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**From:** [Erin Scott](#)

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**To:** [CPP-antideg-comments](#)

**Subject:** Antidegradation comments

**Importance:** Normal

**Attachments:**

[AIMStakeholderComments-OzarksWaterWatch-2020October-2.pdf](#);

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Good afternoon,

Please see attached my comments on behalf of Ozarks Water Watch, regarding the draft Antidegradation Implementation Methodology.

Thank you,

Erin

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*Erin Scott*

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October 2, 2020

Arkansas Department of Energy and Environment - Division of Environmental Quality  
Office of Water Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118

RE: Draft Arkansas **Antidegradation Implementation Methods** Stakeholder Comments

Dear Director Keogh and Office of Water Quality Staff,

Thank you for the opportunity to participate in the stakeholder meetings for the Antidegradation Implementation Methodology (AIM). On behalf of Ozarks Water Watch, I am submitting following comments to assist in a well-rounded AIM.

#### **Baseline Water Quality**

According to the draft AIM, if there is insufficient data to determine baseline water quality (BWQ) at or just upstream of a proposed activity, an applicant can “assume significant degradation without determining BWQ,” (p 12 line 358). It is confusing to consider that there is ever a circumstance where BWQ does not have to be evaluated. It seems like establishing BWQ should be a requirement for Tier determination. For example, the Rhode Island antidegradation method states that the existing instream water quality must be characterized and compared to the water quality criteria to assess for high-quality waters status (RIDEM, 2010; p 123). They go on to say that the water will be categorized as Tier 1 or Tier 2 based on the analysis of existing instream water quality. Therefore, it seems prudent for Arkansas to always establish a BWQ for any proposed new or expanded discharge to determine Tier designation.

If the determination of BWQ can be avoided, then there is by definition, no way to determine the assimilative capacity (AC). This is because AC is the BWQ minus the water quality needed to protect a designated use. Even if a discharger assumes significant degradation, the AC will need to be known to ensure that water quality is not degraded down to Tier 1 status (i.e. impaired). Again, it seems like BWQ will always need to be determined.

BWQ is representative of water quality at or immediately upstream from a proposed discharge (p 3, line 22-23). It is unclear if all potential future proposed point sources would require their own BWQ – is the BWQ related to a water body or a proposed discharge site; if the latter, then there would theoretically be multiple BWQs on a given stream when there are

multiple new point source dischargers. The AIM should clarify what is meant by “immediately upstream from a proposed discharge” and what the data requirements are when there are multiple proposed dischargers on the same water body.

The draft AIM does not provide any detail or reference for requisite methods to determine BWQ. For example, when must samples be collected? How many samples should be collected? Is the average calculated to determine the “fixed concentration”? The draft AIM defines BWQ as a fixed concentration (p 12, lines 352-353), but concentrations naturally vary throughout the year, and from year to year. Methodological information for determining BWQ should be included or referenced if outlined in another agency document or policy.

For instances where the onus is on the permittee to establish BWQ, there is more reason to include methodological requirements for water sample collection. The draft AIM says that when there is insufficient data to determine BWQ, the applicant can “collect the additional data required to determine BWQ” (p 10 lines 355-358). But what are the data requirements, or how would an applicant learn what they are? The Iowa AIM (IDNR, 2010) states the following:

The department will provide the necessary guidelines and steps for an appropriate, scientifically defensible determination [of existing water quality].

The department can advise the applicant on what approaches may be most appropriate to establish the existing water quality. If a data collection effort is chosen, the department can advise the applicant on what data are needed and can provide guidance on how to collect and report the needed information to the department.

### **Assimilative Capacity and Numeric Nutrient Criteria**

The determination of assimilative capacity (AC) is vital to protect water quality from degradation leading to impairment status. However, AC, by definition, cannot be determined for parameters that lack numeric water quality criteria, such as nitrogen and phosphorus. During the June 22, 2020 stakeholder meeting, an ADEQ representative informed the group that numeric nutrient criteria would be promulgated for all waters in Arkansas at the same time, which should be around 2025. It will be valuable to the AIM and water quality in Arkansas for DEQ to reconsider how or when it plans to promulgate numeric criteria where only narrative criteria currently exists. The use of numeric nutrient criteria is paramount for adequate implementation of the AIM. Given that nutrients are the number one pollutant in waters of Arkansas (ADEQ, 2018), it is prudent to evaluate these constituents as soon as possible.

### **Nonpoint Source Pollution**

Section 9 on p 14 of the draft AIM describes controls for nonpoint source pollution (NPS). Since NPS pollution is the number one cause of water quality impairment in Arkansas

(ADEQ, 2018), we believe that this section should provide more detail and description of how NPS pollution control, assurance of regulatory compliance, and impacts on water quality will be addressed to promote antidegradation of the State's waters.

In a 1994 letter of memorandum, Director Davies of the EPA Office of Science and Technology states the following regarding their recommendations about how states should address the contributions from NPSs:

We recommend that State's explain in their antidegradation policies or procedures how, and to what extent, the State will require implementation of otherwise non-enforceable (voluntary) BMPs before allowing point source degradation of high quality waters.

Arkansas's AIM should go further in detailing the efforts that will be taken to reduce the impact of NPS pollution before new or expanded point sources may be allowed to contribute pollutants to our waterways.

Arkansas's draft AIM provides two examples of State regulatory requirements for NPS pollution control – nutrient management plans and waste management plans for liquid and non-liquid wastes, respectively, which are overseen by DEQ and the Department of Agriculture. It would be helpful for the AIM to cite the documents or regulations being referenced (presumably Title XX, XXI, and XXII promulgated by ANRC). Further, while these regulations address some of the greatest sources of NPS pollution, there are other activities that contribute largely to NPS pollution that should be referenced and addressed, such as unpaved roads and urban areas. What are the policy or regulatory documents related to the control of these NPSs?

As an example, Georgia describes their efforts to address NPS pollution control in their Antidegradation Implementation Guidelines (GDNR, 2019). They state the following:

Nonpoint sources are addressed through a combination of regulatory (e.g., Stream Buffer Variances, Land Application or Treatment System permits) and nonregulatory mechanisms (e.g., implementation of agricultural and silvicultural BMPs), in cooperation with numerous Federal, State, and Local government agencies, universities, environmental groups and individual citizens implementing cost effective and reasonable BMPs... Additional information about specific practices to address nonpoint source pollution can be found in Georgia's Nonpoint Source Management Plan."

The draft AIM states that nonpoint sources can result in "a new or expanded amount of pollutants entering waters" (line 518). The concern is that for a waterbody that already has a "fixed" BWQ, how will an increase in pollutants resulting from future NPS activities be accounted for when calculating AC for future point source discharge applications? We suggest

that DEQ considers this point as it relates to establishing BWQ for any new or expanded facility, to account for new or changing contributions from NPSs.

### **Waters of the United States or Waters of the State**

In Section 3 on lines 166 and 168, the draft AIM references the applicability of Tier designations to waters of the United States (WOTUS). It seems like the State's plan to avoid degradation of waters should apply to the State's waters, and not limited to WOTUS. The AIM is directly related to the State's water quality standards, which apply to waters of the State; as such, the contents of the AIM should likewise apply to all waters of the State. Further, there is overwhelming scientific evidence that shows that wetlands and headwater streams greatly influence the water quality, biodiversity, and ecological health of downstream water bodies (Johnston, 1991; Peterson et al., 2001; Lowe and Likens, 2005). It is therefore incumbent on Arkansas to protect all the waters of Arkansas, and not limit the AIM to WOTUS determinations.

Given the importance of this document, DEQ should consider revising the draft AIM based on all comments submitted during this review and comment process, and then reopen the revised AIM for a second round of review and comments. Ideally, this would occur after the updates to Regulation 2 are finalized and promulgated.

On behalf of Ozarks Water Watch, thank you for the opportunity to participate in the review process and to offer comments on the draft AIM. We appreciate the need to balance the quality of our great waters of Arkansas with potential social and economic progress. With a robust antidegradation plan, both of these measures can be achieved.

Sincerely,

Erin Scott

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### **References**

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Davies, T.T. United States Environmental Protection Agency. 1994. Memorandum: Interpretation of Federal Antidegradation Regulatory Requirement.

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- RIDEM (Rhode Island Department of Environmental Management). 2010 (amended). Water Quality Regulations.