**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

November 9, 2022

Alan York
Associate Director, Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

Re: Arkansas's 2020 Triennial Revisions to Regulation No. 2

Dear Mr. York:

I am writing in response to your letter requesting review of revisions to Arkansas's Regulation No. 2, *Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas*. The revised water quality standards in Regulation, now Rule 2 were adopted by the Arkansas Pollution Control and Ecology Commission (Commission) via Minute Order No, 22-01 on April 28, 2022. These revisions were certified as adopted pursuant to state law by Deputy Chief Counsel for the Arkansas Department Energy and Environment, Division of Environmental Quality (DEQ) via letter dated April 28, 2022. These revisions were submitted by the Arkansas DEQ to the U.S. Environmental Protection Agency (EPA) via letter dated May 6, 2022, as required under federal regulations at 40 CFR § 131.5.

The EPA is approving the majority of the new and/or revised provisions within its discretionary authority pursuant to CWA § 303(c) and its implementing regulations at 40 CFR § 131. The EPA is not disapproving any new/revised provision, however the EPA is deferring action on the revisions to Rule 2.106 and Rule 2.503. The approval of the new/revised provisions and appendices in part or in their entirety is described in Section II of the enclosed Technical Support Document (TSD). These provisions are effective for CWA purposes as of today's action. Section III details new as well as previously adopted provisions where the EPA did not have enough information to take action. State-adopted water quality standards are not effective for CWA purposes unless and until approved by EPA as specified at 40 CFR §131.21(c). Other provisions described in this section that do not require EPA action are effective as State law. Section V refers to Rule 2.503 and details the portion of Rule 2.511(A) that was previously disapproved by the EPA. Those provisions the EPA disapproved are not effective for CWA purposes. Sections III and V also clarify the language that is effective for CWA purposes based on prior EPA actions.

In addition to the EPA's approval of new and revised WQS pursuant to CWA section 303(c), the Endangered Species Act (ESA) requires federal agencies, in consultation with the U.S. Fish and Wildlife Service, to ensure their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species or result in the destruction or adverse modification of designated critical habitat of such species. The EPA initiated informal ESA

consultation regarding the EPA's approval of revisions to Arkansas' Rule 2 with the U.S. Fish and Wildlife Service through discussions with the Arkansas Field Office. During this process, the Arkansas Field office confirmed to the EPA that the revisions to Rule 2 being considered in today's action would not affect the continued existence of threatened and endangered species and designated critical habitat in Arkansas. As a result, the EPA determined that its approval of the proposed revisions would have no effect on threatened and endangered species or their designated critical habitat.

The EPA is concerned by the Commission's decision not to propose and adopt appropriate designated uses for the entirety of Coffee Creek and Mossy Lake as part of its 2020 triennial revisions. The EPA disagrees with the DEQ's assessment as detailed in its August 4, 2021, response to the Informal Resolution Agreement (IRA) for EPA Complaint No. 27-16-R6 under Title VI of the Civil Rights Act of 1964 that there is no need for appropriate designated uses for Coffee Creek from its headwaters through Mossy Lake to its confluence with the Ouachita River. The DEQ's recent proposed triennial revisions for 2023 include designated uses for limited portions of Coffee Creek, excluding Mossy Lake. These proposals stand in contrast to the DEQ's statement in its IRA response that appropriate designated uses are not needed. The DEQ statement in the IRA response does not provide assurance that appropriate designated uses for Coffee Creek and Mossy Lake would be adopted by the Commission. The Ouachita Riverkeeper, through Tulane Environmental Law Clinic, submitted a petition for rulemaking under Section 553(a) of the Administrative Procedure Act to the Administrator on September 10, 2015, requesting that EPA determine that new/revised WQS are necessary for Coffee Creek and Mossy Lake in Arkansas to meet the CWA requirements. This petition is under serious consideration by the EPA.

The EPA appreciates the State of Arkansas's efforts in reviewing and revising its water quality standards. We look forward to working with you to resolve the outstanding issues related to this triennial review during the current 2023 triennial revisions. If you have any questions or concerns, please contact me at (214) 665-8138, or have your staff contact Russell Nelson at (214) 665-6646.

Sincerely,

Troy C. Hill
Deputy Director
Water Division

Enclosure

cc: via email

Stacie Wassell, Deputy Associate Director, Office of Water Quality
Joe Martin, Branch Manager, Water Quality Planning, Office of Water Quality, DEQ
Mary Barnett, Ecologist Coordinator, Water Quality Planning, Office of Water Quality, DEQ

# TECHNICAL SUPPORT DOCUMENT
# FOR EPA REGION 6 REVIEW OF:

## RULE 2: *REGULATION ESTABLISHING WATER QUALITY STANDARDS FOR SURFACE WATERS OF THE STATE OF ARKANSAS*

Revisions Adopted by the Arkansas Pollution Control and Ecology Commission via Minute Order No. 22-01, Docket No. 20-004-R

**U.S. EPA REGION 6**
**WATER DIVISION**
**October 27, 2022**

## Table of Contents

## I. Introduction

### *Regulatory Requirements and Purpose*

As described in § 303(c) of the Clean Water Act[1] (CWA) and in the standards regulation within the Code of Federal Regulations (CFR) at 40 CFR § 131[2], specifically § 131.20, states and authorized tribes have primary responsibility for developing and adopting water quality standards to protect their waters. In addition, CWA § 303(c)(1) and 40 CFR § 131.20 require states to hold public hearings at least once every three years to review and, as appropriate, modify and adopt standards. As required by 40 CFR § 131.21, the Environmental Protection Agency (EPA) is obligated to review new and revised surface water quality standards that have been adopted by states and authorized tribes. Authority to approve or disapprove new and/or revised standards submitted to the EPA for review has been delegated to the Water Division Director at Region 6. Tribal or state water quality standards are not effective under the CWA until approved by the EPA.

The purpose of this Technical Support Document (TSD) is to provide the basis for the EPA's action on the Arkansas Pollution Control and Ecology Commission's (Commission) revisions to Regulation 2, *Water Quality Standards for Surface Waters of the State of Arkansas*.

### *Summary of Revisions to Regulation 2*

Revisions to Regulation, now Rule 2, *Water Quality Standards for Surface Waters of the State of Arkansas*[3], were adopted by the Arkansas Pollution Control and Ecology Commission (Commission) via Minute Order No. 22-01, Docket No. 20-004-R. These revisions were adopted by the Commission pursuant to Arkansas Code Annotated § 8-4-101 et seq, and Commission Rule 8 on January 28, 2022. These revisions were certified as adopted pursuant to state law by Michael McAlister, Deputy Chief Counsel for the Arkansas Department Energy and Environment, Division of Environmental Quality (DEQ) via letter dated April 28, 2022. The Arkansas DEQ submitted these revisions by letter dated May 6, 2022, to the EPA for review and action. The purpose of this Technical Support Document (TSD) is to describe the EPA's analysis and action on the revisions to Rule 2.

The Commission's 2020 triennial revisions resulted in several changes to Regulation 2, reflecting statewide statutory requirements and several substantive and non-substantive revisions. Many of the substantive revisions address provisions of Regulation 2 that the EPA has previously disapproved or has not previously been able to act on under CWA §303(c)(3). Although not a complete list, revisions include:

[1] Clean Water Act. 33 USC §§ 1251-1387.
[2] Water Quality Standards Regulation, 33 U.S.C. 1251et seq.
[3] Arkansas Pollution Control and Ecology Commission. 2022. *Rule 2: Regulation establishing water quality standards for surface water of the State of Arkansas.* January 28, 2022.

- Incorporating regulatory revisions for consistency with recent revisions to state law, specifically Acts 315 and 910.
- Clarification and minor corrections of sections of the regulation that were otherwise unclear.
- Revisions for consistency with federal regulatory changes, moving National Pollutant Discharge Elimination System (NPDES) permitting language from Reg. 2 into Rule 6; and
- Non-substantive revisions include those that do not substantively change the meaning or intent of the existing WQS. They may include those required by Acts 315 and 910 and stylistic and formatting corrections and are identified to ensures public transparency for provisions that are effective for CWA purposes.

***EPA Action on New and Revised Provisions***

The EPA has the CWA § 303(c)(3) authority to review and approve or disapprove new and/or revised water quality standards (WQS) submitted by a state or authorized tribe. The EPA has determined that the following revisions to Regulation 2, now Rule 2 constitute new or revised water quality standards, the majority of which are approved consistent with CWA § 303(c) and its implementing regulations at 40 CFR § 131.5 and 40 CFR § 131.6 and are in effective for CWA purposes. For those provisions that the EPA has not approved in today's action and in prior actions, the previously approved provision remains in effect for CWA purposes.

There are a significant number of non-substantive revisions throughout Rule 2 based on statewide statutory requirements and other reasons that are intended to provide clarity, correct minor errors, and provide consistency within the document that may be noted but may not be addressed in detail unless pertinent to the EPA's review consistent with CWA and federal regulatory requirements. The EPA considers non-substantive edits to existing WQS to constitute new or revised WQS that the Agency has the authority and duty to approve or disapprove under CWA § 303(c)(3). While such revisions typically do not substantively change the meaning or intent of the existing WQS, the EPA believes that it is reasonable to treat such non-substantive changes in this manner to ensure public transparency as to which provisions are effective for purposes of the CWA. The EPA notes that the scope of its action in reviewing and acting on such non-substantive changes extends only as far as the actual nonsubstantive changes themselves. In other words, the EPA's action on non-substantive revisions to previously approved WQS would not constitute an action on the underlying previously approved WQS under § 303(c) of the CWA and its implementing regulations at 40 CFR § 131.

## II. New or Revised Water Quality Standards the EPA is Approving

**Chapter 1: Authority, General Principles and Coverage**

**Reg. 2.101, 2.102 and 2.103**

~~Reg.~~Rule 2.101, 2.102 and 2.103

Regulations, now Rules 2.101, 2.102 and 2.103 include provision heading, title heading and narrative revisions consistent with recent changes to Arkansas's Acts 315 and 910. These revisions are nonsubstantive and are approved pursuant to CWA § 303(c).

**Reg. 2.104 Policy for Compliance**
**~~Reg.~~Rule 2.104 Policy for Compliance**

It shall be the policy of the Arkansas Department of Energy and Environment, Division of Environmental Quality (hereinafter "~~Department~~Division") to provide, on a case-by-case basis, a reasonable time for an existing permittee to comply with new or revised water quality based effluent limits. Consequently, compliance schedules may be included in National Pollutant Discharge Elimination System (NPDES) permits at the time of renewal or permit modification initiated by the ~~Department~~Division to require compliance with new water quality standards. Compliance must occur at the earliest practicable time, ~~but not to exceed three years from effective date of permit, unless the permittee is completing site specific criteria development or is under a plan approved by the Department, in accordance with Regs. 2.306, 2.308, and the State of Arkansas Continuing Planning Process~~ in accordance with 40 C.F.R. §122.47.

As described in its October 31, 2016[4], triennial action, the EPA approved most of the revisions to this provision as consistent with the CWA §303(c) and its implementing regulations with the exception of the following sentence, which did not go into effect for CWA purposes as described in 40 CFR § 131.21(c):

> "…unless the permittee is completing site specific criteria development or is under a plan approved by the Department, in accordance with Regs. 2.306, 2.308, and the State of Arkansas Continuing Planning Process."

In the current revisions, the Commission has stuck the language referring to the three-year time frame for compliance and the language the EPA previously took no action on and added a reference to federal regulations at 40 CFR § 122.47. These revisions resolve the EPA's prior concerns and are approved pursuant to CWA § 303(c). However, it is important to note that to grant a compliance schedule in an NPDES permit, the permitting authority must make a reasonable finding, adequately supported by the administrative record, that the compliance schedule "will lead[ ] to compliance with an effluent limitation…" to meet water quality standards by the end of the compliance schedule as required by sections 301(b)(1)(C) and 502(17) of the CWA. See also 40 CFR §§ 122.2 and 122.44(d)(1)(vii)(A).

**Reg. 2.105 Environmental Improvement Projects**
**~~Reg.~~ Rule 2.105 Environmental Improvement Projects**

The Commission may, after consideration of information provided pursuant to Appendix B and Ark. Code Ann. § 8-5-901 *et seq.*, grant temporary modifications to the General and Specific Standards or establish a subcategory(ies) of use(s) for completion of long-term Environmental Improvement Projects.

[4] USEPA Region 6. (2016). *Record of Decision. Regulation 2: Regulation Establishing Water Quality Standards for the State of Arkansas, Revisions Adopted by the Arkansas Pollution Control and Ecology Commission via Minute Order No. 14-10.*

The historical context of the adoption of this provision by the Arkansas General Assembly establishing Appendix B: Environmental Improvement Projects[5] (EIP) and the EPA's action on this provision is significant here. The EPA Region 6 Office of Regional Counsel and WQS program staff have discussed the implications of the EIP statute as a WQS with the DEQ and DEQ counsel prior to the original action on this provision by the EPA. The EPA noted that the EIP statute as a WQS provision lacked objective decisional criteria that would make the application susceptible to application inconsistent with the objective and goals of the CWA. In those discussions, the EPA was assured by the DEQ counsel that if approved, the DEQ would develop detailed supporting implementation to address potential inconsistencies. The EPA conditionally approved the incorporation of the EIP statute in its 1998 triennial action[6], stating then that Region 6 will review all EIP projects on a case-by-case basis. However, the DEQ did not and has yet to develop supporting implementation for the EIP statute consistent with its commitment to gain the EPA's conditional approval of this provision.

The current revision to Rule 2.105 clarifies that modifications granted under the EIP statute are "temporary." However, this term is vague and the EIP statute itself contains an undefined requirement that "post-project water quality standards are met as soon as reasonably practicable" but does not provide specific guidance on how the duration of any modifications to the general and specific standards or of subcategories of use will be established, or how controls would ever be enforced. Given the lack of detailed supporting implementation to address these inconsistencies it will be difficult to ensure that future EIPs, if granted by the Commission, are consistent with the objective and goals of the CWA and will be very difficult for the EPA to act on.

Although it lacks specific guidance and implementation, the intent of Arkansas's EIP provision is similar to that of the EPA's variance regulation at 40 CFR § 131.14 the minor revision is approved pursuant to CWA § 303(c). Given that the regulations at 40 CFR § 131.14 require objective decisional criteria, implementation measures and specific timelines, the EPA advises the DEQ to defer to the use of a variance as specified in 40 CFR § 131.14 as now referred to in revised Rule 2.309 rather than use the EIP provision.

**Reg. 2.106 Definitions**
**~~Reg.~~ Rule 2.106 Definitions**

Definitions are generally considered to be WQS given that they can affect the meaning and interpretation of a WQS provisions. The exception to this convention is when the use of a definition is limited to those provisions that are not WQS, e.g., implementation language. The EPA's decision on revisions to definitions depend on the effect the definition has on the viability of other WQS provisions in Rule 2.

Rule 2.106 includes provision heading and narrative revisions, including changes within the definition for "Critical flows" and "State of Arkansas Continuing Planning Process" consistent with recent changes to Arkansas's Acts 315 and 910. In addition, minor

[5] Ark. Code Ann. § 8-5-901 et seq.
[6] USEPA Region 6. (1998). Record of Decision. Regulation No. 2, Establishing Water Quality Standards for Surface Waters of the State of Arkansas via Minute Order No. 98-03

grammatical/spelling corrections do not change the meaning of the specific definition of "Impairment." These revisions are approved as non-substantive changes to Rule 2.

> ~~**All flows**: Takes into account all flows and data collected throughout the year, including elevated flows due to rainfall events.~~
>
> **Critical flows**: The flow volume used as background dilution flows in calculating concentrations of pollutants from permitted discharges. These flows may be adjusted for mixing zones. The following critical flows are applicable:
>
> For a seasonal aquatic life - 1 cubic foot per second minus the design flow of any point source discharge (may not be less than zero);
>
> For human health - harmonic mean flow or long term average flow;
>
> For minerals - harmonic mean flow, except as follows:
>
> o ~~Reg~~.Rule 2.511(A) Site Specific Mineral Criteria listed with an asterisk- 4 cubic feet per second.
> o ~~Reg.~~Rule 2.511 (C) Domestic Water Supply: Q7-10; and
>
> For metals and conventional pollutants - Q7-10.
>
> ~~**Department**: The Arkansas Department of Environmental Quality or its successor.~~
>
> **Division:** The Arkansas Department of Energy and Environment, Division of Environmental Quality or its successor.
>
> **Impairment**: ~~Exceedences~~Exceedances of the water quality standards by a frequency and/or magnitude which results in any designated use of a waterbody to fail to be met as a result of physical, chemical or biological conditions.
>
> **State of Arkansas Continuing Planning Process:** A document setting forth the principal procedures of the State's water quality management programs, developed pursuant to Section 303(e) of the Clean Water Act, 33 U.S.C. § 1313(e), and 40 C.F.R. § 130.5. The CPP is not a ~~regulation~~rule.

The current definitions that have been struck and the new definitions outlined above are substantive revisions and are approved pursuant to CWA § 303(c). As further described in Section **III.**, EPA is taking no action on the definitions for "Effluent" and "Storm flows".

**Chapter 2: Antidegradation Policy**

> **Regs. 2.201, 2.202, 2.203 and 2.204**
> **~~Reg.~~ Rule 2.101, 2.202, 2.203 and 2.204**

Please see Section **VII.** for a discussion of antidegradation implementation requirements.

**Chapter 3: Waterbody Uses**

> **Reg. 2.302 Designated Uses**
> **~~Reg.~~Rule 2.302 Designated Uses**

The designated uses are defined as follows:

(A) Extraordinary Resource Waters - This beneficial use is a combination of the chemical, physical and biological characteristics of a waterbody and its watershed ~~which~~that is characterized by scenic beauty, aesthetics, scientific values, broad scope recreation potential and intangible social values. (For specific listings, refer to Appendices A and D)

(F) Aquatic Life -

(2) Lakes and Reservoirs - Water ~~which~~that is suitable for the protection and propagation of fish and other forms of aquatic biota adapted to impounded waters. Generally characterized by a dominance of sunfishes such as bluegill or similar species, black basses and crappie. May include substantial populations of catfishes such as channel, blue and flathead catfish and commercial fishes including carp, buffalo and suckers. Forage fishes are normally shad or various species of minnows. Unique populations of walleye, striped bass and/or trout may also exist.

(3) Streams - Water ~~which~~that is suitable for the protection and propagation of fish and other forms of aquatic biota adapted to flowing water systems whether or not the flow is perennial.

Rule 2.302 includes minor grammatical/spelling corrections that do not change the meaning of the provisions identified above and are not considered substantive revisions and are approved pursuant to CWA § 303(c).

**Reg. 2.303 Use Attainability Analysis**
**~~Reg.~~Rule 2.309 Use Attainability Analysis**

(A) A use attainability analysis…:

(2) To identify a subcategory of a fishable/swimmable use ~~which~~that requires less stringent criteria.

(B) In order to remove a designated fishable/swimmable use, which is not an existing use, or identify subcategories of a fishable/swimmable use ~~which~~that require less stringent criteria, it must be demonstrated that the designated use is not attainable because:

The scope of a use attainability analysis…
Other scientific methods, including the use of existing technical data, may be used for justifying the removal of a designated use~~;~~. provided the methods are agreed upon prior to the study. Such other methods may include the use of information previously gathered through technical studies. ~~and/or~~ use attainability analysis~~, or both~~. Use attainability analysis procedures may be found in the State of Arkansas Continuing Planning Process document. Any waterbody on which a use attainability analysis is approved shall be so listed in Appendix A with appropriate criteria.

Rule 2.303 includes minor grammatical/spelling corrections throughout the provision that do not change the meaning and are not considered substantive revisions and are approved pursuant to CWA § 303(c).

**Reg. 2.304, 2.305, 2.306, 2.307 and 2.308**
**~~Reg.~~Rule 2.304, ~~Reg.~~Rule 2.304, ~~Reg.~~Rule 2.305, ~~Reg.~~Rule 2.306, ~~Reg.~~Rule 2.307 and ~~Reg.~~Rule**

**2.308**

Rules 2.304, 2.305, 2.306, 2.307 and 2.308 include revisions consistent with recent changes to Arkansas's Acts 315 and 910. These revisions are non-substantive and are approved pursuant to CWA § 303(c).

**Reg. 2.309 Water Quality Standards Temporary Variance**
**~~Reg.~~Rule 2.309 Water Quality Standards Temporary Variance**

~~A temporary variance to the water quality standards may be allowed for an existing permitted discharge facility. The variance will be for specified constituents and shall be no longer than a three year period.~~ A water quality standards temporary variance shall be developed in accordance with and meet the requirements of 40 C.F.R. §131.14 and must be approved by the Arkansas Pollution Control and Ecology Commission and the United States Environmental Protection Agency. ~~A variance will be considered when it is determined that a standard, including designated use, can ultimately be attained or when preliminary evidence indicates that a site-specific amendment of the standards may be appropriate. A variance may be granted only to the applicant and will not apply to other discharges into the specified waterbody.~~

Although not required, states and authorized tribes may include general policies affecting the application and implementation of mixing zones, low flows, and variances in the WQS at their discretion. However, if included, such policies are subject to review and approval by the EPA. The revisions to the temporary variance authorizing provision provide clarity and direction for the public and regulated community in the use of temporary variances. The use of a variance as defined in 40 CFR § 131.14 provides the flexibility to make incremental water quality improvements reflecting the best that can be achieved over time. A variance also provides clear consistency with EPA's regulations and therefore a greater likelihood of an EPA approval as compared to downgrading a designated use or applying site-specific criteria modifications through the existing EIP provision (Rule 2.105). The use of a variance as defined in 40 CFR § 131.14 provides a clearer process for development and the time and flexibility to make incremental water quality improvements reflecting the best that can be achieved over time as well as clear consistency with EPA's regulations and therefore a greater likelihood of an EPA approval as compared to downgrading a designated use or applying site-specific criteria modifications through the existing EIP provision (Reg. 2.105, Appendix B). The revisions to Rule 2.309 are approved pursuant to CWA § 303(c). See https://www.epa.gov/wqs-tech/water-quality-standards-variances).

**Chapter 4: General Standards**

**~~Reg.~~Rule 2.401, ~~Reg.~~Rule 2.402, ~~Reg.~~Rule 2.4030 ~~Reg.~~Rule 2.404, ~~Reg.~~Rule 2.405, 2.406, 2.407, 2.408 and ~~Reg.~~Rule 2.409**

Revisions to ~~Reg.~~Rules 2.401, 2.402, 2.403, 2.404, 2.405, 2.406, 2.407, 2.406, 2.407, 2.408 and 2.409 are limited to title headings consistent with recent changes to Arkansas's Acts 315 and 910. These revisions are nonsubstantive and are approved pursuant to CWA § 303(c).

**Reg. 2.410 Oil and Grease**
**~~Reg.~~Rule 2.410 Oil and Grease**

Oil, grease~~,~~ or petrochemical substances shall not be present in receiving waters to the extent that they produce globules~~, or~~ other residue~~,~~ or any visible, colored film on the surface~~; or~~ coat the banks and/or bottoms of the waterbody~~;~~ or adversely affect any of the ~~associated~~ aquatic biota.

This provision includes heading revisions consistent with recent changes to Arkansas's Acts 315 and 910. These revisions are nonsubstantive. Other revisions to this provision are limited to striking the conjunction term "or" are nonsubstantive. Striking the term "associated" and replacing it with "aquatic" in reference to aquatic biota clarifies that the provision protects the biota of any stream from contamination by oil and grease and are appropriate. These revisions are approved pursuant to CWA § 303(c).

**Chapter 5: Specific Standards**

**Reg. 2.501 Applicability**
**~~Reg.~~ Rule 2.501 Applicability**

Revisions to this provision are limited to heading revisions consistent with recent changes to Arkansas's Acts 315 and 910 and a minor grammatical/spelling correction. These revisions are nonsubstantive and are approved pursuant to CWA § 303(c).

**Reg. 2.502 Temperature**
**~~Reg.~~Rule 2.502 Temperature**

The following ~~standards~~ criteria are applicable:

| **Waterbodies** | **~~Limit~~Criteria ºC (ºF)** |
|---|---|
| Names/values not included for brevity. | |

This provision has been revised to strike the general regulatory term "standards" and replace it with the quantitative term "criteria" referring to numeric temperature criteria.

| | |
|---|---|
| **Lakes and Reservoirs** ~~(applicable at 1.0 meter depth)~~ | 32(89.6) |

The EPA took no action in its October 31, 2016[4], action on the phrase "applicable at 1.0-meter depth" in this provision given that criteria apply throughout the entire water column. Striking this phrase addresses the EPA's concerns regarding applicability of temperature criteria throughout the water column in lakes and reservoirs. These revisions are approved pursuant to CWA § 303(c).

**Reg. 2.503 Turbidity**
**~~Reg.~~Rule 2.503 Turbidity**

| **Waterbodies** | **Base Flow Values (NTU)** | **~~All~~ Storm Flows Values (NTU)** |
|---|---|---|

**Streams**
**(**The streams are not listed for brevity)
Trout Waters

**Lakes and Reservoirs**
~~(applicable at 1.0 meter depth)~~

In the previous (April 23, 2004) version of Regulation 2, the less stringent turbidity criteria were identified in a column under a heading titled "Storm-Flow Values." As part of the Commission's 2007 "Phase II" triennial revision, the heading "Storm-Flow Values" was replaced with a new heading titled "All Flows Values" and the word "storm-flow" in the narrative text of Regulation 2.503 was also revised to "all flows." The EPA disapproved these revisions as described in its October 28, 2008, triennial "Phase II" action. The Commission's current 2020 triennial revisions strike the term "All" title heading and revert to the previously approved and currently CWA-effective heading term "Storm" Flows.

The Commission's 2020 triennial revisions also includes a minor language change under the heading for Streams, clarifying that the term Trout means Trout "Waters" consistent with the definition for "Trout waters" in Rule 2.106 and references to designated uses. The 2020 triennial revisions also strike this phrase "applicable at 1.0-meter depth" in response to the EPA's concerns regarding applicability of turbidity criteria throughout the water column in lakes and reservoirs as described in the EPA's October 2016 triennial action.

In today's action, the EPA is approving the striking of the term "All" and reversion to the previously held title heading term "Storm" Flows. In addition, the EPA is also approving the revised term for Trout "Waters" and striking of the phrase "applicable at 1.0-meter depth" pursuant to CWA § 303(c). However, the approval of the revised terms and title heading does not mean that the prior 2008 disapproval is resolved or that the provision itself is approved. Please see Section **III.** for a discussion of closely related definition of "Storm flow" and the applicability of this provision for CWA purposes.

**Reg. 2.504 pH**
**~~Reg.~~ Rule 2.504 pH**

pH between 6.0 and 9.0 standard units are the applicable ~~standards~~ criteria for rivers, streams, lakes, and reservoirs. ~~For lakes, the standards are applicable at 1.0 meter depth.~~

This provision includes revisions striking the general term "standards," replacing it with the term "criteria" referring to the specific pH range of 6.0 to 9.0 standard units. Moving the terms "lakes and reservoirs" to the prior sentence is appropriate to ensure applicability of the criteria to a range of waters. Striking the phrase "…applicable at 1.0-meter depth" referring to the applicable depth to determine compliance in lakes and reservoirs resolves prior concerns with this provision as described in the EPA's October 31, 2016[4], action. These revisions are approved pursuant to CWA § 303(c).

**Reg. 2.505 Dissolved Oxygen**
**~~Reg.~~ Rule 2.505 Dissolved Oxygen**

**Rivers and Streams**
The following dissolved oxygen ~~standards~~ criteria are applicable:

| **Waterbodies** | **Criteria (mg/L)** |
|---|---|

[Streams and criteria listing excluded for brevity.]

In streams with watersheds of less than 10 $mi^2$, it is assumed that insufficient water exists to support aquatic life during the critical season. During this time, a dissolved oxygen ~~standard~~ criteria of 2 mg/L will apply to prevent nuisance conditions. However, field verification is required in areas suspected of having significant groundwater flows or enduring pools which that may support unique aquatic biota. In such waters the critical season ~~standard~~criteria for the next size category of stream shall apply.

Also~~,~~ in ~~these~~ streams with watersheds of less than 10 $mi^2$, where waste discharges are 1 cfs or more, ~~they~~streams are assumed to provide sufficient water to support aquatic life and, therefore, must meet the dissolved oxygen ~~standard~~criteria of the next size category of streams.

For purposes of determining effluent discharge limits, the following conditions shall apply:

(A) The primary season dissolved oxygen standard is to be met at a water temperature of 22°C (71.5°F) and at the minimum stream flow for that season. At water temperatures of 10°C (50°F), the dissolved oxygen ~~standard~~criteria is 6.5 mg/L.

(B) During March, April and May, when background stream flows are 15 cfs or higher, the dissolved oxygen standard is 6.5 mg/L in all areas except the Delta Ecoregion, where the primary season dissolved oxygen ~~standard~~criteria will remain at 5 mg/L.

(C) The critical season dissolved oxygen standard is to be met at maximum allowable water temperatures and at Q7-10 flows. However, when water temperatures exceed 22°C (71.6°F), a 1 mg/L diurnal depression will be allowed below the applicable critical ~~standard~~criteria for no more than 8 hours during any 24-hour period.

**Lakes and Reservoirs**
Specific dissolved oxygen standards criteria for lakes and reservoirs shall be 5 mg/L ~~applicable at 1.0 meter depth~~.

Effluent limits for oxygen-demanding discharges into impounded waters are promulgated in Arkansas Pollution Control and Ecology Commission ~~Regulation~~ Rule No. 6, ~~Regulations~~ Rules for State Administration of the National Pollutant Discharge Elimination System (NPDES).

The revision to this provision includes minor wording and grammatical changes and striking the general term "standards," replacing it with the more accurate term "criteria" referring to the specific dissolved oxygen (DO) range. In addition, in the Lakes and Reservoirs subparagraph, removing the phrase "…applicable at 1.0-meter depth," referring to the applicable depth to determine compliance with applicable criteria, resolves prior concerns with this provision as described in the EPA's October 31, 2016[4], triennial action. These revisions are approved pursuant to CWA § 303(c).

**Reg. 2.506 Radioactivity**
**~~Reg.~~ Rule 2.506 Radioactivity**

This provision includes a revision to the rule heading consistent with recent changes to Arkansas's Acts 315 and 910. This revision is nonsubstantive and is approved pursuant to

CWA § 303(c).

**Reg. 2.507 Bacteria**
**~~Reg.~~Rule 2.507 Bacteria**

For the purposes of this ~~regulation~~ rule, all streams with watersheds less than 10 $mi^2$ shall not be designated for primary contact unless and until site verification indicates that such use is attainable. Secondary contact use is assumed in all watershed sizes. No mixing zones are allowed for discharges of bacteria.

For assessment of ambient waters as impaired by bacteria, the below listed applicable ~~values~~criteria for *E. coli* shall not be exceeded in more than 25% of individual samples in no less than eight (8) samples taken during the primary contact season or during the secondary contact season.

The following ~~standards~~ criteria are applicable:

| **Contact Recreation Seasons** | ***E. coli*** | | ***Fecal Coliform*** | |
|---|---|---|---|---|
| | ***IS***[3] | ***GM***[4] | ***IS***[3] | ***GM***[4] |
| **Primary Contact**[1] | | | | |
| ERW, ESW, NSW, Reservoirs, Lakes[2] | 298 | 126 | 400 | 200 |
| All other waters | 410 | - | 400 | 200 |
| **Secondary Contact**[5] | | | | |
| ERW, ESW, NSW, Reservoirs, Lakes[2] | 1490 | 630 | 2000 | 1000 |
| All other waters | 2050 | - | 2000 | 1000 |

**~~Limit~~Criteria (col/100mL)**

[1] May 1 to September 30
[2] ~~Applicable at 1.0 meter depth in Reservoirs and Lakes~~(RESERVED)
[3] For assessment of Individual Sample Criteria– at least eight (8) data points
[4] For calculation and assessment of Geometric Mean – calculated on a minimum of five (5) samples spaced evenly and within a thirty (30)-day period.
[5] ~~October 1 to April 30~~ Year-round.

The EPA's previous approval of the revisions to then Regulation 2 in 2004 allowed the assumption that there is insufficient water in most streams with watersheds < 10 $mi^2$ during the critical season to support the presumed CWA 101(a)(2) aquatic life and primary contact recreation uses. 40 CFR 131.20(a) requires states to re-examine any water body without full 101(a)(2) uses every 3 years, and if new information indicates that the uses specified in CWA § 101(a)(2) are attainable, to revise its standards accordingly. The EPA recommends that DEQ comply with the federal regulation and examine whether aquatic life uses, and primary contact recreation uses are attainable in all waters of the U.S. in Arkansas with watersheds < 10$mi^2$ and provide supporting information to the EPA.

Specifically, the revised narrative in Rule 2.507 includes a new sentence that states that "Secondary contact use is applicable in all watershed sizes." This appears intended to ensure application of secondary contact recreation where the primary contact use is presumed not to apply simply based on watershed size without a supporting UAA. Further, the Secondary Contact heading encompassing ERW, ESW, NSW, reservoirs, and lakes includes a footnote (5), where a seasonal application of secondary contact use has been

struck and replaced with the phrase "Year-round." This appears intended to be consistent with the new sentence referring to a default to secondary rather than primary contact recreation uses. This further suggests that these revisions mean that primary contact recreation is not presumed in ERW, ESW, NSW, reservoirs, and lakes - in any watersheds that are less than $10^2$ miles in size. As noted above, that presumption is inconsistent with the CWA and its implementing regulations at 40 CFR 131 which establish a rebuttal presumption that CWA § 101(a)(2) uses are attainable and must be designated unless shown that they are not attainable through a use attainability analysis (UAA).

The narrative now includes the term "individual" specific to sampling. This term clarifies that the 25% exceedance rate and the eight (8) sample minimum apply only to Individual Sample Criteria, not the geometric mean. Also, in footnote 2, the reference to the application of criteria at the 1.0-meter depth and its application to ERW, ESW, NSW, reservoirs and lakes has been struck under both the Primary Contact and Secondary Contact headings. The EPA took no action on the Commission's adoption of the 1.0-meter depth referenced in this footnote in its October 31, 2016, action. Striking the footnoted limitation resolves the EPA's prior concerns.

The EPA is approving the revisions to Rule 2.507, specifically the sentence "Secondary contact use is applicable in all watershed sizes" because it assures that secondary contact recreation is applicable in all watersheds year-round pursuant to CWA § 303(c). However, as noted above, the CWA and its implementing regulations establish a rebuttable presumption that all waters of the U.S. are presumed to support CWA § 101(a)(2) uses. The DEQ must provide supporting documentation every 3 years that any waters of the U.S. that have been previously designated or assumed to support less than CWA § 101(a)(2) as required by 40 CFR §131.20(a).

**Reg. 2.508 Toxic Substances**
**~~Reg.~~Rule 2.508 Toxic Substances**

Revisions to this provision are limited to those consistent with recent changes to Arkansas's Acts 315 and 910 and minor grammatical corrections to the reference for 40 CFR 131.36(c). These revisions are nonsubstantive and are approved pursuant to CWA § 303(c)

Please see Section **VII.** for further discussion of requirements related Rule 2.508 Toxic Substances and the EPA's 2015 revisions to 40 CFR § 131.20(a) for adoption of criteria for which the EPA has published new/revised criteria recommendations under CWA § 304(a).

**Reg. 2.509 Nutrients**
**~~Reg.~~Rule 2.509 Nutrients**

**(A)** Materials stimulating algal growth shall not be present in concentrations sufficient to cause objectionable algal densities or other nuisance aquatic vegetation or otherwise impair any designated use of the waterbody. Impairment of a waterbody from excess nutrients is dependent on the natural waterbody characteristics such as stream flow, residence time, stream slope, substrate type, canopy, riparian vegetation, primary use of waterbody, season of the year, and ecoregion water chemistry.

Because nutrient water column concentrations do not always correlate directly with stream impairments, impairments will be assessed by a combination of factors such as water clarity, periphyton or phytoplankton production, dissolved oxygen values, dissolved oxygen saturation, diurnal dissolved oxygen fluctuations, pH values, aquatic-life community structure and possibly others. However, when excess nutrients result in an impairment, based upon ~~Department~~ Division assessment methodology, by any Arkansas established numeric water quality ~~standard~~ criteria, the waterbody will be determined to be impaired by nutrients.

**(B) Site Specific Nutrient Standards Criteria**

*These ~~standards~~criteria are for measurement at the Hickory Creek site over the old thalweg, below the confluence

All point source discharges into the watershed of waters officially listed on Arkansas's impaired waterbody list (303(d)) with phosphorus as the major cause shall have monthly average discharge permit limits no greater than those listed below. Additionally, waters in nutrient surplus watersheds as determined ~~by Act 1061 of 2003 Regular Session of the Arkansas 84th General Assembly~~ as set forth in Ark. Code Ann. § 15-20-1104, and subsequently designated nutrient surplus watersheds may be included under this ~~Reg.~~Rule if point source discharges are shown to provide a significant phosphorus contribution to waters within the listed nutrient surplus watersheds.

The narrative in sections (A) includes revisions consistent with recent changes to Arkansas's Acts 315 and 910 in addition to striking the term "standards" and replacing it with the more appropriate term "criteria," referring to the specific numeric values for nutrients. However, in its December 21, 2004, triennial action, the EPA did not approve the final sentence in this section (A). Given that the revisions to final sentence in section (A) were not approved in the EPA's 2004 action, the final sentence, including the amendments to section (A) related to the recent changes to Arkansas's Acts 315 and 910 and striking the term "standards" and replacing it with the more appropriate term "criteria" are not effective for CWA purposes for CWA purposes. See Section III regarding the EPA's concerns with section (A).

In addition to the nonsubstantive grammatical changes, in section (B) Site Specific Nutrient Criteria, in footnote (*), the term "standards" has been struck and has replaced with the appropriate term "criteria" referring to the specific numeric values for nutrients. The narrative in section (b) has been revised striking the reference to Act 1061 of 2003 Regular Session of the Arkansas 84th General Assembly outlining specific requirements for the Commission regarding nutrient management plans, registrations programs and declares certain watersheds to be "nutrient surplus areas" for nitrogen and phosphorous and makes it illegal to apply nutrients within those areas except in compliance with nutrient management plans or rates established by the Commission. Act 1061 has been replaced with a reference to Ark. Code Ann. § 15-20-1104. Through this citation, the General Assembly declared eight different waters or watersheds to be nutrient surplus areas for phosphorus and nitrogen. The citation also requires the Arkansas Natural Resources Commission to promulgate rules to further define the geographical boundaries of any area declared a nutrient surplus area. Although these legislative provisions are important in state management of nitrogen and phosphorous pollution, with the exception of the site-specific nutrient criteria for chlorophyll, secchi depth and associated footnotes, the entire narrative portion under section (B) Site Specific Nutrient Criteria, is implementation language and not a WQS, which does not require EPA action.

**Reg. 2.510 Oil and Grease**
**~~Reg.~~Rule 2.510 Oil and Grease**

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules, ~~or~~ other residue, or any visible, colored film on the surface~~,~~; ~~or~~ coat the banks and/or bottoms of the ~~watercourses~~waterbodies; or adversely affect any of the ~~associated~~aquatic biota. Oil and grease shall be an average of no more than 10 mg/L or a maximum of no more than 15 mg/L. No mixing zones are allowed for discharges of oil and grease.

The revisions to this provision are similar to those for **Rule 2.410 Oil and Grease** and are limited to striking the conjunction "or", striking the term "watercourses" and replacing it with "waterbodies" and striking the word "associated" and replacing it with "aquatic" in reference to aquatic biota to clarify that the provision protects the biota of any stream from the effects of oil and grease. These revisions are approved pursuant to CWA § 303(c).

**Reg. 2.511 Mineral Quality**
**~~Reg.~~Rule 2.511 Mineral Quality**

Revisions to the rule heading and footnotes in Rule 2.511(A) are consistent with recent changes to Arkansas's Acts 315 and 910. These revisions are nonsubstantive and are approved pursuant to CWA § 303(c).

**(A) Site Specific Mineral Quality Criteria**

Mineral quality shall not be altered by municipal, industrial, other waste discharges or instream activities so as to interfere with designated uses.

This opening narrative is not effective for CWA purposes because the EPA previously disapproved the Commission's 2007 "Phase II revisions to Regulation 2.511(A) as part of its January 24, 2008, triennial action. Please see Section **IV.** for further discussion.

| **Stream** | **Concentration-mg/L** | | |
|---|---|---|---|
| | Chlorides ($Cl^-$) | Sulfates ($SO_4^{=2-}$) | TDS |
| Arkansas River Basin | | | |
| Arkansas River (Mouth to Murry Lock and Dam [L&D #7]) | 250 | 100 | 50 |
| Bayou Meto (Rocky Branch to Pulaski/Lonoke county line ~~Bayou Two Prairie~~) | 64* | ER | ER |
| Bayou Meto ~~(mouth to Bayou Two Prairie)~~ (Pulaski/Lonoke county line to mouth) | 95** | 45** | ER |

In its June 28, 2008, 3rd party rulemaking action, the EPA did not act on the revisions to mineral criteria associated with Bayou Two Prairie in Appendix A adopted by the Commission in its October 26, 2007, "Phase II" triennial revisions in anticipation of 3rd party petitions by the Bayou Meto Water Management District (BMWMD). The subsequent 3rd party petition by the BMWMD was submitted to the EPA on March 25, 2008. In its May 23, 2008, 3rd party rulemaking action[7], the EPA approved the site-specific chloride

[7] USEPA Region 6. (2008). *Record of Decision. Regulation 2: Regulation Establishing Water*

and sulfate criteria for those segments of Bayou Meto above the Smoke Hole Natural Area now described as Pulaski/Lonoke County line and associated criteria and the Pulaski/Lonoke County line to mouth consistent with the Commission's Minute Order No. 71-41 [8] and revised criteria for 42 Delta Ecoregion streams. As described in the EPA's 2008 Phase II action, approval of the site-specific chloride and sulfate criteria of 95 mg/L and 45 mg/L, respectively, did not apply to the ERW portion of Bayou Two Prairie adjacent to Smoke Hole Natural Area where chloride and sulfate criteria cannot exceed the ecoregion-based criteria of 48 mg/L and 37.3 mg/L for chloride and sulfate.

The Commission's current 2020 revisions incorporate the stream descriptions and revised mineral criteria These revisions are consistent with those the EPA previously approved pursuant to Sec. 303(c) of the CWA as part of its May 23, 2008, action on the BMWMD Bayou Meto Project.

| | | | |
|---|---|---|---|
| White River Basin | | | |
| Spring River | | | |
| Stennit Creek from Brushy Creek to Spring River | ER | ~~ER~~ 43.3 | 456 |
| Brushy Creek from unnamed tributary to Stennit Creek | ER | 126 | 549 |
| Unnamed Tributary from Vulcan outfall 001 to Brushy Creek | ER | 260 | 725 |

The Commission's current 2020 revisions incorporate the stream descriptions and revised mineral criteria for Stennit Creek from Brushy Creek to the Spring River and Brushy Creek from the unnamed tributary to Stennit Creek and the unnamed tributary from the Vulcan outfall (001) to Brushy Creek. As noted in the EPA's June 4, 2020, action on the 3rd party revisions, the revised site-specific criteria for Brushy Creek and its Unnamed Tributary and Stennitt Creek are unlikely to adversely impact the aquatic communities and were approved pursuant to CWA § 303(c).

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| | | | |
|---|---|---|---|
| White River Basin (continued) | | | |
| White River (WHI0052 to Missouri state line, including Beaver Reservoir) | 20 | 20 | 160 |
| Kings River | 20 | 20 | 150 |
| Holman Creek from the confluence with Town Branch downstream to the confluence with War Eagle Creek | 180‡ | 48‡ | 621‡ |
| Town Branch from point of discharge of the City of Huntsville WWTP downstream to the confluence with Holman Creek | 223‡ | 61‡ | 779‡ |

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*Quality Standards for the State of Arkansas, Revisions Adopted by the Arkansas Pollution Control and Ecology Commission via Minute Order No. 07-41.*

[8] Please note that for Bayou Meto and Bayou Two Prairie, the revisions to Regulation 2 which were submitted to the EPA on March 25, 2008, describe these segments as "Bayou Meto (mouth to Bayou Two Prairie)" and "Bayou Two Prairie (mouth to Rickey Branch)." However, the Commission's Minute Order No. 07-41 identifies the Pulaski/Lonoke County Line as the upstream extent of the Bayou Meto reach to which the site-specific chloride and sulfate criteria apply, rather than Bayou Two Prairie. Similarly, the Commission's Minute Order No. 07-41 identifies the Pulaski/Lonoke County Line as the upstream extent of the Bayou Two Prairie reach to which the site-specific chloride and sulfate criteria apply, rather than Rickey Branch.

The inclusion of the entry 'White River "WHI0052 to" the Missouri state line' is a clarification related to the revisions associated with the Fayetteville, AR Noland WWTP. The White River confluence with Richland Creek is where ADEQ WHI0052 / WR-03 are located. The reference to the Kings River and associated criteria relocates previously held waterbody and associated mineral criteria (see deletion in the waterbody listing below). These revisions are approved pursuant to Sec. 303(c) of the CWA and are effective for CWA purposes.

The Commission previously incorporated revised stream descriptions and mineral criteria denoted above into Regulation 2 for Holman Creek downstream of the confluence with Town Branch and for Town Branch from the point of the Huntsville wastewater treatment plant (WWTP) prior to EPA action. These criteria were footnoted (†), specifying that they were not applicable for CWA purposes until approved by the EPA. The EPA approved the revised descriptions and mineral criteria in its May 22, 2020, action on the 3rd party revisions[9] and confirmed the same in its June 24, 2020, amended 3rd party rulemaking action pursuant to Sec. 303(c) of the CWA. The Commission's current 2020 revisions for these streams are limited to physically removing the footnote (†). The previously approved criteria remain applicable for CWA purposes as detailed in the EPA's prior action.

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| | | | |
|---|---|---|---|
| White River from WR-02 to WHI0052 | 30‡ | 40‡ | 237‡ |
| White River headwaters to Noland WWTP to 0.4 miles downstream (WR-02) | 44‡ | 79‡ | 362‡ |
| ~~White River from (WR-02 to WHI0052~~ | ~~30‡~~ | ~~40‡~~ | ~~237‡~~ |
| White River headwaters to Noland WWTP | 20 | 20 | 160 |
| ~~Kings River~~ | ~~20~~ | ~~20~~ | ~~150~~ |

The Commission previously approved and incorporated the revised stream segments and associated criteria described above (denoted by footnote †) into Regulation, now Rule 2 following a 3rd party rule specific to the Fayetteville, AR Noland WWTP prior to action by the EPA. In its August 9, 2018, action on the 3rd party revisions[10], the EPA approved the revised segment descriptions and site-specific criteria for chloride, sulfate, and TDS applicable to a 5.65-mile segment of the White River pursuant to CWA § 303(c). Specifically, the revised criteria the EPA approved in its August 9, 2018, 3rd party action apply to two reaches: one from the Noland WWTP outfall to a point 0.4 miles downstream (WR-02), and another from WR-02 to the confluence with Richland Creek. The White River confluence with Richland Creek is where ADEQ WHI0052 is located. The inclusion of the segment from the headwaters of the White River to the Noland WWTP addresses the exclusion of the original description of the White River to the Missouri line upstream to the headwaters of the White River that existed prior to the 2018 3rd party revisions.

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[9] USEPA Region 6. (2020). *Record of Decision. Regulation 2: Regulation Establishing Water Quality Standards for the State of Arkansas.*

[10] USEPA Region 6. (2018). *Record of Decision. Regulation 2: Regulation Establishing Water Quality Standards for the State of Arkansas for the White River, Arkansas.*

The Commission's current 2020 triennial revisions include reordering the two segments of the White River described above by flow path and removing the footnote (†). The reordered segment descriptions do not alter the descriptions themselves and are nonsubstantive. The reordered descriptions are approved pursuant to CWA § 303(c). The associated previously approved mineral criteria for those segments of the White River from WR-02 to WH10052 remain applicable for CWA purposes as detailed in the EPA's 2018, 3rd party rulemaking action. The reference to the Kings River and associated criteria has not been struck but relocates consistent with the flow order. (See discussion above).

---

Ouachita River Basin

| | | | |
|---|---|---|---|
| ~~Unnamed trib A to Flat Creek from mouth of EDCC 001 ditch to confluence with Flat Creek~~ | ~~16*†~~ | ~~80*†~~ | ~~315*†~~ |
| ~~Confluence with unnamed trib A to Flat Creek~~ | ~~23*†~~ | ~~125*†~~ | ~~475*†~~ |

The Commission's current 2020 revisions strike the named stream segments and associated criteria specific to a 3rd Party Rulemaking by the El Dorado Chemical Company. The Commission's action is consistent with the EPA August 31, 2011[11], action disapproving these on the 3rd party revisions previously and have been affirmed by the 8th Circuit in its decision, El Dorado Chemical Company v. U.S. Environmental Protection Agency, No. 13-1936.

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Ouachita River Basin (continued)

| | | | |
|---|---|---|---|
| Cove Creek from the confluence with Chamberlain Creek to the Ouachita River | 6 | 250*** | 500*** |
| Chamberlain from headwaters to confluence with Cove Creek | 6<br>68* | <br>1384*** | 2,261***<br>* |
| Lucinda from the confluence of Rusher Creek to the confluence with Cove Creek | 6 | 250*** | 500*** |
| Rusher Creek from the confluence of the East and West Forks to confluence with Lucinda Creek | 6 | 250*** | 500*** |
| Reyburn Creek from headwaters to confluence of Francois Creek | 14 | 250*** | 500*** |
| Scull Creek from a point approximately 350 feet upstream of Clearwater Lake to Clearwater Lake (Including Clearwater Lake) and from Clearwater Lake dam to confluence Reyburn Creek | 14 | 250*** | 500*** |

The Commission's current 2020 revisions incorporate stream descriptions and associated mineral criteria for waters associated with a 3rd Party Rulemaking Environmental Improvement Projects (EIP) for Halliburton Energy Services, Inc. (HESI) Dresser Industries - Magcobar Mine Site (Magcobar Site). Although the EPA noted significant concerns with the way the criteria were derived through the EIP process and potential

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[11] USEPA Region 6. (2011). *Record of Decision. Regulation No. 2: Regulation Establishing Water Quality Standards for the State of Arkansas, Adopted by the Arkansas Pollution Control and Ecology Commission via Minute Order No. 10-42.*

adverse effects on aquatic communities and the lack of flexibility that is otherwise available through a WQS variance as described in 40 CFR 131.14, the EPA approved the temporary site-specific mineral criteria associated with the above defined stream descriptions pursuant to CWA § 303(c) in its January 7, 2020, 3rd party rulemaking action[12]. The mineral criteria for sulfate ($SO_4^{-2}$) and total dissolved solids (TDS) are effective for CWA purposes for 148 months from the January 7, 2020, approval. See footnotes below. The applicable criteria for chloride ($Cl^-$) are unchanged for all waters and remain effective for CWA purposes with the exception of Chamberlain Creek from headwaters to confluence with Cove Creek.

---

| | | | |
|---|---|---|---|
| Red River Basin | | | |
| Red River from Arkansas/Oklahoma state line to the mouth of the Little River | 250 | ~~250†~~200 | ~~940‡~~ 850 |
| Red River from the mouth of the Little River to the Arkansas/Louisiana state line | 250 | ~~225†~~200 | 780~~‡~~ |

The Commission's current 2020 revisions for these waters strike mineral criteria and the associated footnote (†) that were originally adopted via 3rd Party Rulemaking by Domtar A.W. LLC. These revisions were disapproved by the EPA in its June 6, 2016, action[13]. The 200 mg/L sulfate and previously approved 850 mg/L TDS criteria are in effective for CWA purposes in the Red River from the AR/OK state line to the mouth of the Little River.

These 2020 revisions also strike mineral criteria and the associated footnote (†) that were originally adopted via 3rd Party Rulemaking by Southwestern Electric Power Company (SWEPCO). The EPA initially disapproved the revisions for a site-specific TDS criterion of 860 mg/L because of potential adverse impacts in downstream waters in Louisiana. See 40 CFR 131.10(b). SWEPCO initiated a subsequent third party rulemaking, proposing a site-specific TDS criterion of 780 mg/L. In its March 6, 2018, 3rd party rulemaking action[14], the EPA determined that the 200 mg/L sulfate and 780 mg/L TDS criteria in the Red River from its confluence with the Little River to the Arkansas-Louisiana state line are protective of waters in Louisiana and approved the revised criterion. These criteria are in effective for CWA purposes.

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| | | | |
|---|---|---|---|
| Little River from the Oklahoma state line to Millwood Lake | 20 | 20 | 100 |
| Little River from Millwood Lake to the Red River | 20 | 20 | 138~~‡~~ |

The Commission's current 2020 revisions include revisions for the segment description for the Little River is from the Oklahoma state line to Millwood Lake. This revision is to

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[12] USEPA. (2020). Record of Decision. Regulation No. 2: Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas.
[13] USEPA. (2016). *Record of Decision. Regulation No. 2*: *Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas*
[14] USEPA. (2018). Record of Decision. Regulation 2: Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas.

clearly differentiate this upstream portion of the Little River from that portion of the Little River from below Millwood Lake to confluence with the Red River.

Additional 2020 revisions include striking the footnote (†) associated with revised mineral criteria that were originally adopted via 3rd Party Rulemaking initiated by SWEPCO in December 2015. The EPA approved the revised TDS criteria of 100 mg/L to 138 mg/L for the Little River from Millwood Lake to its confluence with the Red River pursuant to CWA § 303(c) in its May 16, 2016, 3rd party rulemaking action[15]. The previously approved 138 mg/L site-specific criterion for TDS remains in effective for CWA purposes and the footnote no longer applies.

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ER - ecoregion value
* Developed using background flow of 4 cfs
** These limits criteria shall apply to all tributaries of Bayou Meto and Bayou Two Prairie listed in Appendix A Any modification of these values must be made in accordance with Reg.Rule 2.306.
† Not applicable for Clean Water Act purposes until approved by EPA.
***These temporary standards variations are effective for ~~160~~148 months from EPA's approval of the EIP on January 7, 2020.

The Commission's current 2020 revisions incorporate/revise the footnote (***) specific to temporary standards associated with the 3rd Party Rulemaking EIP the Magcobar Site. The EPA approved site-specific mineral criteria for sulfate and TDS and by extension, this footnote associated with the Magcobar EIP are approved pursuant to CWA § 303(c) and are effective for CWA purposes for 148 months from the EPA's original January 7, 2020, action.

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**(B) Ecoregion Reference Stream Mineral Values**

The following values were determined from Arkansas's least-disturbed ecoregion reference streams and are considered to be the maximum naturally occurring levels. For waterbodies not listed above, any discharge which ~~that~~ results in instream concentrations more than 1/3 higher than these values for chlorides ($Cl^-$) and sulfates ($SO4^{=2-}$) or more than 15 mg/L, whichever is greater, is considered to be a significant modification of the maximum naturally occurring values. These waterbodies should be considered as candidates for site specific criteria development in accordance with ~~Regs.~~Rules 2.306 and 2.308. Similarly, site specific criteria development should be considered if the following TDS values are exceeded after being increased by the sum of the increases to $Cl^-$ and $SO_4^{2-}$. Such criteria may be developed only in accordance with ~~Reg~~.Rule 2.306 and 2.308.

Revisions to the heading and footnotes in Rule 2.511(B) are consistent with recent changes to Arkansas's Acts 315 and 910. These and minor wording changes in the introductory narrative above are nonsubstantive and are approved pursuant to CWA § 303(c).

The Commission's current 2020 revisions to the introductory narrative also modified the final sentence to reads as follows:

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[15] USEPA Region 6. (2016). *Record of Decision. Regulation 2: Regulation Establishing Water Quality Standards for the State of Arkansas for the Little River and Red River, Arkansas*.

The values listed in the table below are not intended ~~nor will these values~~ to be used by the ~~Department~~ Division to evaluate attainment of ~~the~~ water quality standards for assessment purposes.

In its October 31, 2016, triennial action, the EPA determined that it could take no action on the original sentence and stated that it is not effective for CWA purposes. Please see further discussion of this sentence in **Section III.**

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**(C) Domestic Water Supply**
In no case shall discharges cause concentrations in any waterbody to exceed 250, 250, and 500 mg/L of chlorides, sulfates, and total dissolved solids, respectively, or cause concentrations to exceed the applicable criteria, except in accordance with ~~Regs.~~Rules 2.306 and 2.308. ~~For lakes and reservoirs applicable at 1.0 meter depth.~~

The revisions to the narrative in Rule 2.512(C) include striking the phrase "applicable at 1.0-meter depth." The EPA took no action in its October 2016 triennial action on this phrase given that criteria apply throughout the entire water column. Striking this phrase addresses the EPA's concerns regarding applicability of mineral criteria throughout the water column in lakes and reservoirs. These revisions are approved pursuant to CWA § 303(c).

**Rule 2.512 Ammonia**
**~~Reg.~~Rule 2.512 Ammonia**

(A) The one-hour average concentration of total ammonia nitrogen shall not exceed, more than once every three years on the average, the acute criterion as shown in the following table:

**pH-Dependent of the CMC (Acute Criterion) – mg/L**

| pH | Salmonids* Present | Salmonids Absent |
|---|---|---|

* Family of fishes ~~which~~ that includes trout

Revisions to the heading in Rule 2.512 are consistent with recent changes to Arkansas's Acts 315 and 910. The revisions also include a minor grammatical revision to the footnote (*) below referring to salmonid species. These revisions are nonsubstantive and are approved pursuant to CWA § 303(c).

***Chapter 6: Effective Date***

Revisions to the narrative regarding effective date are consistent with recent changes to Arkansas's Acts 315 and 910. These revisions are nonsubstantive and are approved pursuant to CWA § 303(c).

***Rule 2 Appendix A***
***~~Regulation~~Rule ~~No.~~ 2 Appendix A***

The revisions to Appendix A are intended to be consistent with revisions within Rule 2, and particularly with Rule 2.503 and Rule 2.511(A). The substantive revisions will be addressed in the order they occur in Appendix A for individual ecoregions/plates. Consistent with the revision to Rule 2.503, revisions trike the text revision from the word "all" to "storm" flow throughout the "Specific Criteria" portion in each of the state's six ecoregions within Appendix A. The title page heading and heading throughout Appendix A have been revised to be consistent with recent changes to Arkansas's Acts 315 and 910. These revisions are nonsubstantive and will be identified by strikeout/redline text but will typically not be addressed. A number of other nonsubstantive revisions have been incorporated into Appendix A, including page numbering and minor grammatical/wording changes, that do not affect the meaning of the phrase or provision. These revisions will be identified by strikeout/redline text and will typically not be addressed. Substantive revisions will be identified and addressed regarding importance and the understanding of the revisions to a provision or the EPA's prior or current determination.

## *Ozark Highland Ecoregion*

**DESIGNATED USES: OZARK HIGHLANDS ECOREGION**
(Plates OH-1, OH-2, OH-3, OH-4)

**Aquatic Life****
**Trout ~~waters~~ Waters**

**Streams**
Seasonal Ozark Highlands aquatic life use - all streams with watersheds of less than 10 $mi^2$ except as otherwise provided in ~~Reg.~~Rule 2.505

The word "waters" in the term "Trout Waters" has been capitalized for consistency with Rule 2.503. Revisions consistent with Arkansas's Acts 315 and 910 above and in the remainder of the Ozark Highlands Ecoregion are nonsubstantive.

**Site Specific Designated Use Variations Supported by Use Attainability Analysis or Other Investigations**
~~Railroad Hollow Creek - no fishable/swimmable uses (OH-1, #1) Columbia Hollow Creek - seasonal aquatic life use March-June (OH-1, #2) Curia Creek - below first waterfall, perennial aquatic life use (OH-4, #3) Moccasin Creek - below Arkansas Highway 177, perennial aquatic life use (OH-3, #4) Stennitt Creek - from Brushy Creek to Spring River, no domestic water supply use (OH-4, #6)~~
~~Town Branch - from point of discharge of the City of Huntsville WWTP downstream to the confluence with Holman Creek, no domestic water supply use (OH-1, #9) ‡~~
~~Holman Creek - from the confluence with Town Branch downstream to the confluence with War Eagle Creek, no domestic water supply use (OH-1, #10) ‡~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| OH-1 | 1 | Railroad Hollow Creek | No fishable/swimmable uses |
| OH-1 | 2 | Columbia Hollow Creek | Seasonal aquatic life use March-June |
| OH-1 | 9 | Town Branch from point of discharge of the City of Huntsville WWTP downstream to the confluence with Holman Creek | No domestic water supply use‡ |

| | | | |
|---|---|---|---|
| OH-1 | 10 | Holman Creek from the confluence with Town Branch downstream to the confluence with War Eagle Creek | No domestic water supply use‡ |
| OH-3 | 4 | Moccasin Creek below Arkansas Highway 177 | Perennial aquatic life use |
| OH-4 | 3 | Curia Creek below first waterfall | Perennial aquatic life use |
| OH-4 | 6 | Stennitt Creek from Brushy Creek to Spring River | No domestic water supply use |

~~‡ Not applicable for clean water act purposes until approved by EPA.~~

The waters identified by narrative under the Site Specific Designated Use Variations Supported by Use Attainability Analysis or Other Investigation subheading for the Ozark Highlands have been struck and reformatted, placing that same information in a tabular form. The footnotes and footnote definition itself (†) have also been struck since they refer to a prior EPA approval removing the Domestic Water Supply use by for Town Branch and Holman Creek discussed previously in relation to Rule 2.511(A). These revisions are approved pursuant to CWA § 303(c).

**SPECIFIC ~~STANDARDS~~CRITERIA: OZARK HIGHLANDS ECOREGION**
(Plates OH-1, OH-2, OH-3, OH-4)

| | **Streams** | **Lakes and Reservoirs** |
|---|---|---|
| Temperature °C (°F)* | 31 (87.8) | 32 (89.6) |
| Trout ~~waters~~Waters | 20 (68) | |
| Turbidity (NTU) (base/~~all~~storm) | 10/19 | 25/45 |
| Trout ~~waters~~Waters | 10/15 | |
| Minerals | see ~~Reg.~~Rule 2.511 | see ~~Reg.~~Rule 2.511 |
| Dissolved Oxygen (mg/L) ** | Pri. Crit | see ~~Reg.~~Rule 2.505 |
| (Watershed descriptions not shown for brevity) | | |
| Trout ~~waters~~Waters | 6 6 | |
| All other ~~standards~~criteria (same as statewide) | | |

The Temperature criteria now include the footnote (*) limiting increases to 2.8°C (5°F) over natural temperatures. The word "all" has been struck and replaced with "storm", consistent with revisions to Rules 2.106 and 2.503 addressing the EPA's January 24, 2008, triennial action. In addition to revisions discussed previously regarding the term "Trout Waters," specific base/storm flow turbidity criteria of "10/15" has been included under the Turbidity subheading for consistency with Rule 2.503. These revisions are approved pursuant to CWA § 303(c). Although the revision of the word "storm" itself is approved as discussed previously, please see the discussion above in Section **IV.** for a detailed discussion the applicability of Rule 2.503.

**Site Specific ~~Standards~~Criteria Variations Supported by Use Attainability Analysis**
~~Railroad Hollow Creek: from headwaters to Spavinaw Creek - year-round dissolved oxygen - 2 mg/L (OH-1, #1)~~
~~Curia Creek - below first waterfall, critical season dissolved oxygen 6 mg/L (OH-4, #3)~~
~~Moccasin Creek - below Highway 177, critical season D.O. 5mg/L (OH-3, #4)~~
~~SWEPCO Reservoir - maximum temperature 54°C (limitation of 2.8°C above natural temperature does not apply) (OH-1, #5)~~

~~Stennitt Creek - from Brushy Creek to Spring River, total dissolved solids = 456 mg/L (OH-4, #6)~~
~~Crooked Creek - from Harrison WWTP outfall to ADEQ Monitoring Station WHI0193; chloride 22.6 mg/L, sulfate 24.4 mg/L; TDS 269 mg/L (OH-2, #7) ‡~~
~~Crooked Creek - from ADEQ Monitoring Station WHI0193 to mouth: TDS 238 mg/L (OH-3, #8) ‡~~
~~White River - from Noland WWTP to 0.4 miles downstream (WR-02), chloride = 44 mg/L, sulfate = 79 mg/L, TDS = 362 mg/L (OH-1), #7) ‡~~
~~White River - from WR-02 to WHI0052, chloride = 30 mg/L, sulfate = 40 mg/L, TDS = 237 mg/L (OH-1, #8) ‡~~
~~Holman Creek - from the confluence with Town Branch downstream to the confluence with War Eagle Creek: chloride = 180 mg/L, sulfate = 48 mg/L, TDS = 621 mg/L (OH-1 #10) ‡~~
~~Town Branch - from point of discharge of the City of Huntsville WWTP Downstream to the confluence with Holman Creek: chloride = 223 mg/L, sulfate = 61 mg/L, TDS = 779 mg/L (OH-1, #9) ‡~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| OH-1 | 1 | Railroad Hollow Creek from headwaters to Spavinaw Creek | Year-round DO 2 mg/L |
| OH-1 | 5 | SWEPCO Reservoir | Maximum temperature 54˚C (limitation of 2.8˚C above natural temperature does not apply) |
| OH-1 | 7 | White River from Noland WWTP to 0.4 miles downstream (WR-02) | Chloride 44 mg/L, sulfate 79 mg/L, TDS 362 mg/L‡ |
| OH-1 | 8 | White River from WR-02 to WHI0052 | Chloride 30 mg/L, sulfate 40 mg/L, TDS 237 mg/L‡ |
| OH-1 | 9 | Town Branch from point of discharge of the City of Huntsville WWTP Downstream to the confluence with Holman Creek | Chloride 223 mg/L, sulfate 61 mg/L, TDS 779 mg/L‡ |
| OH-1 | 10 | Holman Creek from the confluence with Town Branch downstream to the confluence with War Eagle Creek | Chloride 180 mg/L, sulfate 48 mg/L, TDS 621 mg/L‡ |
| OH-2 | 7 | Crooked Creek from Harrison WWTP outfall to ~~A~~ADEQ Monitoring Station WHI0193 | Chloride 22.6 mg/L, sulfate 24.4 mg/L, TDS 269 mg/L‡ |
| OH-3 | 4 | Moccasin Creek below Highway 177 | Critical season DO 5mg/L |
| OH-3 | 8 | Crooked Creek from ~~A~~ADEQ Monitoring Station WHI0193 to mouth | TDS 238 mg/L‡ |
| OH-4 | 3 | Curia Creek below first waterfall | Critical season DO 6 mg/L |
| OH-4 | 6 | Stennitt Creek from Brushy Creek to Spring River | TDS 456 mg/L, sulfate 43.3 mg/L |
| OH-4 | 11 | Brushy Creek – from Unnamed Tributary to Stennitt Creek | Sulfate 126 mg/L, TDS 549 mg/L |
| OH-4 | 12 | Unnamed Tributary – from Vulcan Outfall 001 to Brushy Creek | Sulfate 260 mg/L, TDS 725 mg/L |

~~‡ Not applicable for clean water act purposes until approved by EPA.~~
*Increase over natural temperatures may not be more than 2.8°C (5°F).

The waters identified by narrative under the Site Specific Designated Use Variations Supported by Use Attainability Analysis subheading for the Ozark Highlands have also been struck and reformatted, placing that same information in a tabular form. In addition, descriptions and associated site-specific criteria (SSC) for Brushy Creek to Stennit Creek and the Unnamed Tributary – Vulcan Outfall 001 to Brushy Creek have been included consistent with revisions to Rule 2.511 discussed previously. The footnotes and footnote definition itself (†) have also been struck referring to those waters the EPA has previously as discussed in Rule 2.511(A). These revisions are approved pursuant to CWA § 303(c).

## *Boston Mountains Ecoregion*

**DESIGNATED USES: BOSTON MOUNTAINS ECOREGION**
(Plates BM-1, BM-2, BM-3)

**Aquatic Life****
**Trout ~~waters~~**

**Streams**
Seasonal Boston Mountain aquatic life- all waters with watersheds of less than 10 $mi^2$ except as otherwise provided in ~~Reg.~~Rule 2.505

As noted previously, the word "waters" in the term "Trout Waters" has been capitalized for consistency with Rule 2.503. Revisions consistent with Arkansas's Acts 315 and 910 above and in the remainder of the Boston Mountains Ecoregion are nonsubstantive and are approved pursuant to CWA § 303(c).

**SPECIFIC ~~STANDARDS~~CRITERIA: BOSTON MOUNTAINS ECOREGION**
(Plates BM-1, BM-2, BM-3)

| | **Streams** | **Reservoirs** |
|---|---|---|
| Temperature °C (°F)* | 31 (87.8) | 32 (89.6) |
| Trout ~~waters~~Waters | 20 (68) | |
| Turbidity (NTU) (base/~~all~~storm) | 10/19 | 25/45 |
| Trout Waters | 10/15 | |
| Minerals | see ~~Reg.~~Rule 2.511 | see ~~Reg.~~Rule 2.511 |
| Dissolved Oxygen (mg/L) ** | Pri. Crit | see ~~Reg.~~Rule 2.505 |
| (Watershed descriptions not shown for brevity) | | |
| Trout ~~waters~~Waters | 6 6 | |

All other ~~standards~~criteria (same as statewide)

**Site Specific ~~Standards~~Criteria Variations Supported by Use Attainability Analysis**
None

*Increase over natural temperatures may not be more than 2.8°C (5°F).
**At water temperatures ≤ 10˚C or during March, April and May when stream flows are 15 cfs and greater, the primary season dissolved oxygen ~~standard~~criteria will be 6.5 mg/L. When water temperatures exceed 22˚C, the critical season dissolved oxygen ~~standard~~criteria may be depressed by 1 mg/L for no more than 8 hours during a 24-hour period.

The heading for the Boston Mountains Ecoregion and throughout this section, the general regulatory term "standards" has been struck and replaced with the quantitative term "criteria" referring to specific numeric criteria. The temperature criteria now include the footnote (*) limiting increases to 2.8°C (5°F) over natural temperatures consistent with Rule 2.502. As noted previously, the word "waters" in the term "Trout Waters" has been

capitalized for consistency with Rule 2.503. In addition, specific turbidity criteria of "10/15" has also been included under the Turbidity subheading for consistency with Rule 2.503. As before, the word "all" has been struck and replaced with "storm" consistent with revisions to Rule 2.503 addressing the EPA's January 24, 2008, triennial action. These revisions are approved pursuant to CWA § 303(c). As noted above, the revision of the word "storm" itself are approved. See the discussion above in Section **IV.** regarding the applicability of Rule 2.503.

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***Arkansas River Valley Ecoregion***

DESIGNATED USES: ARKANSAS RIVER VALLEY ECOREGION
(Plates ARV-1, ARV-2, ARV-3)

**Aquatic Life****

**Trout Waters**

Little Red River below Greers Ferry Dam to Searcy (ARV-3)

**Streams**

Seasonal Arkansas River Valley aquatic life use - all streams with watersheds of less than 10 $mi^2$ except as otherwise provided in ~~Reg.~~Rule 2.505

**Site Specific Designated Use Variations Supported by Use Attainability Analysis**

~~Poteau River from U.S. Business Highway 71 to Oklahoma state line - no domestic water supply use (ARV-1, #2 and #4)~~

~~Unnamed tributary to Poteau River at Waldron - no domestic water supply use (ARV-1, #3)~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| ARV-1 | 2 & 4 | Poteau River from U.S. Business Highway 71 to Oklahoma state line | No domestic water supply use |
| ARV-1 | 3 | Unnamed tributary to Poteau River at Waldron | No domestic water supply use |

As noted previously, the word "waters" has been capitalized for consistency with Rule 2.503. Revisions consistent with Arkansas's Acts 315 and 910 above and in the remainder of the Arkansas River Valley Ecoregion section are nonsubstantive. The waters identified by narrative under the Site Specific Designated Use Variations Supported by Use Attainability Analysis subheading for the Arkansas River Valley have also been struck and reformatted, placing that same information in a tabular form. These revisions are approved pursuant to CWA § 303(c).

**SPECIFIC ~~STANDARDS~~CRITERIA: ARKANSAS RIVER VALLEY ECOREGION**
(Plates ARV-1, ARV-2, ARV-3)

| | Streams | Reservoirs |
|---|---|---|
| Temperature °C (°F)* | 31 (87.8) | 32 (89.6) |
| Trout ~~waters~~Waters | 20 (68) | |

| | | |
|---|---|---|
| Turbidity (NTU) (base/~~all~~storm) | 21/40 | 25/45 |
| Arkansas River ~~(base/all)~~ | 50/52 | |
| Trout Waters | 10/15 | |
| Minerals | see ~~Reg.~~Rule 2.511 | see ~~Reg.~~Rule 2.511 |
| Dissolved Oxygen (mg/L) ** | Pri. Crit | see ~~Reg.~~Rule 2.505 |
| (Watershed descriptions not shown for brevity) | | |
| Trout ~~waters~~Waters | 6 6 | |

All other ~~standards~~criteria (same as statewide)

The heading for the Arkansas River Valley Ecoregion and throughout this section, the general regulatory term "standards" has been struck and replaced with the quantitative term "criteria" referring to specific numeric criteria. The Temperature criteria now include the footnote (*) limiting increases to 2.8°C (5°F) over natural temperatures consistent with Rule 2.502. As noted previously, the word "waters" in the term "Trout Waters" has been capitalized for consistency with Rule 2.503 addressing the EPA's January 24, 2008, triennial action. The terms "base/all" has also been struck as redundant and is a nonsubstantive revision. As before, the word "all" has been struck and replaced with "storm" consistent with revisions to Rule 2.503. As noted above, only the revision of the word "storm" itself and other revisions in this provision are approved pursuant to CWA § 303(c). See the discussion for Rule 2.503 and in Section **IV.** regarding applicability.

**Site Specific ~~Standards~~Criteria Variations Supported by Use Attainability Analysis**

~~Dardanelle Reservoir - maximum temperature 35°C (95°F) (limitation of 2.8°C above natural temperature does not apply) (ARV-2, #1)~~

~~Poteau River from Scott County Road 59 to Oklahoma state line - chlorides - 120 mg/L; sulfates - 60 mg/L; TDS - 500 mg/L (ARV-1, #2)~~

~~Poteau River from confluence with Unnamed tributary to Scott County Road 59 - chlorides 185 mg/L; sulfates - 200 mg/L; TDS - 786 mg/L (ARV-1, #4) †~~

~~Unnamed tributary from Tyson-Waldron Outfall 001 to confluence with the Poteau River - chlorides 180 mg/L; sulfates - 200 mg/L; TDS - 870 mg/L (ARV-1, #3) †~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| ARV-2 | 1 | Dardanelle Reservoir | Maximum temperature 35°C (95°F) (limitation of 2.8°C above natural temperature does not apply) |
| ARV-1 | 2 | Poteau River from Scott County Road 59 to Oklahoma state line | Chlorides 120 mg/L, sulfates 60 mg/L, TDS 500 mg/L |
| ARV-1 | 4 | Poteau River from confluence with Unnamed tributary to Scott County Road 59 | Chlorides 185 mg/L, sulfates 200 mg/L, TDS 786 mg/L† |
| ARV-1 | 3 | Unnamed tributary from Tyson-Waldron Outfall 001 to confluence with the Poteau River | Chlorides 180 mg/L, sulfates 200 mg/L, TDS 870 mg/L† |

† Not applicable for clean water act purposes until approved by EPA.

**At water temperatures ≤ 10°C or during March, April and May when stream flows are 15 cfs and greater, the primary season dissolved oxygen ~~standard~~criteria will be 6.5 mg/L. When water temperatures exceed 22°C, the critical season dissolved oxygen ~~standard~~criteria may be depressed by 1 mg/L for no more than 8 hours during a 24-hour period.

The waters identified by narrative under the Site Specific Designated Use Variations Supported by Use Attainability Analysis subheading for the Arkansas River Valley have also been struck and reformatted, placing that same information in a tabular form. The footnotes (†) for the Poteau River and Unnamed Tributary from the Tyson-Waldron Outfall 001 have been struck since the EPA previously approved these revisions in its June 2, 2020, 3rd party rulemaking action[16]. However, the footnote definition itself has not been struck.

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***Ouachita Mountain Ecoregion***

**DESIGNATED USES: OUACHITA MOUNTAIN ECOREGION**
(Plates OM-1, OM-2)

**Ecologically Sensitive Waterbodies**

Caddo River and all tributaries above DeGray Reservoir - location of endemic paleback darter, Caddo madtom and threatened Arkansas fatmucket ~~Mussel~~ mussel (OM-1, OM-2)

Saline River including Alum, Middle, North and South Forks, and Ten Mile Creek - location of endemic Ouachita madtom and threatened Arkansas fatmucket ~~Mussel~~ mussel (except South fork and Ten Mile Creek) (OM-2)

**Aquatic Life****

**Trout Waters**

**Streams**

Seasonal Ouachita Mountain Ecoregion aquatic life - all streams with watersheds of less than 10 $mi_2$ except as otherwise provided in ~~Reg.~~Rule 2.505

**Site Specific Designated Use Variations Supported by Use Attainability Analysis**
~~Rolling Fork from unnamed trib. A at Grannis to DeQueen Reservoir - no domestic water supply use (OM-1, #2)~~
~~Unnamed tributaries A and A1 at Grannis - no domestic water supply use (OM-1, #3)~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| OM-1 | 2 | Rolling Fork from unnamed tributary A at Grannis to DeQueen Reservior | No domestic water supply use |
| OM-1 | 3 | Unnamed tributaries A and A1 at Grannis | No domestic water supply use |

The minor grammatical revision striking the "Mussel" with "mussel" is nonsubstantive. As noted previously, the word "Waters" has been inserted in the term "Trout Waters" for consistency with Rule 2.503. Revisions consistent with Arkansas's Acts 315 and 910 above are nonsubstantive. The waters identified by narrative under the Site Specific Designated Use Variations Supported by Use Attainability Analysis subheading for the Ouachita Mountains Ecoregion have also been struck and reformatted, placing that same information in a tabular form. These revisions are approved pursuant to CWA § 303(c).

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[16] USEPA Region 6. (2020). *Record of Decision. Regulation 2: Regulation Establishing Water Quality Standards for the State of Arkansas for the Poteau River and Unnamed Tributary, Arkansas*.

**SPECIFIC ~~STANDARDS~~CRITERIA: OUACHITA MOUNTAIN ECOREGION**
(Plates OM-1, OM-2)

| | Streams | Reservoirs |
|---|---|---|
| Temperature °C (°F)* | 31 (87.8) | 32 (89.6) |
| Trout ~~waters~~Waters | 20 (68) | |
| Turbidity (NTU) (base/~~all~~storm) | 10/18 | 25/45 |
| Trout Waters | 10/15 | |
| Minerals | see ~~Reg.~~Rule 2.511 | see ~~Reg.~~Rule 2.511 |
| Dissolved Oxygen (mg/L) ** | Pri. Crit | see ~~Reg.~~Rule 2.505 |
| (Watershed descriptions not shown for brevity) | | |
| Trout ~~waters~~Waters | 6 6 | |

All other ~~standards~~criteria (same as statewide)

The heading for the Ouachita Mountains Ecoregion and throughout this section, the general regulatory term "standards" has been struck and replaced with the quantitative term "criteria" referring to specific numeric criteria. The Temperature criteria now include the footnote (*) limiting increases to 2.8°C (5°F) over natural temperatures consistent with Rule 2.502. As noted previously, the word "waters" in the term "Trout Waters" has been capitalized for consistency with Rule 2.503. As before, the word "all" has been struck and replaced with "storm" consistent with revisions to Rule 2.503 addressing the EPA's January 24, 2008, triennial action. The terms "base/all" has also been struck as redundant and is a nonsubstantive revision. As noted above, only the inclusion of the word "storm" itself and other provisions described above are approved pursuant to CWA § 303(c). See the discussion above for Rule 2.503 and in Section **IV.** regarding the applicability of this provision.

**Site Specific StandardsCriteria Variations Supported by Use Attainability Analysis**
~~Prairie Creek: from headwaters to confluence with Briar Creek, critical season dissolved oxygen - 4 mg/L (OM-1, #1)~~
~~Rolling Fork from unnamed tributary A to DeQueen Reservoir - chlorides 130 mg/L; sulfates - 70 mg/L; total dissolved solids - 670 mg/L (OM-1, #2)~~
~~Unnamed tributaries A and A1 at Grannis - chlorides - 135 mg/L; sulfates - 70 mg/L; total dissolved solids - 700 mg/L (OM-1, #3)~~
~~South Fork Caddo River - sulfates 60 mg/L (OM-1, #4)~~
~~Back Valley Creek - sulfates 250 mg/L; total dissolved solids 500 mg/L (OM-1, #5)~~
~~Wilson Creek from a point approximately 0.85 mile upstream of Outfall 001 to UMETCO Outfall 001 - chlorides 56 mg/L; sulfates 250 mg/L; total dissolved solids 500 mg/L (OM-2, #6)~~
~~Wilson Creek downstream of UMETCO Outfall 001 to its mouth - chlorides 56 mg/L; sulfates 250 mg/L; total dissolved solids 500 mg/L (OM-2, #7)~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| OM-1 | 1 | Prairie Creek: from headwaters to confluence with Briar Creek | Critical season DO 4 mg/L |
| OM-1 | 2 | Rolling Fork from unnamed tributary A to DeQueen Reservoir | Chlorides 130 mg/L, sulfates 70 mg/L, TDS 670 mg/L |

| | | | |
|---|---|---|---|
| OM-1 | 3 | Unnamed tributaries A and A1 at Grannis | Chlorides 135 mg/L, sulfates 70 mg/L, TDS 700 mg/L |
| OM-1 | 4 | South Fork Caddo River | Sulfates 60 mg/L |
| OM-1 | 5 | Back Valley Creek | Sulfates 250 mg/L, TDS 500 mg/L |
| OM-2 | 6 | Wilson Creek from a point approximately 0.85 mile upstream of Outfall 001 to UMETCO Outfall 001 | Chlorides 56 mg/L, sulfates 250 mg/L, TDS 500 mg/L |
| OM-2 | 7 | Wilson Creek downstream of UMETCO Outfall 001 to its mouth | Chlorides 56 mg/L, sulfates 250 mg/L, TDS 500 mg/L |

**At water temperatures ≤ 10◦C or during March, April and May when stream flows are 15 cfs and greater, the primary season dissolved oxygen ~~standard~~criteria will be 6.5 mg/L. When water temperatures exceed 22◦C, the critical season dissolved oxygen ~~standard~~criteria may be depressed by 1 mg/L for no more than 8 hours during a 24-hour period.

The waters identified by narrative under the Site Specific Designated Use Variations Supported by Use Attainability Analysis subheading for the Ouachita Mountains Ecoregion have also been struck and reformatted, placing that same information in a tabular form. These revisions are also approved pursuant to CWA § 303(c).

**Temporary Variations Supported by Environmental Improvement Project**

~~Chamberlain Creek from headwaters to confluence with Cove Creek - sulfates 1,384 mg/L; total dissolved solids 2,261 mg/L; chlorides 68 mg/L (OM-2, #1)†~~

~~Cove Creek from the confluence with Chamberlain Creek to the Ouachita River - sulfates 250 mg/L; total dissolved solids 500 mg/L (OM-2, #2)†~~

~~Lucinda Creek from the confluence of Rusher Creek to the confluence with Cove Creek - sulfates 250 mg/L; total dissolved solids 500 mg/L (OM-2, #3)†~~

~~Rusher Creek from the confluence of the East and West Forks to confluence with Lucinda Creek - sulfates 250 mg/L; total dissolved solids 500 mg/L (OM-2 , #4)†~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| OM-2 | 1 | Chamberlain Creek from headwaters to confluence with Cove Creek | Chlorides 68 mg/L, sulfates 1,384 mg/L, TDS 2,261 mg/L*~~†~~ |
| OM -1 | 2 | Cove Creek from the confluence with Chamberlain Creek to the Ouachita River | Sulfates 250 mg/L, TDS 500 mg/L*~~†~~ |
| OM -1 | 3 | Lucinda Creek from the confluence of Rusher Creek to the confluence with Cove Creek | Sulfates 250 mg/L, TDS 500 mg/L*~~†~~ |
| OM -1 | 4 | Rusher Creek from the confluence of the East and West Forks to confluence with Lucinda Creek | Sulfates 250 mg/L, TDS 500 mg/L*~~†~~ |

* These temporary standards variations are effective for ~~160~~148 months from EPA's approval of the EIP on January 7, 2020.

~~† Not applicable for clean water act purposes until approved by EPA.~~

The waters identified by narrative under the Temporary Variations Supported by Environmental Improvement Project subheading for the Ouachita Mountains Ecoregion have also been struck and reformatted, placing that same information in a tabular form. The footnote (*) has been inserted specific to the limited duration of these temporary criteria as part of the Magcobar Site EIP. The footnote itself has been revised specifying that the revised criteria are applicable for 148 months from the January 7, 2020, 3rd party

rulemaking action. The footnotes and footnote definition itself (†) have been struck since it refers to those waters the EPA has previously approved as discussed in Rule 2.511(A). These revisions are approved pursuant to CWA § 303(c).

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***Gulf Coastal Ecoregion***

**DESIGNATED USES: GULF COASTAL ECOREGION**
(Plates GC-1, GC-2, GC-3, GC-4)

~~**Domestic Water Supply**~~

**Aquatic Life****
**Trout Waters**

**Streams**
Seasonal Gulf Coastal aquatic life - all streams with watersheds of less than 10 mi2 except as otherwise provided in ~~Reg.~~Rule 2.505

The subheading for Domestic Water Supply has been struck because it is redundant to the prior heading for more specific heading, Domestic, Industrial, and Agricultural Water Supply. As noted previously, the word "Waters" has been inserted in the term "Trout Waters" for consistency with Rule 2.503. Revisions consistent with Arkansas's Acts 315 and 910 above and throughout this section are nonsubstantive and are approved pursuant to CWA § 303(c).

**Site Specific Designated Use Variations Supported by Use Attainability Analysis**
~~Loutre Creek - perennial aquatic life use, except seasonal from railroad bridge to mouth (GC-2, #1)~~
~~Unnamed tributary to Smackover Creek - no fishable/swimmable uses (GC-2, #2)~~
~~Unnamed tributary to Flat Creek - no fishable/swimmable uses (GC-2, #4)~~
~~Dodson Creek - perennial aquatic life use (GC-4, #5)~~
~~Jug Creek - perennial aquatic life use (GC-2, #6)~~
~~Lick Creek - seasonal aquatic life use; no primary contact (GC-1, #7)~~
~~Mossy Lake - no fishable/swimmable or domestic water supply uses (GC-3, #8)~~
~~Red River from Oklahoma state line to confluence with Little River - No domestic water supply use (GC-1, #9)~~
~~Bluff Creek and unnamed tributary - no domestic water supply use (GC-1, #10)~~
~~Mine Creek from Highway 27 to Millwood Lake - no domestic water supply use (GC-1, #11)~~
~~Caney Creek - no domestic or industrial water supply use (GC-1, #12)~~
~~Bois d'Arc Creek from Caney Creek to Red River - no domestic or industrial water supply use (GC-1, #13)~~
~~Town Creek below Acme tributary - no domestic water supply (GC-4, #14)~~
~~Unnamed trib. from Acme - no domestic water supply (GC-4,#14)~~
~~Gum Creek - no domestic water supply use (GC-2, #15)~~
~~Loutre Creek from Highway 15 S. to the confluence of Bayou de Loutre - no domestic water supply use (GC-2, #41)~~
~~Unnamed trib 002 (UT002) - no domestic water supply use (GC-2, #31)~~
~~Unnamed trib 003 (UT003) - no domestic water supply use (GC-2, #34)~~
~~Unnamed trib 004 (UT004) - no domestic water supply use (GC-2, #32)~~
~~Bayou de Loutre from mouth of UT004 to Louisiana state line - no domestic water supply use (GC-2, #16)~~
~~Walker Branch - no domestic water supply use (GC-2, #17)~~
~~Little Cornie Bayou from Walker Branch to Arkansas/Louisiana state line - no domestic water supply use (GC-2, #18)~~
~~Unnamed trib to Little Cornie Bayou (UTLCB-2) - no domestic water supply use (GC-2, #18)~~
~~Alcoa unnamed trib to Hurricane Creek and Hurricane Creek - no domestic water supply use (GC-4, #19)~~
~~Holly Creek - no domestic water supply use (GC-4, #20)~~
~~Dry Lost Creek and Tribs. - no domestic water supply use (GC-4.#21)~~
~~Lost Creek - no domestic water supply use (GC-4, #22)~~
~~Albemarle unnamed trib (AUT) to Horsehead Creek - no domestic water supply use (GC-2, #27)~~

~~Horsehead Creek from AUT to mouth - no domestic water supply use (GC-2, #27)~~
~~Dismukes Creek and Big Creek to Bayou Dorcheat - no domestic water supply (GC-2, #28)~~
~~Boggy Creek from the discharge from Clean Harbors El Dorado LCC downstream to the confluence of Bayou de Loutre - no domestic water supply use (GC-2, #51)~~
~~Unnamed tributary to Flat Creek from EDCC Outfall 001 d/s to confluence with unnamed tributary A to Flat Creek - no domestic water supply use (GC-2, #37)~~
~~Unnamed tributary A to Flat Creek from mouth of EDCC 001 ditch to confluence with Flat Creek - no domestic water supply use (GC-2, #38)~~
~~Flat Creek from mouth of UTA to confluence with Haynes Creek - no domestic water supply use (GC-2, #39)~~
~~Haynes Creek from mouth of Flat Creek to confluence with Smackover Creek - no domestic water supply use (GC-2, #40)~~
~~Red River from the mouth of the Little River to the Arkansas/Louisiana state line - no domestic water supply use (GC-1, #55) ‡~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| GC-1 | 7 | Lick Creek | Seasonal aquatic life use; no primary contact |
| GC-1 | 9 | Red River from Oklahoma state line to confluence with Little River | No domestic water supply use |
| GC-1 | 10 | Bluff Creek and unnamed tributary | No domestic water supply use |
| GC-1 | 11 | Mine Creek from Highway 27 to Millwood Lake | No domestic water supply use |
| GC-1 | 12 | Caney Creek | No domestic or industrial water supply use |
| GC-1 | 13 | Bois d'Arc Creek from Caney Creek to Red River | No domestic or industrial water supply use |
| GC-1 | 55 | Red River from the mouth of the Little River to the Arkansas/Louisiana state line | No domestic water supply use~~‡~~ |

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| GC-2 | 1 | Loutre Creek | Perennial aquatic life use, except seasonal from railroad bridge to mouth |
| GC-2 | 2 | Unnamed tributary to Smackover Creek | No fishable/swimmable uses |
| GC-2 | 4 | Unnamed tributary to Flat Creek | No fishable/swimmable uses |
| GC-2 | 6 | Jug Creek | Perennial aquatic life use |
| GC-2 | 15 | Gum Creek | No domestic water supply use |
| GC-2 | 16 | Bayou de Loutre from mouth of UT004 to Louisiana state line | No domestic water supply use |
| GC-2 | 17 | Walker Branch | No domestic water supply use |
| GC-2 | 18 | Little Cornie Bayou from Walker Branch to Arkansas/Louisiana state line | No domestic water supply use |
| GC-2 | 18 | Unnamed tributary to Little Cornie Bayou (UTLCB-2) | No domestic water supply use |
| GC-2 | 27 | Albemarle unnamed tributary (AUT) to Horsehead Creek | No domestic water supply use |
| GC-2 | 27 | Horsehead Creek from AUT to mouth | No domestic water supply use |
| GC-2 | 28 | Dismukes Creek and Big Creek to Bayou Dorcheat | No domestic water supply use |
| GC-2 | 31 | Unnamed tributary 002 (UT002) | No domestic water supply use |
| GC-2 | 32 | Unnamed tributary 004 (UT004) | No domestic water supply use |
| GC-2 | 34 | Unnamed tributary 003 (UT003) | No domestic water supply use |
| GC-2 | 37 | Unnamed tributary to Flat Creek from EDCC Outfall 001 downstream to confluence with unnamed tributary A to Flat Creek | No domestic water supply use |

| | | | |
|---|---|---|---|
| GC-2 | 38 | Unnamed tributary A to Flat Creek from mouth of EDCC 001 ditch to confluence with Flat Creek | No domestic water supply use |
| GC-2 | 39 | Flat Creek from mouth of UTA to confluence with Haynes Creek | No domestic water supply use |
| GC-2 | 40 | Haynes Creek from mouth of Flat Creek to confluence with Smackover Creek | No domestic water supply use |
| GC-2 | 41 | Loutre Creek from Highway 15 S. to the confluence of Bayou de Loutre | No domestic water supply use |
| GC-2 | 51 | Boggy Creek from the discharge from Clean Harbors El Dorado LCC downstream to the confluence of Bayou de Loutre | No domestic water supply use |

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| GC-3 | 8 | Coffee Creek and Mossy Lake | No fishable/swimmable or domestic water supply uses |

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| GC-4 | 5 | Dodson Creek | Perennial aquatic life use |
| GC-4 | 14 | Town Creek below Acme tributary | No domestic water supply use |
| GC-4 | 14 | Unnamed tributary from Acme | No domestic water supply use |
| GC-4 | 19 | Alcoa unnamed tributary to Hurricane Creek and Hurricane Creek | No domestic water supply use |
| GC-4 | 20 | Holly Creek | No domestic water supply use |
| GC-4 | 21 | Dry Lost Creek and tributaries | No domestic water supply use |
| GC-4 | 22 | Lost Creek | No domestic water supply use |

The waters identified by narrative under the Site-Specific Designated Use Variations Supported by Use Attainability Analysis subheading for the Gulf Coastal Ecoregion have been struck and reformatted, placing that same information in a tabular form. These revisions are approved pursuant to CWA § 303(c). See Section **VI.** below for a discussion of the entirety of Coffee Creek and Mossy Lake.

**SPECIFIC ~~STANDARDS~~CRITERIA: GULF COASTAL ECOREGION**
(Plates GC-1, GC-2, GC-3, GC-4)

| | **Typical Streams** | **Spring Water Streams** | **Lakes and Reservoirs** |
|---|---|---|---|
| Temperature ˚C (˚F)~~*~~ | 30 (86) | 30 (86) | 32 (89.6) |
| Ouachita River (state line to Little Missouri River) | 32 (89.6) | | |
| Red River | 32 (89.6) | | |
| Little River (from Millwood Lake to the Red River) | 32 (89.6) ǂ | | |
| Trout Waters | 20 (68) | 20 (68) | |

| | | | |
|---|---|---|---|
| Turbidity (NTU) (base/~~all~~storm) | 21/32 | 21/32 | 25/45 |
| Red River ~~(base/ all)~~ | 50/150 | | |
| Trout Waters | 10/15 | | |
| Minerals | see ~~Reg.~~Rule 2.511 | | see ~~Reg.~~Rule 2.511 |
| Dissolved Oxygen (mg/L) ~~**~~ | Pri. Crit. | | see ~~Reg.~~Rule 2.505 |
| (Watershed descriptions/criteria not shown for brevity) | | | |
| Trout Waters | 6 6 | | |
| All other ~~standards~~criteria | (same as statewide) | | |

*Increase over natural temperatures may not be more than 2.8°C (5°F).
**At water temperatures ≤ 10˚C or during March, April and May when stream flows are 15 cfs and greater, the primary season dissolved oxygen ~~standard~~criteria will be 6.5 mg/L. When water temperatures exceed 22˚C, the critical season dissolved oxygen ~~standard~~criteria may be depressed by 1 mg/L for no more than 8 hours during a 24-hour period

As in previously sections, the heading for the Gulf Coastal Ecoregion and throughout this section, the general regulatory term "standards" has been struck and replaced with the quantitative term "criteria" referring to specific numeric criteria. The Temperature criteria now includes the footnote (*) limiting increases to 2.8°C (5°F) over natural temperatures consistent with Rule 2.502. The footnote (†) specific to temperature criteria has been struck for the Little River from Millwood Lake to its confluence with the Red River consistent with the EPA's May 16, 2016, action. The word "waters" in the term "Trout Waters" has been capitalized for consistency with Rule 2.503. As before, the word "all" has been struck and replaced with "storm" consistent with revisions to Rule 2.503 addressing the EPA's January 24, 2008, triennial action. The terms "base/all" has also been struck as redundant and is a nonsubstantive revision. And as noted above, only the inclusion of the word "storm" itself is approved. These revisions are approved pursuant to CWA § 303(c).

See the discussion above for Rule 2.503 and in Section **IV.** regarding applicability of the provision.

**Site Specific ~~Standards~~Criteria Variations Supported by Use Attainability Analysis**

~~Loutre Creek - from headwaters to railroad bridge, critical season dissolved oxygen standard - 3 mg/L; primary season - 5 mg/L; from railroad bridge to mouth, critical season dissolved oxygen - 2 mg/L (GC-2, #1)~~
~~Unnamed tributary to Smackover Creek - headwaters to Smackover Creek, year round dissolved oxygen criteria - 2 mg/L (GC-2, #2)~~
~~Unnamed tributary to Flat Creek - from headwaters to Flat Creek, year round dissolved oxygen criteria - 2 mg/L (GC-2, #4)~~
~~Dodson Creek - from headwaters to confluence with Saline River, critical season dissolved oxygen standard - 3 mg/L (GC-4, #5)~~
~~Jug Creek - from headwaters to confluence with Moro Creek, critical season dissolved oxygen standard - 3 mg/L (GC-2, #6)~~
~~Lick Creek - from headwaters to Millwood Reservoir, critical season dissolved oxygen standard - 2 mg/L (GC-1, #7)~~
~~Coffee Creek and Mossy Lake - exempt from Reg. 2.406 and Chapter Five (GC-3, #8)~~
~~Red River from Oklahoma state line to confluence with Little River - total dissolved solids - 850 mg/L (GC-1, #9)~~
~~Bluff Creek and unnamed trib. - sulfates 651 mg/L; total dissolved solids 1033 mg/L (GC-1, #10)~~
~~Muddy Fork Little Missouri River - sulfates 250 mg/L; total dissolved solids 500 mg/L (GC-1, #24)~~
~~Little Missouri River - sulfates 90 mg/L; total dissolved solids 180 mg/L (GC-1, #25)~~
~~Mine Creek from Highway 27 to Millwood Lake - chlorides - 90 mg/L; sulfates - 65 mg/L; total dissolved solids - 700 mg/L (GC-1, #11)~~
~~Caney Creek - chlorides 113 mg/L; sulfates 283 mg/L; total dissolved solids 420 mg/L (GC-1, #12)~~

~~Bois d'Arc Creek from Caney Creek to Red River - chlorides 113 mg/L; sulfates 283 mg/L; total dissolved solids 420 mg/L (GC-1,#13)~~
~~Town Creek below Acme tributary - sulfates 200 mg/L; total dissolved solids 700 mg/L (GC-4, #14)~~
~~Unnamed trib. from Acme - sulfates 330 mg/L; total dissolved solids 830 mg/L (GC-4, #14)~~
~~Gum Creek - chlorides 104 mg/L; total dissolved solids 311 mg/L (GC-2, #15)~~
~~Bayou de Loutre from Gum Creek to State line - Chlorides 250 mg/L; total dissolved solids 750 mg/L (GC-2, #16)~~
~~Walker Branch - chlorides 180 mg/L; total dissolved solids 970 mg/L (GC-2, #17)~~
~~Ouachita River - from Ouachita River mile (ORM) 223 to the Arkansas-Louisiana border (ORM 221.1), site-specific seasonal dissolved oxygen criteria: 3 mg/L June and July; 4.5 mg/L August; 5 mg/L September through May. These seasonal criteria may be unattainable during or following naturally occurring high flows,(i.e., river stage above 65 feet measured at the lower gauge at the Felsenthal Lock and Dam, Station No.89-o, and also for the two weeks following the recession of flood waters below 65 feet), which occurs from May through August. Naturally occurring conditions which fail to meet criteria should not be interpreted as violations of these criteria (GC-3, #26)~~
~~Alcoa unnamed trib. to Hurricane Cr. and Hurricane Cr. - see Reg. 2.511 (GC-4, #19)~~
~~Holly Creek - See Reg. 2.511 (GC-4, #20)~~
~~Saline River bifurcation - see Reg. 2.511 (GC-4, #23)~~
~~Dry Lost Creek and tributaries - see Reg. 2.511 (GC-4, #21)~~
~~Lost Creek - see Reg. 2.511 (GC-4, #22)~~
~~Albemarle unnamed trib (AUT) to Horsehead Creek - chlorides 137 mg/L; total dissolved solids 383 mg/L (GC-2, #27)~~
~~Horsehead Creek from AUT to mouth - chlorides 85 mg/L; total dissolved solids 260 mg/L (GC-2,#27)~~
~~Bayou Dorcheat - sulfates 16 mg/L (GC-2,#27)~~
~~Dismukes Creek - chlorides 26 mg/L; total dissolved solids 157 mg/L (GC-2, #28)~~
~~Big Creek from Dismukes to Bayou Dorcheat - chlorides 20 mg/L; total dissolved solids 200 mg/L (GC-2, #28)~~
~~Bayou de Loutre from Chemtura outfall to Loutre Creek - maximum water temperature 96°F (GC-2, #29)~~
~~Unnamed tributary of Lake June below Entergy Couch Plant to confluence with Lake June - maximum water temperature 95 degrees F (limitation of 5 degrees above natural temperature does not apply) (GC-1, #30).~~
~~Unnamed tributary to Flat Creek from EDCC Outfall 001 d/s to confluence with unnamed tributary A to Flat Creek. Chloride 23 mg/L, Sulfate 125 mg/L, TDS 475 mg/L, (GC-2, #37) ‡~~
~~Unnamed tributary A to Flat Creek from mouth of EDCC 001 ditch to confluence with Flat Creek, Chloride 16 mg/L, Sulfate 80 mg/L, TDS 315 mg/L, (GC-2, #38) ‡~~
~~Boggy Creek from the discharge from Clean Harbors El Dorado LCC downstream to the confluence of Bayou de Loutre. Chloride, 631mg/L; Sulfate, 63 mg/L, total dissolved solids, 1360; Selenium, 15.6 u/L~~
~~McGeorge Creek (headwaters to Willow Springs Branch) Sulfate, 250 mg/L; total dissolved solids, 432 mg/L (GC-4, #52)~~
~~Willow Springs Branch (McGeorge Creek to Little Fourche Creek) Sulfate, 112 mg/L; total dissolved solids 247 mg/L (GC-4, #53)~~
~~Little Fourche Creek (Willow Springs Branch to Fourche Creek) total dissolved solids, 179 mg/L (GC-4. #54)~~
~~Red River from mouth of the Little River to the Arkansas/Louisiana state line, TDS 780 mg/L (GC-1, #55, 58)†~~
~~Little River from Millwood Lake to the Red River, TDS 138mg/L; temperature 32°C/89.6°F (GC-1, #56)†~~
~~† Not applicable for clean water act purposes until approved by EPA.~~

| | | | |
|---|---|---|---|
| GC-1 | 11 | Mine Creek from Highway 27 to Millwood Lake | Chlorides 90 mg/L, sulfates 65 mg/L, TDS 700 mg/L |
| GC-1 | 12 | Caney Creek | Chlorides 113 mg/L, sulfates 283 mg/L, TDS 420 mg/L |
| GC-1 | 24 | Muddy Fork Little Missouri River | Sulfates 250 mg/L, TDS 500 mg/L |
| GC-1 | 25 | Little Missouri River | Sulfates 90 mg/L, TDS 180 mg/L |
| GC-1 | 30 | Unnamed tributary of Lake June below Entergy Couch Plant to confluence with Lake June | Maximum water temperature 95 degrees F (limitation of 5 degrees above natural temperature does not apply) |
| GC-1 | 55~~, 58~~ | Red River from mouth of the Little River to the Arkansas/Louisiana state line | TDS 780 mg/L~~‡~~ |
| GC-1 | 56 | Little River from Millwood Lake to the Red River | TDS 138mg/L; temperature 32˚C/89.6˚F~~‡~~ |

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|

| | | | |
|---|---|---|---|
| GC-2 | 1 | Loutre Creek from headwaters to railroad bridge | Critical season DO ~~standard~~ 3 mg/L, primary season DO 5 mg/L |
| GC-2 | 1 | Loutre Creek from railroad bridge to mouth | Critical season DO 2 mg/L |
| GC-2 | 2 | Unnamed tributary to Smackover Creek headwaters to Smackover Creek | Year round DO ~~criteria~~ 2 mg/L |
| GC-2 | 4 | Unnamed tributary to Flat Creek from headwaters to Flat Creek | Year round DO ~~criteria~~ 2 mg/L |
| GC-2 | 6 | Jug Creek - from headwaters to confluence with Moro Creek | Critical season DO ~~standard~~ 3 mg/L |
| GC-2 | 15 | Gum Creek | Chlorides 104 mg/L, TDS 311 mg/L |
| GC-2 | 16 | Bayou de Loutre from Gum Creek to State line | Chlorides 250 mg/L, TDS 750 mg/L |
| GC-2 | 17 | Walker Branch | Chlorides 180 mg/L, TDS 970 mg/L |
| GC-2 | 27 | Albemarle unnamed tributary (AUT) to Horsehead Creek | Chlorides 137 mg/L, TDS 383 mg/L |
| GC-2 | 27 | Horsehead Creek from AUT to mouth | Chlorides 85 mg/L, TDS 260 mg/L |
| GC-2 | 27 | Bayou Dorcheat | Sulfates 16 mg/L |
| GC-2 | 28 | Dismukes Creek | Chlorides 26 mg/L, TDS 157 mg/L |
| GC-2 | 28 | Big Creek from Dismukes to Bayou Dorcheat | Chlorides 20 mg/L, TDS 200 mg/L |
| GC-2 | 29 | Bayou de Loutre from Chemtura outfall to Loutre Creek | Maximum water temperature 96°F |
| GC-2 | 51 | Boggy Creek from the discharge from Clean Harbors El Dorado LCC downstream to the confluence of Bayou de Loutre. | Chloride 631mg/L, Sulfate 63 mg/L, TDS 1360, Selenium 15.6 u/L |

| **Plate** | **Map Inset** | **Waterbody** | **Variation** |
|---|---|---|---|
| GC-3 | 8 | Coffee Creek and Mossy Lake | Exempt from ~~Reg.~~Rule 2.406 and Chapter Five |
| GC-3 | 26 | Ouachita River from Ouachita River mile (ORM) 223 to the Arkansas-Louisiana border (ORM 221.1) | Site specific seasonal DO criteria: 3 mg/L June and July; 4.5 mg/L August; 5 mg/L September through May. These seasonal criteria may be unattainable during or following naturally occurring high flows, (i.e., river stage above 65 feet measured at the lower gauge at the Felsenthal Lock and Dam, Station No.89-o, and also for the two weeks following the recession of flood waters below 65 feet), which occurs from May through August. Naturally occurring conditions which fail to meet criteria should not be interpreted as violations of these criteria |

| **Plate** | **Map Inset** | **Waterbody** | **Variation** |
|---|---|---|---|
| GC-4 | 5 | Dodson Creek - from headwaters to confluence with Saline River | Critical season DO ~~criteria~~ 3 mg/L |
| GC-4 | 14 | Town Creek below Acme tributary | Sulfates 200 mg/L, TDS 700 mg/L |
| GC-4 | 14 | Unnamed tributary from Acme | Sulfates 330 mg/L, TDS 830 mg/L |
| GC-4 | 19 | Alcoa unnamed tributary to Hurricane Creek and Hurricane Creek | See ~~Reg.~~Rule 2.511 |
| GC-4 | 20 | Holly Creek | See ~~Reg.~~Rule 2.511 |
| GC-4 | 23 | Saline River bifurcation | See ~~Reg.~~Rule 2.511 |

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| GC-4 | 21 | Dry Lost Creek and tributaries | See ~~Reg.~~Rule 2.511 |
| GC-4 | 22 | Lost Creek | See ~~Reg.~~Rule 2.511 |
| GC-4 | 52 | McGeorge Creek (headwaters to Willow Springs Branch) | Sulfate 250 mg/L, TDS 432 mg/L |
| GC-4 | 53 | Willow Springs Branch (McGeorge Creek to Little Fourche Creek) | Sulfate 112 mg/L, TDS 247 mg/L |
| GC-4 | 54 | Little Fourche Creek (Willow Springs Branch to Fourche Creek) | TDS 179 mg/L |

As in previously sections, the subheading for the Gulf Coastal Ecoregion and throughout this section, the general regulatory term "standards" has been struck and replaced with the quantitative term "criteria" referring to specific numeric criteria. The waters identified by narrative under the Site-Specific Criteria Variations Supported by Use Attainability Analysis subheading have been struck and reformatted, placing the majority of that same information in a tabular form. The Unnamed tributary to Flat Creek from EDCC Outfall 001 downstream to confluence with unnamed tributary A to Flat Creek and Unnamed tributary A to Flat Creek from mouth of EDCC 001 ditch to confluence with Flat Creek and the associated footnote (†) referring to pending EPA action are not included in the new table format. These waters and the associated site-specific mineral criteria were disapproved by the EPA in its August 31, 2011, 3rd party rulemaking action as previously noted in the discussion of Rule 2.511.

The definition for the footnote (†) itself and the footnote specific to the removal of the Domestic Water Supply Use for Red River and site-specific mineral criteria for the Little River to the Arkansas-Louisiana state line and the revised mineral criteria for the Little River from Millwood Lake to its confluence with the Red River are consistent with the previous discussion for Rule 2.511. See the EPA's May 16, 2016, approval action.

Within the Gulf Coastal Ecoregion – Specific Standards part of Appendix A, the following is provided: "Unnamed tributary of Lake June below Entergy Couch Plant to confluence with Lake June – maximum water temperature 95 degrees F (limitation of 5 degrees above natural temperature does not apply) (GC-1, #30)." The EPA disapproved the phrase "(limitation of 5 degrees above natural temperature does not apply)" in its January 12, 2006, 3rd party rulemaking action[17]. Therefore, this limitation of increases of 5º F above natural temperature continues to apply to the unnamed tributary of Lake June for CWA purposes. These revisions are approved pursuant to CWA § 303(c).

See Section **VI.** below for a discussion of the entirety of Coffee Creek and Mossy Lake.

**Temporary Variations Supported by Environmental Improvement Project**

~~Holly Creek; Selenium, Chronic Standard, 17µg/L (GC-4, #1)~~

~~Reyburn Creek from headwaters to confluence of Francois Creek - sulfates 250 mg/L; total dissolved solids 500 mg/L (GC-4, #2)†~~

[17] USEPA Region 6. (2016). *Record of Decision. Regulation 2: Regulation Establishing Water Quality Standards for the State of Arkansas for Unnamed tributary of Lake June.*

~~Scull Creek from a point approximately 350 feet upstream of Clearwater Lake to Clearwater Lake (including Clearwater Lake) and from Clearwater Lake dam to confluence Reyburn Creek - sulfates 250 mg/L; total dissolved solids 500 mg/L (GC-4, #3) †~~

| Plate | Map Inset | Waterbody | Variation |
|---|---|---|---|
| GC-4 | 1 | Holly Creek | Selenium chronic criteria 17µg/L |
| GC-4 | 2 | Reyburn Creek from headwaters to confluence of Francois Creek | Sulfates 250 mg/L, TDS 500 mg/L*~~‡~~ |
| GC-4 | 3 | Scull Creek from a point approximately 350 feet upstream of Clearwater Lake to Clearwater Lake (including Clearwater Lake) and from Clearwater Lake dam to confluence Reyburn Creek | Sulfates 250 mg/L, TDS 500 mg/L*~~‡~~ |

*These temporary standards variations are effective for ~~160~~ 148 months from EPA's approval of the EIP on January 7, 2020.

~~† Not applicable for clean water act purposes until approved by EPA.~~

As noted in the prior discussion for Rule 2.511, the EPA approved these site-specific criteria revisions in its May 16, 2016, action and no longer necessitate the footnote or the footnote definition (†) itself.

~~**Variations Supported by Technical Adjustment**~~

~~Red River from the Arkansas/Oklahoma state line to the mouth of the Little River, sulfate 250 mg/L, TDS 940 mg/L (GC-1, #57)‡~~

~~Red River from mouth of the Little River to the Arkansas/Louisiana state line, sulfate 225 mg/L (GC-1, #58)‡~~

The subheading of Variations Supported by Technical Adjustment and specific references to the Red River from the Arkansas/Oklahoma state line to the mouth of the Little River and the Red River from mouth of the Little River to the Arkansas/Louisiana state line, including the associated mineral criteria for these waters have been struck. These revisions are consistent with the EPA's disapproval of the associated mineral criteria specific to these waters as detailed in it its June 6, 2016, action.

## III. Provisions Where the EPA Is Taking / Previously Took no Action

### *Chapter 1: Authority, General Principles and Coverage*

**Rule 2.106 Definitions**
**~~Reg.~~Rule 2.106 Definitions**

As part of Arkansas's 2007 "Phase II" triennial review, the DEQ proposed a definition for "Storm flows." The EPA provided comments on this proposed definition and recommended the following definition:

> "Storm flows": Elevated flows due to precipitation events above the maximum base flow value."

In its *Responsiveness Summary* (07-003-R), the DEQ did not address the EPA's recommended language, but responded to other commenters that proposed definition refer to all flows, including point source flows to avoid the preclusion of the use of outfall specific studies to determine critical flows for storm water discharges under the NPDES program. In its *Responsiveness Summary*, the DEQ agreed that the proposed definition for

"Storm Flow" was not appropriate and could limit the use of outfall specific studies to determine critical flow for storm water discharge permits under the NPDES program. As a result, in its 2007 “Phase II” revisions, the Commission adopted the DEQ’s proposed revisions for the related provision in Regulation 2.503 in addition to the definition for “All Flows” that read as follows:

> **All Flows**: Takes into account all flows and data collected throughout the year, including elevated flows due to rainfall events.

The DEQ’s *Responsiveness Summary* refers to the definition for “All Flows” as directly related to how the DEQ implements turbidity criteria held in Regulation 2.503. In its 2008 action, the EPA did not have a clear basis to act given the new definition and its relationship to the disapproval of the revised heading title of "All Flows Values" and associated text revision (from "storm-flow" to "all flows") in Regulation 2.503. As a result, this definition did not become effective for CWA purposes.

As part of the current 2020 triennial review, the DEQ proposed to delete the definition for “All Flows” and establish a new definition that in effect, reverting to the prior definition of “Storm Flow.” The revised definition that is before the EPA today was adopted by the Commission in January 2022, and reads as follows:

> **Storm flows**: Takes into account all flows and data collected throughout the year, including elevated flows due to rainfall events.

This new definition of “Storm flow” is unclear in that it continues to refer to the conditions that turbidity data are collected, during “all flows” as the prior definition and potentially allows less stringent criteria to be applied under any conditions in addition to referring to elevated flows. Given that it is unclear what this definition means and how the related Rule 2.503 is implemented, the EPA is taking no action on the new definition for “Storm Flow” under CWA § 303(c) and it is not effective for CWA purposes. The EPA requests that the DEQ provide clarification about the state’s purpose in adopting this definition and its interpretation. The EPA looks forward to working with ADEQ to obtain additional clarification about the revisions on which EPA is taking no action to inform EPA’s eventual action.

> ~~Reg.~~Rule **2.106 Definitions**
>
> **Effluent:** Water that is not reused after flowing out of any wastewater treatment facility or other works used for the purpose of treating, stabilizing, or holding wastes.

The EPA defines effluent as “wastewater-treated or untreated that flows out of a treatment plant, sewer, or industrial outfall. The term “effluent” generally refers to “wastes discharged into surface waters.” (EPA 175-8-92-001). This new definition specifically refers to treated wastewater that is not reused when in fact, effluent discharges are typically mixed with the receiving water which may be reused downstream for other purposes.

The phrase “water that is not reused” in this new definition obscures the meaning of what constitutes effluent and what its discharge means for receiving waters. This definition

would mean that any water, whether a stream, lake or reservoir that at some point receives a wastewater or undefined "other" discharge, presumably an industrial or municipal outfall, cannot be "reused" for any purpose regardless of the level of treatment once discharged. This would mean that downstream withdrawals, such as drinking water intake, irrigation or other withdrawal uses would be inconsistent with this definition.

The EPA has determined that this definition is inconsistent with the federal definition of "effluent" and its use could be interpreted to mean that withdrawals from any waters receiving a discharge would not be allowed. Because the DEQ has not provided adequate information on the intent and how it would be applied, the EPA is taking no action on this definition under CWA § 303(c) and it is not effective for CWA purposes. EPA requests that the DEQ provide additional information about the intent of this definition and how it would be applied.

**Chapter 3: Waterbody Uses**

**Reg. 2.310 and Reg. 2.311 (and Appendices E and F)**
**Reg.Rule 2.310 and ~~Reg.~~Rule 2.311 (and Appendices E and F)**

In its January 24, 2008, triennial action[18], the EPA explained that Regulations, now Rules 2.310 and 2.311 and associated Appendices E and F are state procedures and decisional criteria for adding and removing the specific designated uses and are not themselves WQS. As stated in that prior action, if and when the State exercises Rule 2.310 or 2.311, any resulting revisions to a use designation would constitute a new or revised WQS requiring submission to the EPA for review and approval/disapproval. For the EPA to approve such revisions they must comply with CWA § 303(c) and the EPA's implementing regulation at 40 CFR § 131.10. Given that these Appendices E and F are not themselves WQS, there is no action is required under CWA § 303(c) on Rules 2.301 and 2.311 and associated Appendices E and F.

## *Chapter 5: Specific Standards*

**Reg. 2.503 Turbidity**
**~~Reg.~~ Rule 2.503 Turbidity**

Regulation, now Rule 2.503 provides ecoregion-specific turbidity criteria for base flow and storm flow, which both currently apply year-round.

In the Commission's 2007 "Phase II" triennial revisions of Regulation 2.503, the narrative was modified as follows:

**Reg. 2.503 Turbidity**

[18] USEPA Region 6. (2008). *Record of Decision. Regulation 2: Regulation Establishing Water Quality Standards for the State of Arkansas, Revisions Adopted by the Arkansas Pollution Control and Ecology Commission via Minute Order No. 07-36.*

There shall be no distinctly visible increase in turbidity of receiving waters attributable to municipal, industrial, agricultural, other waste discharges or instream activities. Specifically, in no case shall any such waste discharge or instream activity cause turbidity values to exceed the ~~primary~~ base flow values listed below. Additionally, the non-point source runoff shall not result in the exceedance of the in-stream ~~storm-flow~~ all flow values in more than 20% of the ADEQ ambient monitoring network samples taken in not less than 24 monthly samples.

| **Waterbodies** | **~~Primary~~ Base Flow Values (NTU)** | **~~Stormflow~~ All Flows Values(NTU)** |
|---|---|---|

In the same 2007 "Phase II" triennial, the Commission also adopted functionally related definitions for "All Flows" and "Base Flows" in Regulation 2.106 as follows:

"All Flows": Takes into account all flows and data collected throughout the year, including elevated flows due to rainfall events.

"Base flows": That portion of the stream discharge that is derived from natural storage (i.e., outflow from ground water or swamps), or sources other than recent rainfall that creates surface runoff. Also called sustaining, normal, dry weather, ordinary, or groundwater flow.

The 2007 Regulation 2.106 definitions above and accompanying revisions to the text and heading titles within Regulation 2.503 were intended to clarify the flow conditions under which the turbidity criteria were applicable. In the EPA's January 24, 2008 "Phase II" action, the EPA approved the new definition for "Base Flows," and the revised heading title of "Base Flows Values" and the associated revised text in Regulation 2.503 from "primary" to "base flows." In that same 2008 action, the EPA took no action on the definition of "All flows" and disapproved the revised heading title of "All Flows Values" and associated text revision (from "storm-flow" to "all flows") in Regulation 2.503. The disapproved revisions did not go into effect for CWA purposes per 40 CFR 131.21(c). The previously approved heading title of "Storm-Flow" in Regulation 2.503 and the word "storm-flow" within the text of Regulation 2.503 remained in effect for CWA purposes.

In its 2014 triennial review, the DEQ proposed, and the Commission adopted the following revisions to then Regulation 2.503:

**Reg. 2.503 Turbidity**

There shall be no distinctly visible increase in turbidity of receiving waters attributable to ~~municipal, industrial, agricultural, other waste~~ discharges or instream activities~~. Specifically, in no case shall any such waste discharge or instream activity cause turbidity values to exceed the base flows values listed below. Additionally, the non-point source runoff shall not result in the exceedance of the in stream all flows values in more than 20% of the ADEQ Department ambient monitoring network of samples taken in not less than 24 monthly samples. There shall be no distinctly visible increase in turbidity of receiving waters attributable to discharges or instream activities.~~ The values below should not be exceeded during base flow (June to October) in more than 20% of samples. The values below should not be exceeded during all flows in more than 25% of samples taken in not less than 24 monthly samples.

| **Waterbodies** | **Base Flow Values (NTU)** | **All Flows Values (NTU)** |
|---|---|---|

In response to the 2014 proposed revisions to the narrative in Regulation 2.503 the EPA sought information from the DEQ describing how turbidity criteria were originally derived to protect aquatic life, how flow relates to the terminology changes (i.e., storm flow to all flows), and the scientific basis for the proposed exceedance frequencies. As discussed above regarding the definition of "Storm flow," the DEQ's February 6, 2015, letter to the EPA indicated that the term "All Flows" applies to data from samples *taken throughout the year* and that all/storm criteria were developed using turbidity data *without any concurrent instream flow data.* The DEQ stated that the data used to develop turbidity values for each ecoregion would not be expected to be exceeded during most storm events but did not provide support for that statement. The DEQ also stated that these values were considered to be appropriate as instream criteria for common, high frequency storm events although there was no explanation of how this determination was made without corresponding flow data. The DEQ did not provide any scientific justification describing how turbidity criteria were originally derived and their relationship to how flow relates to the terminology changes (i.e., storm flow to all flows) and exceedance rates of 20% or 25% and how these provisions ensure the protection of aquatic life.

The DEQ's response did not provide a basis to resolve the EPA's 2008 disapproval regarding how the storm flow turbidity values/criteria would be protective of the most sensitive existing or designated use, nor did it provide a scientific basis for the changes in exceedance frequency. These proposed revisions were subsequently adopted by the Commission in February 2014. In October 2016, the EPA took no new action on these revisions. Therefore, none of the Commission's revisions to Regulation 2.503 described above went into effect for CWA purposes.

As part of its current 2020 triennial review, the DEQ submitted the following language to the EPA for action pursuant to CWA § 303(c):

> **~~Reg.~~ Rule 2.503 Turbidity**
>
> There shall be no distinctly visible increase in turbidity of receiving waters attributable to discharges or instream activities.
>
> The values below should not be exceeded during base flow (June 1 ~~to~~ through October 31) in more than 20% of samples. The values below should not be exceeded during all storm flows in more than 25% of samples taken in not less than 24 monthly samples.
>
> | **Waterbodies** | **Base Flow Values (NTU)** | **~~All~~ Stormflow Values (NTU)** |
> |---|---|---|

The revision to this provision appear to presume the Commission's 2014 revisions were approved – they were not. More importantly, the DEQ's submission did not provide adequate scientific information or a rationale to support the change in exceedance frequency of base flow criteria from an implied never to exceed to 20%, the change in exceedance frequency for storm flow criteria from 20% to 25% or limiting the applicability of base flow criteria from June 1 to October 31. As a result, the EPA has determined that it cannot take action on the revisions to Rule 2.503 Turbidity. Water quality standards do not go into effect for CWA purposes until approved by EPA as specified in 40 CFR §

131.21(c). Therefore, the following previously approved version of Regulation, now Rule 2.503 Turbidity is in effect for CWA purposes:

> **Reg. 2.503 Turbidity**
>
> There shall be no distinctly visible increase in turbidity of receiving waters attributable to municipal, industrial, agricultural, other waste discharges or instream activities. Specifically, in no case shall any such waste discharge or instream activity cause turbidity values to exceed the base flow values listed below. Additionally, the non-point source runoff shall not result in the exceedance of the in-stream storm flow values in more than 20% of the ADEQ ambient monitoring network samples taken in not less than 24 monthly samples.
>
> | **Waterbodies** | **Base Flow Values (NTU)** | **Stormflow Values (NTU)** |
> |---|---|---|

The EPA requests that the DEQ provide a scientifically sound supporting rationale as required by 40 CFR Part 131.11 to support the proposed revisions.

> **Reg. 2.509 Nutrients**
> **~~Reg.~~Rule 2.509 Nutrients**

The Commission's 2020 triennial revisions to Rule 2.509(A) are limited to those associated with Arkansas's Acts 315 and 910. However, in its December 21, 2004, triennial action, the EPA did not approve the final sentence in this provision. As such, the final sentence which includes the amendments to section (A) related to the recent changes to Arkansas's Acts 315 and 910 are not effective for CWA purposes. That final sentence, including the recent revisions reads as follows:

> However, when excess nutrients result in an impairment, based upon ~~Department~~ Division assessment methodology, by any Arkansas established numeric water quality ~~standard~~ criteria, the waterbody will be determined to be impaired by nutrients.

The EPA's rationale for taking no action on this sentence was based upon the absence of an assessment methodology for nutrients as specified in the revised provision. As then, the EPA understands that development of comprehensive assessment methodology will occur step-wise, with increasingly more comprehensive assessment and implementation methods over time. The EPA's review of the DEQs' 2014 Assessment Methodology is now dated but noted that the then proposed nutrient assessment is limited to response variable in lieu of both nutrient impairment assessment while accounting for diverse systems and dynamic nutrient cycling and stressor variables, e.g., total phosphorus (TN), total nitrogen (TN), which is inconsistent with the assessment narrative since it speaks to both response and stressor variables. The EPA notes that the Assessment Methodology was further refined in 2016 to account for both response and stressor variables. The Assessment Methodology continued to evolve through the 2020 Assessment Methodology. Furthermore, the EPA found it unclear as to the practicality of implementing the nutrient assessment (e.g., diurnal dissolved oxygen, pH, and biological collections) on a state scale absent screening criteria to target potential nutrient impaired waters for further investigation. However, the EPA has noted that the 2016 revision of the Assessment Methodology the DEQ incorporated screening criteria at the 75$^{th}$ percentile of the TN or TP ecoregion values. The EPA

recommends that the DEQ provide detailed supporting information, much of which would likely be drawn from Arkansas's Assessment Methodology (2020 or 2022 draft) that describes how it intends to assess for nutrient impairment throughout Arkansas.

Providing this information may allow the EPA to approve the sentence identified above that is currently held in Rule 2.509 and referenced in the Arkansas Assessment Methodology. This sentence is not in effect for CWA purposes. In the interim, the following Rule 2.509(A) narrative is effective for CWA purposes:

> (**A)** Materials stimulating algal growth shall not be present in concentrations sufficient to cause objectionable algal densities or other nuisance aquatic vegetation or otherwise impair any designated use of the waterbody. Impairment of a waterbody from excess nutrients is dependent on the natural waterbody characteristics such as stream flow, residence time, stream slope, substrate type, canopy, riparian vegetation, primary use of waterbody, season of the year, and ecoregion water chemistry. Because nutrient water column concentrations do not always correlate directly with stream impairments, impairments will be assessed by a combination of factors such as water clarity, periphyton or phytoplankton production, dissolved oxygen values, dissolved oxygen saturation, diurnal dissolved oxygen fluctuations, pH values, aquatic-life community structure and possibly others.

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> **Reg. 2.511 Mineral Quality**
> **~~Reg.~~Rule 2.511 Mineral Quality**
>
> **(B) Ecoregion Reference Stream Mineral Values**
>
> The following values were determined from Arkansas's least-disturbed ecoregion reference streams and are considered to be the maximum naturally occurring levels. For waterbodies not listed above, any discharge ~~which~~ that results in instream concentrations more than 1/3 higher than these values for chlorides ($Cl^-$) and sulfates ($SO_4^{=2-}$) or more than 15 mg/L, whichever is greater, is considered to be a significant modification of the maximum naturally occurring values. These waterbodies should be considered as candidates for site specific criteria development in accordance with ~~Regs.~~Rules 2.306 and 2.308. Similarly, site specific criteria development should be considered if the following TDS values are exceeded after being increased by the sum of the increases to $Cl^-$ and $SO_4^{2-}$. Such criteria may be developed only in accordance with ~~Regs.~~Rules 2.306 and 2.308. The values listed in the table below are not intended ~~nor will these values~~ to be used by the ~~Department~~Division to evaluate attainment of ~~the~~ water quality standards for assessment purposes.

The Commission's current 2020 revisions also included modifications to the final sentence in the introductory paragraph of Regulation, now Rule 2.511(B). The EPA took no action on the original revisions to this final sentence in its EPA's October 31, 2016, triennial action which reads as follows:

> The values listed in the table below are not intended nor will these values be used by the Department to evaluate attainment of the water quality standards.

As noted in the discussion of the EPA's action, a significant percentage of Arkansas' waters have naturally low mineral concentrations. The DEQ originally developed the state's Ecoregion Reference Stream Criteria (ER) based on observation of least disturbed streams to ensure protection of designated uses in waters with no applicable site-specific criteria

(SSC). The effect of the above sentence is that the ER values would not be used for CWA purposes outside of ER streams, thus removing important protection for designated uses for waters throughout the state, particularly in waters with naturally low mineral levels given that the state has not established mineral criteria that apply outside of SSC established as part of individual 3rd party rulemakings. Federal regulations at 40 CFR § 131.11(a)(1) require states to adopt water quality criteria based on sound scientific rationale that support the most sensitive designated use. If the DEQ does not consider its ER values to be appropriate for waters other than those originally identified as reference waters, it has flexibility and the obligation to develop alternative criteria for all waters of the state, not just those designated as ER waters, as outlined in 40 CFR § 131.11(2).

The EPA's prior concerns with Rule 2.511(B) that were described in detail in its 2016, triennial action remain. Although the EPA recognizes that the DEQ is working toward the development of tiered uses and associated criteria for Arkansas waters, as a result of the EPA's prior action, the revisions to this sentence never became effective for CWA purposes, thus, the revised sentence continues to not be effective for CWA purposes. The language for Rule 2.511 (B) that is in effect for CWA purposes reads as follows:

> **(B) Ecoregion Reference Stream Mineral Values**
>
> The following values were determined from Arkansas's least-disturbed ecoregion reference streams and are considered to be the maximum naturally occurring levels. For waterbodies not listed above, any discharge that results in instream concentrations more than 1/3 higher than these values for chlorides ($Cl^-$) and sulfates ($SO_4^{=2-}$) or more than 15 mg/L, whichever is greater, is considered to be a significant modification of the maximum naturally occurring values. These waterbodies should be considered as candidates for site specific criteria development in accordance with Rules 2.306 and 2.308. Similarly, site specific criteria development should be considered if the following TDS values are exceeded after being increased by the sum of the increases to $Cl^-$ and $SO_4^{2-}$. Such criteria may be developed only in accordance with Rules 2.306 and 2.308.

## IV. Provisions the EPA is Disapproving

**[Reserved]**

## V. Provisions the EPA Previously Disapproved

**Reg. 2.503 Turbidity**
**~~Reg.~~ Rule 2.503 Turbidity**

In its January 24, 2008, action, the EPA disapproved the revised heading title of "All Flows Values" and associated text revision (from "storm-flow" to "all flows") in Regulation 2.503 adopted by the Commission in its 2007 "Phase II" triennial revisions. The new and revised standards did not go into effect for CWA purposes. Therefore, the previously approved heading title of "Storm-Flow" in Regulation 2.503 and the word "storm-flow" within the text of Regulation 2.503 remain in effect for CWA purposes. The EPA's response to the Commission's 2020 triennial revisions to Rule 2.503 are in **Section III**, above.

**Reg. 2.511 Mineral Quality**
**~~Reg.~~ Rule 2.511 Mineral Quality**

As part of its 2007 triennial "Phase II" revisions of Regulation 2.511 (A), now Rule 2.511, the Commission proposed modifications of the narrative of Regulation 2.511(A) as follows:

> (A) Site Specific Mineral Quality Criteria
>
> Mineral quality shall not be altered by municipal, industrial, other waste discharges or instream activities so as to interfere with designated uses. The following limits apply to the streams indicated, and represent the monthly average concentrations of chloride ($Cl^-$), sulfate ($SO_4^{-2}$) and total dissolved solids (TDS) ~~not to be exceeded in more than one (1) in ten (10) samples collected over a period of not less than 30 days or more than 360 days.~~

The EPA disapproved these revisions as part of its January 24, 2008, "Phase II" triennial action because there was insufficient supporting documentation pursuant to 40 CFR § 131.6(b) and (f), including methods used, analysis conducted and general information to aid the EPA in determining the adequacy of the scientific basis of these revisions. Consistent with 40 CFR § 131.21(c), the revised standards disapproved by the EPA did not go into effect for CWA purposes. Following the EPA's 2008 "Phase II" triennial action, Regulation 2.511(A) that became effective for CWA purposes is as follows:

> (A) Site Specific Mineral Quality Criteria
>
> Mineral quality shall not be altered by municipal, industrial, other waste discharges or instream activities so as to interfere with designated uses. The following limits apply to the streams indicated, and represent concentrations of chloride ($Cl^-$), sulfate ($SO_4^{-2}$) and total dissolved solids (TDS) not to be exceeded in more than one (1) in ten (10) samples collected over a period of not less than 30 days or more than 360 days.

In its 2014 triennial revisions, the DEQ initially proposed revisions to the narrative portion of Regulation 2.511(A), now Rule 2.511, as described below in its draft mark-ups of Regulation 2 (docket 13-003-r draft and 13-003-r draft post public comments from 2013). Proposed draft amendments to Regulation 2.511(A) were as follows:

> (A) Site Specific Mineral Quality Criteria
>
> Mineral quality shall not be altered by municipal, industrial, other waste discharges or instream activities so as to interfere with designated uses. The following ~~limits~~criteria apply to the streams indicated~~.~~, and represent the monthly average concentrations of chloride (Cl-), sulfate (SO4=) and total dissolved solids (TDS).

However, the language in these docket drafts are inconsistent with the version of Regulation, now Rule 2.511(A) that is effective for CWA purposes following the EPA's 2008, "Phase II" triennial action. These draft revisions appear to incorporate "new" language that had previously been approved by the EPA but also excluded language that was already effective for CWA purposes following the EPA's 2008 triennial action. This language is inconsistent with the DEQ's Exhibit A - *Statement of Basis and Purpose,* which only refers to revisions striking the word "limits" and replacing it with "criteria" and no other revisions to the narrative for Regulation 2.511(A). The DEQ submitted a final

Regulation 2 dated February 28, 2008, that appears to have disregarded the prior EPA 2008 "Phase II" triennial action disapproving revisions to the narrative in Regulation 2.511(A).

Although the Commission's current 2020 triennial revisions being considered today do not include revisions to the introductory narrative to Regulation, now Rule 2.5011(A), the EPA would like to clarify that the following version of Rule 2.511(A) is not effective for CWA purposes:

> (A) Site Specific Mineral Quality Criteria
>
> Mineral quality shall not be altered by municipal, industrial, other waste discharges or instream activities so as to interfere with designated uses.

The EPA's 2008 "Phase II" triennial action, disapproving revisions to Regulation, now Rule 2.511(A) remains in place. As such, the language for Rule 2.5011 (A) that is effective for CWA purposes is as follows:

> (A) Site Specific Mineral Quality Criteria
>
> Mineral quality shall not be altered by municipal, industrial, other waste discharges or instream activities so as to interfere with designated uses. The following criteria apply to the streams indicated, and represent concentrations of chloride ($Cl^-$), sulfate ($SO_4^{-2}$) and total dissolved solids (TDS) not to be exceeded in more than one (1) in ten (10) samples collected over a period of not less than 30 days or more than 360 days.

The prior disapproval by EPA means that Arkansas must update Rule 2.5011(A) to accurately reflect the wording of this provision that is in effect for CWA purposes governing water quality assessments for minerals.

***Rule 2 Appendix A***

***~~Regulation~~Rule ~~No.~~ 2 Appendix A***

**Site Specific ~~Standards~~Criteria Variations Supported by Use Attainability Analysis**

| | | | |
|---|---|---|---|
| GC-1 | 30 | Unnamed tributary of Lake June below Entergy Couch Plant to confluence with Lake June | Maximum water temperature 95 degrees F (limitation of 5 degrees above natural temperature does not apply) |

This revision to the temperature criterion for the unnamed tributary to Lake June is associated with the Entergy Arkansas, Inc., Harvey Couch Plant 3rd party rulemaking. In its January 12, 2006, 3rd party rulemaking action, the EPA approved the site-specific temperature criterion of 95°F for the Unnamed tributary of Lake June below the Couch Plant to confluence with Lake June but disapproved the removal of the sentence from Regulation, now Rule 2.502 that prohibits elevation of the natural temperature, outside the mixing zone, by more than 2.8°C (5°F). The EPA's disapproval also specified that the sentence in what was then Regulation 2.502 which prohibits the elevation of the natural temperature, outside the mixing zone, by more than 5°F (2.8°C), will continue to apply to the Unnamed tributary to Lake June. The EPA also specified that the language "(limitation

of 5 degrees above natural temperature does not apply)" in Appendix A "Variations Supported by UAA" should be removed at the time of the State's next interim or triennial revision.

In its subsequent 2007 "Phase II" triennial revisions, the Commission exempted the Unnamed tributary to Lake June from the 2.8°C (5°F) temperature limitation. Since the EPA had previously disapproved the removal of the sentence from Regulation, now Rule 2.502, the EPA took no action on the inclusion of this exemption in Appendix A, specifying that the "limitation of 5 degrees above natural temperature does not apply" to the Unnamed tributary to Lake June associated with the Entergy Arkansas, Inc., 3rd party rulemaking. As a result of the EPA's January 24, 2008, triennial "Phase II" action, the description for the Unnamed tributary of Lake June below Entergy Couch Plant to confluence with Lake June in Appendix A – Site Specific Criteria Variations Supported by Use Attainability Analysis that is in effective for CWA purposes is as follows:

| | | | |
|---|---|---|---|
| GC-1 | 30 | Unnamed tributary of Lake June below Entergy Couch Plant to confluence with Lake June | Maximum water temperature 95 degrees F |

Given the EPA's prior disapproval, the DEQ must clarify that the sentence at Rule 2.502 which prohibits the elevation of the natural temperature, outside the mixing zone, by more than 5°F (2.8°C), applies to the unnamed tributary to Lake June.

## VI. Provisions Considered for Administrator Determination

The Commission adopted CWA § 101(a)(2) uses for Coffee Creek, including Mossy Lake, in the 1970's, clearly identifying these waters as waters of the United States subject to the requirements of the CWA. The Commission revised its water quality standards in the 1980's to remove CWA § 101(a)(2) uses for these water bodies. 40 CFR 131.20(a) requires the State to re-examine any waterbody segment with WQS that do not include the uses specified in CWA § 101(a)(2) every 3 years to determine if any new information has become available. If such new information indicates that the uses specified in section 101(a)(2) of the Act are attainable, the State is required to revise its standards accordingly. The EPA has previously provided comments on proposed revisions to Regulation, now Rule 2 detailing both statutory and regulatory requirements in our letters of July 31, 2019, October 31, 2019, and September 3, 2020.

The DEQ's decision not to propose designated uses for Coffee Creek and Mossy Lake as part of the Commission's current triennial are detailed in its August 4, 2021, response submitted to EPA's ECRCO-OGC, to the Informal Resolution Agreement (IRA) reached in EPA Complaint No. 27-16-R6, which raised issues under Title VI of the Civil Rights Act of 1964.[19] The EPA disagrees with the DEQ's assessment that there is no need to apply

[19] January 8, 2021, Informal Resolution Agreement between Arkansas Department of Energy and Environmental Quality and the United States Environmental Protection Agency, EPA Complaint No. 27R-16-R6, Section III A states: "DEQ will respond to EPA's comments on Mossy Lake and Coffee Creek prior to its final submission of Rule 2 to the Arkansas Pollution control and Ecology Commission for the current water quality standards triennial revisions. DEQ's response will

appropriate designated uses for Coffee Creek from its headwaters through Mossy Lake to its confluence with the Ouachita River. This assessment is inconsistent with the CWA and federal regulations. Due to this inconsistency with the CWA, the EPA has determined that DEQ has not satisfied the commitment in Section III A of the IRA. In 2015, the Ouachita Riverkeeper (through the Tulane Environmental Law Clinic), petitioned the EPA Administrator for rulemaking under the Administrative Procedures Act, requesting that the EPA determine that new/revised WQS are required by the CWA for Coffee Creek and Mossy Lake. This petition is under consideration by the EPA. The EPA recommends that Arkansas adopt appropriate CWA § 101(a)(2) designated uses for Coffee Creek from its headwaters through Mossy Lake to its confluence with the Ouachita River without further delay.

## VII. Additional Considerations

### Antidegradation Implementation Procedures

Antidegradation is an integral part of State and Tribal water quality standards, as it provides important protections that are critical to the fulfillment of the CWA objective to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The Federal regulation at 40 CFR 131.12(a) specifically requires states and authorized tribes to develop methods for implementing their antidegradation policy that are at a minimum, consistent with the state's policy and with 40 CFR § 131.12(b).

The DEQ developed draft antidegradation implementation methods (AIM) during mid-2020, providing for public involvement as required by federal regulations. The EPA provided comments on the 2020 and subsequent 2022 draft AIM document. The EPA recommends that the DEQ fully address the EPA's recommendations and finalize its AIMs to bring the state into compliance with 40 CFR 131.12. The DEQ has the option of submitting its AIMs as an additional revision to Rule 2, submitting a revised CPP document (see 40 CFR 130.5(b)(6)) with a clear reference in Rule 2, or including AIMs in a separate guidance document.

Antidegradation is most commonly triggered through activities that could lower water quality and are regulated such as NPDES permit issuance or renewal. No permit may be issued, without an antidegradation review, to a discharger to high-quality waters with effluent limits greater than actual current loadings if such loadings will cause a lowering of water quality.[20] The antidegradation review will assure that the applicable level of protection is being provided to that water body. The lack of AIMs makes it unclear how Arkansas intends to implement its antidegradation policy and specifically, how it currently carries out required Tier II reviews prior issuing NPDES permits.

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address the reevaluation of appropriate designated uses specific to Coffee Creek and Mossy Lake **consistent with the CWA and federal regulations** and in compliance with Arkansas law." (Emphasis added.)

[20] USEPA. (1989). Application of Antidegradation Policy to the Niagara River. (Memorandum from Director, Office of Water Regulations and Standards to Director, Water Management Division, Region II; August 4.) Washington, DC.

**Toxic Substances**

The EPA's 2015 amendments to 40 CFR § 131.20(a) requires any state that chooses not to adopt any parameters for which the EPA has published new or updated criteria recommendations under CWA § 304(a) to explain its decision when reporting the results of its triennial review to the EPA. The goal of this revised provision is to ensure public transparency about state water quality standards decisions. As of today's action, although the DEQ has not proposed, and the Commission has not incorporated any new or updated CWA § 304(a) criteria recommendations into Rule 2, the DEQ has identified toxic contaminants not currently discharged in Arkansas and those that it intends to update or include in its 2023 triennial revisions consistent with 40 CFR § 131.20(a).

The EPA's "Supplemental Information for Water Quality Standards Regulatory Revisions Final Rule: New or Updated CWA Section 304(a) Criteria Recommendations Published since May 30, 2000" (2015)[21] provides a list of the new or updated CWA section 304(a) criteria recommendations published between May 30, 2000, and the publication of the EPA's 2015 water quality standards regulation revision. Please note that the more recently published national 304(a) recommended aquatic life criteria for cadmium (2016)[22], selenium (2016 – Freshwater)[23], aluminum (2018-Freshwater)[24] and cyanotoxins (2019-Freshwater)[25] are not listed in this table.

**Endangered Species Act Consultation**

The EPA's approval of revised WQS and associated aquatic life criteria is subject to the consultation requirement of Section 7(a)(2) of the Endangered Species Act (ESA)[26]. Under Section 7(a)(2) of the ESA, the EPA has the obligation to ensure that its approval of modifications to Arkansas's Rule 2 are not likely to jeopardize the continued existence of threatened and endangered species or result in the destruction or adverse modification of designated critical habitat of such species in Arkansas.

The EPA initiated informal ESA consultation with the Service regarding the EPA's approval of revisions to Arkansas' Rule 2 by email May 20, 2019. Through discussions with the Arkansas Field Office, the Arkansas Field Office confirmed that the revisions to Rule 2 being considered in today's action would not affect the continued existence of threatened and endangered species and designated critical habitat in Arkansas (Philips, J.,

[21] USEPA. (2015). *Supplemental Information for Water Quality Standards Regulatory Revisions Final Rule: New or Updated CWA Section 304(a) Criteria Recommendations Published since May 30, 2000*. EPA-820-B-15-002, July 2015. Retrieved from https://www.epa.gov/sites/production/files/2018-10/documents/supp-info-new-updated-cwa-since-2000.pdf

[22] USEPA. (2016). Aquatic Life Ambient Water Quality Criteria – Cadmium. Retrieved from https://www.epa.gov/sites/default/files/2016-03/documents/cadmium-final-report-2016.pdf

[23] USEPA. (2016). 2021 Revision* to: Aquatic Life Ambient Water Quality Criterion for Selenium – Freshwater 2016. Retrieved from https://www.epa.gov/system/files/documents/2021-08/selenium-freshwater2016-2021-revision.pdf

[24] USEPA. (2018). Final Aquatic Life Ambient Water Quality Criteria for Aluminum. Retrieved from https://www.epa.gov/sites/default/files/2018-12/documents/aluminum-final-national-recommended-awqc.pdf

[25] USEPA. (2019). Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin. Retrieved from https://www.epa.gov/sites/default/files/2019-05/documents/hh-rec-criteria-habs-document-2019.pdf

[26] USFWS. (1973). Endangered Species Act, Section 7 , 16 U.S.C. §1536.

personal communication, September 22, 2020). As a result, the EPA determined that its approval of the submitted revisions would have no effect on threatened and endangered species or critical habitat. Therefore, the EPA has no ESA obligation for today's action.