

Missouri Department of Natural Resources

## Total Maximum Daily Load Information Sheet

### Thurman Creek

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#### Water Body Segment at a Glance:

**County:** Newton  
**Nearby City:** Joplin  
**Water Body ID:** 3243  
**Segment Length:** 3 miles  
**Watershed Size:** 7.5 square miles  
**Pollutant:** Bacteria  
**Source:** Rural and suburban nonpoint sources



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**Scheduled for TMDL development:** 2015

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#### Description of the Problem

##### Designated beneficial uses of Thurman Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health (Fish Consumption)
- Whole Body Contact Recreation – Category B

##### Uses that are impaired

- Whole Body Contact Recreation – Category B

##### Standards that apply

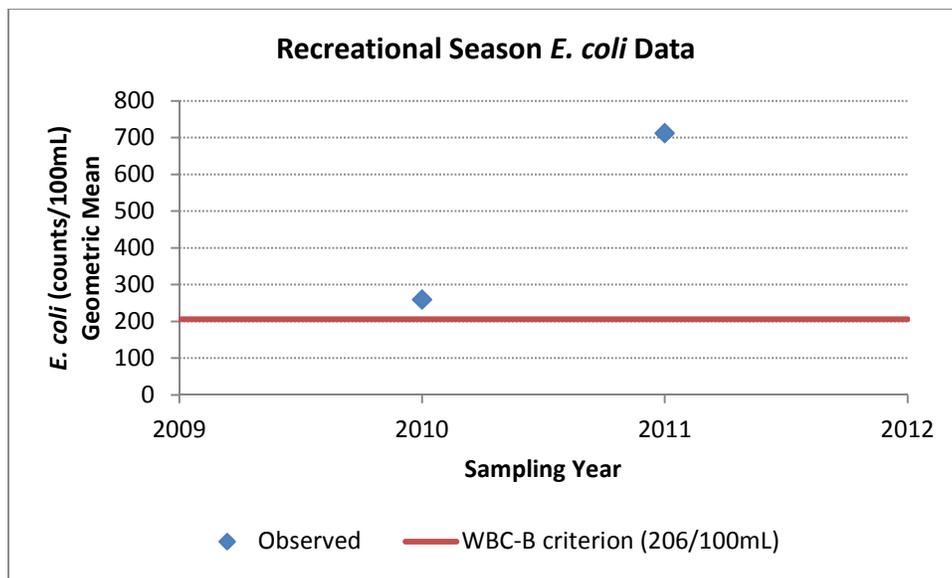
- Missouri's Water Quality Standards at 10 CSR 20-7.031(4)(C) states that for waters designated for whole body contact recreation category B, the *E. coli* bacteria count, measured as a geometric mean, shall not exceed 206 colonies per 100 milliliters of water during the recreational season. The recreational season is defined as being from April 1 to October 31.

##### Background information and water quality data

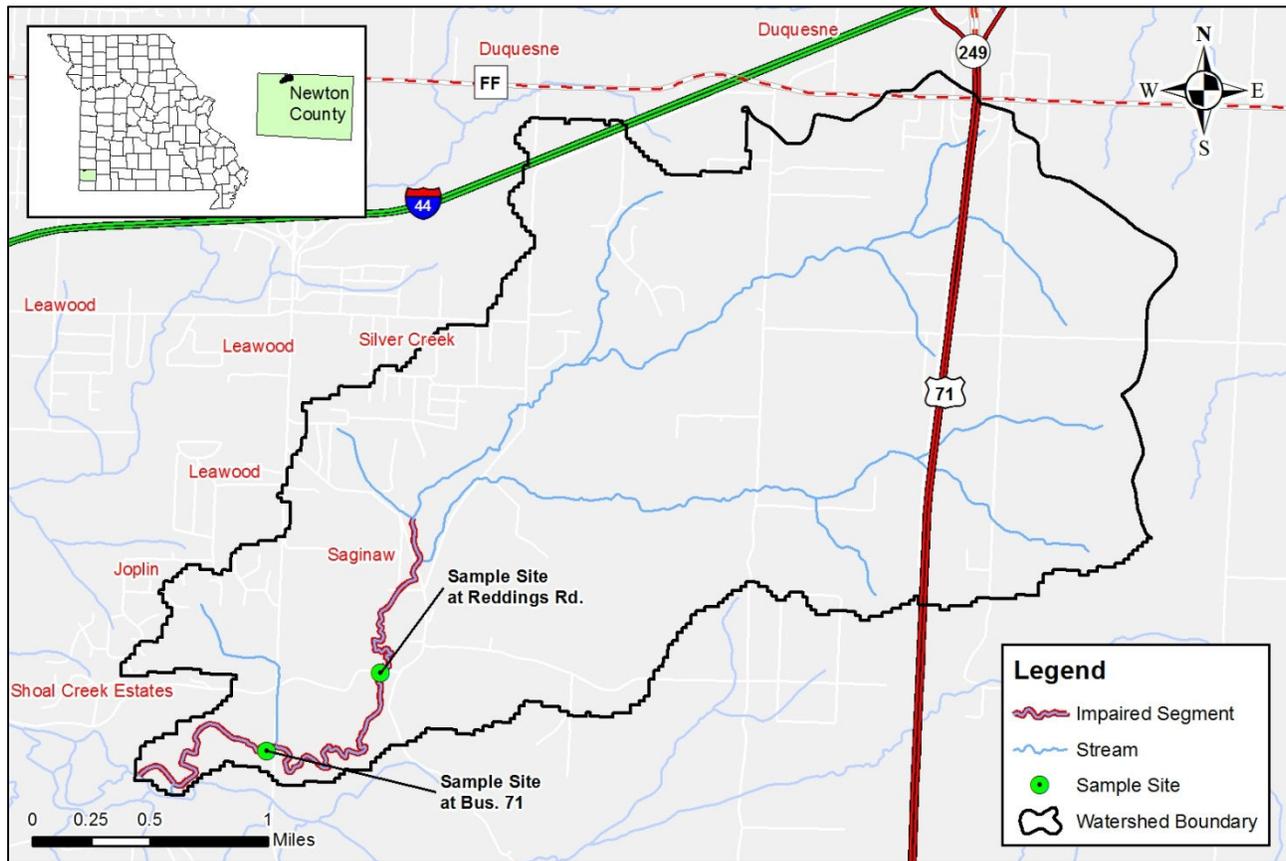
Thurman Creek is located south of Joplin and is a tributary to Shoal Creek. Thurman Creek is designated for category B whole body contact recreation use and was first listed as impaired by bacteria on the state's 2012 303(d) List of impaired waters, which was approved in whole by the U.S. Environmental Protection Agency on Nov. 13, 2012.

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. *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 (disease causing) bacteria or viruses. Missouri's whole body contact bacteria criteria are based on specific levels of risk of acute gastrointestinal illness. The level of risk correlating to the category B criterion is no more than 10 illnesses per 1,000 swimmers in fresh water (1 percent).

Sufficient recreational season *E. coli* data to assess Thurman Creek was collected by the Newton County Health Department in 2010 and 2011. The geometric mean of this data exceeded the whole body contact category B criterion during both years. For this reason, Thurman Creek has been assessed as impaired by *E. coli*.



## Map Showing the Thurman Creek Watershed



### NOTE:

The final Thurman Creek TMDL will use the most recent and available data and information.

### 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

573-526-6802 fax

Program Home Page: [dnr.mo.gov/env/wpp/index.html](http://dnr.mo.gov/env/wpp/index.html)