

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

EPA public noticed a draft TMDL for Wyaconda Lake (water body identification MO_7009) from October 29, 2010 to December 1, 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)

1. Comment: The background section of the draft TMDL is in error regarding the reasons for which Wyaconda Lake is no longer used as a public water supply. Missouri Department of Natural Resources (MDNR) Fact Sheets clearly state that Wyaconda Lake is no longer used as a public water supply because of multiple failures by the Community Water System (CWS) to meet the MDNR and Federal Safe Drinking Water Act requirements. Atrazine levels have not been mentioned in MDNR compliance and operation inspection reports for the Wyaconda CWS. Should a TMDL for Wyaconda Lake be issued, the reasons for the CWS closure should be accurately stated. No TMDL should be established because Wyaconda Lake is not used as a drinking water source.

1. Response: EPA thanks the commentor for the information. Although Safe Drinking Water Act Regulations (SDWA) are not used to calculate TMDLs that are written to meet Clean Water Act (CWA) regulations, language has been added to the background section of the TMDL stating that Wyaconda Lake has exceeded Missouri SDWA Regulations 10 CSR 60-4.050, 10 CSR 60-4.090, 10 CSR 60-7.010, 10 CSR 60-8.010, and 10 CSR 60-14.010. The MDNR report entitled, *MDNR Public Drinking Water Branch Statement of Facts and Compliance Schedule for Wyaconda, Missouri, Permit Number MO2010875*, dated February 9, 2009, is footnoted in the final TMDL.

However, please note that TMDLs are written to meet current surface water quality standards (WQS) (40 CFR § 130.7(c)(1)(ii)), not SDWA guidelines. As such, the water quality criteria used to model load allocations for Missouri TMDLs is found at 40 CFR § 130.7(c)(1)(ii). Wyaconda Lake currently has a drinking water supply beneficial use, found at 10 CSR 20.7.031. Changing the designated use is beyond the scope of this public notice. The TMDL is being written at this time to satisfy the requirements of the Consent Decree. Should more data be made available, MDNR may then consider submitting a revised or modified TMDL for this water at any time based on the newly obtained data.

2. Comment: The MDNR Water Quality Standards (10 CSR 20-7.031) for drinking water only apply at the “water supply withdrawal points” for substances which are rendered nontoxic by transformation processes in the surface water (10 CSR 7.031 (B)(4)). By Missouri state statute, the water quality standard for Atrazine only applies at the water supply withdrawal point. However, the Draft TMDL notes that Wyaconda Lake is no longer used as a public water supply. Federal regulations require that TMDLs be based on “applicable standards”. [See, 40 CFR § 130] The State’s adopted standard explains where drinking water standards apply to surface waters. The rules are clear that Drinking Water criteria only apply to surface water at the water supply withdrawal point. Therefore, in accordance with the adopted state rules, the Atrazine water quality standard does not apply in Lake Wyaconda and the TMDL is not necessary.

2. Response: The commentor is correct that TMDLs are written to meet current surface WQS (40 CFR § 130.7(c)(1)(ii)). Although Wyaconda may not currently be used as a drinking water source, the fact is that Wyaconda is listed for drinking water use in Missouri’s statutes and any TMDL written at this time for Wyaconda Lake must address the use. Beneficial uses (designated uses) for Missouri streams are found in the WQS at 10 CSR 20-7.031(1)(c), (1)(F) and Table H. Criteria for designated uses are found in 10 CSR 20-7.031, Tables A and B. The TMDL is being written at this time to satisfy the requirements of the Consent Decree. Should more data be made available, MDNR may then consider submitting a revised or modified TMDL for this water at an time based on the newly obtained data.

3. Comment: The draft TMDL claims that the drinking water criterion for Atrazine is assessed as an instantaneous limit. Such an assessment is inconsistent with the manner in which the criterion was developed and it is inconsistent with the corresponding Missouri Drinking Water Act requirements for public water systems. The Maximum Contaminant Level (MCL) for Atrazine in public water systems is 3 µg/L, and compliance with the MCL is evaluated as a rolling annual average (10 CSR 60-4.040(5)(E)1). Thus, the “applicable standard” is a long term average, not an instantaneous maximum. Therefore, the compliance period for this TMDL must be based on annual averaging, not maximum day or quarterly averaging. As the TMDL was not based on the correct averaging period, which is part of the adopted standard, the analyses must be withdrawn and redone.

3. Response: TMDLs target CWA compliance, not the MCLs of the SWDA guidelines. As such, the water quality criteria used to model load allocations for Missouri TMDLs is found at (40 CFR § 130.7(c)(1)(ii)). The methodology for calculating TMDLs is developed for CWA purposes, as long as it is consistent with Missouri’s EPA approved WQS. The CWA does not necessarily follow SDWA guidelines.

4. Comment: Following the occurrence of unusually high Atrazine concentrations in Lake Wyaconda (raw water) in 2005 to 2006, Syngenta implemented a watershed management plan to reduce the concentrations of Atrazine in the lake. Monitoring data since the management plan was implemented show that the Atrazine levels in the lake are significantly reduced and well below a rolling annual average target of 3 µg/L. The draft TMDL, however, is based on the historical atrazine levels and watershed loadings, not the most current water quality data. These

data indicate that the watershed management plan was successful in achieving compliance with the Atrazine drinking water supply criterion, and a TMDL for Atrazine is no longer necessary for Lake Wyaconda. These more recent data confirm that the criterion is not being exceeded and the draft TMDL is unnecessary. If these data are evaluated on an annual rolling-average basis beginning in the fourth quarter of 2006, no impairment exists.

4. Response: EPA applauds the commentor for steps already taken to improve the Wyaconda Lake watershed. Please note that a rolling annual average target of 3 micrograms per liter (µg/L) is not the appropriate target of the TMDL (see Response 3 above). The Wyaconda TMDL was written with the best available data at the time. If the data suggested by the commentor is found to meet the Missouri Department of Natural Resources (MDNR's) minimum level for data inclusion, MDNR may consider submitting a revised or modified TMDL for this water at any time based on this or other data. The data needs to be representative of instream conditions and meet the Quality Assurance/Quality Control levels of Missouri's Listing Methodology document (10 CSR 20-7.031 and 10 CSR 20-7.050).

5. Comment: The draft TMDL makes the statement that “[s]ince 1993, atrazine’s uses have been greatly restricted because it was identified as being a possible human carcinogen.” In fact, atrazine was classified as not likely to cause cancer in humans approximately ten years ago. The U.S. EPA’s atrazine updates web site currently states: Based on the review of available scientific studies, EPA determined in 2000 that atrazine is not likely to cause cancer in humans. This determination was the result of a transparent process that invited public participation, solicited development and submission of the best scientifically available data, and allowed preeminent independent scientists to ensure that the Agency was using the highest quality data in its regulatory decision-making process. This determination was based on results from the full spectrum of animal test data that the Agency requires, as well as numerous research studies on atrazine’s mechanism of action. Should a TMDL for Wyaconda Lake be issued, it should be accurately reported that Atrazine is classified by U.S. EPA as not likely to cause cancer in humans and the statement regarding restrictions on atrazine use due to a cancer classification must be removed.

5. Response: EPA appreciates the commentor’s information for the final TMDL. The language in the final TMDL is changed to reflect EPA’s most recent information on atrazine.

Based on the review of available scientific studies, EPA determined in 2000 that atrazine is not likely to cause cancer in humans. In an abundance of caution, EPA is sponsoring epidemiological studies through the National Cancer Institute to evaluate the potential for any association between atrazine exposure to people and cancer, even though rigorously conducted animal studies show that this result is unlikely. However, as discussed on EPA’s Web page and as indicated in the *2003 Atrazine Reregistration Eligibility Decision*, EPA plans to convene a Scientific Advisory Panel meeting concerning atrazine and its possible association with carcinogenic effects in 2011.¹

¹ http://www.epa.gov/pesticides/reregistration/atrazine/atrazine_update.htm

LIST OF COMMENTORS

1. Ronald W. Williams, Syngenta Crop Protection, 3/10/2010, Greensboro, North Carolina

END SUMMARY OF COMMENTS AND RESPONSES