

Willow Branch in Missouri
Draft Total Maximum Daily Load (TMDL)
SUMMARY OF COMMENTS AND RESPONSES
Prepared by the U. S. Environmental Protection Agency (EPA), Region 7
Water, Wetlands and Pesticides Division
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INTRODUCTION

EPA public noticed a draft TMDL for Willow Branch (water body identification MO_0654U-01) from May 25, 2010 to June 25, 2010. EPA is establishing this TMDL to meet the obligations of the 2001 Consent Decree, *American Canoe Association, et al. v. EPA*, Consolidated Case No. 98-482-CV-W (Consent Decree). This document summarizes and paraphrases comments received, EPA's response to comments and changes made to the final TMDL where appropriate. Included is a list of all commentors.

RESPONSE TO COMMENTS (EPA responses in bold)

Comment: The human population number seems wrong. It should be 5,223.

Response: While population has no bearing on calculating the loading capacity for the TMDL, EPA has corrected the population information included in the TMDL, so that it reflects a Putnam County population of 5,223. Additional comments included reference to the rural watershed area population and that number has been corrected to include a rural population of 5 persons.

Comment: Please keep the stream on the impaired waters list. Before Premium Standard Farms came to our area, the creek was pristine with several different species of pollution sensitive organisms.

Response: While the listing of this water body is beyond the scope of this specific TMDL public notice, in general after a TMDL is established a water body may be moved to Category 4 in a State's integrated report to EPA. The water is still considered "impaired" and the TMDL should be implemented to continue to address the impairment. For more information about how states assess, list and report their waters go to <http://www.epa.gov/owow/tmdl/guidance.html>.

Comment: Willow should not have been listed over Missouri's objections, nor listed for impairment by an unknown pollutant. A TMDL is premature and unlawful.

Response: Although the listing of the water as impaired is beyond the scope of this TMDL public notice, this response provides a limited discussion for the commentor. If a state excludes a water body that is impaired on its list to EPA, EPA is required by regulation to add the impaired water body to the state's 303(d) list. Willow Branch was placed on Missouri's 303(d) list of impaired waters because it did not meet Missouri's General narrative criteria pertaining to the protection of aquatic life (40 CFR 130.7(b)(3)). EPA's Clean Water Act requirements and authorities for reviewing state-submitted 303(d) lists of impaired waters and TMDLs is found at 40 CFR 130.7 and, specifically, at 130.7(d),

which outlines EPA's approval authority. Under the same authority that EPA follows to identify impaired waters, 40 CFR 130.7(d)(2), the state is required to include and set the priority for developing TMDLs for EPA-added waters in its current program planning, which is required under 40 CFR 130.7(b)(4). While Willow Branch was listed on the 2008 303(d) List as impaired by unknown pollutants, elevated sediment and nutrients have been identified, based on a stressor identification study, as the leading cause that degrades stream habitats and affects aquatic life. As a result, the TMDL is written to address impairment by nutrient enrichment and sedimentation. A TMDL is being developed for this water under the requirements found at 40 CFR 130.7 (and specifically 40 CFR 130.7(c)(1)) requiring states to establish TMDLs for waters still requiring TMDLs in accordance with the state's priority ranking. EPA is also working with Missouri to establish the Willow Branch TMDL at this time to satisfy the requirements of the Consent Decree. See Section 4 of the Draft TMDL for further discussion of state and federal regulations and authorities.

Comment: The surrogates Total Suspended Sediment (TSS), Total Phosphorus (TP) and Total Nitrogen (TN) aren't supported by scientific evidence and surrogates aren't listed as pollutants in Missouri water quality standards; therefore, the TMDL shouldn't use them.

Response: The TMDL targets impairment of the general narrative criteria by nutrient enrichment and sedimentation. A reduction in TSS, TN and TP are required as these pollutants are violating the general narrative criteria pertaining to the protection of aquatic life. The reduced load allocation for these parameters is intended to meet the state's narrative WQS and protect the impaired aquatic life use. The Missouri WQS that applies is 10 CSR 20 7.031(3).

The two supporting references are cited in the draft TMDL's reference section, but are repeated here for your assistance:

- *Ambient Water Quality Criteria Recommendations. Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Nutrient Ecoregion IX.* EPA 822-B-00-019. December 2000; and
- *Framework for Developing Suspended and Bedded Sediments (SABS) Water Quality Criteria.* EPA-822-R-06-001, May 2006.

Comment: In the TMDL, there seems to be a discrepancy between how much of Willow is impaired and what length is correctly covered under the TMDL. The TMDL should only be written for impaired portion of the stream.

Response: The TMDL loading analysis encompasses the entire length as referenced by the December 16, 2009, Missouri 2008 303(d) List.

Comment: Please refer to 2/4/10 letter to EPA citing a 2006-2007 Macroinvertebrate survey that says that Willow Branch is fully supporting aquatic life uses. The TMDL shouldn't be written and the water should be removed from the impaired waters list. After citing a 2008 Stressor Identification study on Willow, a commentor says that EPA shouldn't be writing a TMDL for a non-pollutant.

Response: The water's listing as impaired is beyond the scope of this TMDL public notice. This comment will be referred to the Missouri WQS Coordinator for consideration

during the next Missouri 303(d) List review. Willow Branch was assigned to Missouri's 2008 303(d) List as impaired by unknown pollutants because it did not meet Missouri's General narrative criteria pertaining to the protection of aquatic life. EPA took the 2008 Stressor Identification study into account when setting the potential sources that contribute to the impairment in the stream, see section 3.2 of the TMDL for more detail. Elevated sediment and nutrients have been identified as the leading cause that degrades stream habitats and affects aquatic life in Willow Branch. As a result, the TMDL is written to address impairment by nutrient enrichment and sedimentation. EPA's regulations state that TMDLs can be expressed in several ways, including in terms of toxicity, which is a characteristic of one or more pollutants, or by some "other appropriate measure." 40 C.F.R. § 130.2(i). The regulations also state that, TMDLs may be established using a biomonitoring approach as an alternative to the pollutant-by-pollutant approach. 40 C.F.R. § 130.7(c)(1).

Comment: No data in the TMDL substantiates that manure applications are a major potential source. The positive impact of the two existing impounds are not discussed.

Response: All pollutants preventing or expected to prevent WQS attainment (and their sources) are listed in the TMDL, per 40 CFR 130.7(c)(1)(ii). Missouri has the authority to monitor and access state waters to ensure protection of the designated beneficial uses. Missouri may submit, and EPA may approve, a revised or modified TMDL for this water at any time.

Comment: The TMDL didn't investigate potential sewage discharges, but did discuss potential illicit straight pipe discharges.

Response: All pollutants preventing or expected to prevent WQS attainment (and their sources) are listed in the TMDL, per 40 CFR 130.7(c)(1)(ii). Illicit straight pipe discharges of household waste are acknowledged in the TMDL as potential point sources of sediment and nutrients. EPA is establishing this TMDL at this time to meet the requirements of the Consent Decree. Missouri has the authority to monitor and access state waters to ensure protection of the designated beneficial uses. Missouri may submit, and EPA may approve, a revised or modified TMDL for this water at any time.

Comment: The TMDL contains an irrelevant discussion of when concentrated animal feeding operations (CAFOs) are required to obtain permits. This TMDL should defer finalization until investigation to determine if any unpermitted CAFOs or animal feeding operations (AFOs) exist in the watershed. Defer finalization until investigation of exact number of on-site waste water systems is determined, then re-public notice.

Response: On-site wastewater systems and CAFOs are acknowledged in the TMDL as potential point sources of sediment and nutrients. As required by EPA's regulations, per 40 CFR 122.21(a), any person who discharges pollutants must apply for a National Pollutant Discharge Elimination System (NPDES) permit. Specifically, 40 CFR 122.23(d) sets forth this duty for CAFOs. EPA is establishing this TMDL at this time to meet the requirements of the Consent Decree. Missouri has the authority to monitor and access state waters to ensure protection of the designated beneficial uses. Missouri may submit, and EPA may approve, a revised or modified TMDL for this water at any time.

Comment: Why was Ecoregion 40, Level III chosen as a reference for this stream? What's the justification for using TSS to represent the numeric target and how does it pertain to its beneficial use.

Response: Numeric criterion for nutrients in freshwater streams are nonexistent for the state of Missouri, therefore water quality criteria recommendations provided by EPA were used to quantify TN and TP LCs in Ecoregion 40 and Willow Branch. Ecoregion targets were used in lieu of national and state-wide targets to ensure either pristine or minimally impacted stream systems. Targets are based on the 25th percentile of all TN and TP data gathered from subecoregion 40 of Aggregate Nutrient Ecoregion IX. Please refer to the TMDL's Appendix C and section 4.2 for a more detailed explanation.

LIST OF COMMENTORS

1. Mike McKee, Missouri Department of Conservation, Columbia, Missouri
2. Melody Torrey, citizen, Unionville, Missouri
3. Robert Brundage, Missouri Agribusiness Associates, Jefferson City, Missouri

END SUMMARY OF COMMENTS AND RESPONSES