

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Fishpot Creek

Water Body Segment at a Glance:

County: St. Louis
Nearby Cities: Valley Park
Water Body ID: 2186
Impaired Length: 3.5 miles
Pollutant 1: Bacteria
Source 1: Urban nonpoint sources
Pollutant 2: Low dissolved oxygen
Source 2: Unknown



State Map Showing Location of Watershed

Scheduled for TMDL development: Bacteria in 2012 and dissolved oxygen in 2017

Description of the Problem

Designated beneficial uses of Fishpot 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:

- Protection of Warm Water Aquatic Life (Low DO impairment)
- Whole Body Contact Recreation – Category B (Bacteria impairment)

Standards that apply

- In the Missouri Water Quality Standards, found in 10 CSR 20-7.031 Table A, the criterion for dissolved oxygen, or DO, in streams is a minimum of 5 mg/L (milligrams per liter or parts per million).
- The criteria for bacteria are found at 10 CSR 20-7.031(4)(C), where it states that the *E. coli* bacteria count shall not exceed 126 colonies per 100 milliliters of water (126 col/100 mL) for Category A and 206 col/100 mL for Category B waters. This count is the geometric mean during the recreational season (April 1- October 31) in waters designated for whole body contact recreation.

Background information and water quality data

Fishpot Creek is a small stream that flows east and southeast into the Meramec River near St. Louis. It is designated as Category B for the whole body contact recreation use, which means it has places deep enough for total immersion (i.e., swimming), but these areas may be on private lands or inaccessible to the public. The impairments are based on data gathered by the U.S. Geological Survey and the Metropolitan St. Louis Sewer District.

Low Dissolved Oxygen

Water quality conditions in Fishpot Creek are not protective of aquatic life. Dissolved oxygen is important as many aquatic organisms require high levels of oxygen to survive and, in the case of Fishpot Creek, six of 30 samples (20 percent) gathered between 2002 and 2004 did not meet the water quality criterion (Figure 1). For dissolved oxygen, if more that 10 percent of measurements in a water body fail to meet the water quality criterion, then that water body is judged to be impaired.

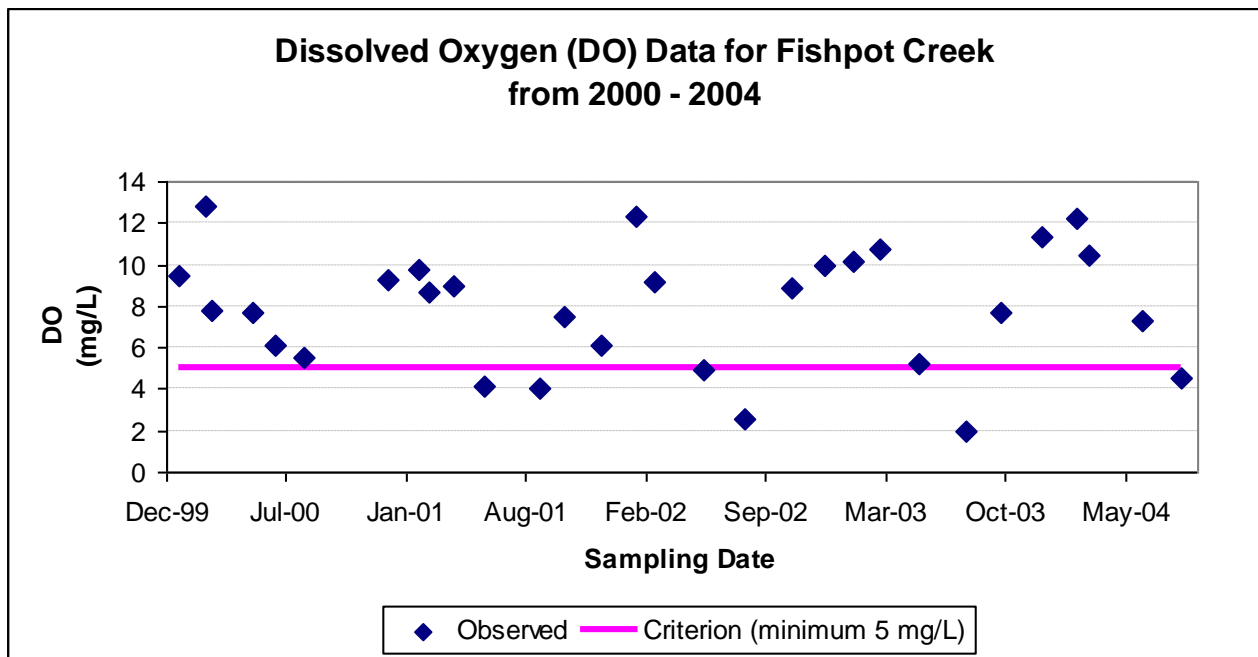


Figure 1.

Bacteria

High counts of *E. coli* are an indication of fecal contamination and an increased risk of pathogen-induced illness to humans. Infections due to pathogen-contaminated waters include gastrointestinal, respiratory, eye, ear, nose, throat and skin diseases. *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. Most *E. coli* strains are harmless, but some can cause serious illness in humans and are occasionally responsible for product recalls. 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).

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). Adequate data was collected in 2007, 2008, and 2009. The 2009 data shows an exceedance of the 206 col/100 mL criterion (Figure 2). Therefore, Fishpot Creek is judged to be impaired by bacteria. The geometric mean of *E. coli* data collected in 2010 also exceeds the whole body contact recreation category B criterion. However, because only four samples were collected, this data was not used for assessment.

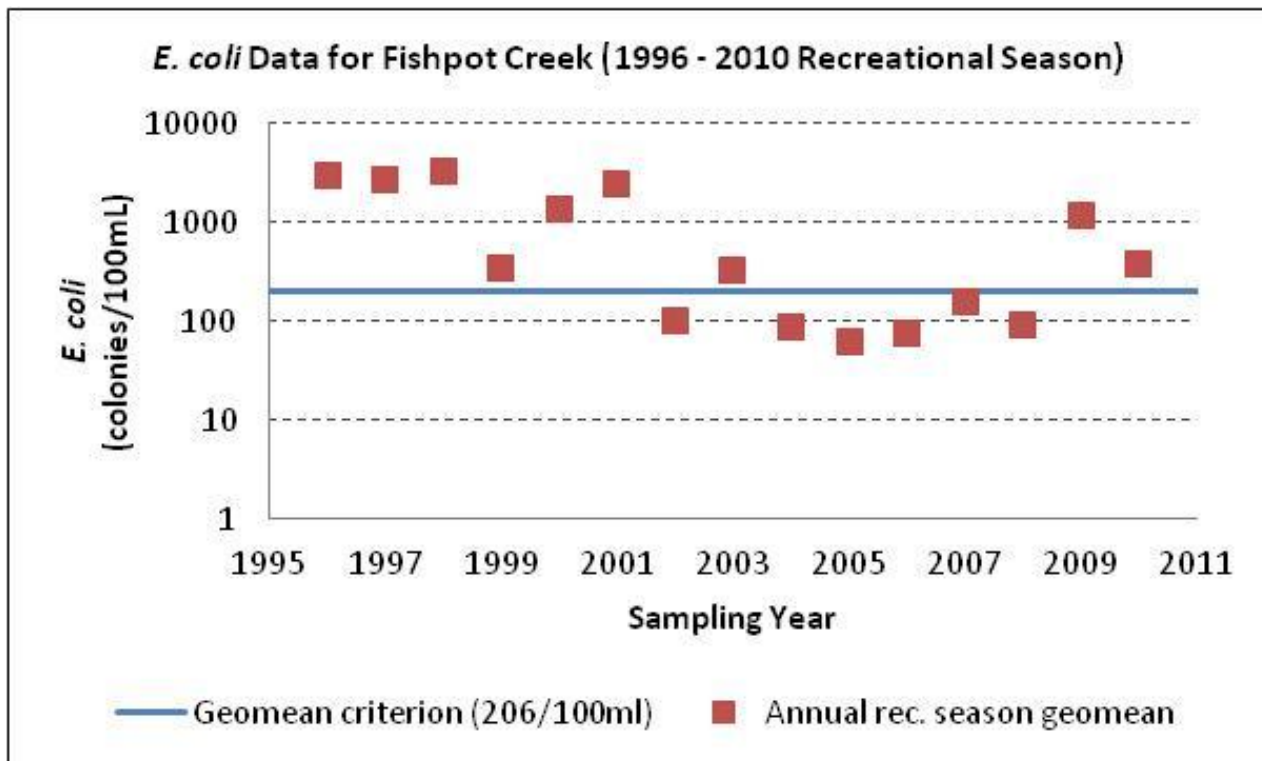
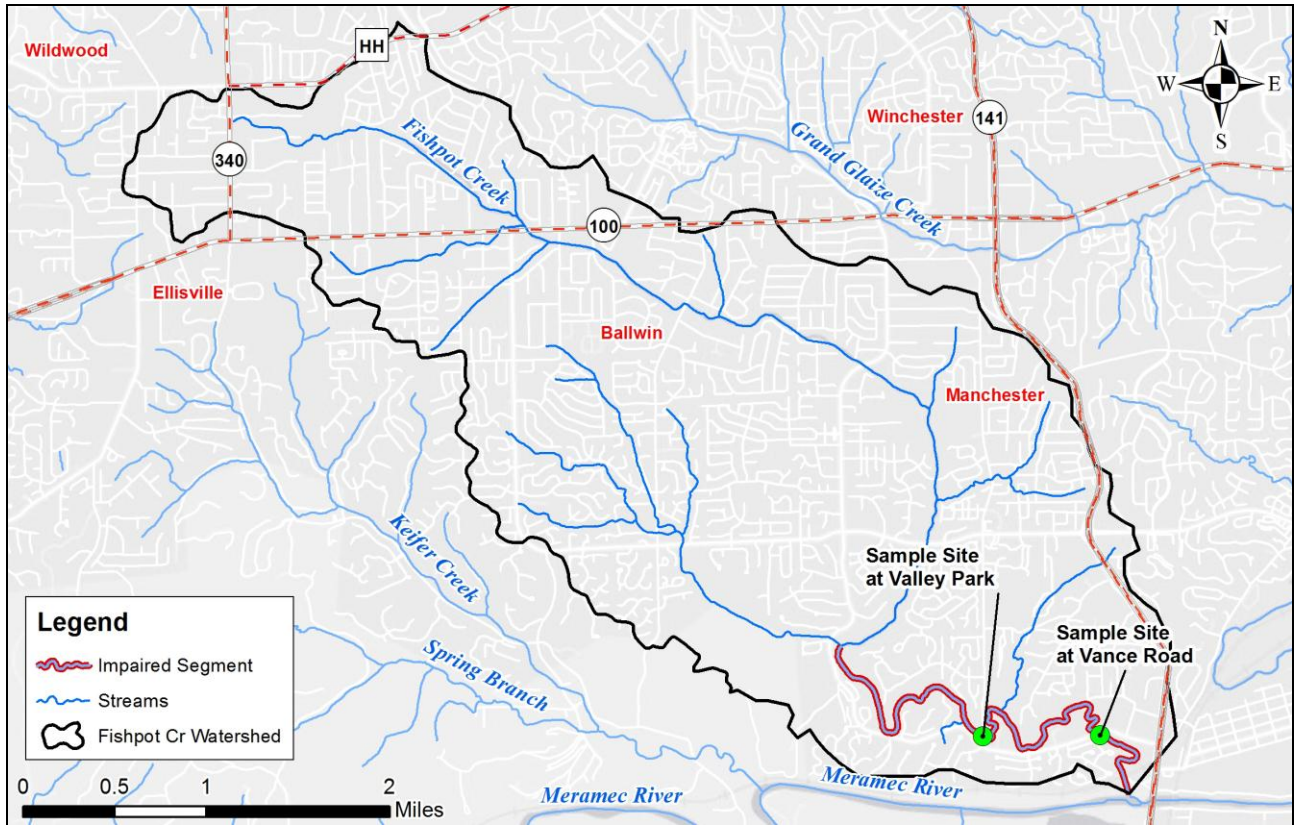


Figure 2.

Map Showing the Fishpot Creek Watershed in St. Louis County and Sample Sites



Note: Final TMDLs developed for Fishpot Creek will be based on the most current, available data and information.

For more information call or write:

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