

May 8, 2013

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

Re: Arkansas Environmental Federation Comments on ADEQ Draft Regulation # 2

Dear Mr. Szenher:

The Arkansas Environmental Federation appreciates the opportunity to comment on the Department's proposed Triennial Review changes to the state's Water Quality Standards. The AEF's comments are as follows:

**Appendix C:** Concern that the inclusion of all aquatic biota, including federally designated threatened and endangered (TE) species, may cause confusion with the ecoregion based key and indicator fisheries species (the fisheries use is renamed Aquatic Life) that have been the basis of the WQS for 30 years. Additionally, the inclusion of the federally designated TE species may be construed to incorporate the federal listings into state law. If the listed TE species are not present, is the waterbody impaired, if they are present, is the waterbody now an Extraordinary Resource Water? The original intent was to include some of the more common TE species as an indicator of the pristine or unique nature of a particular waterbody, not as criteria for designation or impairment determination. This appendix and any references to it in the body of the regulation should make it clear that this listing, is just that, a listing, and should not, cannot be construed to incorporate a TE species into Regulation 2.

This may also be problematic when the changes to Biological Integrity in Section 2.405 are taken into consideration.

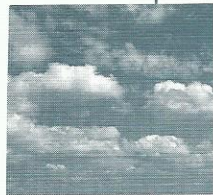
This is also a concern when comparing fisheries with ecoregion Key and Indicator species (Section 2.302) in Section 2.306 and 2.308 studies. Recent trends from ADEQ indicate that if a particular species is not present that it indicates impairment, when in fact, it may indicate nothing of the sort, and is most likely a sampling phenomenon.

#### **2.104 Policy of Compliance**

It is our understanding that other commenters representing the cities of Springdale, Rogers, and Fayetteville will propose a methodology to address ecoregion mineral quality criteria. If adopted, the new section should be referenced here.

#### **2.106 Definitions**

Bioaccumulation – This is not a definition that is accepted in the scientific literature. Bioaccumulation is not a process, but a result of subsequent increases in concentration of a constituent through the food chain which can occur in particular organs or tissue depending on the constituent.



Critical flows – For mineral criteria.

The proposed amendments include significant changes which will make compliance with dissolved minerals more problematic, particularly for municipalities and industries which discharge to small streams where eco-region based criteria apply. It eliminates the use of the 4cfs background flow as a default value (which has been in place for decades) and also places additional technical information requirements on the permittees to develop site specific data. The ADEQ is not proposing any changes to the critical flow for the Domestic Water Supply Use which continues to put Arkansas as much more restrictive than the surrounding states for no environmental purpose.

This definition should be revised to reflect the provisions of Act 954 of 2013.

Harmonic Mean Flow: The second sentence in this definition should be stricken, ADEQ should retain the scientifically correct definition and not attempt to add a frequency. Harmonic means are long term calculations based on daily flow measurements at USGS gauging stations, not monthly flows over a couple of years. There are other, scientifically accepted, hydrologic methods to extrapolate flows between similar size basins.

Nonpoint sources: The wording of this definition is unclear. How does it apply to Sections 2.202, 2.402, and 2.401. How exactly does this definition relate to Section 402(p) of the Act and 33 U.S.C. 1342(p)?

State of Arkansas Continuing Planning Process: (or CPP) the revisions to the definition appear to be an attempt to give the CPP some regulatory basis. The CPP is not a regulation in Arkansas, it receives no public notice or input and it remains an implementation document negotiated by and between ADEQ and EPA. Neither the regulated community nor the general public have any formal input. At the behest of EPA, ADEQ is seeking to remove implementation phrases from Reg #2. However, we believe that implementation phrases clarify the intent of the regulation. By removing the implementation language and replacing it with references to the CPP in fact serves to incorporate the CPP into Reg # 2 by reference. We believe that all references to the CPP should be removed, or that the CPP should be adopted by rule or regulation as a stand-alone document that follows the full public participation and rule making processes.

**2.404 Mixing Zones** – The rationale given for removing pH from mixing zones doesn't fit reality. The reference to a 2 + decade old EPA Technical Support Document concerning acute and chronic toxicity is not the reason pH should be allowed to have a mixing zone. First of all, pH is strictly controlled by NPDES permit limits and effluent monitoring. However, many small communities with oxidation ponds have no ability to control pH in hot summer days when algal blooms are persistent and naturally raise the pH above the permit limit of 6-9 SUs. The same phenomena may occur in natural waters as noted in Section 2.504.

The second sentence in the 5<sup>th</sup> paragraph of this section should be removed. It is too vague in that there is no standard for "Careful consideration" and conflicts with the rationale given for excluding pH, i.e. to 2 + decade old EPA Technical Support Document cite above. Specifically, there are acute and chronic criteria for these substances, and a mixing zone is appropriate.

The reference to "public water supply wells" is also too vague and will likely cause permit conditions that result in expensive studies to prove a negative. Regulation 2 is, by its title, a regulation establishing WQ standards for surface waters. There are no provisions under the CWA for EPA to assume authority of groundwater.

In summary, for this section, AEF recommends that what is proposed to be inserted instead be deleted, and what is proposed to be deleted be re-inserted.

**2.405 Biological Integrity** – The word “hydraulic” is misspelled in the first sentence of the 2<sup>nd</sup> paragraph.

AEF is strongly opposed to the language added in the last sentence. We have long maintained that it is ADEQ’s responsibility to determine that biological integrity is protected. The proposed additional language clearly provides for ADEQ to impose permit conditions to require municipalities and industries to conduct expensive studies (hundreds of thousands of dollars), entirely at the whim of the agency. The notion that ADEQ cannot use the data from Section 2.303 studies for assessment purposes because they did not “collect it” makes no sense. ADEQ approves the work plan and ADEQ and EPA approve the reports.

AEF believes that the added language should be stricken and the stricken language re-inserted.

**2.504 pH** – See discussion of 2.404 Mixing Zones above. The sentence “ No mixing zones are allowed for pH” should be stricken from the regulation.

**2.507 Bacteria** – The first sentence proposed to be inserted should be revised to read: “ For the purpose of this regulation, all streams with watersheds less that 10 miles<sup>2</sup> shall not be designated for primary contact or domestic drinking water supply unless and until site verification indicates that such a use is attainable.”

**2.508 Toxic Substances** – AEF believes that the first sentence should be re-inserted and the second, added sentence should be deleted. The terms “ represent the concentration that will not be toxic” has no basis given and is vague. The re-inserted 1<sup>st</sup> sentence is more clear and has been protective for 30 years.

The inclusion of the MCL for Beryllium is not appropriate as a WQS. An MCL is an EPA published value for finished drinking water, not a standard for a designated domestic water supply.

**2.509 Nutrients** – The numeric Chlorophyll a criterion should be modified to read “ \*\* “The geometric mean of the growing season (May-October) for more than 25% of the time in the most recent 5 consecutive years” .

An absolute criterion, without a frequency and a duration, such is included in the draft regulation, can easily result in a standards violation and an impairment designation, TMDL’s and waste load allocations. It is the trend that is significant, not the specific criterion.

**2.511 Mineral Quality** – This entire section should be revised to comply with Act 954 of 2013.

Secondly, ADEQ’s proposed revisions remove several site specific rulemakings approved by the Commission after formal rulemaking which were subsequently disapproved by USEPA. One, in particular, is the subject of an ongoing federal lawsuit. It is not appropriate for those to be deleted as this a state rule and USEPA disapproval does not nullify a state decision to our knowledge. Perhaps a separate listing for these situations is appropriate.

B) The words “or designated uses” should be added at the end of the last sentence.

Cordially,



Randy Thurman  
Executive Director