

**Chariton River in Missouri**  
**Draft Total Maximum Daily Load (TMDL)**  
**SUMMARY OF COMMENTS AND RESPONSES**  
Prepared by the Environmental Protection Agency (EPA), Region 7  
Water, Wetlands and Pesticides Division  
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## INTRODUCTION

EPA public noticed a draft TMDL for Chariton River (water body identification MO\_0640) from October 13 to November 15, 2010. EPA is establishing this TMDL to meet the obligations of the 2001 Consent Decree, *American Canoe Association, et al. v. EPA*, Consolidated Case No. 98-482-CV-W, (Consent Decree). This document summarizes and paraphrases comments received, EPA's response to comments and changes made to the final TMDL where appropriate. Included is a list of all commentors.

## RESPONSE TO COMMENTS (EPA responses in bold)

1. Comment: The TMDL presumes based upon very little data that there are many animal feeding operations and these are the sources of pollutants. In addition, the TMDL states that failing on-site wastewater treatment systems could be a potential contributor of bacteria. A ten year old ribotyping study, "Long Branch Watershed Assessment and Management Plan," conducted near this watershed, showed a significant amount of *E. coli* in the Chariton River was from geese and humans. The project also showed that 58% of survey respondents used septic tanks with an open pipe and that many systems were deficient or improperly installed. Based upon this information, the TMDL text should be modified to eliminate the statement, "elevated levels of bacteria are thought to be predominantly due to runoff from agricultural land," and adding more discussion about bacteria coming from wildlife or non-agricultural sources.

**1. Response: EPA appreciates the commentor's information. However, wildlife and non-agricultural sources are acknowledged in the TMDL as potential nonpoint sources of bacteria. Please see Section 9 in the TMDL for more detail. All pollutants preventing or expected to prevent water quality standards (WQS) attainment (and their sources) must be listed in the TMDL, per 40 CFR § 130.7(c)(1)(ii). The commentor's concern is also addressed by the margin of safety (MOS) in the TMDL which accounts for any lack of knowledge concerning the relationship between effluent limitations and water quality (40 CFR § 130.7(c)(1)). If the data suggested by the commentor is found to meet the Missouri Department of Natural Resources (MDNR's) minimum level for data inclusion, MDNR may consider submitting a revised or modified TMDL for this water at any time based on this or other data.**

2. Comment: Inadequate systems, which are referred to in the "Supplemental Implementation Plan," need to be included in the TMDL document based upon the results of the study in the watershed.

**2. Response: All pollutants preventing or expected to prevent WQS attainment (and their sources) are listed in the TMDL, per 40 CFR § 130.7(c)(1)(ii). Please see Section 4.2.3 of the TMDL. On-site wastewater treatment systems are acknowledged in the TMDL as potential nonpoint sources of bacteria and are explained in Section 9 of the TMDL. The margin of safety (MOS) in the TMDL also accounts for any lack of knowledge concerning the relationship between effluent limitations and water quality, such as other potential sources of toxic material suggested by the commentor (40 CFR § 130.7(c)(1)). EPA appreciates the commentors' information, referred to in Comment 1 above. The data used in the draft TMDL were the best available when writing the TMDL. If the data suggested by the commentor is found to meet MDNR's minimum level for data inclusion, MDNR may consider submitting a revised or modified TMDL for this water at any time based on this or other data.**

**Also please note that MDNR is responsible for incorporating the TMDL into its current water quality management plan for implementation (40 CFR § 130.7(c)(1)).**

3. Comment: The TMDL references a design flow of 0.145 million gallons per day (MGD) for Premium Standard Farms' (PSF) Whitetail Finishing Farm. Because CAFOs, including this facility, are no discharge facilities, the design flow is of no relevance and should be deleted.

**3. Response: Design flow language has been removed from the TMDL, please see Section 4.1. of the TMDL.**

4. Comment: The TMDL states that PSF Whitetail Finishing Farm has 19 registered outfalls. This statement is misleading as none of these outfalls are authorized to discharge.

**4. Response: All pollutants preventing or expected to prevent WQS attainment (and their sources) are listed in the TMDL, per 40 CFR § 130.7(c)(1)(ii). However remote, the potential for discharge does exist, therefore the Concentrated Animal Feeding Operations (CAFOs) are included in the TMDL. Refer to Section 4.2.1 of the TMDL for specific information on CAFOs. The potential to prevent WQS attainment is present; therefore, the TMDL must list all the outfalls.**

5. Comment: The TMDL states a large rain event could discharge a significant amount of wastewater into the receiving stream. This is misleading because PSF Whitetail Finishing Farm has had no discharge of lagoon effluent to waters of the state during the last three extremely wet years. During the last three years, "there have only been several recorded instances of CAFOs experiencing a lagoon overtopping in North Missouri." These were small, short term and likely had virtually no impact on *E coli* levels in the Chariton River.

**5. Response: EPA appreciates the commentor's information provided to improve the TMDL. EPA has removed the language in the TMDL on page 21, Section 4.1...."a large rain event could discharge a significant amount of wastewater into the receiving stream."**

6. Comment: Commentors agree with the statement in the TMDL that PSF CAFOs and other CAFOs that are no discharge facilities, “will likely not impact water quality during critical low-flow periods or typical storm events.”

**6. Response: EPA agrees that PSF CAFOs and other CAFOs that are no discharge facilities are not likely to discharge during low flow and storm water events because they are no discharge. EPA appreciates the commentor’s feedback on the draft TMDL.**

7. Comment: In the nonpoint source discussion of the TMDL, there is a statement that “permitted CAFOs identified in this TMDL are part of the assigned WLA.” Because CAFOs are no discharge facilities, they should not be assigned a WLA and need to be removed from the WLA discussion.

**7. Response: All permitted sources are considered point sources and therefore part of the assigned WLA.**

8. Comment: They agree with the TMDL statement that CAFOs would not cause or contribute to bacteria impairments because they are listed as no discharge facilities, therefore their WLA has been set to zero.

**8. Response: EPA thanks the commentor for their comments.**

9. Comment: *E. coli* levels at high flow conditions should be excluded from the modeling that generated the load duration curve because people do not swim during high flow events.

**9. Response: The commentor suggests that the water body designated beneficial use could be modified in the TMDL’s modeling; however, uses are determined by the state (40 CFR §§ 131.10(a) and 131.11(a)(1)). TMDLs shall be established for all pollutants preventing or expected to prevent attainment of WQS for the water body’s current use (40 CFR § 130.7(c)(1)(ii)). While not modifying the target based on different uses, the TMDL does take into account critical conditions and has a MOS that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality (40 CFR § 130.7(c)(1)). MDNR may submit and EPA may approve a revised or modified TMDL at any time based on new criteria/standards, research, restrictions or data that may impact the existing TMDL.**

10. Comment: In Section 8.0, the TMDL incorrectly states that all wastewater treatment facilities and plants disinfect their effluent. Of those wastewater treatment facilities listed in the TMDL, the following do not have disinfection or a schedule of compliance (SOC) to meet disinfection requirements in their current permit: Unionville South WWTF, Unionville North WWTF, Wildflower Community Association, Inc. WWTF, Green Castle Lagoon System, Green City WWTF, Salisbury WWTF, New Cambria WWTF and Bucklin East WWTF. Spring Lake Sewer Company Wastewater Treatment Plant (WWTP) has disinfection installed. The following WWTFs are under a SOC to meet disinfection requirements: Livonia WWTF, Novinger WWTF, Keytesville WWTF and Lake Nehai Tonkayea WWTF. Lake Road Village Park was under a SOC but has yet to install disinfection.

**10. Response: EPA thanks the commentor for assistance in improving the draft TMDL. The language in Section 8 of the TMDL has been modified. Appendix C has also been modified to reflect disinfection status for Missouri site specific permits.**

**LIST OF COMMENTORS**

1. Steve Taylor, Missouri Agribusiness Association, Jefferson City, Missouri
2. Brant J. Farris, Missouri Department of Natural Resources, Macon, Missouri
3. Robert Brundage, Missouri Pork Association, Jefferson City, Missouri
4. Kathleen Livey, Springs Lakes Sewer Company, Missouri

**END SUMMARY OF COMMENT AND RESPONSES**