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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

15 NOV 2004

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MAIL ROOM

Jim Hull, Director
Water Pollution Control Program
Water Protection and Soil Conservation Division
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102

Dear Mr. Hull:

RE: Approval of the TMDL for Trace Creek

This letter responds to the submission from the Missouri Department of Natural Resources (MDNR) received by the Environmental Protection Agency (EPA) on October 4, 2004, and revised November 1, 2004, for one Total Maximum Daily Load (TMDL) document which contains a TMDL for pH. Trace Creek was identified on the 1998 and the 2002 Missouri §303(d) lists as impaired as a result of pH. This submission fulfills the Clean Water Act statutory requirement to develop TMDLs for impairments listed on a state's §303(d) list. The specific impairment (water body segment and pollutant) are:

Water Body Name	WBID	Listed pollutant	TMDL pollutant
Trace Creek	2850	pH	pH

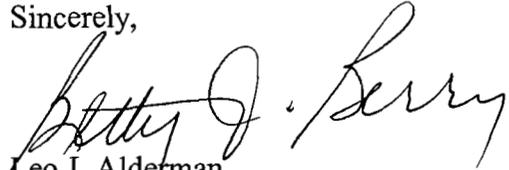
EPA has completed its review of the TMDL with supporting documentation and information. By this letter, EPA approves the submitted TMDL. Enclosed with this letter is the Region 7 TMDL Decision Document which summarizes the rationale for EPA's approval of the TMDL. The EPA believes the separate elements of the TMDL described in the enclosed form adequately address the pollutant of concern, taking into consideration seasonal variation and a margin of safety.

EPA is currently in consultation under Section 7 of the Endangered Species Act with the U.S. Fish and Wildlife Service regarding this TMDL. While EPA is approving this TMDL at the present time, EPA may decide that changes to the TMDL are warranted based upon the results of the consultation when it is completed.



EPA appreciates the thoughtful effort that MDNR has put into this TMDL. EPA will continue to cooperate with and assist, as appropriate, in future efforts by MDNR to develop the remaining TMDLs.

Sincerely,



Leo J. Alderman
Director
Water, Wetlands, and Pesticides Division

Enclosure

cc: Ann Crawford
TMDL Coordinator, Jefferson City, MO

Phil Schroeder
MO Dept of Natural Resources, Jefferson City, MO

Scott Dye
Sierra Club, Columbia, MO

The beneficial uses of Trace Creek are described, and the WQS for those beneficial uses are described. The targets are taken directly from the water quality criteria in Missouri's water quality standards for pH.

Link Between Numeric Target(s) and Pollutant(s) of concern

An explanation and analytical basis for expressing the TMDL through surrogate measures (e.g., parameters such as percent fines and turbidity for sediment impairments, or chlorophyll-a and phosphorus loadings for excess algae) is provided, if applicable. For each identified pollutant, the submittal describes analytical basis for conclusions, allocations and margin of safety that do not exceed the load capacity.

The numeric targets are the water quality criteria for pH. The relationship between the numeric targets and the pollutants is direct.

Source Analysis

Important assumptions made in developing the TMDL, such as assumed distribution of land use in the watershed, population characteristics, wildlife resources, and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources, are described. Point, non point and background sources of pollutants of concern are described, including magnitude and location of the sources. Submittal demonstrates all significant sources have been considered.

The sources of acid (pH) is described. The major contribution was determined to be local precipitation (unbuffered acid rain partially attributable to sulfur dioxide emissions) and flood plain soils. The submittal demonstrates that all significant sources of acidity (pH) were identified and considered.

Allocation

Submittal identifies appropriate wasteload allocations for point, and load allocations for nonpoint sources. If no point sources are present the wasteload allocation is zero. If no nonpoint sources are present, the load allocation is zero.

Trace Creek will have to meet in-stream WQS for pH (6.5-9.0 SU).

WLA Comment

The waste load allocation for pH is established as within the range of 6.5 to 9.0 SU.

LA Comment

The load allocation for pH is established as within the range of 6.5 to 9.0 SU.

Margin of Safety

Submittal describes explicit and/or implicit margin of safety for each pollutant. If the MOS is implicit, the conservative assumptions in the analysis for the MOS are described. If the MOS is explicit, the loadings set aside for the MOS are identified and a rationale for selecting the value for the MOS is provided.

An implicit MOS is identified for the low pH impairment as using site inspections and monitoring to determine if MCWP is meeting the terms of its SWPP in Trace Creek. Additionally any new discharger locating in the watershed will have to meet the pH water

quality standard at end of pipe.

Seasonal Variation and Critical Conditions

Submittal describes the method for accounting for seasonal variation and critical conditions in the TMDL(s).

Seasonal variation was considered, and critical conditions were indentified. While it is acknowledged that the pH varies with temperature, the water quality standards for pH do not distinguish between seasons, the allocations apply year round.

Public Participation

Submittal describes public notice and public comment opportunity, and explains how the public comments were considered in the final TMDL(s).

This TMDL was placed on public notice from July 30 to August 29, 2004; four comments were received and addressed.

Monitoring Plan for TMDL(s) Under Phased Approach

The TMDL identifies the monitoring plan that describes the additional data to be collected to determine if the load reductions required by the TMDL lead to attainment of WQS, and a schedule for considering revisions to the TMDL(s) (where phased approach is used).

Trace Creek is included in MDNR's continuous monitoring plan and is sampled twice per year.

Reasonable assurance

Reasonable assurance only applies when reduction in nonpoint source loading is required to meet the prescribed waste load allocations.

Should Glover Smelter resume operations, they would have to comply with restrictions of Emission of Sulfur Compounds. Site inspections and monitoring of pH by the department will evaluate whether the MCWP Sawmill is contributing to acidity in Trace Creek. (SWPPP MO-R22A120)
