



September 8, 2020

Via email: Comment@adeq.state.ar.us and harper@adeq.state.ar.us

Jake Harper
Division of Environmental Quality
Arkansas Department of Energy and Environment
5301 Northshore Drive
North Little Rock, AR 72118

Re: Triennial Review Proposed Amendments to APCEC Regulation No. 2

Dear Mr. Harper:

The following comments regarding the proposed amendments to the Arkansas surface water quality standards in Arkansas Pollution Control and Ecology Commission (APCEC) Regulation No. 2 (hereinafter, "Reg. 2") are submitted on behalf of Beaver Water District (BWD). BWD is the largest of the four drinking water utilities whose source of raw water is Beaver Lake and is the second largest drinking water utility in Arkansas. BWD provides drinking water to over 358,000 people and numerous businesses and industries in Northwest Arkansas. BWD's comments begin with three over-arching issues and then follow with comments on specific sections in the order in which they appear in Reg. 2 (these comments will use "Rule 2" when referring to the proposed amended language).

Comment 1, Triennial Review Process: The Arkansas Department of Energy and Environment, Division of Environmental Quality (DEQ) is required by section 303(c)(1) of the federal Clean Water Act (CWA) to conduct a review and update of the State's surface water quality standards every three years (the so-called, "Triennial Review"). BWD was a participant in DEQ's 2013 Triennial Review Stakeholder Workgroup. That Triennial Review resulted in amendments to Reg. 2 that were adopted by APCEC on February 28, 2014. Participants in the 2013 Triennial Review Stakeholder Workgroup suggested multiple revisions to Reg. 2 that DEQ chose to defer to the next Triennial Review. The next Triennial Review was not begun until 2019. BWD was also a participant in the 2019 Triennial Review Stakeholder Workgroup. Contrary to its commitment in the 2013 Triennial Review, DEQ in the 2019 Triennial Review largely did not consider the deferred issues or new issues raised by the 2019 Stakeholder Workgroup. Instead, DEQ moved forward with what it termed a "clean-up" rule (*i.e.*, changing Arkansas Department of Environmental Quality to Arkansas Department of Energy and Environment, Division of Environmental Quality, changing "regulation" to "rule," providing "clarification" and "minor corrections . . . illustrative of the regulatory intent;" making changes to incorporate United States Environmental Protection Agency (EPA) decisions on previous versions of the rule, removing permitting language that is to be moved to APCEC Regulation No. 6, and making "non-substantive stylistic and formatting" corrections) (see DEQ's Petition to Initiate Rulemaking to Amend Regulation No. 2, pp. 1-9).

DEQ should not wait another three or more years to consider the substantive issues raised by the 2013 and 2019 Stakeholder Workgroup participants that were deferred or not addressed. BWD

requests that as soon as APCEC acts on the 2019 Triennial Review update of Rule 2, DEQ begin a stakeholder-involved process to consider further revisions to Rule 2.

Comment 2, Removal of Permitting Language: DEQ's Petition to Initiate Rulemaking to Amend Regulation No. 2 (hereinafter, "DEQ Petition") lists five categories of proposed amendments. One of those categories is to, "remove permitting language from Reg. 2 (Rule 2) that is being adopted into Rule 6 – Regulations for the State Administration of the National Pollutant Discharge Elimination System (NPDES), Rule 6.404." (DEQ Petition, pp. 8-9). That language carries the following footnote: "If Rule 6 revisions are not adopted by APCEC and not approved by EPA, then this language will remain in Rule 2." (DEQ Petition, p. 9). In June 2020, however, DEQ's proposed revisions to Regulation No. 6 (hereinafter, "Reg. 6") failed to receive the requisite approval of the Arkansas legislature. The currently effective version of Reg. 6 is from 2015, and it does not include the permitting language that DEQ now proposes to delete from Reg. 2.404, 2.409, 2.502, 2.503, 2.504, 2.505, 2.507, 2.508, 2.509, 2.510, 2.512(D), and Appendix A.

The "permitting language" should not be deleted from Reg. 2 until the same or more stringent language has been added to a revised Reg. 6 that has received all necessary approvals, including that of the Governor, the General Assembly, APCEC, and EPA. To do so would, among other things, likely result in objections to and appeals of NPDES permits containing terms and conditions based on provisions that are no longer contained in any effective regulation.

Comment 3, Definitions and Use of Defined Terms: Rule 2.106 provides the definitions for certain terms used in Rule 2. For multi-word terms, only the first letter of the first word is capitalized. Throughout Rule 2, there is inconsistent capitalization of even the first word of terms that are defined in Rule 2.106. Because of this, it is difficult to recognize those words and terms in the text that have particularized meanings that may differ from the ordinary meaning of the words.

The first letter of all words in each term defined in Rule 2.106 should be capitalized in that section and throughout the Rule.

Comment 4, Rule 2.104, Policy for Compliance: This section is entirely a permitting provision, but DEQ has not proposed to remove it from Reg. 2.

BWD recommends that the language of Rule 2.104 be added to Reg. 6. Once that is done and there is a fully-approved and effective Rule 6, Rule 2.104 should be deleted. See Comment 2, above.

Comment 5, Rule 2.106, Definitions for All Flows and Storm Flows: DEQ proposes to delete the definition for All Flows and add Storm Flows as a newly-defined term that has the same definition that was deleted for All Flows. These proposed changes and the related proposed changes to the Turbidity criteria at Rule 2.503 are confusing, to say the least. They involve the historical evolution of the Turbidity criteria, which EPA has detailed in the comments it submitted in this rulemaking docket on September 3, 2020. BWD incorporates EPA's comments by reference herein, and generally adopts EPA's recommendations on this issue.

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BWD requests that any changes to the definitions for All Flows and for Storm Flows be designed to preserve the level of protection that any water quality criterion utilizing these terms was originally established to provide.

Comment 6, Rule 2.106, Definition for Critical Flows: This definition begins with, “The flow volume used as background dilution flows in calculating concentrations of pollutants from permitted discharges” and then further defines the critical flow for certain parameters. It appears to largely be a permitting provision, but DEQ has not proposed to remove it from Reg. 2. The term does appear elsewhere in Rule 2, however, including in Rule 2.501.

BWD questions whether this provision as written is appropriate for Rule 2, whether the definition should be revised to reflect its use in the water quality standards context, and whether the permitting language should instead be included in Reg. 6. See Comment 2, above.

Comment 7, Rule 2, Chapter 2, Antidegradation Policy: On July 26, 2020, DEQ issued its draft Antidegradation Implementation Methods (AIM) document for public comment. DEQ intends the AIM to be a stand-alone guidance document that is not incorporated into Rule 2.

BWD suggests that the AIM either be incorporated into Rule 2, Chapter 2 or that it be promulgated as a separate rule. Otherwise, actual implementation of the Rule 2 Antidegradation Policy will be subject to objection, manipulation, and legal challenge.

Comment 8, Rule 2.302, Designated Uses: The Designated Uses are defined in this section. The parameters or water quality criteria that apply to each use are not listed in this section or elsewhere in Rule 2.

BWD suggests that Rule 2.302 include a listing of the water quality criteria that will be used to evaluate each Designated Use. BWD would particularly like to see this specified for the Domestic Water Supply use.

Comment 9, Rule 2.302(G), Domestic Water Supply Designated Use: This section is proposed to provide: “This beneficial use designates water that will be protected for use in public and private water supplies. Conditioning or treatment may be necessary prior to use.”

BWD requests that the last sentence in this provision be changed to read as follows: Conditioning or conventional treatment consisting of no more than flocculation, coagulation, sedimentation, filtration, and disinfection may be necessary prior to use. (Words added are underlined).

Comment 10, Rule 2.308, Site Specific Criteria: This section lists the methods that can be used to establish numeric water quality criteria. EPA addressed this issue in the comments it submitted in this rulemaking docket on September 3, 2020. BWD incorporates EPA’s comments by reference herein.

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BWD suggests adding to this section language to the effect that preference will be given to the method that produces the more protective criteria.

Comment 11, Rule 2.404, Mixing Zones: DEQ proposes to delete this section, the last sentence of which provides that, “A mixing zone shall not include any domestic water supply intake.”

BWD objects to this deletion until the same or more stringent language has been added to a revised Reg. 6 that has received all necessary approvals, including that of the Governor, the General Assembly, APCEC, and EPA. See Comment 2, above.

Comment 12, Rule 2.409, Toxic Substances: This section is proposed to state: “Toxic substances that may cause toxicity to human, animal, plant or aquatic biota or interfere with normal propagation, growth, and survival of aquatic biota shall not be allowed into any waterbody.”

BWD supports this proposed revision, although the deleted portion of the section suffers from the same problem outlined in Comment 2, above

Comment 13, Rule 2.502, Temperature: First, there is a conflict between the proposed change to this section listed on page 2 of the Petition and what appears in the marked-up draft Rule. BWD assumes the location of the phrase “For the purpose of determining effluent limits” is in error. Second, the deletion of the first sentence of Rule 2.502 regarding the prohibited variation from natural background temperature (including the duration) is a substantive, less-protective change to the criteria for which DEQ has not provided the requisite scientific justification.

BWD objects to the deletion of the first sentence of Rule 2.502, as the deletion lacks scientific justification and is inconsistent with the requirements of 40 C.F.R. § 131.11. See also Comment 2, above.

Comment 14, Rule 2.503, Turbidity: DEQ proposes to delete the use of the term All Flows in this section and replace it with Storm Flows. EPA’s September 3, 2020, comments in this rulemaking docket include a significant discussion of this proposed change. BWD incorporates EPA’s comments by reference herein, and generally adopts EPA’s recommendations on this issue.

Storm Flows need to be clearly differentiated from Base Flows and both should be calculated in a way that preserves the level of protection that any water quality criterion utilizing these terms was originally established to provide.

Comment 15, Rule 2.503, Turbidity: The units for the numeric Turbidity criteria in the table in this section are designated as NTU. Rule 2.106 defines NTU as Nephelometric Turbidity Unit and provides, in part, that, “NTU are considered comparable to the previously reported Jackson Turbidity Units (JTU). May be reported as Formazin Turbidity Units (FTU) in equivalent units.” The United States Geological Survey (USGS) commonly reports Turbidity measurements in Nephelometric Turbidity Ratio Units (NTRU). Other methods for reporting Turbidity also are utilized. Because only NTU is listed in Rule 2.503, however, DEQ has previously rejected

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Turbidity data that are not reported as NTU for purposes of water quality assessments pursuant to sections 303(d) and 305(b) of the CWA. This means that significant amounts of Turbidity data collected by USGS, including data for Beaver Lake and its tributaries, are rejected by DEQ.

NTRU should be added to the numeric Turbidity criteria in Rule 2.503, either as separate columns or by changing the headings after finding that the NTRU values are interchangeable with the NTU values. At the very least, the NTU definition in Rule 2.106 could be revised to include the use of NTRU measurements of Turbidity.

Comment 16, Rule 2.504, pH: DEQ proposes to delete from Rule 2.504 that, “As a result of waste discharges, the pH of water in streams or lakes must not fluctuate in excess of 1.0 standard unit over a period of 24 hours.” This deletion would be a substantive, less-protective change to the pH criteria for which DEQ has not provided the requisite scientific justification.

BWD objects to the deletion of the quoted sentence from Rule 2.504, as the deletion lacks scientific justification and is inconsistent with the requirements of 40 C.F.R. § 131.11. See also Comment 2, above.

Comment 17, Rule 2.505, Dissolved Oxygen (DO): DEQ proposes to remove multiple provisions at the end of the DO criteria for Rivers and Streams. While the provisions to be deleted pertain to effluent discharge limits, they also contain substantive, protective criteria, including the maximum allowable magnitude of diurnal DO depression.

BWD objects to the deletion of the provisions at the end of the criteria for Rivers and Streams in Rule 2.505. The proposed deletions lack scientific justification and are inconsistent with the requirements of 40 C.F.R. § 131.11. See also Comment 2, above.

Comment 18, Rule 2.507, Bacteria: DEQ proposes to delete the last sentence in the first paragraph of this section, which states, “No mixing zones are allowed for discharges of bacteria.”

BWD objects to this deletion until the same or more stringent language has been added to a revised Reg. 6 that has received all necessary approvals, including that of the Governor, the General Assembly, APCEC, and EPA. See Comment 2, above.

Comment 19, Rule 2.507, Bacteria:

EPA issued Recreational Water Quality Criteria (RWQC) recommendations regarding bacterial indicators on or about November 29, 2012. According to EPA, the recommended RWQC were based on the latest research and science, including “an extensive review of the available scientific literature and evaluation of new information from studies . . . and after public notice and comment” See EPA RWQC, Office of Water Document 820-F-12-058, p.1 (2012).

BWD’s interest, of course, is in minimizing pathogens in our source water. The science regarding the protection of public health during primary contact recreation also supports BWD’s

goal of protection of our drinking water source. BWD encourages DEQ to consider EPA's recommended criteria in the 2012 EPA RWQC for primary contact recreation, including:

Enterococci: Culturable enterococci at a geometric mean (GM) of 30 colony forming units (CFU) per 100 milliliters (mL) and a statistical threshold value (STV) of 110 CFU per 100 mL; and

Escherichia coli (E.Coli): Culturable E. coli at a GM of 100 CFU per 100 mL and a STV of 320 CFU per 100mL; and

The waterbody GM should not be greater than the applicable GM magnitude in any 30-day interval. There should not be greater than a ten percent excursion frequency of the applicable STV magnitude in the same 30-day interval.

To the extent that the 2012 EPA RWQC for Bacteria are more protective and scientifically defensible than the Bacteria criteria in Rule 2.507, ADEQ should incorporate the appropriate, more-protective provisions into Rule 2.507.

Comment 20, Rule 2.507, Bacteria: Rule 2.507 provides an allowable exceedance rate of twenty-five percent (25%). EPA's 2012 RWQC document, on the other hand and for example, recommends that the geometric mean value for *E.Coli* (and enterococci) not be exceeded in any 30-day interval. For the *statistical threshold value for E.Coli* (and enterococci), the 2012 EPA RWQC document also recommends that there should not be greater than a ten percent (10%) excursion frequency in the same 30-day interval. See EPA RWQC, Office of Water Document 820-F-12-058 (2012).

The allowable exceedance rate of twenty-five percent (25%) in Rule 2.507 should be deleted and replaced with a more protective and scientifically justifiable provision.

Comment 21, Rule 2.508, Toxic Substances: The first sentence in the first paragraph of this section is proposed to state: "Toxic substances that may cause toxicity to human, animal, plant or aquatic biota or interfere with normal propagation, growth, and survival of aquatic biota shall not be allowed into any waterbody."

BWD supports this proposed revision, although the deleted portion of the section suffers from the same problem outlined in Comment 2, above. See also Comment 12, above, regarding Rule 2.409.

Comment 22, Rule 2.508, Toxic Substances: EPA has published new and updated national recommended Toxics criteria for parameters, including for Cyanotoxins, that are not listed in Rule 2.508. Forty C.F.R. § 131.20(a) requires DEQ to either adopt its own criteria for the parameters for which EPA has issued criteria recommendations or provide an explanation for its failure to do so as part of its Triennial Review.

DEQ should include criteria in Rule 2.508 for the missing parameters, especially for Cyanotoxins (Microcystins and Cylindrospermopsin).

Comment 23, Rule 2.509, Nutrients: DEQ proposes to remove the Reg 2.509 numeric phosphorus requirements for point source discharges into certain waterbodies in the legislatively designated nutrient surplus watersheds and on Arkansas's list of impaired waterbodies (the so-called, "303(d) List"). The Beaver Lake watershed was declared to be a Nutrient Surplus Area by Act 1061 of 2003 (codified at Ark. Code Ann. § 15-20-1104). The Reg. 2.509 numeric phosphorus requirements have been an important tool in limiting nutrient loadings to Beaver Lake. Discharges of nutrient-containing wastewater into the Beaver Lake watershed have the potential to adversely impact the Lake's water quality and can have a direct bearing on what it costs BWD to provide our customers with drinking water that meets or exceeds all federal and state regulatory requirements.

Before the numeric phosphorus requirements are deleted from Rule 2.509, the same or more stringent requirements must be included in a revised Reg. 6 that has received all necessary approvals, including that of the Governor, the General Assembly, APCEC, and EPA. See Comment 2, above. The failure to do this would likely result, among other things, in objections to and appeals of NPDES permits containing terms and conditions based on these provisions that are no longer contained in any effective regulation.

Comment 24, Rule 2.509, Nutrients: DEQ has long promised that ambient, numeric phosphorus and other nutrient criteria would be added to Rule 2. EPA issued recommended ambient, numeric nutrient criteria in 2000, and it recently proposed new statistical models for deriving numeric nutrient criteria for Lakes and Reservoirs. While BWD does not necessarily endorse the new models, they could provide tools for states to use, in conjunction with the 2000 recommended nutrient criteria, in the development of numeric nutrient criteria. Both appear to be unnecessary, however, for DEQ's issuance of proposed numeric nutrient criteria for the Ozark Highlands and Boston Mountains Ecoregions. The Associate Director of the DEQ Office of Water acknowledged during the recent 2020 AIM Stakeholder Workgroup meetings that DEQ has completed the work on its own numeric nutrient criteria for these two Ecoregions. Instead of proposing these criteria for inclusion in Rule 2 at this time or soon, though, DEQ has decided to wait until it has developed numeric nutrient criteria for all six of the State's Ecoregions.

BWD recognizes that it is a complex task to develop appropriate numeric nutrient criteria. BWD objects, however, to DEQ's ongoing delay in the issuance of proposed numeric nutrient criteria. The criteria for the Ozark Highlands and Boston Mountains Ecoregions, or for a combination of the two Ecoregions, should be proposed for inclusion in Rule 2.509 either now or soon. See Comment 1, above. Enforceable, numeric nutrient criteria are needed, among other things, to control harmful algal blooms, cyanotoxins, hypoxia, eutrophication, and problems related to disinfection by-products and unpleasant tastes and odors in drinking water.

Comment 25, Rule 2.510, Oil and Grease: DEQ proposes to delete the last sentence of Rule 2.510, which states that, "No mixing zones are allowed for discharges of oil and grease."

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BWD objects to this deletion until the same or more stringent language has been added to a revised Reg. 6 that has received all necessary approvals, including that of the Governor, the General Assembly, APCEC, and EPA. See Comment 2, above.

Comment 26, Rule 2.511(A), Mineral Quality, Site Specific Mineral Quality Criteria: The formatting and order of listed stream segments for the White River from the headwaters to the Missouri state line has been revised.

BWD suggests that the listing for the Kings River be moved to reflect that its confluence with the White River is downstream of the other listed stream segments for the portion of the White River (including Beaver Reservoir) between the Missouri state line and WHI0052. Also, the line, "White River (Missouri state line, including Beaver Reservoir)(to WHI0052)" probably should be revised to be, "White River (Missouri state line to WHI0052, including Beaver Reservoir)."

Comment 27, Rule 2.511(B), Mineral Quality, Ecoregion Reference Stream Minerals Values: This provision has long been one of the more controversial sections of Reg. 2. BWD recognizes the practical complications that flow from the Ecoregion numbers being water quality criteria, as well as the reasons for interim relief from the criteria. BWD remains optimistic that a workable and legally sufficient resolution will be adopted pursuant to the 2017 DEQ Mineral Criteria Development Strategy.

For the record, however, BWD restates what it has said in previous comments on Reg. 2.511(B): The numbers in the Table in Reg. 2.511(B) were originally adopted by APCEC and approved by EPA as water quality criteria applicable to streams and other waterbodies in the various Ecoregions that are not otherwise listed in Reg. 2.511(A). The requisite process to remove the numbers across-the-board as water quality criteria has not been undertaken.

Thank you for your consideration of these comments.

Sincerely,



Colene Gaston
Staff Attorney

Cc via email to Department of Environmental Quality:

Robert Blanz, Ph.D., Associate Director, Office of Water Quality (blanz@adeq.state.ar.us)

Joe Martin, Branch Manager, Water Quality Planning (joe.martin@adeq.state.ar.us)

Donnally Davis, Office of Communications (davis@adeq.state.ar.us)

Cc via email to Beaver Water District Staff:

Lane Crider (lcrider@bwdh2o.org)

Bill HagenBurger (bhagenburger@bwdh2o.org)

James McCarty (jmccarty@bwdh2o.org)