

Missouri Department of Natural Resources

## Total Maximum Daily Load Information Sheet

### Black Creek – St. Louis County

Water Body ID: 3825

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#### Water Body Segment at a Glance:

<b>County:</b>	St. Louis
<b>Nearby City:</b>	Brentwood
<b>Length:</b>	1.6 miles
<b>Pollutants:</b>	Chloride and Bacteria
<b>Source:</b>	Urban runoff/Storm sewers



Statewide Map Showing Location of Watershed

#### Scheduled for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at [dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm](http://dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm).

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### Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. Black Creek is impaired due to exceedances of the water quality criteria for the protection of aquatic life and recreation.

#### Designated uses of Black Creek\*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

\*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

#### Designated use that are impaired

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)
- Secondary Contact Recreation (SCR)

### **Criteria 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, these criteria were disapproved by the U.S. Environmental Protection Agency and cannot be used for Clean Water Act Purposes. For this reason, the assessment of Black Creek as impaired by chloride is based on the state's former and EPA approved chronic chloride criterion of 230 milligrams per liter (mg/L).
- The criteria for bacteria are found at 10 CSR 20-7.031(5)(C) and Table A, 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. 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**

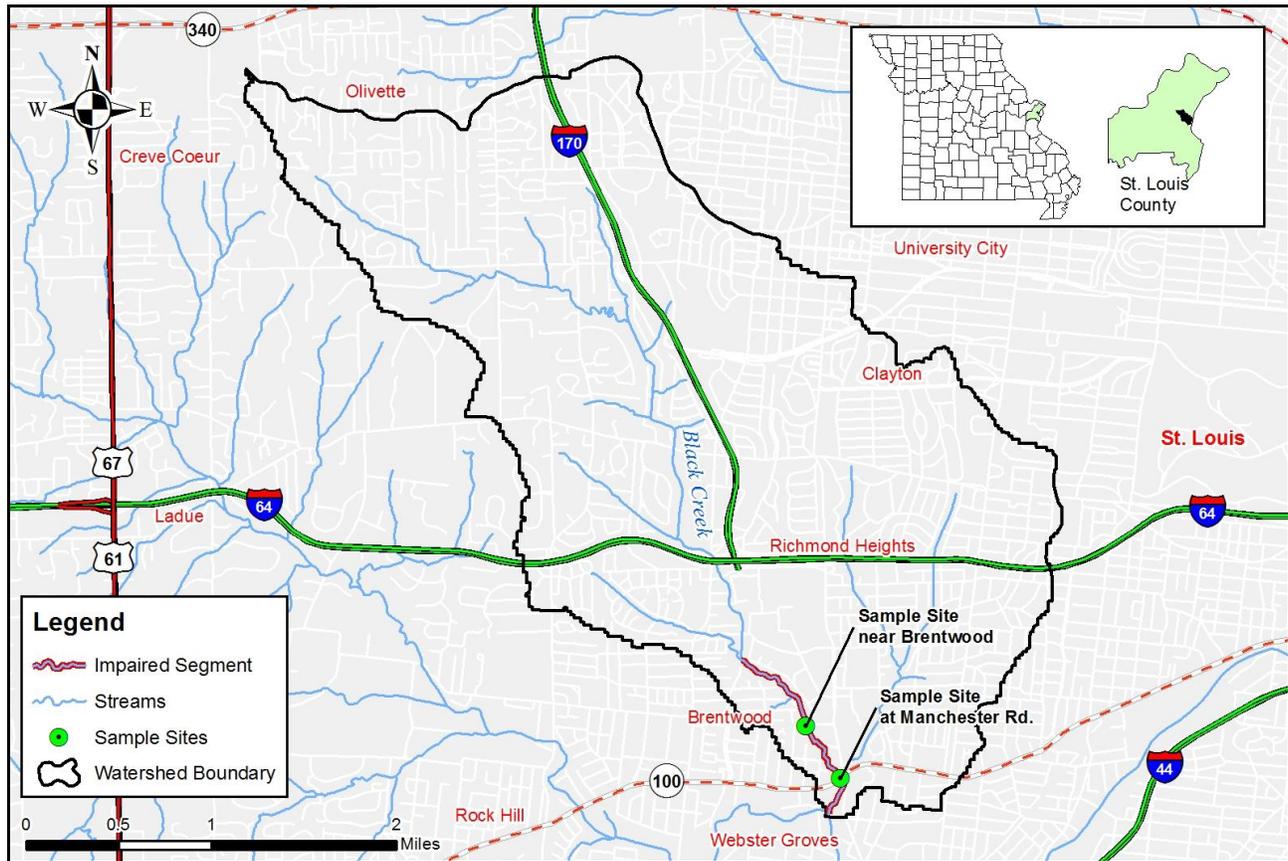
Black Creek is an urban stream in St. Louis County that flows into Deer Creek, which is a tributary of River des Peres. The Listing Methodology used to assess Black Creek for chloride judges a water body to be impaired if the criterion is exceeded more than once in the last three years of available data when the stream is at stable flow conditions. Data collected from Black Creek from 2008 to 2012 show that there were six exceedances of the chronic chloride criterion at stable flow conditions.

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 adequate data (minimum of five samples taken during the recreational season). For Black Creek there was adequate bacteria data for 2009, 2010 and 2011. The whole body contact recreation category B criterion was exceeded in all three years and the secondary contact recreation criterion was exceeded in 2009.

### **TMDL for Black Creek**

The Black Creek TMDL will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, the Black Creek TMDL will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

## Map of the Black Creek Watershed



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