



Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Stevenson Bayou

Water Body Segment at a Glance:

County: Mississippi
Nearby Cities: Charleston and East Prairie
Length of impaired segment: 14 miles
Pollutant: Low Dissolved Oxygen
Source: None Given
Water Body ID: 3135



State Map Showing Location of Watershed

Scheduled for TMDL development: 2016

Description of the Problem

Designated beneficial uses of Stevenson Bayou

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

Use that is impaired

- Protection of Warm Water Aquatic Life

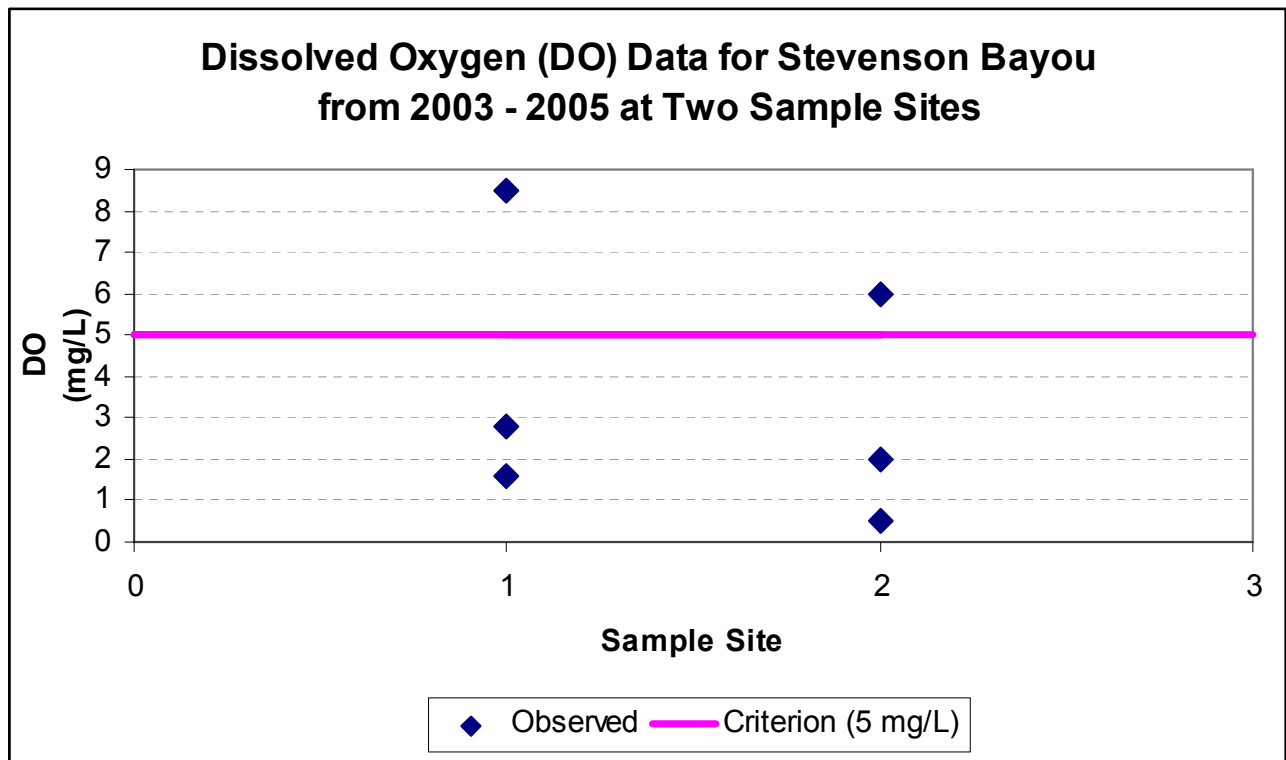
Standards that apply

- 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).

Background Information and water quality data

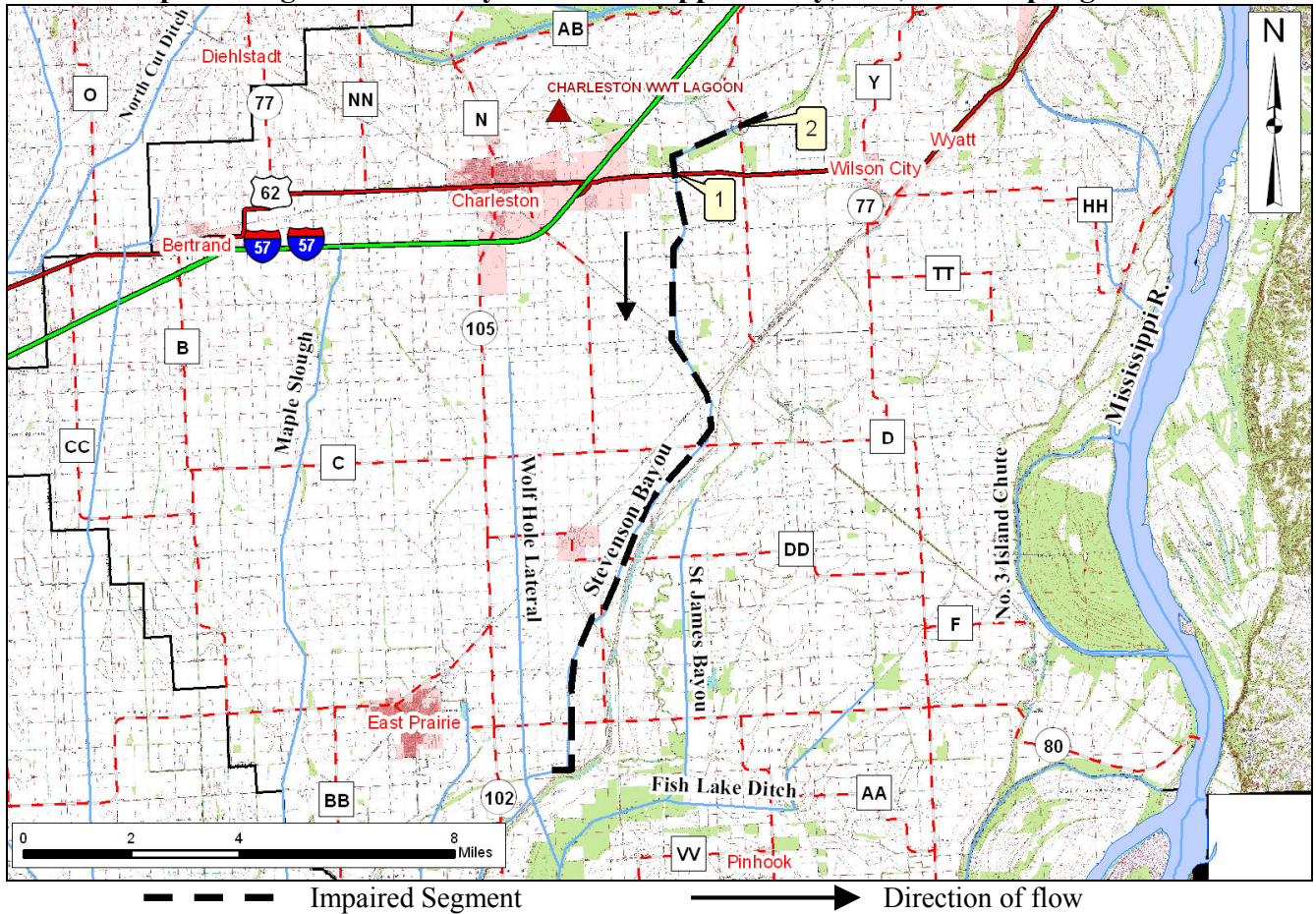
Stevenson Bayou is a Missouri Bootheel stream, part of the drainage ditch system. It flows south, parallel to the Mississippi River. Starting in 1893, the entire swampy lowland of the Bootheel was transformed into farmland by logging and the construction of an extensive system of drainage ditches and diversion channels. Stevenson Bayou is part of that system. The low dissolved oxygen impairment is based on data collected by the department in 2003 and 2005.

Water quality conditions in Stevenson Bayou are not protective of aquatic life. Dissolved oxygen is important as many aquatic organisms require high levels of oxygen to survive. For dissolved oxygen, if more than 10 percent of measurements in a water body fail to meet the water quality criterion that water body is judged to be impaired. In the case of Stevenson Bayou, four of six samples (66.7 percent) did not meet the water quality criterion. It is not known what is causing the dissolved oxygen to be low.



A map of Stevenson Bayou and the sampling sites is on the next page.

Map showing Stevenson Bayou in Mississippi County, Mo., and sampling sites



Sample Sites

1 – Stevenson Bayou at U.S. Highway 62
 2 – Stevenson Bayou at State Highway J

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
 573-522-9920 fax
 Program Home Page: dnr.mo.gov/env/wpp/index.html