



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

DEC 6 1999



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

Dear Mr. Knight:

EPA has completed its review of the three total maximum daily loads (TMDLs) as submitted by your office for Clear Creek (Monett, Missouri; WBID 3239), as described in Section 303(d)(1) and which appears on your Section 303(d) list as impaired by BOD, suspended solids, and ammonia. In accordance with the Clean Water Act (33 U.S.C. 1251 et. seq.), all the required elements are adequately addressed in these TMDLs and EPA approves all aspects of these TMDLs.

EPA believes, as described in the enclosed decision document, that these TMDLs adequately addresses the three pollutants of concern, and upon implementation, will result in attainment of the applicable water quality standards. The separate elements of each TMDL adequately address the allocations as needed, the critical conditions, and takes into consideration seasonal variation and a margin of safety.

Thank you for your submittal. EPA appreciates Missouri's work to complete and adopt these TMDLs, and looks forward to our continuing partnership in TMDL development. If you have any questions concerning this approval, feel free to contact Don Miller 913-551-7393.

Sincerely,

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

Enclosure

TMDL Decision Document

State: Missouri

First TMDL:

Waterbody Name: Clear Creek (Monett, Missouri)

Missouri WBID No: 3239

Pollutant: BOD (biological oxygen demand)

Second TMDL:

Waterbody Name: Clear Creek (Monett, Missouri)

Missouri WBID No: 3239

Pollutant: Ammonia

Third TMDL:

Waterbody Name: Clear Creek (Monett, Missouri)

Missouri WBID No: 3239

Pollutant: Suspended Solids

Date of State Submission: November 30, 1999

Date Received By EPA: November 30, 1999

EPA Reviewer: Don Miller

Date of Review: November 30, 1999

Review Criteria	Approve	Comments
<p>1. Submittal Letter: State submittal letter indicates final TMDL(s) for specific water(s)/pollutant(s) were adopted by state and submitted to EPA for approval under 303(d).</p>	X	<p><i>Missouri indicated in its cover letter dated November 30, 1999 that this submittal replaces the earlier submittal of three TMDLs for Clear Creek. The three pollutants are BOD, suspended solids, and ammonia. Missouri submitted these three TMDLs for approval by EPA pursuant to Section 303(d)(2) of the CWA.</i></p>
<p>2. Water Quality Standards Attainment: TMDL and associated allocations are set at levels adequate to result in attainment of applicable water quality standards.</p>	X	<p><i>The three pollutants of concern are "nutrient" pollutants. Missouri has no water quality standard for BOD, rather Missouri links BOD to dissolved oxygen (DO) which does have a numeric water quality standard. Ammonia has a numeric seasonal water quality standard. Suspended solids has a narrative standard which Missouri interprets with a numeric target. These three TMDLs establish allocations for the three pollutants (or surrogates) of concern that will result in the attainment of the applicable water quality standards.</i></p>

<p>3. Numeric Target(s): Submission describes applicable water quality standards, including beneficial uses, applicable numeric and/or narrative criteria. Numeric water quality target(s) for TMDL identified, and adequate basis for target(s) as interpretation of water quality standards is provided.</p>	<p>X</p>	<p><i>The beneficial use that is impaired is the aquatic life use. These three TMDLs provide where needed interpretations of the applicable water quality standards, and set numeric water quality targets for the pollutants of concern or a surrogate for the pollutant of concern. These numeric targets are appropriately linked to the applicable water quality standards.</i></p>
<p>4. Source Analysis: Point, nonpoint, and background sources of pollutants of concern are described, including the magnitude and location of sources. Submittal demonstrates all significant sources have been considered.</p>	<p>X</p>	<p><i>During the critical flow periods, there are no loadings from non-point sources. The only source is the Monnet WWTP. These three TMDLs have identified all the sources of the pollutants of concern.</i></p>
<p>5. Allocations: Submittal identifies appropriate wasteload allocations for point sources and load allocations for nonpoint sources. If no point sources are present, wasteload allocations are zero. If no nonpoint sources are present, load allocations are zero.</p>	<p>X</p>	<p><i>These three TMDLs establish a zero Load Allocation (non-point and background). These three TMDLs appropriately establish seasonal Wasteload Allocations for the pollutants of concern or their surrogates.</i></p>
<p>6. Link Between Numeric Target(s) and Pollutant(s) of Concern: Submittal describes relationship between numeric target(s) and identified pollutant sources. For each pollutant, describes analytical basis for conclusion that sum of wasteload allocations, load allocations, and margin of safety does not exceed the loading capacity of the receiving water(s).</p>	<p>X</p>	<p><i>There is only one source of the pollutants of concern and all three numeric targets apply to this one source. For each of the three pollutants, the Wasteload Allocation is applied at the end-of-pipe, because Missouri regulations allow a mixing zone in this situation. In these three TMDLs, the sum of the wasteload allocations, the load allocations (which are zero) and the margins of safety do not exceed the loading capacity.</i></p>

<p>7. Margin of Safety: Submission describes explicit and/or implicit margin of safety for each pollutant.</p>	<p>X</p>	<p><i>There was insufficient data and information to establish the uncertainty of the technical analysis in these three TMDLs. As a result, margins of safety were established for each of the three pollutants. Since these are phased TMDLs, if water quality standards are exceeded, then the re-opening of these TMDLs will reevaluate the margins of safety based on available additional data. These three TMDLs establish explicit margins of safety of 10% for BOD and ammonia, and 50% for suspended solids.</i></p>
<p>8. Seasonal Variations and Critical Conditions: Submission describes method for accounting for seasonal variations and critical conditions in the TMDL(s)</p>	<p>X</p>	<p><i>These three TMDLs appropriately considered seasonality and critical conditions, and established seasonal wasteload allocations under the critical flow conditions.</i></p>
<p>9. Public Participation: Submission documents provision of public notice and public comment opportunity; and explains how public comments were considered in the final TMDL(s).</p>	<p>X</p>	<p><i>These TMDLs were placed on public notice by DNR from April 2, 1999 to May 7, 1999. No comments were received. DNR has also conducted 6 public meetings on these TMDLs and on other 303(d) listing issues; no comments were received on the Clear Creek TMDLs. This participation opportunity allowed the public to have meaningful input into these three TMDLs.</i></p>
<p>10. Technical Analysis: Submission provides appropriate level of technical analysis supporting TMDL elements</p>	<p>X</p>	<p><i>Each element in these TMDLs contain an appropriate technical justification for the decisions made. The loading capacity, seasonal variation, and margin of safety are based on appropriate technical analyses. The nonpoint and point source load allocations are appropriate for the level of complexity of the water quality problem and the data and information available to support the development of these three TMDLs.</i></p>
<p>Note: The following criteria do not apply to all TMDLs, but are applied in the situations noted.</p>		

<p>11. Monitoring Plan for TMDLs Under Phased Approach (where phased approach is used): TMDLs developed under phased approach identify..... implementation actions, monitoring plan and schedule for considering revisions to TMDL.</p>	<p>X</p>	<p><i>A monitoring plan is included in the package provided by Missouri DNR for these three phased TMDLs. Missouri DNR will conduct water quality surveys of Clear Creek to confirm that in-stream water quality standards are achieved. These are phased TMDLs, and will be reopened if future monitoring indicates that water quality standards are exceeded.</i></p>
<p>12. Reasonable Assurances (for waters affected by both point and nonpoint sources): Where point source(s) receive less stringent wasteload allocations because nonpoint source reductions are expected and reflected in load allocations, implementation plan provides reasonable assurances that nonpoint implementation actions are sufficient to result in attainment of load allocations in a reasonable period of time. Reasonable assurances may be provided through use of regulatory, non-regulatory, or incentive based implementation mechanisms as appropriate.</p>	<p>X</p>	<p><i>There are no nonpoint sources of the three pollutants of concern under the critical flow conditions. The discharge from the WWTP remains under the authority of the NPDES permit. This assurance is sufficient to result in the attainment of the wasteload allocations in these three TMDLs.</i></p>
<p>Implementation Plan Review Criteria Pursuant to 40 CFR 130.6 and 303(e)</p>		

<p>13. Clear Implementation Plan: Submittal describes planned implementation actions or, where appropriate, specific process and schedule for determining future implementation actions. Plan is sufficient to implement all wasteload and load allocations in reasonable period of time. TMDL(s) and implementation measures are incorporated into the water quality management plan. Water quality management plan revisions are consistent with other existing provisions of the water quality management plan.</p>	<p>X</p>	<p><i>Implementation of these TMDLs consist of issuing an NPDES permit to Monett WWTP with a schedule of compliance for an upgrade of the plant, and subsequent monitoring. This plan is already partially completed, and is sufficient to implement the wasteload allocations in a reasonable time for these three TMDLs. These three TMDLs will be incorporated into Missouri's Water Quality Management Plan.</i></p>
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