

Missouri  
Department of  
Natural Resources

DRAFT LITTLE MUDDY CREEK AND TRIBUTARY TMDL  
PUBLIC COMMENTS

Public Notice  
Oct. 27 – Nov. 26, 2000

**Little Muddy Creek - WBID #0856**  
**Tributary to Little Muddy Creek - WBID #3490**

Pettis County, Mo.

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

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

Roger B. Wilson  
~~Missouri~~ Governor • Stephen M. Mahfood, Director

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

November 6, 2000

*COPY  
in response to phone call  
11/3/00*

Mr. Steve Busch  
Tyson Foods, Inc.  
P.O. Box 1058  
Sedalia, MO 65301

Dear Mr. Busch:

I just returned from Chicago and got your message. Enclosed please find a copy of the Little Muddy TMDL, as you requested. I apologize for the problems you encountered with our web site. They are being addressed and you should soon be able to read the whole TMDL on-line.

Thank you for your patience. If you have any questions, please call me at (573) 526-1426.

Sincerely,

WATER POLLUTION CONTROL PROGRAM



Anne Peery  
Environmental Specialist  
Planning Section

AP:pc

Enclosure



It's what your *family* deserves.™

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NOV 21 2000

WPOP

November 21, 2000

Hand Delivery

Planning Section, Water Pollution Control Program  
MO Dept. of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102

Comments on the Draft TMDL Report for: Little Muddy Creek & Tributary to Little Muddy Creek

Dear Sir/Madam:

Tyson Foods, Incorporated has reviewed the document made available by the Water Pollution Control Program of the Missouri Department of Natural Resources (MDNR) titled as "Total Maximum Daily Loads (TMDL) for Little Muddy Creek and Tributary to Little Muddy Creek; Pollutant: Temperature" (TMDL Report). The document received was not marked as a draft; however, the public notice announcement stated the document was a draft and was available for public comment. This letter contains our initial comments on the draft TMDL Report. Additional comments may be made if other data are made available from MDNR or other state agencies. Tyson Foods, Incorporated appreciates the opportunity to comment on this report. We believe it is important to comment on this report because it can substantially impact our NPDES permit. We also intend to comment on the new draft NPDES permit for our Sedalia, Missouri, facility.

Incidentally, I was not able to download the entire document (i.e., maps and data unavailable or partially obscured) from your website. The report was mailed to me promptly when requested by telephone. I appreciate this prompt response by MDNR personnel.

Comments provided below are listed according to TMDL Report sections:

**1. Background and Water Quality Problems**

The description of the Tyson Foods, Inc. (Tyson-Sedalia) poultry processing plant (section 1, paragraph 2) was very brief and did not describe some key environmental protection elements. The wastewater generated at the processing plant is served by flow equalization, dissolved air floatation, anaerobic lagoons, and complete mixed activated sludge system wastewater treatment units. The design retention time in this wastewater treatment facility is in excess of 7 days. The wastewater treatment system is a biological system that could be adversely impacted by hot water entering the system; however, this has not occurred. The wastewater discharged to the wastewater treatment system is not hot. In your description of poultry processing you state hot water is used, but you fail to state that chilled water is also used in the processing of chickens. All wastewater is

combined and then pumped to the treatment plant. There is seasonal variation in the wastewater influent; however, we can safely say the wastewater influent will be between 20°C and 30°C.

Review of the data leads me to believe that the MDNR determination of “not attaining” for the Little Muddy Creek is incorrect (section 1 paragraph 4). Specifically the 6-26-97 data point does not demonstrate the Tributary to Little Muddy Creek has increased the temperature of the receiving stream (i.e., Little Muddy Creek). While the upstream and downstream Little Muddy Creek temperature varies by more than 5°F for this date, the temperature of the tributary is 2°C less than the upstream temperature. Therefore the temperature increase is from some other source or this is an invalid data point. Therefore the “exceedence rate of state water quality standard for temperature” is less than 25% (13 of 53 sampling dates), which would be “partially attaining.”

I also feel it is inappropriate to classify the “Tributary to Little Muddy Creek” in the manner performed by MDNR. Since the mixing zone cannot be established, I believe it is more appropriate to use the maximum 90°F-water temperature, water quality criteria. The highest temperature measured in the Tributary to Little Muddy Creek in the TMDL study was 85.6°F. The average is 65.7°F. Since the Tributary to Little Muddy Creek never reached a temperature of 90°F, the tributary should be considered “attaining.”

The statement that “Missouri has rated ... the lower 0.7 mile of Little Muddy Creek as not attaining the warmwater fisheries use” is not valid. At the very least this should be “partially attaining” due to the questionable 6-26-97 data point. Also there is no data to support the 0.7-mile distance. The data was collected at the very beginning of this 0.7-mile section of the stream. It cannot be stated the 5°F-temperature differential is maintained for the duration of this 0.7 miles.

## **2. Description of the Applicable Water Quality Standards and Numeric Water Quality Targets**

I disagree that “seasonal variation is not considered a relevant factor” (see “Seasonal Variation” paragraph). The thirteen 5°F temperature variances in the Little Muddy Creek all occurred between October 30, 1997 and March 24, 1998. If we drop the first and last “occurrence” dates, the “occurrences” are between November 10, 1997 and February 25, 1998. The average temperature of the Little Muddy Creek during all “occurrences” was 42.8°F (6.0°C). The high and low temperature of Little Muddy Creek during an “occurrence” was 51.3°F (10.7°C) and 35.4°F (1.9°C), respectively. The source of the Tyson – Sedalia water supply is wells. Groundwater from these wells is typically 60°F. Since the temperature of Little Muddy Creek during “occurrences” averages less than 43°F and Tyson intake water is greater than 60°F all year, I believe seasonal variation is very relevant. I also believe it is questionable to consider a temperature increase of moderately greater than 5°F degradation of water quality at certain time of the year (i.e., during cold weather).

## **3. Calculation of Load Capacity**

Tyson – Sedalia concurs that the Unnamed Tributary should not receive waters with a temperature greater than 90°F. Tyson – Sedalia does not intend to discharge effluent waters with a temperature in excess of 90°F. We do believe seasonal variation is a relevant issue. We believe consideration should be given to variation of the 5°F standard at times when the waters of the Little Muddy Creek are less than 60°F.

#### **4. Margin of Safety (MOS)**

The monitoring sites and the method of determining compliance with the 5°F standard proposed in this paragraph are unreasonable. There is certainly more than a “small margin of safety” with the proposed monitoring points. According to the map provided in the TMDL Report, the beginning of the classified portion of the Tributary is on private property owned by a third party. Access to this monitoring point cannot be guaranteed. Also, the 5°F standard applies to waters after a mixing zone or mixed water from the Tributary and Little Muddy Creek not to a 5°F differential prior to mixing. This is an incorrect application to Water Quality Standards.

Once again seasonal variation is major consideration. Existing data in the TMDL Report suggests compliance with the 5°F standard is impractical and raises the question of what benefit would be derived by lowering the temperature to 40°F. We believe to expect waters in the Tributary to be less than 60°F is unreasonable since our water source is at 60°F. As can be seen from TDML data, water temperature in the Little Muddy Creek during the winter will be 40°F or less. The proposed monitoring method and locations are unworkable.

#### **5. Load Allocation (Non-point Source Load)**

Tyson – Sedalia has no comments on the section of the TMDL Report at this time.

#### **6. Waste Load Allocation (Point Source Loads)**

Tyson – Sedalia concurs that the Tyson discharge should not contribute to a stream temperature in excess of 90°F; however, I believe the 5°F specific criteria is being incorrectly applied in this instance. Once again, seasonal variation is a major factor in this instance.

#### **7. Implementation and Monitoring Plans for TMDL under the Phased Approach**

As of the date of this letter a revised draft NPDES permit has not been made available for public comment. Yet conditions of the revised NPDES permit are stated in the TMDL Report. This seems to be a breach in permitting protocol. Tyson believes the monitoring locations do not provide representative data to adequately address Water Quality Criteria. Also, at least one of the specified monitoring points may be on private property. Tyson – Sedalia believes the frequency on monitoring is unreasonable. The TMDL Report essentially utilizes weekly sampling to make its determinations. Tyson – Sedalia believes this would be a more appropriate monitoring frequency.

#### **8. Reasonable Assurances**

Tyson – Sedalia has no comments on the section of the TMDL Report at this time.

#### **9. Public Participation**

Tyson – Sedalia has no comments on the section of the TMDL Report at this time.

#### **10. Administrative Record**

Tyson – Sedalia has no comments on the section of the TMDL Report at this time.

**Summary**

Tyson – Sedalia believes establishing Water Quality Criteria is an important part of environmental protection and we support these criteria. However, the criteria cannot cover all scenarios without consideration of special circumstances and specific conditions. We believe the TMDL Report addresses the verbiage of water quality requirements but fails to address the intent of these requirements. We do not believe the data in the report demonstrates a degradation of water quality has occurred. For example, is an increased flow and increased water temperature from 35.4°F to 46.9°F really a degradation of water quality? One could argue this as a benefit. We do believe TDML Report data demonstrates that seasonal variation is a very relevant factor and should be considered in the body of the TMDL Report. It is also important that reasonable monitoring location and frequencies be considered when establishing study criteria.

We believe it is inappropriate to specify NPDES permit conditions in the TMDL Report prior finalizing the permit or for that matter prior to a public comment period. It makes one wonder what consideration will be given to public comments during the permitting process. We hope to work closely with MDNR during the permitting process and hope our comments during the public comment period are given true consideration. It is critical that permits are established with sound water quality and technology based effluent limits. It is also import to establish monitoring locations that will generate data that are consistent water quality requirements (i.e., after the mixing zone).

I appreciate the opportunity to comment on the TMDL Report. If you have any questions or comments concerning this letter or other environmental issues at Tyson – Sedalia, please do not hesitate to contact me at 660-827-9653.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stephen P. Busch', written in a cursive style.

Stephen P. Busch, P.E.

Sedalia Complex Environmental Manager



It's what your *family* deserves.™

November 27, 2000

**RECEIVED**

**NOV 29 2000**

Planning Section, Water Pollution Control Program  
MO Dept. of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102

**WPCP**

Comments on the Draft TMDL Report for Little Muddy Creek & Tributary to Little Muddy Creek

Dear Sir/Madam:

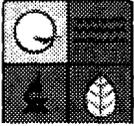
Tyson Foods, Incorporated has reviewed and has commented on the "Total Maximum Daily Loads (TMDL) for Little Muddy Creek and Tributary to Little Muddy Creek; Pollutant: Temperature" (draft TMDL Report). We believe it was important to comment on this report because it can substantially impact our new NPDES permit. We are currently gathering and reviewing additional data that was not previously available in the public record for the draft TMDL Report. We therefore request that you extend the public comment period of the draft TMDL Report to coincide with the public comment period (i.e., closing December 27, 2000, at 5:00 PM) for our draft NPDES permit.

We appreciate the opportunity to comment on the TMDL Report. If you have any questions or comments concerning this letter or other environmental issues at Tyson – Sedalia, please do not hesitate to contact me at 660-827-9653.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen P. Busch".

Stephen P. Busch, P.E.  
Sedalia Complex Environmental Manager



Anne Peery  
11/28/2000 03:47 PM

To: "Busch, Stephen" <BuschS@tyson.com>  
cc:  
Subject: RE: MDC data

*Rich Meade called  
12/6/00 12:15 PM asking if I  
had sent Steve Busch any data.  
I hadn't (see below).*

Steve:

I don't know. The letter only mentions temperature. I suggest you contact Rich Meade: meader@mail.conservation.state.mo.us OR 660-530-5500. If he does not know, get back with me.

Sincerely,  
Anne Peery

"Busch, Stephen" <BuschS@tyson.com>



"Busch, Stephen"  
<BuschS@tyson.com>  
11/28/2000 03:30 PM

To: "Anne Peery" <nrpeera@mail.dnr.state.mo.us>  
cc:  
Subject: RE: MDC data

Anne:

Thank you for the information. That time period was before I worked for Tyson and I have not found it in Sedalia files. I will try to retrieve the information from Ms. Gaston or from Tyson Corp. Is the MDC data related to temperature only? Do you know if all MDC data was provided to Ms. Gaston or was only temperature data provided?

Once again, thank you for your assistance.

> -----Original Message-----

> From: Anne Peery [SMTP:nrpeera@mail.dnr.state.mo.us]  
> Sent: Tuesday, November 28, 2000 3:18 PM  
> To: buschs@tyson.com  
> Cc: John Madras  
> Subject: MDC data

> Steve,

> I talked with Rich Meade of Dept. of Conservation (MDC) today. He is the  
> one who sent me the CD I mentioned over the phone yesterday. He faxed me  
> a copy of a letter written to Colene Gaston of Mashburn & Taylor, PO Box  
> 3457, Fayetteville, AR 72702 dated June 3, 1998. The letter states in  
> part, "In response to a request by your client Tyson Food for a copy of  
> the temperature data assembled by [MDC], ...am sending an Iomega Zip  
> [trademark] cartridge containing that information..." It was signed by  
> Don Boos of DNR. So, I will not be sending you a copy of what is on this  
> CD, since it looks like you (Tyson) already have the information.

> This morning I mistakenly suggested e-mail as a way to send comments, if  
> you have more before tomorrow evening. However, only signed comments are  
> accepted, as stipulated in the cover sheet accompanying the public notice.

> Fax and hand-delivery are acceptable.  
>  
> Thank you for your comments. Please feel free to contact me with any  
> other concerns or questions.  
>  
> Sincerely,  
>  
> Anne Peery  
> TMDL Developer  
> DNR/ Water Pollution Control Program  
> 573-526-1426  
> nrpeera@mail.dnr.state.mo.us



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DEC - 1 2000  
WPCP

November 29, 2000

*Via facsimile (573) 526-5797 and U.S. Mail*

Ms. Anne Peery  
TMDL Developer  
Water Pollution Control Program  
Missouri Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102

***RE: Draft TMDL for Little Muddy Creek and Tributary to Little Muddy Creek***

Dear Ms. Peery:

These additional public comments are submitted on behalf of Tyson Foods, Inc. regarding the above-referenced Total Maximum Daily Loads (TMDL) draft decision, pursuant to your e-mail communication to me of November 28, 2000.

We are not aware of biological studies and/or reports of Little Muddy Creek and/or its tributaries that indicate adverse effects to the aquatic community. We have not observed adverse effects to these streams from temperature. We believe the Clean Water Act provides provisions to modify current water quality criteria in instance where there are very low flow or no flow streams. Applying current water quality standards in the manner proposed in the draft TMDL report would make it virtually impossible for the Tyson Foods, Inc. facility in Sedalia (Tyson-Sedalia) to comply with water quality standards. For example, based on the data in the draft TMDL report, our incoming well water (before any use, high quality water) would be out of compliance with the 5°F-temperature differential 60% of the time, essentially during cold weather. Once again, we are not aware of an adverse effect from temperature currently exists and there is no evidence that applying the current water quality criteria is necessary to attain the designated use of the streams.

It is our understanding that section 303(d)(1)(D) of the Clean Water Act requires the State to "estimate ... the total maximum daily thermal load required to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife." See also 40 CFR 130.7(c)(2). In addition, the State water quality standards regarding temperature at 10 CSR 20-7.031 also provide that site-specific requirements of sensitive resident aquatic species will be considered, when data are available, to establish alternative maxima or deviations from ambient temperatures.

Ms. Anne Peery  
November 29, 2000  
Page 2 of 2

If an appropriate aquatic community currently exists in the reference streams, we would potentially be interested in pursuing the option of modifying the water quality standards for temperature in these stream reaches assuming existing conditions are protective of the designated uses. The end result of this process could be the removal of the stream segments in question from the 303(d) list, which would eliminate the need for implementation of the TMDL. We sincerely believe that the TMDL and its proposed implementation program should not be finalized until data characterizing the biological community of the subject streams are obtained and evaluated. We also believe the Clean Water Act mandates this is considered before finalizing the TMDL.

Thank you for your consideration of our comments. If you have any questions or comments concerning this matter, please do not hesitate to contact me at 660-827-9653.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen P. Busch". The signature is fluid and cursive, with a large initial "S" and "B".

Stephen P. Busch, P.E.

Complex Environmental Manager



Roger B. Wilson  
~~xxxxxxx~~, Governor • Stephen M. Mahfood, Director

## DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY

P.O. Box 176 Jefferson City, MO 65102-0176

December 8, 2000

Mr. Stephen P. Busch, P.E.  
Sedalia Complex Environmental Manager  
Tyson Foods, Inc.  
P. O. Box 1058  
Sedalia, MO 65301

Dear Mr. Busch:

Thank you for reviewing this TMDL and taking the time to comment.

The following responses correspond by number with the comments provided by Tyson Foods, Inc., in regard to the draft TMDL for Little Muddy Creek and Tributary to Little Muddy Creek.

### Response to 11/21/00 comments:

1. The description of the poultry processing plant in the TMDL document was edited to correspond with the NPDES permit description. "Flow equalization" was also added. The adjective "hot" was deleted.

Paragraph 2. Agree. Only 13 of 53 grab samples should be considered as exceeding the standard of  $\pm 5^{\circ}$  F. Consideration of the continuous sampling data (the additional data provided by Missouri Department Conservation), however, revealed more exceedences. The determination of "not attaining" is therefore considered accurate.

Paragraph 3. This is an existing state regulation. Tyson may provide comment when the water quality standards are revised.

Paragraph 4. This is the department's best estimate. If Tyson has data showing fewer miles are impaired, please share it with the department.

2. The seasonality is in *how* we apply the TMDL. The temperature criteria apply the same in all seasons.
3. State regulations require compliance with this standard all the time.

Mr. Stephen P. Busch, P.E.

Page 2

December 8, 2000

4. The word "small" was deleted from the TMDL document. The compliance point is described accurately in the TMDL. This is not on private property. It is at the first public road crossing below the end of the mixing zone. There was some discrepancy with the sampling site map due to idiosyncrasies with ArcView. The map has been adjusted.

Paragraph 2. No comment: already addressed.

5. & 6. No response necessary.

7. The revised draft NPDES permit requires that Tyson meet Missouri Water Quality Standards (WQS).

8.-10. No response necessary.

**In response to November 27, 2000, comments** submitted by e-mail, the following reply from staff was provided:

"Dear Mr. Busch,

I am [in] receipt of the FAX you sent requesting an extension for the public comment period of the draft TMDL for Little Muddy Creek. As I mentioned on the phone yesterday, the MDC data will not make a difference to the temperature allocations in the TMDL. Little Muddy Creek and the Tributary to Little Muddy Creek will be required to meet Water Quality Standards. You have until 5:00 PM November 29, 2000, to make any additional comments by FAX or e-mail or hand-delivered mail. We are under an agreement with EPA that dictates we must have this TMDL presented to EPA shortly. While we cannot allow an extension on the public notice, we would be happy to share any additional comments you may have with EPA, which will ultimately approve or change the TMDL.

Thank you for your interest and participation."

**Response to November 29, 2000, comments:**

TMDLs are based on existing standards, not potential future standards. If Tyson's seeks a change in WQS, this should be done through the standards revision process or through the process of establishing site-specific criteria, not the TMDL process.

Mr. Stephen P. Busch, P.E.  
Page 3  
December 8, 2000

Again, thank you for your comments. Tyson's participation in the TMDL process is appreciated. If you have other questions or wish to discuss this further, please contact Anne Peery of the Planning Section at (573) 526-1426.

Sincerely,

WATER POLLUTION CONTROL PROGRAM



John Madras, Chief  
Planning Section

JM:apd



## Ozark Chapter / Sierra Club

Ken Midkiff, Director  
Ozark Chapter/Sierra Club  
1007 N. College Ave., Ste. #1  
Columbia, MO 65201-4794

Planning Section, MoDNR-DEQ-WPCP  
ATTN: Sharon Clifford

November 25, 2000  
VIA FAX

**RECEIVED**

**NOV 28 2000**

**WPCP**

REF: TMDL for Little Muddy Creek and Unnamed Tributary

Comments:

1. The source of the pollutant of record – excessive temperature – is the Tyson slaughterhouse.
2. The NPDES (State Operating) permits issued by the MODNR were not in accordance with Missouri's Water Quality Standards, which specifically prohibit discharges from raising (or lowering) ambient temperature of the receiving waterbody by more than 5 degrees F or contribute to a stream temperature of more than 90 degrees F.
3. While it is known that Tyson's discharge is violative of Missouri's Water Quality Standards, **the proposed permit to be re-issued allows such violations to continue to occur until February 13, 2002.**
4. MoDNR should issue a report that requires Tyson's to immediately comply with water quality standards. Further delays are unconscionable, unacceptable, and ultimately illegal.
5. Tyson's cannot claim that "economics" prevent compliance; this company has financial resources that would enable it to install appropriate equipment to cool the discharges.

SUMMARY: These streams became impaired because of laxity in permitting by MoDNR. The source is known, the "fix" is easy: No discharges should be allowed to exceed Missouri's Water Quality Standards.

Sincerely,

  
Ken Midkiff

CC: Van Cleve, Bookbinder



Roger B. Wilson  
~~XXXXXXXX~~ Governor • Stephen M. Mahfood, Director

## DEPARTMENT OF NATURAL RESOURCES

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

December 8, 2000

Mr. Ken Midkiff, Director  
Ozark Chapter/Sierra Club  
1007 North College Avenue, Suite #1  
Columbia, MO 65201-4794

Dear Mr. Midkiff:

Thank you for reviewing these TMDLs and taking the time to comment.

The following responses correspond by number with the comments provided by Sierra Club.

### **Little Muddy Creek TMDL:**

1. The source of the temperature impairment is Tyson Foods, Inc.
2. It is correct that the permit issued to Tyson did not contain the Missouri Water Quality Standards (WQS) for temperature.
3. The interim permit allowed two years for Tyson to come into compliance.
4. Clean Water Commission rules allow every facility time to come into compliance with new water-quality-based permit requirements. Please see 10 CSR 20-7.031(10).
5. Tyson will be obliged to meet this requirement. Tyson, however, may use economic arguments to request relief according to some facets of regulation.

**Summary:** The limits for temperature in the revised draft permit are consistent with the Missouri WQS.

### **Eleven Point River TMDL:**

1. The Willow Springs WWTP permit required effluent disinfection, but not dechlorination.
2. As of July 1, 1999, a monthly average and daily maximum of 0.01 mg/L Total Residual Chlorine (TRC) must be maintained according to the permit. The permit also requires quarterly monitoring of TRC in the effluent.
3. DNR endeavors to learn (and improve) from past experiences.

Mr. Ken Midkiff  
Page 2  
December 8, 2000

4. Following standard operating procedures, each facility conducts its own monitoring, usually reported quarterly. While DMR (daily monitoring reports) violations carry consequences, DNR does (as Sierra Club suggests) conduct random, unannounced monitoring of various permitted facilities throughout the state.
5. At this time, DNR does not believe that continuous automated monitoring equipment is sufficiently developed and available for use in these situations. As technology continues to improve, such monitoring will become feasible and will be utilized. At this point DNR will not require more frequent monitoring.

**Saline Creek TMDL:**

1. By Clean Water Commission order, required ammonia limits will be met by December 31, 2000.
2. When the permits are reopened and revised according to the TMDL, compliance schedules will be included.
3. The monitoring to be conducted after the discharge is removed from the watershed should reveal if these "six small discharges" are negatively impacting Saline Creek. The long-term plan is to connect all of these discharges to trunk sewers that connect to treatment facilities on the Mississippi River.
4. The Meramec River has much larger assimilative capacity and will improve the water quality situation in the short term. In the longer term, this discharge to the Meramec will continue to be permitted as an interim facility. At some point, it will be effectively treated at a regional facility and discharged directly to the Mississippi River.

Again, thank you for your comments. Sierra Club's interest in the TMDL process and concern for the health of Missouri's water resources is appreciated. If you have other questions or wish to discuss this further, please contact Anne Peery of the Planning Section at (573) 526-1426.

Sincerely,

**WATER POLLUTION CONTROL PROGRAM**



John Madras, Chief  
Planning Section

JM:apd



# 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

November 28, 2000

**RECEIVED**

**NOV 28 2000**

**WPCP**

Donna Menown  
Volunteer WQ Monitoring/Stream Team Coordinator  
Department of Environmental Quality  
Water Pollution Control Program  
Missouri Department of Natural Resources  
PO Box 176  
Jefferson City, MO 65102-0176

Ms. Menown:

The following are comments by Missouri Department of Conservation staff concerning the proposed TMDLs for Little Muddy Creek in Pettis County and the Eleven Point River near Willow Springs in Howell County.

✓ Comments for Little Muddy Creek (previously provided to Ann Peery via email): 11/14/00

-In the report, a mention of a study by MDC from June 1997 to April 1998. In the study by Tom Priesendorf, MDC Fisheries Management Biologist, data was actually collected from April 1997 to April 1998.

-Rich Meade, MDC Fisheries Management Biologist, also collected data in a separate study from Little Muddy Creek. This data was not included in the draft TMDL and the majority of his comments address the value of his data. Mr. Meade's data has since been forwarded by Richard Duchrow to Ann Peery at your office. His comments follow below.

"The TMDL appears to contain information that I was not involved in collecting. The map in the TMDL shows three temperature monitoring sites that I was involved in (sites 6,7 and 9) and two where I was not (sites 8 and 10). I think that Tom Priesendorf worked on data collection at these sites in a separate study. I'm not sure how these data were combined in the draft TMDL.

Regarding temperature, I can verify that the impaired reach includes the stream reach from where the Unnamed Tributary crosses the gravel road in the center of Section 14, downstream to Site 9. I was

### COMMISSION

ANITA B. GORMAN  
Kansas City

RANDY HERZOG  
St. Joseph

RONALD J. STITES  
Plattsburg

HOWARD L. WOOD  
Bonne Terre

not involved in detailed monitoring below Site 9. Ron Dent supervised Tom Priesendorf's study of this portion of stream. I think the classified and impacted reaches shown are accurate, provided that data from Tom Priesendorf's study support the downstream impacted status.

During my June-December, 1997 temperature monitoring, I documented 3151 individual temperature readings (taken 30 minutes apart) in Little Muddy Creek below its confluence with the Unnamed Tributary. In addition, the 90 F standard was exceeded four times in the Unnamed Tributary.

My additional comments follow:

Under seasonal variation: As noted above, I did document the violation of the 90 F standard in the Unnamed Tributary on three readings in June and one in July, 1997. This is in contrast to what is stated in the TMDL. The 5 F standard was also violated many times during every month of my monitoring. The largest number of violations occurred during November 1997 ...It appears that seasonal variation may be a relevant factor.

Calculation of load capacity---I agree with the use of the 90 F standard for the Unnamed Tributary and the 5 F standard for Little Muddy Creek.

Margin of safety---The compliance point for the 5 F standard in Little Muddy Creek should be just downstream of its confluence with the Unnamed Tributary, should it not? The measurement for this standard should occur below this confluence to document differences and measure the effect of the effluent on Little Muddy Creek. I agree that it should be compared to conditions just above the confluence.

I concur with statements 5-9."

#### Comments for the Eleven Point River near Willow Springs

The following comments were provided by Dave Mayers, MDC Fisheries Management Biologist:

"... A minor correction, in section #2, Anti-Degradation Policy, last paragraph, the Eleven Point River is part of the National Scenic River not National Wild and Scenic River.

I wholly support DNR's efforts with this plan. I realize these criteria are designed to protect instream aquatic life but I wonder about degradation of spring water quality. Because the upper Eleven Point is a losing stream, and we know it is a major recharge for Greer Spring, what efforts, if any, are directed at monitoring chlorine levels in the spring? Perhaps this has been documented in the past but I feel if we know the ultimate destination of this "losing water" we should pay some attention to it."

The Department appreciates the opportunity to comment on these draft TMDL's. If you have any questions please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Leanna Zweig". The signature is written in a cursive style with a large, stylized initial 'L' and a flourish at the end.

Leanna Zweig  
Environmental Services Biologist



Roger B. Wilson  
~~XXXXXXXX~~ Governor • Stephen M. Mahfood, Director

## DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY

P.O. Box 176 Jefferson City, MO 65102-0176

December 8, 2000

Ms. Leanna Zweig  
Columbia Research Center  
1110 South College Avenue  
Columbia, MO 65201

Dear Ms. Zweig:

Thank you for forwarding comments on behalf of Missouri Department of Conservation (MDC).

**Little Muddy Creek TMDL:**

In response to Tom Priesendorf, the MDC study date in the TMDL document has been corrected to read April 1997 to April 1998. See e-mail response enclosed (cc: Leanna Zweig).

Rich Meade's concerns were addressed in an e-mail sent November 17, 2000 (enclosed). During a subsequent phone call Mr. Meade indicated he was satisfied with the response.

**Eleven Point River TMDL:**

In response to Dave Mayers' comments, first, "National Wild and Scenic River" was changed to "National Scenic River," as per suggestion. Second, chlorine is very volatile so there will not be detectable amounts left in the water column when the water emerges at Greer Spring, which is 30 miles from Willow Springs.

Again, thank you for forwarding these comments. MDC's participation in the TMDL process and concern for the health of Missouri's water resources is appreciated. If you have other questions or wish to discuss this further, please contact Anne Peery of the Planning Section at (573) 526-1426.

Sincerely,

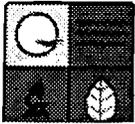
WATER POLLUTION CONTROL PROGRAM

Handwritten signature of John Madras in cursive.

John Madras, Chief  
Planning Section

JM:apd

Enclosures



Anne Peery

11/17/2000 04:04 PM

To: MEADER@mail.conservation.state.mo.us

cc:

Subject: Little Muddy Temp TMDL Comments

Rich,

Thank you for reading the Little Muddy TMDL and making comments. In response:

You may already have talked with Tom Priesendorf and straightened out where his data came from. In drafting the TMDL, John Ford and I used what Tom sent us. A couple of months ago I asked Tom for a "clean" copy of the data (some of it was obscured on John's copy), and what he sent me was identical to what John already had (although without the obstruction). We were under the impression that was all of the available data. Obviously your data need to be included. To that end, Dick Duchrow is obtaining your data for us, plus his memo that you mentioned in your comments below. We will review the data and revise the TMDL accordingly. It will not make a difference to the final TMDL recommendations, however, since we are already requiring permit limits equal to the state water quality standards.

Regarding the MOS, we feel the monitoring points are correct. The upstream point is, of course, the ambient monitoring point. It is good to have the downstream one in the trib to Little Muddy because, if it meets the standards there in the trib, it will be protective of Little Muddy also.

If you have any more comments or questions, do not hesitate to contact us.

Anne Peery  
TMDL Developer  
DNR/ Water Pollution Control Program  
573-526-1426  
nrpeera@mail.dnr.state.mo.us

----- Forwarded by Anne Peery/WPCP/DEQ/MODNR on 11/17/2000 03:44 PM -----



"Leanna Zweig"  
<zweig@mail.conservation.state.mo.us>

11/14/2000 05:18 PM

To: nrpeera@mail.dnr.state.mo.us

cc: "Ron Dent" <DENTR@mail.conservation.state.mo.us>, "Rich Meade" <MEADER@mail.conservation.state.mo.us>, "Tom Priesendorf" <PRIEST@mail.conservation.state.mo.us>

Subject: Little Muddy Temp TMDL Comments

Ann,

From speaking with Rich Meade and Tom Priesendorf, I believe this isn't as bad as we thought. It looks like Rich's concerns were due to the fact that you primarily used Tom Priesendorf's data. Rich's data was collected specifically on this stream with automated temperature probes recording every 30 minutes which may explain his differing results concerning the 5 and 90 degree standards. Tom's data was a smaller data set collected as part of a larger monitoring effort involving several parameters. Rich's data may better document Tyson's thermal pollution and provide a history to support more stringent discharge limits.

Below are Rich's comments. We appreciate your efforts on behalf of Little Muddy Creek and hope that MDC's input can benefit the TMDL analysis. Please let me know if I can be of further assistance.

Leanna Zweig  
Environmental Services  
573/882-9880 ext. 3228

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\*\*\*\*\*  
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TMDL comments from Rich Meade  
Fisheries Management Biologist  
Missouri Department of Conservation  
Sedalia, MO  
660-530-5500

*In phone conversation 11/28/00, Rich was satisfied with answers (above in e-mail)*

The TMDL appears to contain information that I was not involved in collecting. The map in the TMDL shows three temperature monitoring sites that I was involved in (sites 6,7 and 9) and two where I was not (sites 8 and 10). I think that Tom Priesendorf worked on data collection at these sites in a separate study. I'm not sure how these data were combined in the draft TMDL.

Regarding temperature, I can verify that the impaired reach includes the stream reach from where the Unnamed Tributary crosses the gravel road in the center of sect. 14, downstream to Site 9. I was not involved in detailed monitoring below Site 9. Ron Dent supervised Tom Priesendorf's study of this portion of stream. I think the classified and impacted reaches shown are accurate, provided that data from Tom P's study support the downstream impacted status.

During my June-December, 1997 temperature monitoring, I documented 3151 individual temperature readings (taken 30 minutes apart) in Little Muddy Creek below its confluence with the Unnamed Tributary. In addition, the 90 F standard was exceeded four times in the Unnamed Tributary.

My additional comments follow: *→ actually, only once; 3 x it = 90°*

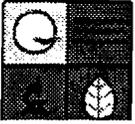
Under seasonal variation: As noted above, I did document the violation of the 90 F standard in the Unnamed Tributary on three readings in June and one in July, 1997. This is in contrast to what is stated in the TMDL. The 5 F standard was also violated many times during every month of my monitoring. The largest number of violations occurred during November 1997 (see memo from Richard Duchrow that I've faxed to you). It appears that seasonal variation may be a relevant factor. *→ rec'd from RD + now in L. Muddy TMDL file.*

Calculation of load capacity---I agree with the use of the 90 F standard for the Unnamed Tributary and the 5 F standard for Little Muddy Creek.

Margin of safety---The compliance point for the 5 F standard in Little Muddy Creek should be just downstream of its confluence with the Unnamed Tributary, should it not? The measurement for this standard should occur below this confluence to document differences and measure the effect of the effluent on Little Muddy Creek. I agree that it should be compared to conditions just above the confluence.

I concur with statements 5-9.

*Requested R. Meade's temp. data. CD arrived 11/27. Many files in "wrong" version of Quattro Pro. Rich sent usable files via e-mail 11/28*



Anne Peery  
11/15/2000 08:36 AM

To: prient@mail.conservation.state.mo.us  
cc: zweigl@mail.conservation.state.mo.us  
Subject: Fwd: TMDL for L. Muddy Creek

Hi, Tom!

You are exactly right. We definitely need to be using Rich Meade's data. I am in the process of obtaining it right now. I had the idea we *were* using all the available data...

Thank you for pointing out the error in the TMDL about the dates of your data collection. I inherited that part of the manuscript and obviously didn't check it thoroughly enough. That has been corrected!

Thanks again,

Anne Peery  
TMDL Developer  
DNR/ Water Pollution Control Program  
573-526-1426  
nrpeera@mail.dnr.state.mo.us

----- Forwarded by Anne Peery/WPCP/DEQ/MODNR on 11/15/2000 08:28 AM -----



"Leanna Zweig"  
<zweigl@mail.conservation.state.mo.us>

To: nrpeera@mail.dnr.state.mo.us  
cc:  
Subject: Fwd: TMDL for L. Muddy Creek

11/14/2000 05:14 PM

Content-Transfer-Encoding: quoted-printable  
Content-Type: text/plain; charset=us-ascii  
Content-Disposition: inline

I've looked over the Appendix attached to the TMDL report. The data used = are exclusively the data collected for "my" report on the water quality of = Muddy Creek. Those data were collected as part of an extensive study = assessing numerous WQ parameters in several subwatersheds of Muddy Creek. = The report is still in draft form, but nearing completion.

I provided these data to Anne Peery about two months ago for her considerat- ion in designing TMDL standards.

I hope that at least clarifies where the data came from. It is imparitive = that Rich Meade's data are also considered. His data set is more = extensive and thorough. It also documents additional instances where = standards were exceeded.

In the report, a mention of a study by MDC occurred from June 1997 to = April 1998. My data were actually collected form April 1997 to April = 1998.

I hope that helps. Let me know if you need more.

*Comments from Tom Priesendorf, MDC*