

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Maline Creek

Water Body ID: 1709 and 3839

Water Body Segments at a Glance:

County:	St. Louis
Nearby City :	St. Louis
Water Body ID:	1709
Length:	0.6 mile
Pollutant:	<i>Escherichia coli (E. coli)</i>
Source:	Urban runoff/storm sewers
Water Body ID:	3839
Length:	0.5 mile
Pollutant:	Chloride
Source:	Urban runoff / storm sewers



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. Maline Creek is impaired due to exceedances of state water quality criteria that protect aquatic life and whole body contact recreational uses.

Designated uses of Maline Creek*

- Warm Water Habitat (WWH)
- Whole Body Contact Category B (WBC-B) (Water body 1709 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).

Uses that are impaired

- Warm Water Habitat (WWH) (Water body 3839 only)
- Whole Body Contact Recreation Category B (Water body 1709 only)

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, this criteria was disapproved by the U.S. Environmental Protection Agency. For this reason, the assessment of Maline Creek as impaired is based on the state's former EPA-approved chronic chloride criterion of 230 milligrams per liter (mg/L). A stream is judged to be impaired by chloride if the criterion is exceeded more than once in the last three years of data when the stream is at stable flow conditions. Water body 3839 of Maline Creek exceeded chronic chloride criterion four times during hydrologically stable flow conditions (Figure 1).

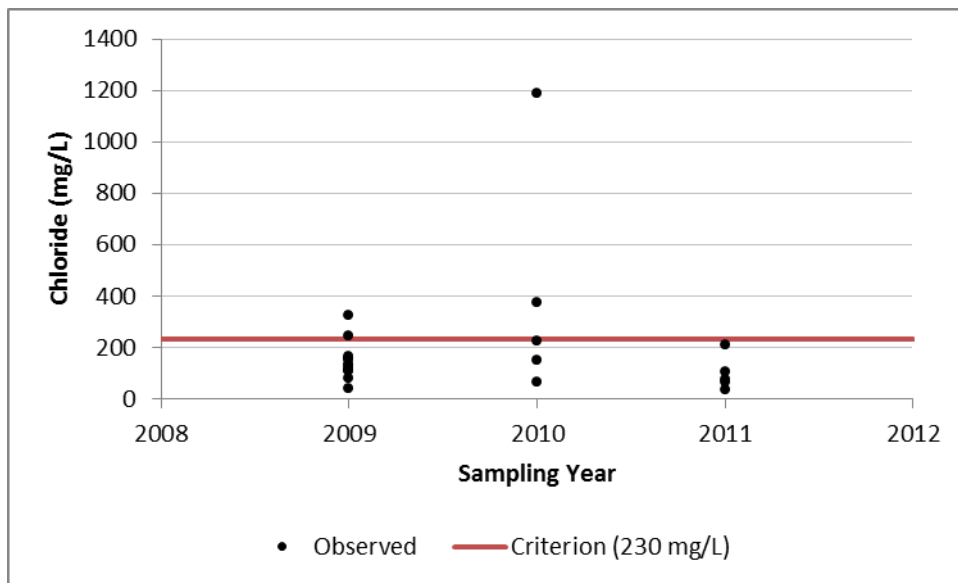


Figure 1. Chloride data (2009 – 2011)

- Numeric bacteria criteria for the protection of recreational uses are found in 10 CSR 20-7.031(5)(C) and Table A. For category B waters, *E. coli* counts, measured as a geometric mean, shall not exceed 206 counts/100mL of water “during the recreational season.” The state’s recreational season is defined in this section of the rule as being from April 1 to October 31. 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 water body 1709 of Maline Creek, adequate data was collected in 2007, 2008, and 2009 and the criterion was exceeded in each of these years (Figure 2).

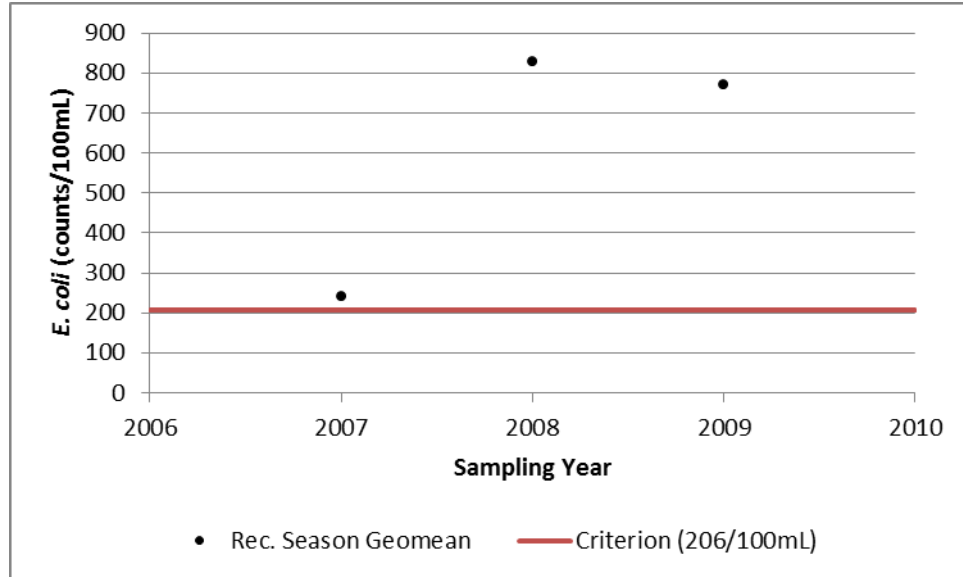


Figure 2. Recreational season *E. coli* data (2007 – 2009)

TMDL for Maline Creek

The Maline 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 Maline 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 showing the Maline Creek Watershed and Sample Sites

