



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Muddy Creek - Water Body ID No. 853

Water Body Segment at a Glance:

County: Pettis
Nearby City: Sedalia
Length segment: 62.2 miles
Pollutant: Aquatic macroinvertebrate bioassessments
Source: Unknown



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

Other TMDLs:

The U.S. Environmental Protection Agency approved a TMDL for ammonia, biochemical oxygen demand, and volatile suspended solids on Feb. 11, 2002.

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. Muddy Creek is impaired due to exceedances of state water quality criteria that protect aquatic life designated uses.

Designated uses of Muddy 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

- Warm Water Habitat (WWH)
- General Criteria

Criteria that apply

- The following general criteria from 10 CSR 20-7.031(4) apply:
 - (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly, or harmful bottom deposits or prevent full maintenance of beneficial uses.
 - (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.

Background information and water quality data

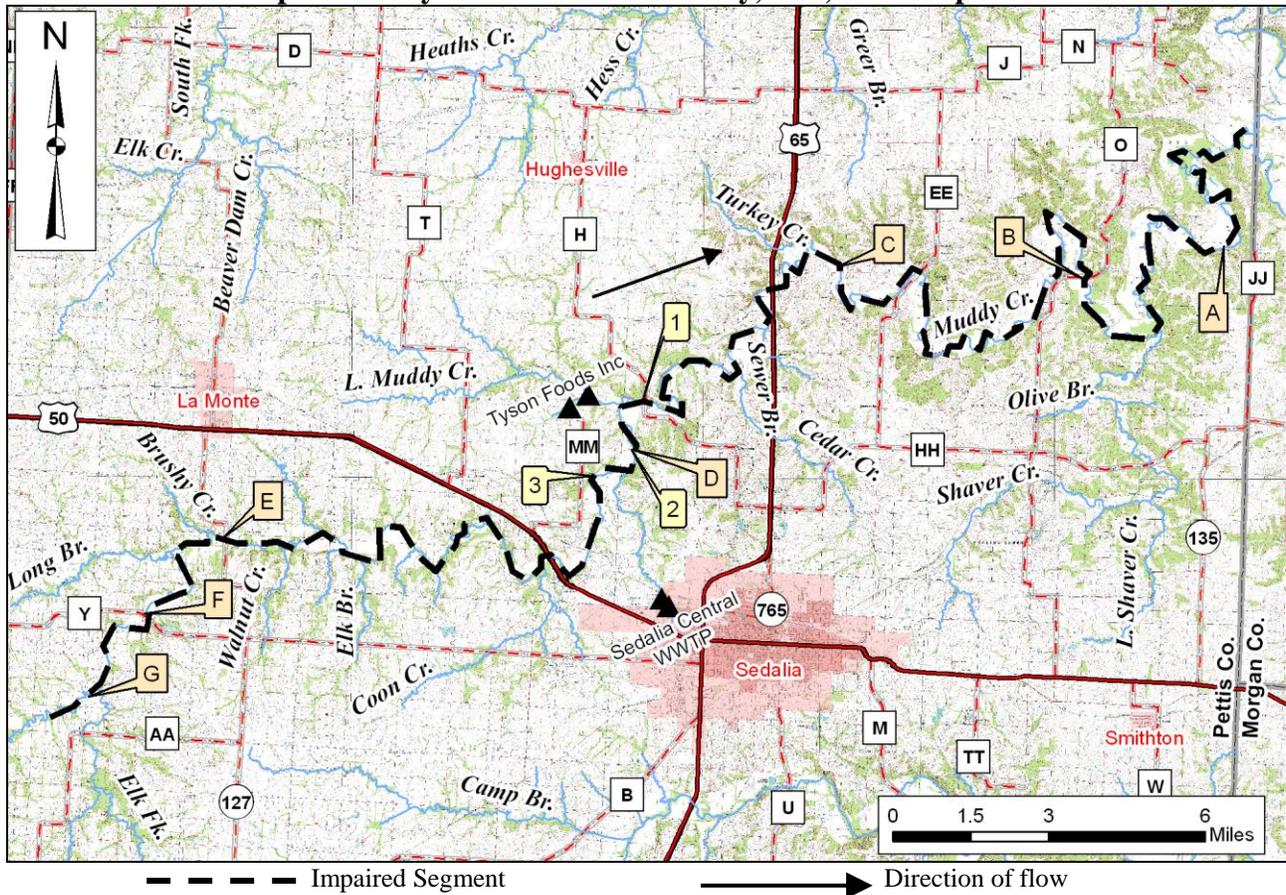
Muddy Creek is a tributary of the Lamine River. The department's Environmental Services Program collected and analyzed aquatic invertebrate samples in Muddy Creek in 1997 following the standard operating methods contained in "Semi-Quantitative Macroinvertebrate Stream Bioassessment." Invertebrate communities are judged to be impaired if the percentage of sampling sites receiving a score of 16 or more is significantly less than scores for reference streams in the same ecological drainage unit. Reference streams within the same ecological drainage unit as Muddy Creek scored 16 or higher on 83.6 percent of all glide-pool samples and 83.3 percent for all riffle-run samples. For Muddy Creek, no samples scored 16 or higher.

Macroinvertebrate Scores in Muddy Creek

<i>Sample Site*</i>	<i>Site Name</i>	<i>Date</i>	<i>Score</i>
B	Muddy Cr. At Hwy. O	Fall 1997	14
C	Muddy Cr. at Fristoe Rd.	Fall 1997	12
D	Muddy Cr. At Treasure Rd.	Fall 1997	8
G	Muddy Cr. At Schenk Rd.	Fall 1997	8
B	Muddy Cr. At Hwy. O	Spring 1997	14
C	Muddy Cr. at Fristoe Rd.	Spring 1997	14
E	Muddy Cr. At Hwy.127	Spring 1997	8
F	Muddy Cr. At Hwy.Y	Spring 1997	14
G	Muddy Cr. At Schenk Rd.	Spring 1997	12
A	Muddy Cr. At Lookout Rd.	Spring 1997	14

* See map on page 4 for sample site locations

Map of Muddy Creek in Pettis County, Mo., and sample sites



Chloride Sample Sites

- 1 – Muddy Cr. at State Highway H
- 2 – Muddy Cr. at Treasure Road
- 3 – Muddy Cr. at Yeater Road

TMDL for Muddy Creek

The Muddy 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 Muddy 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:

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 or fax 573-526-6802
 Program Home Page: dnr.mo.gov/env/wpp/index.html
 email: TMDL@dnr.mo.gov