



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

RECEIVED

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WPCF

Mr. Edwin D. Knight, Director
Water Pollution Control Program
Division of Environmental Quality
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102-0176

Re: Approval of the Saline Creek TMDL (§303(d) Clean Water Act)

Dear Mr. Knight:

Thank you for the submissions dated December 14, 2000 requesting approval of the Saline Creek total maximum daily load (TMDL) under §303(d) of the Clean Water Act. We have completed our review of this TMDL for Ammonia and Biochemical Oxygen Demand as submitted by your office and in accordance with §303(d) of the Clean Water Act (33 U.S.C. 1251 et.seq.), we approve all aspects of this TMDL.

Enclosed is the EPA Region 7 Review Form which summarizes the rationale for the Environmental Protection Agency's (EPA) approval of this TMDL. EPA believes the separate elements of this TMDL described in the enclosed form adequately addresses the pollutants of concern, taking into consideration seasonal variation and a margin of safety.

Again, EPA appreciates the thoughtful teamwork and partnering effort that Missouri has put forth in the development of this TMDL and will continue to cooperate with and assist, as appropriate, in future efforts by Missouri to develop the remaining TMDLs on the current Missouri §303(d) list of impaired water bodies.

Sincerely,

U. Gale Hutton
Director
Water, Wetlands, and Pesticides Division

Enclosure

cc: George Van Cleve, Van Cleve & Associates, Washington D.C.
John M. Simpson, Esquire, Kansas City, MO
David Bookbinder, American Canoe Association, Springfield, VA
Sharon Clifford, Missouri Department of Natural Resources, Jefferson City, MO



January 5, 2001

EPA Region 7 TMDL Review Form

TMDL ID 3

Water Body Name Saline Creek

Pollutant Ammonia and BOD

Tributary

Water Body ID 2190

State MO

HUC 0714010208000

Basin

Submittal Date 12/18/00 *Completion Date* 1/3/01

Approved Yes

Submittal Letter: *State submittal letter indicates final TMDL(s) for specific pollutant(s)/ water(s) were adopted by the state, and submitted to EPA for approval under section 303(d) of the Clean Water Act.*

EPA received a submittal letter dated December 14, 2000 on December 18, 2000.

Water Quality Standards Attainment: *TMDL and associated allocations are set at levels adequate to result in attainment of applicable water quality standards.*

Missouri's water quality criteria for ammonia is pH and temperature dependent. These criteria can be found in 10CSR20-7.031. Seasonal values for pH and temperature are given in the TMDL for Saline Creek. Those values are a pH of 7.8 and a temperature of 26 degrees centigrade for May-Oct., and 7.8 and 6 degrees centigrade for November- April. This corresponds to ammonia criteria values of 2.0 and 3.3 respectively. The dissolved oxygen limit is not be less then 5 mg/L.

Since the water quality violations are due to two wastewater treatment facilities, it is believed removal of the discharge from these facilities to Saline Creek will lead to attainment of the water quality standards.

Numeric Target(s): Submittal describes applicable water quality standards, including beneficial uses, applicable numeric and/or narrative criteria.

The desired endpoint for this TMDL is to meet WQS. This is going to be achieved by removing the discharge from the watershed.

Source Analysis: 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 source of ammonia and BOD is from the Ron Rog STP and the Hwy 141 STP. This stretch of the river is classified as a losing stream. Therefore, it is believed non point sources are not a source to this impaired reach.

Allocation: Submittal identifies appropriate waste load allocations for point, and load allocations for non point sources. If no point sources are present the waste load allocation is zero. If no non point sources are present, the load allocation is zero.

The discharge from the facilities believed to be causing the impairment will be removed from the watershed.

Waste Load Allocation:

The WLA is zero.

Load Allocation:

The LA is zero. Monitoring in the future will determine if there is a need for a load allocation.

Margin of Safety: Submittal describes explicit and/or implicit margin of safety for each pollutant.

The MOS is implicit since the two discharges are being removed from the watershed.

Link Between Numeric Target(s) and Pollutant(s) of concern: Submittal describes relationship between numeric target(s) and identified pollutant sources. For each identified pollutant, the submittal describes analytical basis for conclusions, allocations and margin of safety that do not exceed the load capacity.

The targeted endpoint is the Missouri WQS for Ammonia and Biochemical Oxygen Demand (BOD). BOD is targeted instead of Dissolved Oxygen since DO can not be allocated. It is known that increasing BOD will lead to decreased DO in the water body. By limiting BOD, in this case removing BOD, DO levels will meet the WQS of 5 mg/L.

Seasonal Variation and Critical Conditions: Submittal describes the method for accounting for seasonal variation and critical conditions in the TMDL(s).

Ammonia WQS address seasonal variation, and the DO WQS must be met at all time of the year.

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 public noticed from October 27- November 26, 2000. The TMDL was modified to incorporate the comments received.

Monitoring Plan for TMDL(s) Under Phased Approach: The TMDL identifies the monitoring plan and schedule for considering revisions to the TMDL(s) (where phased approach is used).

The impaired reach will be inspected every six months to determine when the discharge redirection has been completed. The reach will be monitored within two years of the removal of the discharge to determine if there is an additional impact from non point sources.

Reasonable Assurance: Reasonable assurance only applies when reductions in non point source loading is required to meet the prescribed waste load allocations.