

November 23, 2015
Via email: reg-comment@adeq.state.ar.us

Doug Szenher
Public Outreach and Assistance Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Re: Public Notice for Harrison and Yellville Proposed Changes to APCEC Regulation No. 2

Dear Mr. Szenher:

The following comments are submitted on behalf of Beaver Water District (BWD) in regard to the public notice regarding the third-party rulemaking of the Cities of Harrison and Yellville (hereinafter, the "Cities") that proposes changes to the Arkansas water quality standards for minerals in Arkansas Pollution Control and Ecology Commission (APCEC) Regulation No. 2 (hereinafter, "Reg. 2"). The City of Harrison seeks to increase the site-specific water quality criteria (WQC) for the minerals sulfate, chloride, and total dissolved solids (TDS) at Reg. 2.511(A) that apply to a segment of Crooked Creek immediately downstream from its wastewater treatment plant (WWTP) discharge. The City of Yellville seeks to increase the site-specific WQC at Reg. 2.511(A) for TDS only for a segment of Crooked Creek in the vicinity of its discharge.

Crooked Creek is not in the Beaver Lake watershed, which is the source of water used by Beaver Water District and three other public water utilities to provide drinking water for most of Northwest Arkansas. The Cities' rulemaking petition and related documents are typical of what has been filed previously in other, but not all, municipal WWTP rulemakings to change the WQC for minerals. The Cities' petition generally does not present issues of unusual precedent. BWD, therefore, is not commenting on *the Cities'* petition or their related documents. We do, however, offer the following comments related to the two questions in the public notice for the Cities' proposed rulemaking for which the APCEC has invited public comment:

1. Whether the proposed new criteria should be rounded up to the nearest whole number for Chloride and Sulfate and up to the nearest multiple of ten for Total Dissolved Solids?
2. Whether the proposed new criteria should be revised to correspond to the 99th percentile of relevant instream data?

In general and as discussed below, BWD believes that the answer to the two questions posed by the APCEC should be "NO." In responding to these questions, BWD makes reference to the Cities' petition and related information only for the purpose of illustration. Again, these are not comments on the specific requests *made by the Cities*.

Comment 1: The purpose of the WQC is to protect the designated uses. WQC should not be rounded up or be based on the 99th percentile of relevant instream data without a clear showing that doing so will be protective of the designated uses.

Comment 2: Any change from the standard procedure by which the WQC are set in a third-party rulemakings will set a precedent that could apply not only to minerals but also to other parameters and pollutants. This could result in changes that are inappropriate, scientifically unsupported, and not protective of the designated uses.

Comment 3: Conservative assumptions should be applied in order to ensure that designated uses are protected. If there is a concern about numerical precision, perhaps the numbers should be rounded down instead of up.

Comment 4: WQC often are numbers with decimals (*see, e.g.*, Reg. 2.508 regarding toxic substances). Existing analytical methods and accuracy to decimal places support such WQC. Perhaps the more appropriate arenas for addressing any concerns about fractional numbers are when permit limits are set or enforcement decisions are made.

Comment 5: Setting the WQC to correspond to the 99th percentile of relevant instream data means raising the standards to conditions that are rarely seen in the stream. This could create scenarios where the actual instream levels increase significantly over current levels. The impact on designated uses could be real and detrimental.

Comment 6: Third-party rulemaking petitions for minerals often include language that the petitioners "are not seeking a change from historical water quality conditions" (*see, e.g.*, the Cities' Petition to Initiate Rulemaking to Amend Regulation No. 2). Setting the WQC to reflect the 95th percentile of instream data already allows stream conditions to change to what is currently seen only 5% of the time. Setting the WQC to reflect the 99th percentile of data means that the stream conditions could change to what is now seen only 1% of the time. Even though those levels may represent "historic" conditions in the sense that they have occurred, they are conditions that are *extremely rare* and may not be reflective of conditions necessary to support the designated uses.

Comment 7: The current assessment methodology by which the Arkansas Department of Environmental Quality (ADEQ) determines waterbody impairment allows exceedance of the Reg. 2.511(A) site-specific WQC for minerals criteria in twenty-five percent (25%) of the samples, rather than in ten percent (10%) of the samples as historically allowed. If the WQC are set at the 99th percentile of relevant instream data *and* the numbers are rounded up, the 25% allowable exceedance rate further increases the permissible levels of instream pollutant concentrations. This multiplier effect could allow for pollutant concentrations never before experienced instream that impact the designated uses.

Comment 8: BWD understands the desire of municipal WWTP dischargers to set the WQC at levels that will not put their discharge at risk of causing violations of the water quality standards and that will result in NPDES permit limits, if any, that they can readily meet. Again, though, the

purpose of any water quality criterion is to protect the designated uses, and that is what must be clearly established. Instead of mathematical manipulations geared to set the WQC so that dischargers are assured of a cushion against violations, perhaps permitting and enforcement policies should be modified to accommodate rare exceedences.

Comment 9: As BWD has noted in other public comments related to minerals, a conservative approach needs to be taken when considering drinking water, as well as aquatic life, designated uses. Conventional drinking water treatment plants cannot remove minerals, and may even add to the minerals concentration produced in the finished water. Therefore, it is too late and the designated drinking water use cannot be maintained if the instream minerals concentrations are allowed to reach the levels set forth in the Reg. 2.511(C) Domestic Water Supply Criteria. Rounding up and the use of the 99th percentile of relevant instream data increases the opportunity for this to occur.

Comment 9: If the APCEC is inclined to adopt or otherwise utilize an approach to the minerals WQC that involves setting the WQC at the 99th percentile and rounding up the numbers, BWD requests that a separate public hearing or hearings be held. First, the Cities did not request that the WQC be set at the 99th percentile or that their proposed numbers be rounded up, so the Cities' documentation does not indicate what the numbers so calculated would be and does not include studies related to the impact of such levels on the designated uses. It is, therefore, difficult for the public to assess the implications of such an approach. Second, the application of this approach to other dischargers and data sets could produce much different results. The public should have multiple examples to consider when evaluating the questions posed by the APCEC. Third, the APCEC's questions are of statewide importance in relation to minerals, but members of the public may have overlooked these issues if they were not specifically interested in the Cities of Harrison or Yellville or Crooked Creek. Last, the use of the 99th percentile of instream data and of rounding up numbers has WQC ramifications beyond minerals that deserve a separately announced opportunity for public input.

Thank you for your consideration of these comments.

Sincerely,



Colene Gaston
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