

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
December 2010

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



Comments on Chariton TMDL
Steve Taylor to: R7TMDL

10/29/2010 10:22 AM

History:

This message has been replied to.

ATTENTION: Ms Debby White, Water Quality Branch, Chariton River

Please find attached a pdf file that contains MO-AG's comments on the proposed TMDL for the Chariton River. I thank you for the opportunity to comment and, please, contact me with any questions.

Confirmation of receipt of these comments would be appreciated.

Regards,

Steve Taylor, President/Executive Director

Missouri Agribusiness Association (MO-AG)

Phone 573-636-6130



MO-AG comments on Chariton TMDL.pdf



October 29, 2010

EPA, Region 7
Water, Wetlands, and Pesticides Division
901 North 5th Street
Kansas City, Kansas 66101
ATTENTION: Ms. Debby White, Water Quality Branch, Chariton River

Dear Ms. White:

On behalf of the Missouri Agribusiness Association (MO-AG), I appreciate the opportunity to comment on the draft Total Maximum Daily Load (TMDL) proposed for an impaired segment of the Chariton River. MO-AG is a trade association that supports the business of agriculture and represents a wide range of agribusiness interests. Our members include feed manufacturers, retailers and livestock interests with several members doing business within the Chariton River watershed.

The draft TMDL document states that "rural nonpoint sources of bacteria are believed to have reduced the Chariton River's ability to support safe whole-body contact recreation, including swimming". Further, the document states that "elevated levels of bacteria are thought to be predominately due to runoff from agricultural land". The fact is that there is very little data documenting the level of pollutant and even less data documenting the source. The TMDL document presumes there are many animal feeding operations and further presumes that these operations are sources of pollutants.

The document states that "Although there are no data that suggest that failing on-site wastewater treatment systems are a significant problem in the Chariton River watershed, these failing systems could be a potential contributor to the elevated E. coli levels." However, there was research done by the University of Missouri on a process called ribotyping which could distinguish whether the source of e coli is from humans, livestock, or wildlife. The "Long Branch Watershed Assessment and Management Plan" developed through the Missouri Watershed Initiative, a multi-agency effort which was funded in part by EPA, showed a significant amount of e coli in the Chariton River was from geese and humans and that a significant number of homes had inadequate sewer systems. Surveys conducted for this project showed that 58% of the respondents used septic tanks with an open pipe and that many septic systems were deficient or improperly installed.

While this project was conducted over 10 years ago and for a lake near the impairment, it can be assumed with the same level of confidence that other assumptions in the TMDL are made that

Advocates for the Business of Agriculture

Missouri Agribusiness Association • P.O. Box 1728 • 410 Madison Street • Jefferson City, MO 65102
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the conditions are similar throughout the watershed of the impairment and still exists to a great extent today. We would suggest that the text of the TMDL be modified to reflect this situation. Specifically, we would suggest eliminating the statement "elevated levels of bacteria are thought to be predominately due to runoff from agricultural land" and adding more discussion about the bacteria coming from wildlife or non-agricultural sources.

The 'Supplemental Implementation Plan' that was not required by the TMDL but attached as supplemental information does acknowledge inadequate onsite wastewater treatment systems as a nonpoint source. It states that education of homeowners regarding recommended septic maintenance is needed. Again, we suggest that this potential source of pollutants, which is acknowledged in the TMDLs supplemental information, should be included in the official TMDL document.

MO-AG acknowledges the voluntary Best Management Practices (BMPs) and public outreach called for in the supplemental implementation plan to address agricultural sources of bacteria and stands ready to assist in that effort.

If you have any questions about these comments, please do not hesitate to contact me. Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Taylor". The signature is fluid and cursive, with the first name "Steve" and last name "Taylor" clearly distinguishable.

Steve Taylor
President/Executive Director



FW: TMDL comment for Chariton River
Hoke, John to: Tabatha Adkins

11/12/2010 11:22 AM

History: This message has been replied to and forwarded.

TJ,

A comment below from the Department's Northeast Regional Office (NERO) on the draft Chariton River TMDL. Let me know if you have questions or need additional information. Thanks

John Hoke
Env. Specialist IV, TMDL Unit Chief
Water Quality Monitoring & Assessment
Missouri Department of Natural Resources
Phone: (573) 526-1446 Fax: (573) 522-9920

From: Farris, Brant
Sent: Wednesday, November 03, 2010 2:36 PM
To: Hoke, John
Cc: Tipton, Lantz
Subject: TMDL comment for Chariton River

Comments for the Chariton River draft TMDL.

Section 8.0 as listed below states that all wastewater treatment facilities and plans disinfect their effluent, but this is incorrect.

8.0 Wasteload Allocation (Point Source Loads)

The WLA is the allowable amount of the pollutant that can be allocated to existing and or future point sources of pollutants. Typically, NPDES permit limits are the most stringent of technology-based effluent limits (TBELs) or water quality-based effluent limitations (WQBELs) for a given pollutant. TBELs are based upon the expected capability of a treatment method to reduce the pollutant to a certain concentration. WQBELs represent the most stringent concentration of a pollutant that a receiving stream can assimilate without exceeding applicable WQS or criteria at a specific location.

There are 28 WWTPs or wastewater treatment facilities (WWTFs) in the Chariton River watershed that discharge 4.9 MGD of treated effluent. The WWTPs or WWTFs have different levels of treatment but all disinfect their effluent, which reduces bacteria concentrations to very low numbers if operated properly. WLAs for individual dischargers are the bacteria target multiplied by their design flow.

Of the WWTFs listed, the following do not currently have disinfection nor a Schedule of Compliance 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
Bucklin East WWTF

The following have disinfection installed

Spring Lake Sewer Company WWTP

The following are under a Schedule of Compliance to meet disinfection requirements

Livonia WWTF
Novinger WWTF
Keytesville WWTF
Lake Nehai Tonkayea WWTF

The following was under a SOC but has yet to install disinfection.

Lake Road Village Park

Thanks

Brant J. Farris
Environmental Specialist III
Missouri Department of Natural Resources
Northeast Regional Office
Telephone: (660) 385-8000
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www.dnr.mo.gov



Public Notice - Chariton River TMDL (Missouri)
Chera C. Lampe to: R7TMDL
Cc: "Robert Brundage"

11/15/2010 04:05 PM

Please find attached a comment letter regarding the above.

Thank you,

Chera C. Lampe
Legal Assistant
Newman, Comley & Ruth P.C.
601 Monroe Street
P.O. Box 537
Jefferson City, MO 65102
Phone: 573/634-2266
Fax: 573/636-3306



E-mail: lampec@ncrpc.com Comment ltr on Chariton River TMDL 11.15.10.pdf

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CATHLEEN A. MARTIN
STEPHEN G. NEWMAN
JOHN A. RUTH
NICOLE L. SUBLETT
ALICIA EMBLEY TURNER

November 15, 2010

VIA EMAIL AND U.S. MAIL

U.S. Environmental Protection Agency, Region 7
Water, Wetlands and Pesticides Division
901 North 5th Street
Kansas City, KS 66101

RE: Public Notice - Chariton River TMDL (Missouri)

Dear Ms. White:

I am writing you on behalf of my client the Missouri Pork Association to provide comment on the draft TMDL for the Chariton River that was put on public notice on October 12, 2010. The Missouri Pork Association represents the pork industry in the State of Missouri including permitted concentrated animal feeding operations in the Chariton River watershed.

In Section 4.1, there is a discussion of point sources. Included in this discussion is a reference to concentrated animal feeding operations (CAFOs). For some reason, this section singles out Premium Standard Farms' Whitetail Finishing Farm. It references its design flow of 0.145 million gallons per day. This figure is meaningless in regards to this TMDL because CAFOs including the Whitetail Finishing site are no discharge facilities. Therefore, the farm's design flow is of no relevance and should be deleted.

This paragraph also points out that the Whitetail Farm has 19 "registered outfalls." Even though this reference is footnoted, it is extremely misleading. None of these outfalls are authorized to discharge. In addition, the TMDL states that "a large rain event could discharge a significant amount of wastewater into the receiving stream." Again, this is a misleading statement that should be removed from the TMDL. This farm has received more rainfall over the last three years than probably anytime in recorded history. During this time, none of the so called "registered outfalls" experienced a discharge of lagoon effluent to waters of the state. Furthermore, during the last three extremely wet years, there have been only several recorded instances of CAFOs experiencing a lagoon overtopping in North Missouri. These overtoppings were small, short lived and likely had virtually no impact on e-coli levels in the Chariton River.

My client does agree with the statement on page 21 that the PSF CAFOs and other CAFOs, which are no discharge facilities, "will likely not impact water quality during critical low-flow periods or typical storm events."

Under Section 4.2.1, there is a discussion of runoff from agricultural areas. Included in this discussion is a statement that "permitted CAFOs identified in this TMDL are part of the assigned WLA." My client does not agree with this statement. Since CAFOs are no-discharge facilities, they should not be assigned a WLA. Instead, they should not even be mentioned in the WLA discussion.

In Section 8.0 there is a discussion of the Waste Load Allocation (WLA) for point sources. Included in this discussion is a reference to ten permitted CAFOs. My client agrees with EPA's statement that "because CAFOs are listed as no discharge facilities, they would not cause or contribute to the bacteria impairments; therefore, WLAs for these facilities are set to zero." As discussed before, my client believes that CAFOs should not be included in the WLA because they are no discharge facilities.

In Section 11 there is a discussion of critical conditions and seasonal variation. This section states that the load duration curve represents flow under all conditions. People do not swim under all conditions. People do not swim during high-flow events. Therefore, e-coli levels attributed to high-flow conditions should be excluded from the modeling that generated the load duration curve.

On behalf of the Missouri Pork Association, thank you for the opportunity to comment on this TMDL.

Sincerely,

NEWMAN, COMLEY & RUTH P.C.



Robert J. Brundage
rbrundage@ncrpc.com

RJB:ccl
cc: Missouri Pork Association