



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Little Medicine Creek

Water Body ID: 0623

Water Body Segment at a Glance:

Counties: Mercer/Grundy
Nearby City: Galt
Length: 39.8 miles
Pollutant 1: Aquatic macroinvertebrate bioassessments
Source: Unknown
Pollutant 2: *E. coli* bacteria
Source: Rural nonpoint sources
Water Body ID: 0623



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. Little Medicine Creek is impaired due to exceedances of water quality criteria for the protection of aquatic life.

Designated uses of Little Medicine 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

- Whole Body Contact Recreation Category B (WBC-B)
- General criteria

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 206 per 100 milliliters of water for Category B waters. This count is the geometric mean during the recreational season (April 1- October 31).

The state's general water quality criteria at 10 CSR 20-7.031(4) are applicable to all waters of the state at all times. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life [10 CSR 20-7.031(4)(D)].
- Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(G)].

Assessment and water quality data

High counts of *E. coli* bacteria in surface water are an indication of fecal contamination and an increased risk of waterborne disease from pathogenic bacteria or viruses. The department judges a stream to be impaired by *E. coli* if the criterion is exceeded in any of the last three years for which there is a minimum of five samples collected during the recreational season. Sufficient data is available from 2010 – 2012. The criterion was exceeded in all three of these years.

Invertebrate communities are judged to be impaired if the percent of sampling sites receiving a score of 16 or more is significantly less than for reference streams within the same ecological drainage unit. For Little Medicine Creek, nine of 19 samples, or 47 percent, collected in the upper 20 miles of the stream scored less than 16.

TMDL for Little Medicine Creek

The Little Medicine 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 Little Medicine 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.

For more information call or write:

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Map of the Little Medicine Creek watershed

