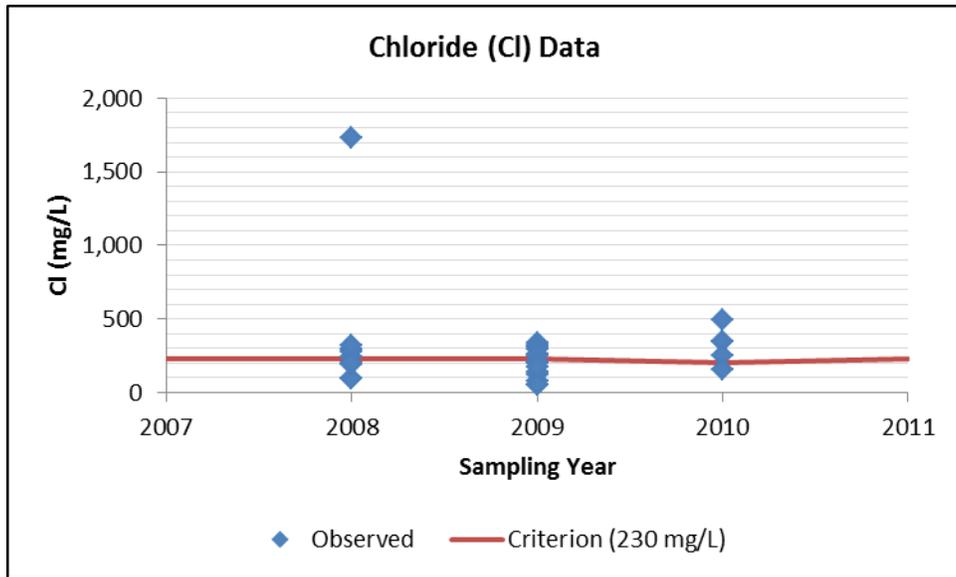
Standards that apply

- 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 Fee Fee 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 B waters, the *E. coli* bacteria count, measured as a geometric mean, shall not exceed 206 colonies per 100 milliliters of water (mL) during the recreational season. The recreational season is defined as being from April 1 – October 31.

Background information and water quality data

Chloride Impairment

Fee Fee Creek is an urban stream in St. Louis County that is a tributary to Creve Coeur Creek, which is a tributary to the Missouri River. The Listing Methodology used to assess Fee Fee 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 Fee Fee Creek from 2008 to 2010 show that there were 15 exceedances of the chronic chloride criterion, four of which were at stable flow conditions. For this reason, Fee Fee Creek has been assessed as impaired by chloride.



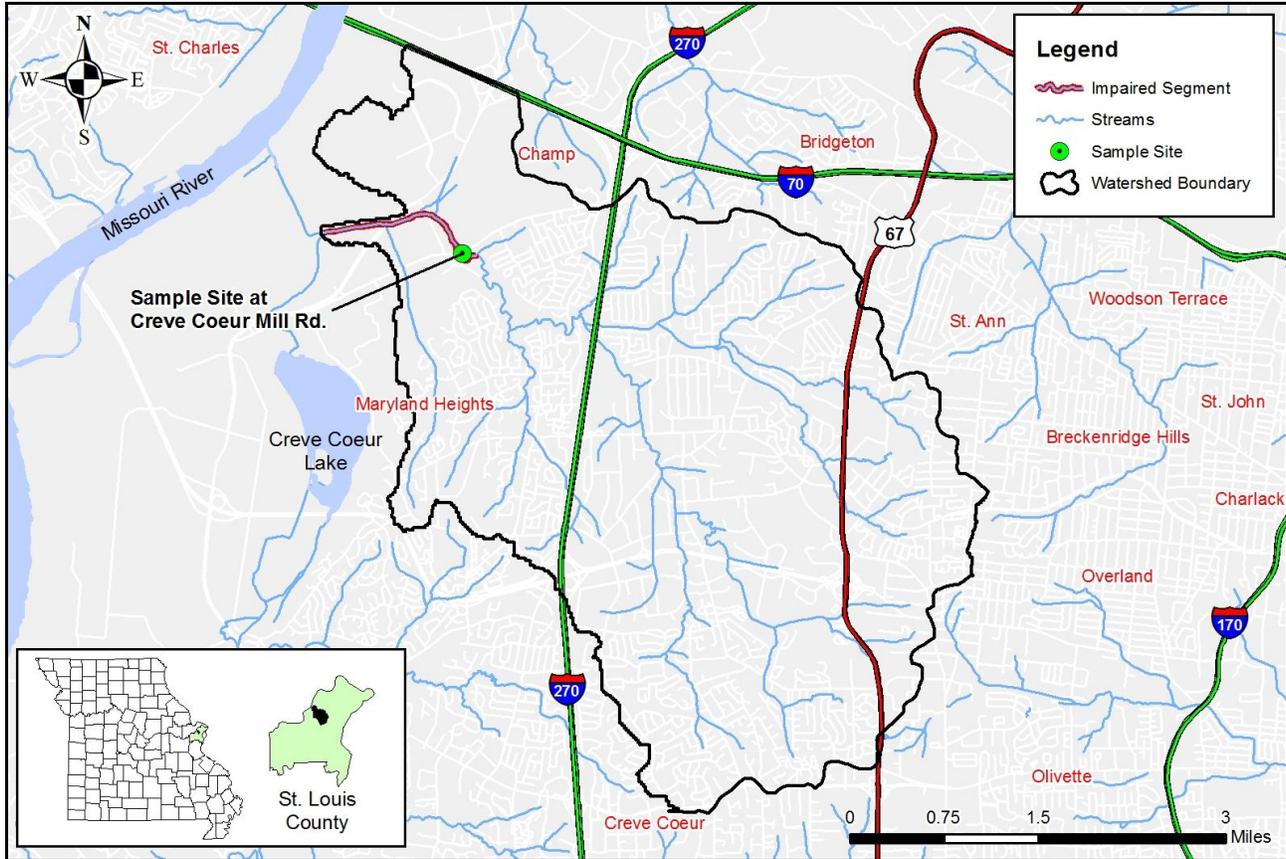
Bacteria Impairment

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 Fee Fee Creek is available for 2007, 2008, and 2009. The whole body contact recreation category B criterion was exceeded in 2009. For this reason, Fee Fee Creek was judged to be impaired by bacteria.

2009 Recreational Season Bacteria Data

<i>Sample Date</i>	<i>E. coli</i> (counts/100mL)
April 15, 2009	613
June 2, 2009	5,790
July 14, 2009	1,610
Aug. 5, 2009	464
Sept. 22, 2009	11,200
Sept. 30, 2009	132
Oct. 12, 2009	169
Geomean:	943

Map Showing the Fee Fee Creek Watershed



NOTE: The final Fee Fee 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
P.O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or 573-751-1300 office
573-526-6802 fax
Program Home Page: dnr.mo.gov/env/wpp/index.html