

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Big Creek

Water Body ID: 1250

Water Body Segment at a Glance:

Downstream County:	Henry
Upstream County:	Jackson
Nearby City:	Kansas City
Segment Length:	70.5 miles
Pollutant:	Bacteria
Source:	Rural nonpoint sources



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.

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. Big Creek is impaired due to exceedances of the water quality criterion for the protection of whole body contact recreation category B.

Designated uses of Big 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).

Uses that are impaired

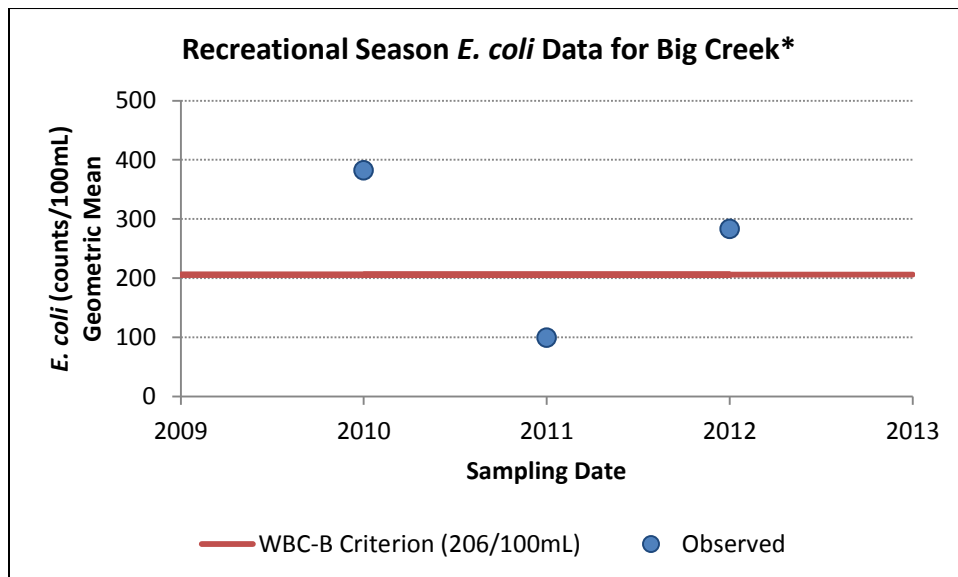
- Whole Body Contact Recreation – Category B

Criteria that apply

- Missouri's Water Quality Standards at 10 CSR 20-7.031(5)(C) and Table A state that for waters designated for whole body contact recreation category B, the *E. coli* bacteria count, measured as a geometric mean, shall not exceed 206 colonies per 100 milliliters of water during the recreational season. The recreational season is defined as being from April 1 to October 31.

Background information and water quality data

Big Creek is a tributary of the South Grand River and flows through Jackson, Cass, Johnson, and Henry counties. The department judges a stream to be impaired by bacteria if the water quality criterion for *E. coli* is exceeded in any of the last three years for which there is adequate data (minimum of five samples taken during the recreational season). High counts of *E. coli* are an indication of fecal contamination and an increased risk of pathogen-induced illness to humans. Adequate *E. coli* bacteria data for Big Creek were collected in 2010 and 2011. The recreational season geometric mean of these data exceeded the whole body contact category B criterion in 2010. For this reason, Big Creek has been assessed as impaired by *E. coli*.

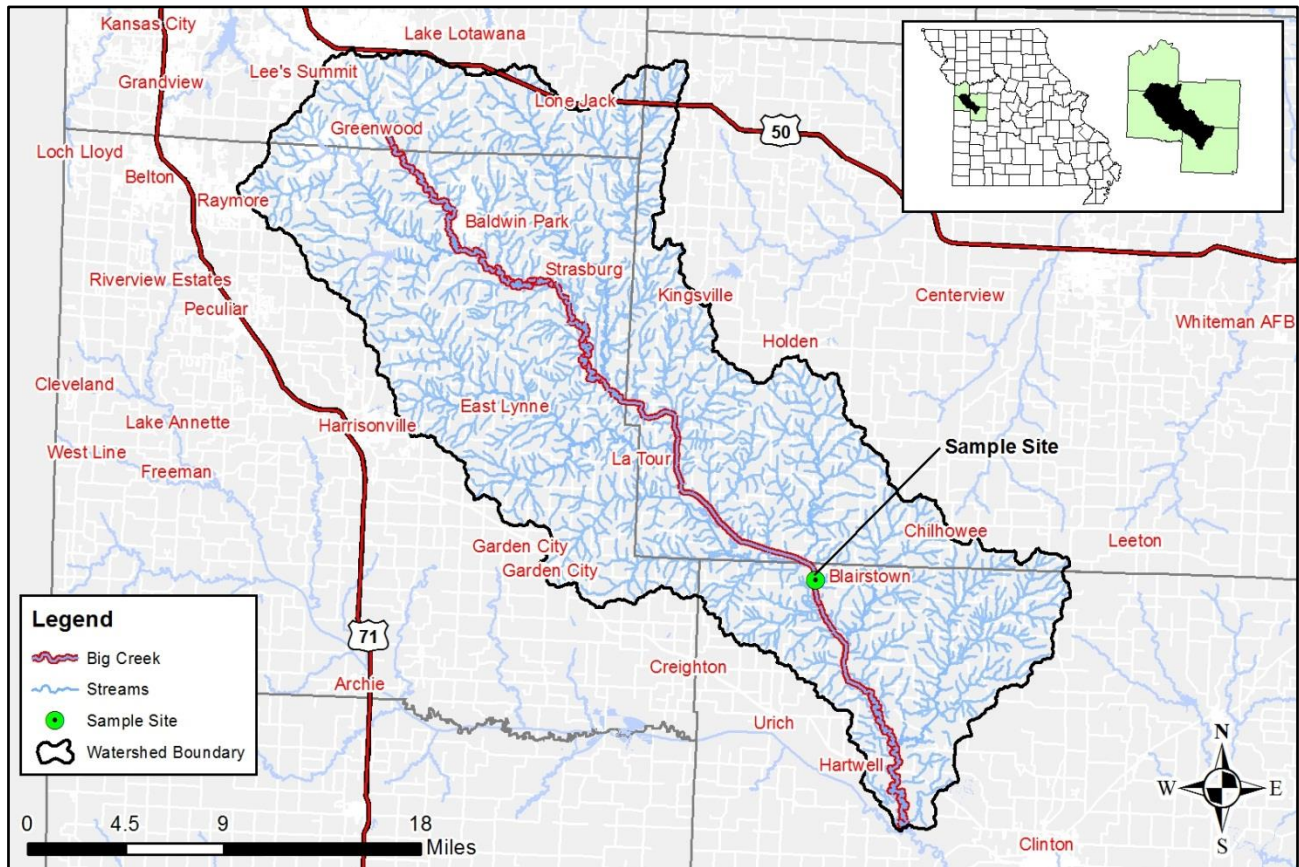


* Only four samples were collected in 2012, so this data could not be used for assessment

TMDL for Big Creek

The Big 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 Big 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 Showing the Big Creek Watershed and Sample Site



For more information call or write:

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