



Total Maximum Daily Load Information Sheet

Lateral #2 Main Ditch

Water Body ID: 3105

Water Body Segment at a Glance:

County:	Stoddard
Nearby City:	Dexter
Length:	11.5 miles
Pollutant 1:	Low dissolved oxygen
Source 1:	Unknown
Pollutant 2:	Temperature
Source 2:	Channelization



State map showing location of watershed

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:

In 2008, the U.S. Environmental Protection Agency approved a TMDL to address a sediment impairment in Lateral #2 Main Ditch. This TMDL and associated documents are available online at dnr.mo.gov/env/wpp/tmdl/3105-lat2-main-ditch-recrd.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. Lateral #2 Main Ditch is impaired due to exceedances of water quality criteria that protect aquatic life.

Designated uses of Lateral #2 Main Ditch*

- 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).

Use that is impaired

- Warm Water Habitat (WWH)

Criteria that apply

- In the Missouri Water Quality Standards at 10 CSR 20-7.031 Table A, the criterion for dissolved oxygen in streams designated as Warm Water Habitat is a minimum of 5 mg/L.
- The Water Quality Standards at 10 CSR20-7.031(5)(D)(1) state that water contaminant sources or physical alterations of a stream shall not raise or lower the water temperature more than 5° F or contribute to stream temperatures that exceed 90° F.

Background information and water quality data

Lateral #2 Main Ditch is in Missouri’s bootheel, a low-lying area between the Mississippi and St. Francis rivers. Starting in 1893, the entire landscape was transformed into farmland by logging and constructing an extensive system of drainage ditches and diversion channels. These water bodies have low aeration rates, experience high temperatures due to lack of shade, and receive significant nutrient and sediment loads from agricultural runoff.

A water body is judged to be impaired due to low dissolved oxygen or temperature if more than 10 percent of measurements fail to meet the water quality criteria. In the case of Lateral #2 Main Ditch, five of 16 samples, or 31 percent, had dissolved oxygen concentrations that were less than the 5 mg/L criterion (Figure 1). Likewise, four of 16 temperature measurements, or 25 percent, exceeded the temperature criterion (Figure 2).

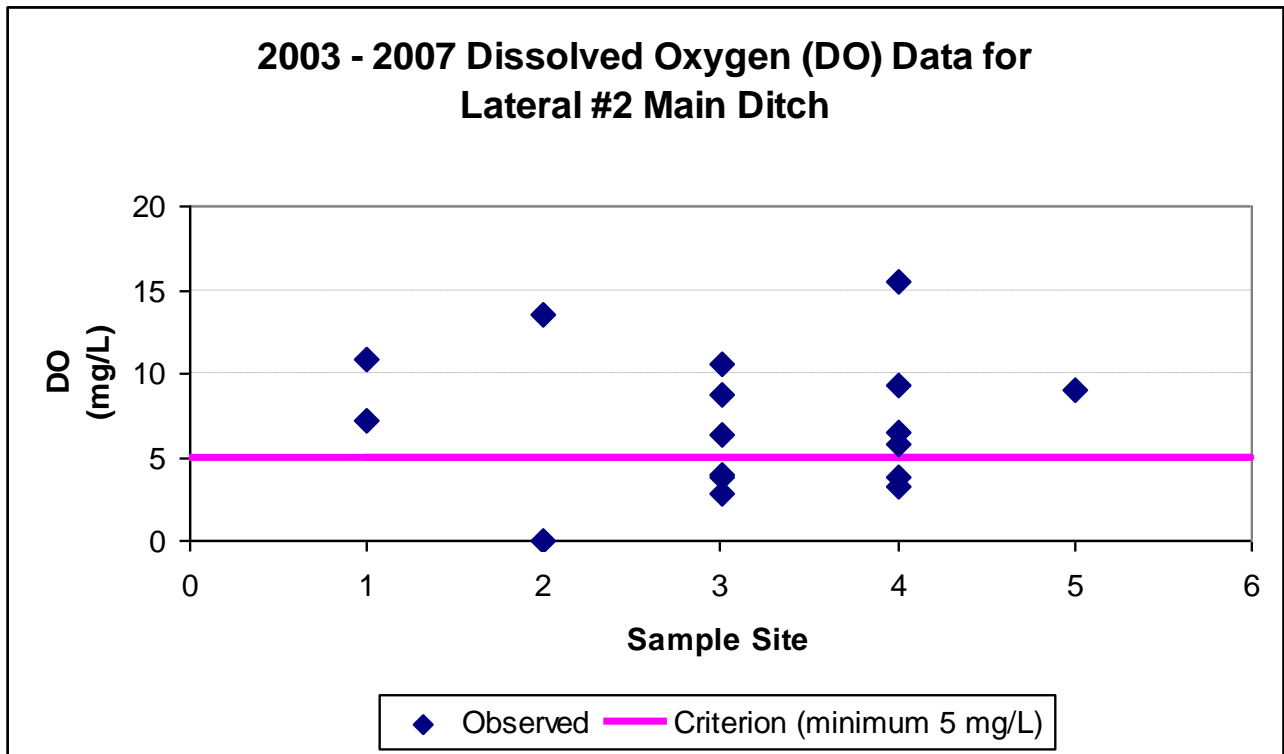


Figure 1

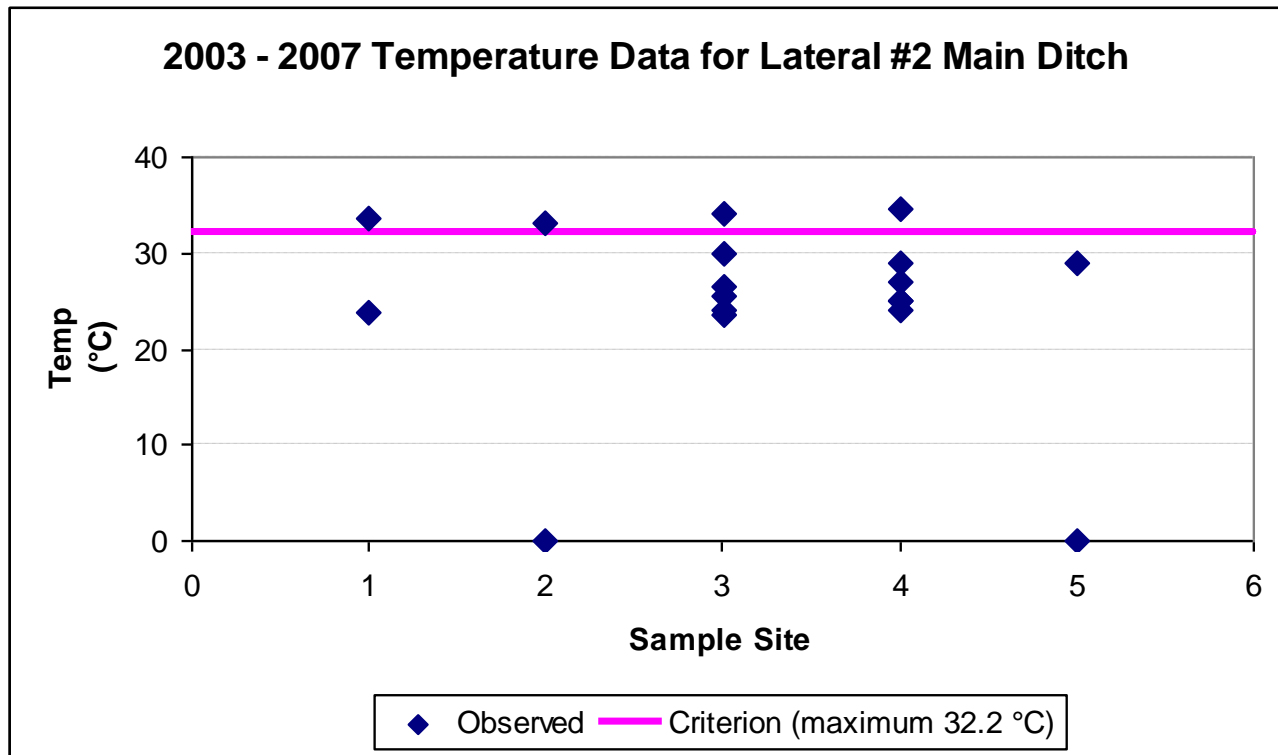


Figure 2

TMDL for Lateral #2 Main Ditch

The Lateral #2 Main Ditch 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 Lateral #2 Main Ditch 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 of the Lateral #2 Main Ditch Watershed

