

Missouri  
Department of  
Natural Resources

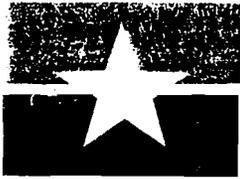
DRAFT BRUSHY CREEK TMDL  
PUBLIC COMMENTS

Public Notice  
Aug. 26 – Sept. 25, 2005

**Brushy Creek**  
**WBID # 1592**

Texas County, Mo.

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



# CITY OF HOUSTON

601 S. GRAND AVE.  
HOUSTON, MO. 65483

PHONE: 417-967-3348 FAX: 417-967-4252

e-mail: [billbates@houstonmissouri.org](mailto:billbates@houstonmissouri.org)  
web site: [houstonmissouri.org](http://houstonmissouri.org)

STEVE HUTCHESON, MAYOR  
BILL BATES, ADMINISTRATOR  
LORRAINE AYE, CITY CLERK

Aldermen:  
F. Don Romines  
Don Kruse  
Joe C. Honeycutt  
Bill Maxwell  
Miles James  
Butch Burch

September 19, 2005

Missouri Dept. of Natural Resources  
WPP  
Water Quality Monitoring & Assessment Section  
P.O. Box 176  
Jefferson City, MO 65102-0176

Re: Draft TMDL for Brushy Creek  
Texas County

Gentlemen:

The city and its engineer has reviewed the Draft TMDL for Brushy Creek and the impact on the City of Houston future discharge permit limits. One item of concern is the TSS limits. The proposal for TSS to match that for BOD at 11.5 mg/1 average monthly and 18 mg/1 for maximum daily does not seem to have the degree of study given the other limits. We are requesting the limits for TSS be raised to 25 mg/1.

We believe this limit will have a major impact on the cost for our new treatment plant. Our current planning is for an oxidation ditch plant which has shown the ability to produce BOD and TSS effluents under 10 mg/1 for each, without the high cost associated with filtration. Past history has indicated when the TSS limits are 15 mg/1, the projects have been required by DNR to include filtration.

With the current high levels of infiltration/inflow, the size of the filters and their cost will be considerable. We believe the proposed limit can be met without the aid of filters, however we understand filtering will be required with TSS limits at the level proposed. The results of adding filters will be a financial burden on the users of the sewer system and will make bond issue passage more difficult.

If at a future date, filters are required as part of phosphorus removal, they can be added with another project. Since the phosphorus limits (if required) are not known at this time, neither is the need for filters. A few operating plants that discharge into the Tablerock Lake basin have shown the ability to meet 1.0 mg/1 and even down to 0.5 mg/1 for phosphorus, without filtering. Clarifier performance has resulted in TSS between 5 mg/1 and below, which has resulted in low levels of phosphorous through chemical addition.

The City of Houston is aware of the need to improve on effluent quality. This process was started May 2, 2002 when a request was made to MODNR for the water quality requirements for a new plant. In February 2003, a preliminary water quality review sheet was received. At that time, we were told the TMDL was scheduled in the next year or two. The preliminary WQRS listed BODat 30 mg/1, TSS at 30 mg/1, fecal 400, residual chlorine at 0.01 mg/1, D.O. at 5 mg/1, total ammonia at 1.4 mg/1, and 2.2 mg/1 for average monthly limits. It is also indicated phosphorus, nitrate and nitrite nitrogen, and kjeldahl nitrogen limits would be recommended following survey, modeling, and analysis.

Please include this letter and our request for a modified TSS limit as you complete the TMDL process for Brushy Creek. If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Bill Bates". The signature is written in black ink and is positioned above the printed name and title.

Bill Bates  
City Administrator



STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

[www.dnr.mo.gov](http://www.dnr.mo.gov)

October 13, 2005

Mr. Bill Bates, City Administrator  
City of Houston  
601 South Grand Avenue  
Houston, MO 65483

Dear Mr. Bates:

We are in receipt of your letter dated September 19, 2005, regarding the Brushy Creek Draft Total Maximum Daily Load (TMDL) document. Thank you for reviewing the TMDL and taking the time to comment.

This letter is to summarize the results of a conference call on October 11, 2005, between the department and the City of Houston regarding those comments.

Participants: Representing the City of Houston were you and Ray West, of Hood-Rich Engineering. Representing the department were Anne Peery (TMDL Development), Mark Osborn (Modeling Unit) and John Hoke and Curt Gateley (both from the NPDES Permits and Engineering Section). Your comments were discussed and the option of advanced treatment technology limits was offered as possible relief from the proposed Total Suspended Solids (TSS) limits of 11.5 mg/L average monthly and 18 mg/L maximum daily. The advanced technology limits would lower the Biochemical Oxygen Demand to an average weekly of 15 mg/L and average monthly of 10 mg/L. The TSS could then be raised to 20/15 mg/L (weekly/ monthly). Mr. West expressed concern that these limits would necessitate the department to require filtration, which the city cannot presently afford. NPDES Permits and Engineering Section staff replied that the department cannot by regulation dictate a wastewater treatment process, only the permit requirements. The permittee is free to choose whatever treatment process they feel will achieve Water Quality Standards in the stream. It was concluded that the permit would include the limits as stated in the TMDL, rather than the standard advanced treatment limits. Department staff will work up a Water Quality Review Sheet using those limits.

The issue of high phosphorus and nitrogen in the city's effluent was also discussed. These nutrients are from an industry in Houston and you stated that you are dealing with regulating how much and how often they may discharge wash water to you. We all agreed it is a pretreatment issue and is being addressed by the city. In addition, we wanted to be sure you noticed the new ammonia limits and that there would be other requirements (such as disinfection) in your next permit. You stated that the city is aware of this.

Mr. Bill Bates, City Administrator  
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Again, thank you for commenting. Your 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 my staff at (573) 526-1426, by e-mail at [anne.peery@dnr.mo.gov](mailto:anne.peery@dnr.mo.gov) or at Missouri Department of Natural Resources, Water Protection Program, P. O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

WATER PROTECTION PROGRAM



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

PAS:apl