

Missouri  
Department of  
Natural Resources

DRAFT TURKEY CREEK TMDL  
PUBLIC COMMENTS

Public Notice  
Nov. 19 – Dec. 19, 2004

**Turkey Creek  
WBID # 3282**

St. Francois, 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)

JOHN D. HOSKINS, Director

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

December 9, 2004

Mr. Phil Schroeder  
Missouri Department of Natural Resources  
PO Box 176  
Jefferson City, MO 65102-0176

Dear Mr. Schroeder:

The following are the comments of the Missouri Department of Conservation concerning the draft TMDL for Turkey Creek in St. Francois County.

- Overall the TMDL was well written.
- I recommend supplementing geometric mean data with the "5 number summary" including minimum, 25% percentile, median, 75% percentile and maximum to provide more meaningful statistical descriptions of the data.
- Identify the need for land applied sludge from the WWTP to be applied outside of the Turkey Creek watershed.
- I strongly recommend that instream monitoring of dissolved oxygen and ammonia daily, Monday through Friday, before 9AM from June to October. As dissolved oxygen is highly variable during the summer below streams with WWTP discharges, monthly monitoring data is inadequate to determine if operating conditions insure that water quality standards are being met. Less frequent sampling would not provide adequate data meet the monitoring objective.
- The implementation section describes operational changes that would assist Bonne Terre WWTP with compliance. What is not discussed, and more pertinent, is where the WWTP stands in plans for upgrade. What is the status of improvements in treatment and sewage transport infrastructure that would aid Bonne Terre in meeting discharge limits? Have SRF been applied for? What other avenues outside of the permit process are DNR or the City of Bonne Terre pursuing that would aid in the implementation of the TMDL?

COMMISSION

STEPHEN C. BRADFORD  
Cape Girardeau

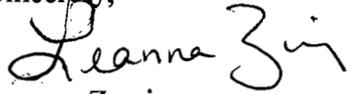
ANITA B. GORMAN  
Kansas City

CYNTHIA METCALFE  
St. Louis

LOWELL MOHLER  
Jefferson City

The Department supports efforts by Department of Natural Resources to improve Missouri's aquatic resources and appreciates the opportunity to comment on these TMDLs. Please let me know if you have questions concerning these comments.

Sincerely,

A handwritten signature in black ink that reads "Leanna Zweig". The signature is written in a cursive style with a large initial "L" and a stylized "Z".

Leanna Zweig  
Environmental Services Biologist

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Bob Holden, Governor • Stephen M. Mahfood, Director

www.dnr.mo.gov

December 23, 2004

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

Dear Ms. Zweig:

Thank you for reviewing the Turkey Creek TMDL and taking the time to comment on behalf of the Missouri Department of Conservation (MDC). The following responses are given in the order of your comments:

- We appreciate your comment that the TMDL is well written. It is important to us that our documents are easy to read and understand.
- The “5 number summary” that you recommended, to supplement the geometric mean data, has been included with the data (Appendix C).

Your next three comments describe how you believe the permit should be written to implement the TMDL. While, in this case, the TMDL must present a goal that is achievable through a permitting approach, it is not the purpose of a TMDL to dictate the exact conditions of a permit. The TMDL calculates the waste load allocation (WLA) for the receiving waters, and the WLA provides a basis for deriving the effluent limits and the conditions for future discharges. However, how and when these steps are taken is determined separately during the permitting process.

- There is standard permit language to cover land application of sludge that includes application rates, buffers and more. Proper land application involves the use of waste water and sludges in a manner that allows for complete uptake of the wastes by plants and minimizes runoff of pollutants. If proper application is conducted, there will be no significant discharge of pollutants to waters of the state and therefore no water quality problems caused by the land application of sludge. We appreciate your comment in that taking the sludge out of the watershed can be beneficial when needing to find more favorable land uses and soil types or where land application is extremely dense within a specific area.

*Integrity and excellence in all we do*



Ms. Leanna Zweig  
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- Your comment regarding the timing of sampling was forwarded to the Permits Section for them to consider while drafting future permits. The monitoring included in the permit is to give us an idea if the new limits are achieving the desired response in the receiving stream, not for assessing the stream for compliance with WQS. However, your idea may have importance to the permitting process when determining the proper application of effluent limits.
- The TMDL states that the new limits will be added when the permit is renewed in January 2005. The next step is to do the Water Quality Review Sheet that calculates Bonne Terre's limits. Their WQRS is due to be completed in January. The facility will likely need to be upgraded to meet the new limits. Changes to the permit to reflect these upgrades must be posted for public comment. We encourage you to review the draft permit at that time. The draft permit will most likely include a compliance schedule regarding the engineering report and construction permit, with interim limits as well as final limits. The frequent bypasses will be addressed through the upgrade. If you notice that any of these steps are not fully addressed in the draft permit, I sincerely encourage you to notify us during the public comment period.

As always, MDC's support of the TMDL process and concern for the health of Missouri's water resources is sincerely appreciated. If you have other questions or wish to discuss this further, please contact Ms. Ann Crawford, Water Protection Program, Water Quality Monitoring and Assessment Section, P.O. Box 176, Jefferson City, MO 65102-0176 or by telephone at (573) 751-5827.

Sincerely,

WATER PROTECTION PROGRAM



Philip A. Schroeder, Chief  
Water Quality Monitoring and Assessment Section

PAS:apj