

**BEFORE THE ARKANSAS POLLUTION CONTROL AND ECOLOGY
COMMISSION**

**IN THE MATTER OF AMENDMENTS TO)
REGULATION NO. 2, REGULATION)
ESTABLISHING WATER QUALITY) 07-003-R
STANDARDS FOR SURFACE WATERS)
OF THE STATE OF ARKANSAS)**

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ARKANSAS POLLUTION CONTROL
& ECOLOGY COMMISSION
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**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY'S
RESPONSIVE SUMMARY**

I. Introduction

A public hearing was held on June 20, 2007 in Little Rock. Seven persons were in attendance at the public hearing, with one (1) oral comment submitted. A total of eleven (11) written comments were submitted, for a total of twelve (12) public comments received. The majority of the comments were submitted by industry or entities that regularly represent industry interests. One comment was submitted by an environmental public interest organization. Based on the comments received, ADEQ has revised the proposed changes. All revisions are a logical outgrowth of the proposed rulemaking and do not require an additional public notice and comment period.

II. Comments Received

The comments are grouped by category, with the response immediately following each comment.

Comment 1: Commenters stated that, in the Table of Contents, several headings were inadvertently omitted in the draft triennial review document of Regulation No. 2.

Response 1: The Department agrees that these were inadvertent and that they will be replaced in the final version.

Comment 2: Regarding Reg. 2.106, Baseflow definition, commenters requested that ADEQ explain the criteria for which this definition would apply. Also, this definition, in conjunction with the proposed changes in Reg. 2.503, is in conflict with the definition of critical flows.

Response 2: The Department has concluded that this definition does not conflict with the critical flow definition or to the criteria to which the critical flow definitions applies. This definition is included in order to make a distinction between base flows and all flows.

Comment 3: ADEQ is requested to delete the definition of “Ground Water Under the Direct Influence of Surface Water (GWUDI) from Reg. 2.106 for the following reasons: 1) there is no defined purpose for adding this definition; 2) the definition is in direct conflict with Reg 2.102; 3) the definition is subjective; 4) there are no defined ground water criteria for the parameters mentioned; and 5) its economic impact can not be determined at this time.

Response 3: The Department agrees that this definition is not appropriate in the current Regulation 2 which “establishes water quality standards for surface waters of the State of Arkansas”. The proposed definition will be removed.

Comment 4: Regarding Reg. 2.106, Storm Flows definition, commenters stated that the definition as proposed includes all flows (including point source flows) and not just those resulting from rainfall events. It may also work to cause the preclusion of the use of outfall specific studies to determine critical flows for storm water discharges under the NPDES program. As such, commenters did not feel it is an appropriate definition. It was also commented that the definition describes the information utilized in developing a “flow frequency curve” and that it should be replaced with “Elevated flows due to precipitation events above the maximum baseflow value.”

Response 4: The Department agrees that the proposed definition for “Storm Flow” is not appropriate and could very well limit the use of outfall specific studies to determine critical flow for storm water discharge permits under the NPDES program. However, the intent was to clarify how the turbidity criteria were to be applied. Because of this, the Department will make the following revisions:

- 1) Rename the definition for “Storm Flows” to “All Flows” and delete all references to “Storm Flows”; and
- 2) Replace the current “Storm-Flow” header in Reg. 2.503 with “All Flows”.

Comment 5: The Department’s petition and proposed changes to Regulation 2 in the current docket (No. 07-003-R) do not address the issue of Tier 2 antidegradation implementation procedures.

Response 5: ADEQ acknowledges this comment; however, neither Reg. 2.202 nor any other sections cited in the comment letter have been amended as part of this rulemaking. Pursuant to Regulation No. 8.3.9, Amendment of Regulations, the Commission’s

deliberation regarding a proposed rulemaking is limited to those amendments that were included in the public notice, which reflects the proposed amendments contained in ADEQ's Second Amended Petition to Initiate Rulemaking.

Comment 6: A comment was received questioning the changing of the common name of the grass pickerel to the redfin pickerel.

Response 6: Scientific names were updated in accordance with the "American Fisheries Society 6th Edition of the "Common and Scientific Names of Fishes" (Nelson et al. 2004)." In addition, state ichthyologists agree with this nomenclature change.

Comment 7: A commenter requested ADEQ provide rationale for removing "tracers used in hydrological studies" from Reg. 2.305, Short Term Activity Authorization.

Response 7: The Department decided to remove the requirement of obtaining a short term activity authorization for the use of tracers used in hydrological studies for the following reasons:

- 1) there are very few requests for such authorization;
- 2) the tracers are mainly used as part of scientific studies;
- 3) there are no impacts to water quality when used; and
- 4) there are no violations of water quality standards when used.

Comment 8: Commenters requested that ADEQ revise the language of Reg. 2.404, Mixing Zones, to apply only to public (not private) domestic water supply intakes which are located in surface waters and only for those human health criteria listed in Regulation No. 2, not aquatic life criteria. In addition, commenters recommended that any references to wells should be deleted as the definition of "...public water supply well(s) that have been determined by the State to be under the direct influence of surface water and connected to the mixing zone" is too subjective as discussed in comment No. 2 under Reg. 2.106.

Commenters noted that, taken in its broadest sense, the interaction of surface and ground water within the hydrologic cycle could be construed by a third party, to be ubiquitous. Such an interpretation would have profound effects on every city and industrial wastewater treatment plant in Arkansas. The standards already preclude domestic water supply intakes from the definition.

It was also noted that the last line of the section, "A mixing zone shall not include any domestic water supply intake," is repetitive to other portions of the new language and therefore could be removed.

Response 8: The Department coordinates with the Arkansas Department of Health prior to the development and issuing of any National Pollution Discharge Elimination System ("NPDES") permit on the possible effects of the discharge to any public and/or private domestic water supply intake and therefore will remove the proposed language.

Comment 9: The following comments concern Reg. 2.507, Bacteria:

A) It was suggested that the word “criteria” be replaced with “density” and the phrase “these counts” be replaced with “bacterial densities”.

B) It was questioned if the same assessment procedures for the primary contact recreation season apply to the secondary contact recreation season.

C) In addition, a comment suggested the methods used for utilizing the geometric mean criteria should be discussed in 2.507(C).

Response 9:

A) The Department acknowledges the comment however the terms “criteria” and “these counts” are more appropriate for the purpose of assessment of water quality standards.

B) Reg. 2.507(C) clearly states that the assessment guidelines apply to both the primary and secondary contact recreation seasons.

C) The methods describing the utilization of the geometric mean are included in the assessment methodology. The method used for the assessment of the standards is included in the Department Assessment Methodology, not in Regulation 2.

Comment 10: The beryllium human health criteria of 4.0 ug/L should be adopted in lieu of simply removing all beryllium criteria from Reg. 2.508, Toxic Substances.

Response 10: The Department agrees. The current maximum contaminant level (MCL) of 4 ug/L for beryllium, set by EPA under the authority of the Safe Drinking Water Act, will be adopted in lieu of removing all criteria for beryllium. The concentration unit of ug/l will be converted to ng/L to conform to the concentration units contained in the table set forth in Reg. 2.508, Toxic Substances – ALL WATERBODIES – HUMAN HEALTH CRITERIA. Although, this concentration appears much higher than the other concentrations, the revised criterion is protective of both aquatic life and human health.

Comment 11: Commenters recommended that the ecoregion dissolved minerals criteria be deleted in their entirety from Reg. 2.511, Mineral Quality. Commenters stated that the current proposed language regarding the application of the ecoregion criteria only to new discharges documents that ADEQ is in agreement that those criteria are more stringent than required to maintain aquatic life uses and argued if that was not the case the ADEQ would propose that the ecoregion criteria continue to be applicable to current dischargers.

Response 11: The Department acknowledges this comment, but respectfully disagrees. The ecoregion dissolved minerals values cannot be deleted because they serve as reference condition values for those waters without site specific dissolved minerals criteria.

Comment 12: Commenters stated that the application of ecoregion criteria in Section 2.511, Mineral Quality, solely to new dischargers is not a water quality issue, but rather an implementation issue. The implementation process would put Arkansas at a

competitive disadvantage in the recruitment of new industrial facilities who may want to locate away from large waterbodies. In these situations a new facility would be required to conduct a study and complete a rulemaking to determine whether the eco-region based criteria are needed to protect aquatic life uses when the ADEQ has already recognized that those criteria are overly stringent for existing dischargers. There is no environmental benefit to such a process and the inherent delays would place the state in a potentially non-competitive situation.

Response 12: Based on the comments received, the Department will remove the “new” and “for new dischargers” language. The Department also will make the following formatting changes to clarify the three types of dissolve mineral criteria:

- 1) Revise the site specific criteria table for dissolved minerals as “Regulation 2.511(A) - Site Specific Mineral Quality Criteria”
- 2) Revise the Ecoregion reference stream data (mg/L) dissolved mineral criteria as “Reg 2.511(B) – Ecoregion Reference Stream Minerals Values”
- 3) Revise the paragraph describing dissolved mineral criteria for drinking water as, “Reg. 2.511(C) – Domestic Water Supply Criteria”

Comment 13: Commenters stated that whether or not the ecoregion criteria are deleted, the site specific criteria and critical flows listed in Reg. 2.511, Mineral Quality, should be retained. In addition, commenters recommended that the wording proposed for deletion in the first paragraph of Reg. 2.511 be retained in the final regulation. That wording has served as the basis for the recognition by ADEQ that the listed dissolved minerals criteria are to be considered monthly averages and not daily maximums in the derivation of permit limits and commenters recommended that the existing wording be retained to maintain the utilization of the criteria in that manner.

Response 13: The Department acknowledges this comment, but respectfully disagrees. The language from the end of the first paragraph of Reg. 2.511, Mineral Quality, was proposed to be deleted because it limits the Department’s ability to assess more than one years worth of water quality data at a time. Currently the Department utilizes five years worth of data to make attainment decisions.

Comment 14: Commenters recommended that the word “limits” in the first paragraph of Reg. 2.511, Mineral Quality, be replaced with the word “criteria” because the word “limits” gives the impression that the site specific values are only used for setting discharge limits when in fact the values are also used for assessment purposes.

Response 14: The Department agrees and will replace the word “limits” in Reg. 2.511, Mineral Quality, with “criteria”.

Comment 15: Commenters requested that ADEQ provide the rationale, HUC and other identifying material for adding Lost Creek Ditch to the list of site specific data.

Response 15: Lost Creek Ditch (HUC 8020302-009U) is the headwaters of Bayou DeView (HUC 8020302-002, 003, 004, 005, 006, 007, 009L) draining portions of Jonesboro, Arkansas. It has always been considered Bayou DeView in previous assessments until such time as an ambient monitoring station was placed in segment 009. That is when it was discovered that the upper end of the Bayou DeView was actually called Lost Creek Ditch. The upper end of Bayou DeView, Lost Creek Ditch, has been channelized for flood control. Thus, Channel Altered Delta criteria apply to Lost Creek Ditch.

Comment 16: Commenters recommended that the phrase “Primary Values” be replaced with “Base Flow Values” in Appendix A.

Response 16: The Department agrees based on the proposed changes to Reg. 2.503, Turbidity.

Comment 17: A commenter noted that the proposed border and Extraordinary Resource Water (“ERW”) changes in Appendix A, Maps OM-2, GC-4, and GC-6 seem to have been carried over from the previous review and may not need to be indicated as proposed changes during this review.

Response 17: The Department acknowledges this comment and notes that a typographical error was made in a previous revision. These EPA-approved changes will be included in Appendix A.

Comment 18: The United States Environmental Protection Agency (“EPA”) commented that on January 12, 2006, EPA disapproved the following language from Appendix A, Designated Uses, Gulf Coastal Ecoregion, Variations Supported by UAA for the Unnamed Tributary to Lake June: (limitation of 5 degrees above natural temperature does not apply).

Response 18: The Department acknowledges this comment. The Arkansas Pollution Control and Ecology Commission approved the above-referenced change on September 23, 2005. Any changes to exclude this specific phrase in Regulation 2 based on disapproval from EPA must go through the State’s rulemaking process. This change will be addressed in the next proposed rulemaking on Regulation 2, as it was not proposed in this triennial review

Comment 19: EPA stated that on October 26, 2006, EPA approved the removal of the domestic water supply designated use from Ditch No. 27 and Ditch No. 6 located in the Delta Ecoregion (associated with a third party rulemaking from Associated Electric Cooperative, Inc. (AECD)). On the same date, EPA also approved site-specific minerals criteria for Ditch No. 27, Ditch No. 6, and the Tyronza River. EPA noted that neither of these approved site-specific modifications were included in the Delta Ecoregion portion of Appendix A in the public review draft of the ARWQS.

Response 19: The Department acknowledges this comment and notes a typographical error was made in a previous revision. These EPA-approved changes will be included in Appendix A.

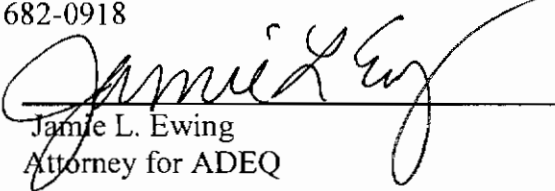
Comment 20: One commenter requested clarification to list all the instances where Regulation No. 2 is more stringent than federal law and for ADEQ to seek outside counsel to determine whether or not Regulation No. 2 is more stringent than federal law.

Response 20: The Department acknowledges this comment but finds that the comment does apply to the current rulemaking. None of the changes to Regulation No. 2 that were part of the public notice under this rulemaking docket are more stringent than federal law.

Respectfully submitted,

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