

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Turkey Creek

E. coli bacteria impairment

Water Body ID: 3216 and 3217

Water Body Segment at a Glance:

County: Jasper
Nearby City: Joplin
Length:
 Water body 3216: 7.7 miles
 Water body 3217: 6.1 miles
Pollutant: *E. coli* bacteria
Source: Rural nonpoint sources



State 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.

Note: See also Center-Turkey Creek Information Sheet for metal pollutants

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. Turkey Creek is impaired due to exceedances of water quality criteria that protect recreational uses.

Designated uses of Turkey Creek*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category A (WBC-A) ←water body 3217 only
- Whole Body Contact Recreation Category B (WBC-B) ←water body 3216 only
- 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).

Use that is impaired

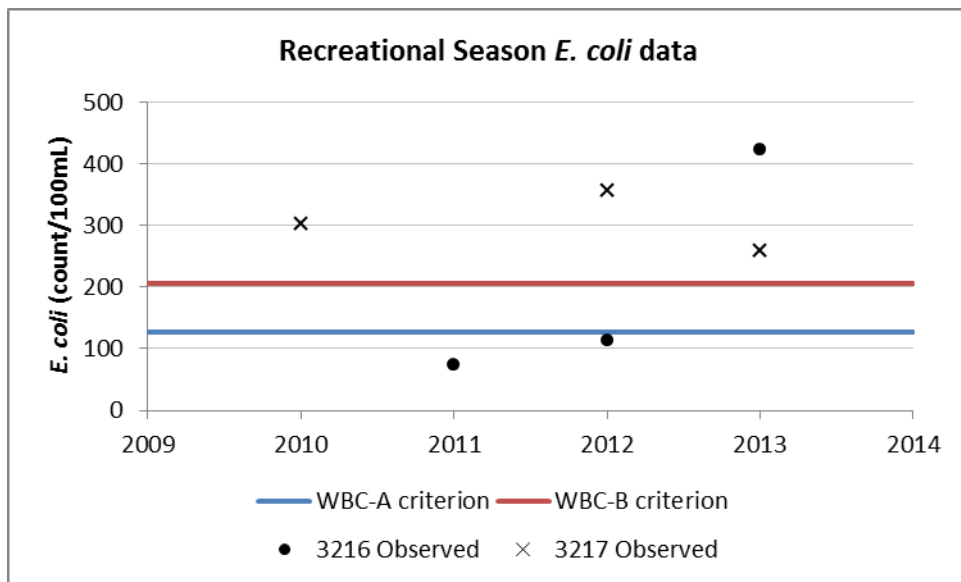
- Whole Body Contact Recreation Category A (WBC-A)
- Whole Body Contact Recreation Category B (WBC-B)

Criteria that apply

- Missouri’s Water Quality Standards at 10 CSR 20-7.031(5)(C) and Table A state that the *E.coli* bacteria count shall not exceed 126 per 100 milliliters of water for Category A and 206/100 mL for Category B waters. This count is the geometric mean during the recreational season.

Assessment and water quality data

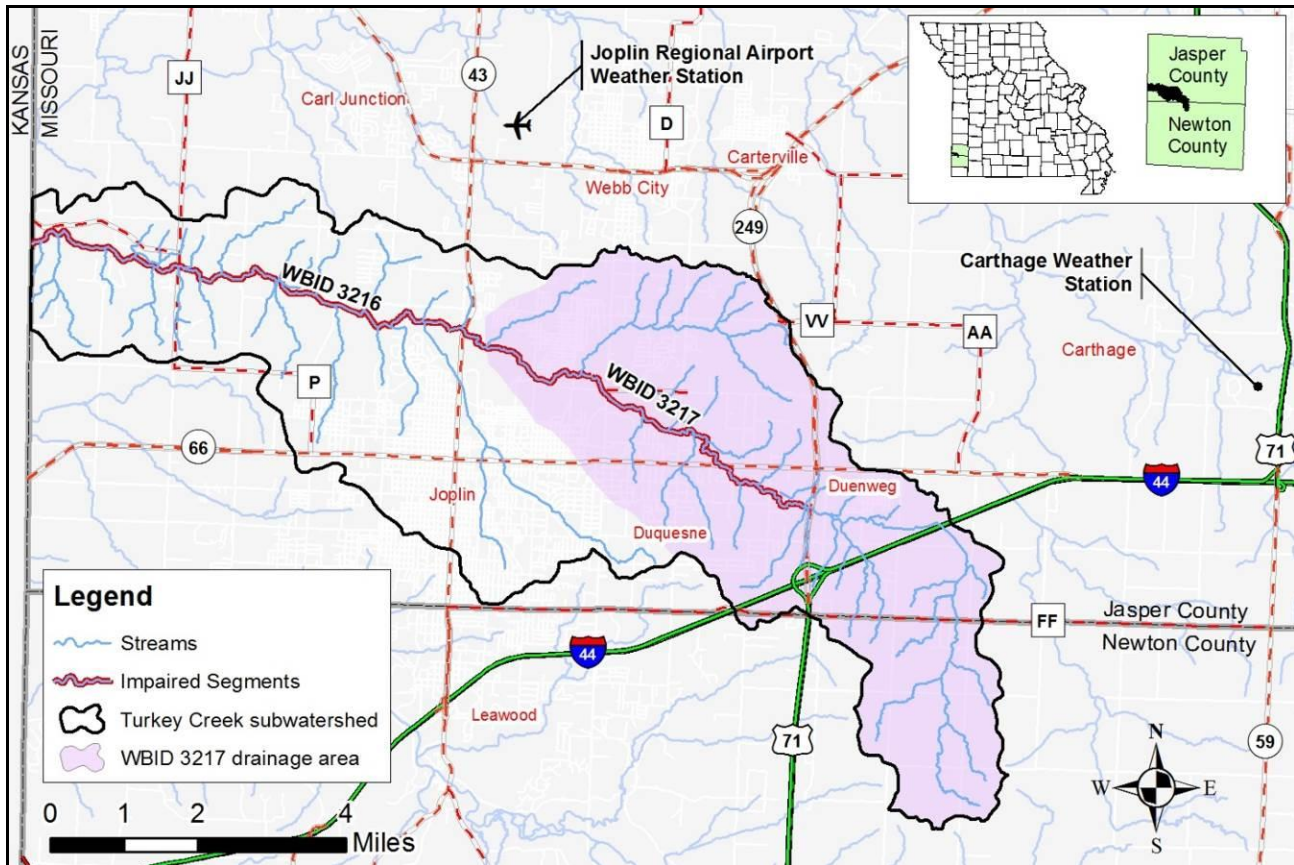
High counts of *E. coli* in surface waters are an indication of fecal contamination. *E. coli*, are bacteria found in the intestines of warm blooded animals and are used as indicators of the risk of waterborne disease from pathogenic bacteria or viruses. The department judges streams to be impaired by *E. coli* if the criteria are exceeded in any of the last three years for which there was been a minimum of five samples collected. The category B criterion was exceeded in water body 3216 of Turkey Creek in 2011 and the category A criterion was exceeded in water body 3217 of Turkey Creek in 2011, 2012, and 2013.



TMDL for Turkey Creek

The Turkey 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 Turkey 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 Turkey Creek watershed



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