

Missouri
Department of
Natural Resources

DRAFT EAST WHETSTONE CREEK TMDL
PUBLIC COMMENTS

Public Notice
Nov. 9 – Dec. 9, 2001

**East Whetstone Creek
WBID # 1505**

Wright County, Mo.

Missouri Department of Natural Resources
Water Protection Program
PO Box 176
Jefferson City, MO 65102-0176
800-361-4827 / 573-751-1300



MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180
Telephone: 573/751-4115 ▲ Missouri Relay Center: 1-800-735-2966 (TDD)

JERRY M. CONLEY, Director

REPLY TO: Columbia Research Center
1110 S. College Ave.
Columbia, MO 65201
Telephone: 573/882-9880
FAX: 573/882-4517

December 6, 2001

Sharon Clifford
Water Pollution Control Program
Missouri Department of Natural Resources
PO Box 176
Jefferson City, MO 65102-0176

RECEIVED

DEC 10 2001

WPCP

Dear Ms. Clifford:

MDC field staff and I have reviewed the TMDL's for Brushy/Muddy Creek and Whetstone Creek on behalf of the department. We appreciate your staffs efforts on these draft documents and hope that our comments will benefit the process, final documents and eventually the streams. Specific comments follow below. Thank you for the opportunity.

Whetstone Creek

There are no specific comments on this TMDL. We have no record of any fish kills from this segment of the creek.

Brushy/Muddy Creek

I have provided copies of pollution reports and a summary for the watershed. I have spoken and met with both Gale Carlson and Chris Zell in the last few weeks pertaining to the history of impacts by permitted facilities in the Muddy Creek watershed. I am also including MDC documentation on the fish kill history for Muddy Creek as requested by Anne Peery.

The Tyson facility has had a significant impact on the creek in the last few years. It is my hope that oversight by EPA, following criminal charges against the company, has brought the facility into compliance. There is substantiated evidence that waste from the plant was, at one time, being discharged through the stormwater outfall. I would be happy to provide information and water quality data related to the investigation of the Tyson facility as it relates to the 303(d) listed segment from our files. Unfortunately, the case is still in preparation for trial by the U. S. Department of Justice, so I can not release the entire file at this time.

I am concerned with the omission of Lamonte Lagoon as a contributor to BOD. We have had complaints from adjacent landowners for approximately the last 5 years about the discharge and operation of this facility. Concerns were again passed on to the Jefferson City Regional Office,

COMMISSION

STEPHEN C. BRADFORD
Cape Girardeau

ANITA B. GORMAN
Kansas City

CYNTHIA METCALFE
St. Louis

HOWARD L. WOOD
Bonne Terre

DNR, this summer. An inspection by Scott Robinett, DNR, resulted in the issuance of a Notice of Violation. Problems with the facility have not been resolved and it continues to be out of compliance with no sign of resolution. Though Lamonte is well upstream and would be an insignificant addition of ammonia, I am still concerned about BOD additions by this facility. Impacts to the listed sediment would vary depending on stream conditions (temperature, flow, etc.). My observations of additional BOD input from Lamonte are only descriptive but the cumulative effects of these two facilities could be significant. Without data to contribute to the modeling, the only recommendation I can offer to the TMDL is an increase in the margin of safety as compensation until these two permitted facilities are found to be in compliance with their permits.

Sincerely,

A handwritten signature in cursive script that reads "Leanna Zweig". The signature is written in black ink and is positioned below the word "Sincerely,".

Leanna Zweig
Environmental Services Biologist

Enclosures

MISSOURI COALITION FOR THE ENVIRONMENT

6267 Delmar Blvd. 2-E • St. Louis MO 63130 • 314-727-0600 Fax: 314-727-1665 • moenviron@moenviron.org • www.moenviron.org



December 7, 2001

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DEC 10 2001
WPCP

Department of Natural Resources
WPCP Planning Section
P.O. Box 176
Jefferson City, MO 65102-0176

Re: Whetstone Creek TMDL

Dear Sir or Madam:

The Missouri Coalition for the Environment submits the following comments on the draft TMDL for Whetstone Creek in Wright County, Missouri.

General Comments

As we have indicated in the past, we are concerned that MDNR is proceeding with the 303(d) list and development of individual TMDLs using incorrect designations of beneficial uses and inadequate water quality standards. MDNR should not delay the TMDL process, but rather quickly implement proper use designations and standards that are in compliance with the Clean Water Act. In September 2000, well over a year ago, the U.S. EPA submitted a 30 page letter to MDNR that identified problems with the state's water quality regulations. Other than a series of very general workshops this past summer, we have not seen any significant effort to rectify the problems identified by the U.S. EPA.

The Whetstone Creek TMDL may or may not be impacted by any of these changes because of the nature of the impairment. However, MDNR should not allow any further delay to occur before amending its regulations. To do so will certainly require amending many of the TMDLs that are being issued by the agency.

Stream Classification

The system of stream classification used by MDNR is unclear. Why is the portion of Whetstone Creek downstream of the Mountain Grove Wastewater Treatment plant (WWTP) unclassified and without any beneficial uses? Streams should receive some classification even if they do not support aquatic life.

It is also unclear how the Creek can be both effluent dominated, but not classified for one mile below the WWTP. If the stream is effluent dominated, why is there not

enough water in the segment below the WWTP to support aquatic life? MDNR must provide an explanation of why the one mile segment below the WWTP should not be classified for protection of aquatic life.

Dissolved Oxygen/Biological Oxygen Demand

On page 6 of the TMDL it indicates that low DO is caused by low BOD. This apparent typographical error should be corrected to properly show the inverse connection between DO and BOD.

The TMDL should be far more specific about how the various loadings and limits were derived. There is no explanation provided of how the acceptable daily load figures for BOD were derived. Moreover, the TMDL should be more explicit about the units of measurement for BOD loading. It is unclear whether figures used throughout the TMDL are monthly averages, weekly maximums or daily maximums.

Load Allocation

Both the Whetstone Creek TMDL and the Brushy/Muddy Creeks TMDL provide no allocation to background sources of BOD. We are concerned that a zero allocation does not reflect actual conditions. For example, the TMDL notes that there are two feedlots within the watershed and a significant percentage of the watershed is in agricultural use. These and other land uses undoubtedly contribute loadings which can have residual effects even at low flow, and at times when there are some upstream flows near critical conditions, but not a zero upstream flow. Water quality research has indicated that the time period of most concern for dissolved oxygen is not necessarily the 7Q10, but rather when there are low to moderate flows that carry loadings from point and non-point sources. Therefore, it is suggested that some portion of the TMDL be given as a Load Allocation to account for other sources, rather than the currently proposed value of zero.

Corrective Measures/Implementation

MDNR needs to set a time frame for completion of the corrective measures at the WWTP and the implementation plan needs to be far more specific about permit actions that will be taken. The implementation plan (p.9) only indicates that the WWTP intends to upgrade its system, but does not set dates by which it is required. The implementation plan also does not indicate what limits will be applied to the modified plant.

Language in the TMDL (p.6) indicates that MDNR is far from certain that the practice of aerating WWTP outflow will correct the problem of low DO. Considering that the impaired segment does not begin for 1.25 miles below the WWTP, it seems highly unlikely that aeration of discharge water will have a large impact on the downstream segment. Instead, the focus should be on removing the BOD emanating from the WWTP to ensure that DO is not reduced to below the 5 mg/L standard.

Thank you for considering these comments. Please call if you would like to discuss any of the issues raised herein.

Very truly yours,


Bea Covington
Executive Director
by
ESH


Edward J. Heisel
Senior Law & Policy Coordinator



Bob Holden, Governor • Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

December 12, 2001

Ms. Bea Covington
Mr. Ted Heisel
Missouri Coalition for the Environment
6267 Delmar Blvd, 2-E
St. Louis, MO 63130

Dear Ms. Covington and Mr. Heisel:

Thank you for taking time to comment on the East Whetstone Creek TMDL that was public noticed November 9 – December 9, 2001. (We received comments from the United States Environmental Protection Agency indicating the creek should be called East Whetstone Creek.) The items you pointed out needing clarification included:

1. **General Comments:** Missouri has incorrect beneficial uses and inadequate water quality standards.

The Total Maximum Daily Load document for East Whetstone Creek was written in response to the creek being listed on the state's 1998 303(d) list for high Biochemical Oxygen Demand (which causes low dissolved oxygen) from the Mountain Grove Wastewater Treatment Plant (WWTP). Our TMDLs are written from the 303(d) list that was adopted by the Missouri Clean Water Commission and approved by U.S. Environmental Protection Agency (USEPA), with minor changes, in conformity with the Missouri Water Quality Standards (10 CSR 20-7.031). The department is now in the process of updating the 303(d) list in accordance with USEPA guidelines. Workshops held this summer were an opportunity for the public to review proposed changes to the state's 303(d) list and to make comments. The proposed list has been changed in response to public comment. Water Quality Standards are being reviewed in accordance with the Clean Water Act 303 (c)(1) and will be updated according to the Act. We appreciate the Coalition's participation in meetings to discuss possible changes to the Missouri Water Quality Standards. The East Whetstone Creek TMDL, however, had to be written using the 303(d) list and the Water Quality Standards that are in place now as approved by the Missouri Clean Water Commission. Water quality assessments of the creek after standards revisions may lead to the identification of additional needs, including the possibility of additional listings.

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2. **Stream Classifications:** Missouri's stream classification is unclear—why is East Whetstone Creek unclassified and without beneficial uses?

Missouri's Water Quality Standards indicate 13 miles of the creek have permanent flow and 3.5 miles of the creek has a classification of C, which means that portions of the stream may go dry at times, but maintain pools that support aquatic life. The unclassified segment of East Whetstone in the vicinity of the WWTP does not maintain permanent pools of water, and aquatic life may use this segment when water is present, but cannot depend on it to provide habitat for aquatic life. The state's General Criteria, however, do apply to East Whetstone Creek. The Standards indicate unclassified waters that support aquatic life on an intermittent basis must adhere to acute criteria in Tables A and B and must not harm stream organisms. Existing data indicate the Mountain Grove WWTP is the source of the problem, and its permit will be modified to correct the high BOD in the stream.

3. **Dissolved Oxygen/Biochemical Oxygen Demand:** There is a typographical error on page 6 regarding low DO being caused by low BOD rather than high BOD. The TMDL should be more specific about how the various loadings and limits are derived. Explicit units of measurement should be provided.

The typographical error has been corrected. Thank you for pointing this out.

Loadings and limits are derived by using the computer model QUAL2E as stated on page 6. The summary on page 8 indicates the loads are in pounds per day.

4. **Load Allocation:** There is no allocation to background sources of BOD.

The department did not have adequate data to identify any major sources of nonpoint source contributions. Further data is needed in order to evaluate progress toward meeting the goals of the TMDL. The existing data, however, indicates that the Mountain Grove WWTP is responsible for causing high BOD conditions in East Whetstone Creek. This is a problem that can be corrected in the regular permitting process as indicated in the Implementation section on page 9. Ongoing monitoring efforts will indicate whether the upgrade to the mechanical plant and treatment of the lagoon discharge as well as some form of aeration is correcting the high BOD problem in East Whetstone Creek.

5. **Corrective Measures/Implementation:** Need to set a time frame for implementation. Concerns that aeration will not correct the problem of low DO.

The Clean Water Act requires that all point sources discharging pollutants into waters of the United States must obtain a National Pollution Discharge Elimination System (NPDES) permit.

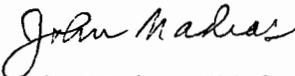
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The Mountain Grove WWTP has an NPDES permit that undergoes reissuance on a regular basis. The Mountain Grove WWTP's permit will expire in 2002 (see Implementation section). At that time, a new permit will be written outlining that their mechanical plant must begin treating the discharge from their lagoon system. Aeration will also be required to incorporate oxygen into the discharge, and several suggestions to achieve this were made, although design would be worked out between their engineers and the department's engineers at a later time. Under the Water Quality Standards rule, WWTPs are given up to three years to meet newly imposed water quality based limitations, and Mountain Grove would be expected to conform to this timetable. (Language in the TMDL was modified to emphasize aeration would be done in conjunction with the upgrade.) Monitoring will be required in the future to ascertain if these upgrades are raising the level of dissolved oxygen in East Whetstone Creek. If there is no change, studies would be done to find out why and action would be taken to correct the problem.

Thank you for your comments on the East Whetstone Creek TMDL. We appreciate you taking interest in this matter and helping us make the document as accurate and comprehensive as possible. If you have any questions, please contact Gail Wilson of the Planning Section at (573) 526-1535.

Sincerely,

WATER POLLUTION CONTROL PROGRAM



John Madras, Chief
Planning Section

JM:gwd