

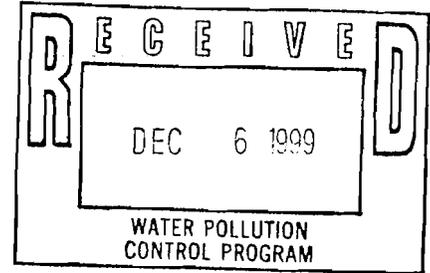


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

DEC 01 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 total maximum daily load (TMDL) as submitted by your office for Rush Creek (Platte County; WBID 0278), as described in Section 303(d)(1) and which appears on your Section 303(d) list as impaired by BOD/NFR. In accordance with the Clean Water Act (33 U.S.C. 1251 et. seq.), all the required elements are adequately addressed and EPA approves all aspects of this TMDL.

EPA believes, as described in the enclosed decision document, that this TMDL adequately addresses the pollutant of concern, and upon implementation, will result in attainment of the applicable water quality standards. The separate elements of the 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 this TMDL, 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
Waterbody Name: Rush Creek (Platte County)
Missouri WBID No: 0278
Pollutant: BOD/NFR (Objectionable Bottom Deposits)
Date of State Submission: November 17, 1999
Date Received By EPA: November 24, 1999
EPA Reviewer: Don Miller
Date of Review: November 26, 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>	<p>X</p>	<p><i>In the cover letter dated 17 November 1999, Missouri indicated that this submittal replaces the earlier submitted TMDL for Rush Creek. The pollutant is BOD/NFR. Missouri submitted this TMDL 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>	<p>X</p>	<p><i>The applicable standard is a narrative water quality standard that states, "Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses." The designated uses for Rush Creek are protection of warm water aquatic life, fish consumption, and whole body contact recreation. The State's method for conducting rapid benthic examinations of streams indicates that the numeric expression of a attainment of the narrative water quality standard is "noticeable deposits that persist for 99 yards or less." The allocations in this TMDL are adequate to result in the attainment of the interpretation of the narrative water quality standard.</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 TMDL indicates that the relationship between suspended solids in the water column and deposited solids on the streambed is greatly confounded by stream morphometry and the variable nature of stream flow. The State's method for conducting rapid benthic examinations of streams indicates that the interpretation of attainment of the narrative water quality standard is "noticeable deposits that persist for 99 yards or less." This TMDL provides an adequate basis for the interpretation of the narrative standard as a numeric water quality target.</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>Nonpoint source loads contributing to the deposited solids problem in Rush Creek have not been observed. There are three wastewater discharges to Rush Creek; the Shelter Haven facility, the Hampton Woods subdivision, and the El Dorado Apartments wastewater treatment plant. Stream examinations have indicated that there are no noticeable solids deposits immediately upstream of the El Dorado Apartments outfall, therefore none of the observed solids deposition is believed to be contributed from the Shelter Haven facility, or the Hampton Woods subdivision which are located upstream of El Dorado Apt. WWTP. This TMDL has considered all significant sources.</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>This TMDL allocates 9.9 yards to nonpoint sources and 79.2 yards to future point sources. This TMDL explains that the significant point source causing the impairment is being eliminated. These nonpoint and point source allocations are identified and are appropriate.</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>The link between the pollutant of concern and the numeric water quality target is the State's method for conducting rapid benthic examinations of streams. This methodology provides that the numeric expression of a attainment of the narrative water quality standard is "noticeable deposits that persist for 99 yards or less downstream from the source of the deposits." The sum of the allocations and the margin of safety do not exceed the loading capacity, which this TMDL appropriately expresses as "99 yards of bottom deposits."</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>Since the WWTP was closed and all sewers were attached to the regional WWTP, and the WWTP discharges into a different waterbody, and, the sole source of the impairment was the WWTP, it is completely certain that water quality standards will be met. The load and wasteload allocations are reserved for future growth, and an explicit margin of safety of 10% was provided for these reserved allocations. Since the WWTP discharging the pollutant of concern is being closed and the wasteload from that WWTP will be zero, the margin of safety is very reasonable.</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>Because the standard exceedences were not observed to be correlated with seasons and no other evidence links the observed impairment with the seasons, this TMDL appropriately did not consider seasonality to be a relevant factor for this TMDL.</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>This TMDL was placed on public notice by DNR from May 28, 1999 to July 2, 1999. No comments were received. DNR has also conducted 6 public meetings on this TMDL and on other 303(d) listing issues; no comments were received on the Rush Creek TMDL. This participation opportunity allowed the public to have meaningful input into this TMDL.</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 this TMDL contains 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 this TMDL.</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. The Kansas City Regional Office of Missouri DNR will check the plant site at six-month intervals to determine when final closure of the site is complete. DNR will do a stream survey of Rush Creek in the vicinity of the El Dorado Apartments WWTP within two years of plant closure. This plan is sufficient to determine at that time whether applicable water quality standards are met.</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>Effluent discharge from the WWTP remains under the authority of the NPDES permit until the treatment plant is closed. This assurance is sufficient to result in the attainment of the wasteload allocation.</i></p>

Implementation Plan Review Criteria Pursuant to 40 CFR 130.6 and 303(e)		
<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 this TMDL consists of monitoring the complete closure of the El Dorado Apartments WWTP, including removal of all plant components, grading, and re-vegetation of the plant site. Only after complete closure of the facility will the NPDES permit be terminated. This plan is sufficient to implement the wasteload allocation in a reasonable period of time. This TMDL will be incorporated into Missouri's Water Quality Management Plan.</i></p>