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August 13, 2020

Becky W. Keogh, Secretary
Arkansas Department of Energy and Environment
5301 Northshore Drive, North Little Rock, AR 72118

&

Jacob Harper
Arkansas Department of Energy and Environment
5301 Northshore Drive, North Little Rock, AR 72118

RE: Notice of Public Comment - Antidegradation and Implementation Methodology (AIM)

Secretary Keogh and Mr. Harper,

Biologists with the Arkansas Game and Fish Commission (AGFC) have reviewed the subject referenced notice, and have participated in a series of stakeholder meetings discussing these proposed changes to Arkansas water policy. We appreciate the opportunity to engage in these stakeholder meetings. In addition to comments and questions raised by our agency during these stakeholder engagement meetings, we also offer the following comments, questions, and suggestions organized into categories.

Baseline Water Quality

The AGFC inquired during the stakeholder discussions as to when baseline water quality (BWQ) data would be established for a waterbody, for the purposes of establishing assimilative capacity. The DEQ indicated that baseline water quality will be established at the time of a NPDES permit application and will be incumbent upon the applicant to determine. The AGFC maintains its position that whenever possible, BWQ should be calculated prior to new NPDES applications. This will allow DEQ staff to calculate current assimilative capacity taking into account existing dischargers and areas contributing to nonpoint source pollution. Pre-determinations of BWQ, when possible, will provide stakeholders and NPDES applications with clear and early tier determinations that could potentially expedite the antidegradation review process. The DEQ has maintained an ambient water quality monitoring network of over 150 stations for nearly 30 years. Invaluable water quality data from these stations as well as the extensive data from the DEQ roving network and probabilistic design network should be evaluated to help establish BWQ prior to any pending NPDES applications.

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The Arkansas Game and Fish Commission's mission is to conserve and enhance Arkansas's fish and wildlife and their habitats while promoting sustainable use, public understanding and support.

Narrative Criteria

At present, the draft AIM is only applicable for numeric criteria. Rule 2 currently identifies 11 narrative criteria between Chapter 4 (General Standards) and Chapter 5 (Specific Standards). The majority of Chapter 4 narrative criteria are intended to limit the deleterious effects of effluent on receiving waters. However, the most disconcerting is narrative nutrient criteria (Rule 2.509). The AIM does not include any methods for the determination of BWQ or assimilative capacity for narrative criteria. With continued prevalence of harmful algal blooms (HABs) and either status quo or increasing nutrient concentration trends in many waterbodies, the need for AIM procedures for nutrients is paramount. As the DEQ currently utilizes the 75th percentile of an ecoregion over the last five year period as a screening value for total phosphorus and total nitrogen impairments, then conceivably this should be the concentration, or trigger, to be avoided. Therefore, DEQ could feasibly calculate BWQ and assimilative capacity with the screening criteria as an upper limit to be avoided to prevent possible impairment sans promulgated narrative criteria.

Undefined AIM Procedures

Tier 3 Rivers, Streams, and Reservoirs

Rule 2.302(A) defines Extraordinary Resource Water (ERWs) as “a combination of chemical, physical and biological characteristics of a waterbody and its watershed...” How will DEQ apply Outstanding Resource Water (Tier 3) antidegradation review at the watershed scale, including, but not limited to tributaries of such ERWs as Bull Shoals Lake, Lake Ouachita, and DeGray Reservoir. The draft Continuing Planning Process (CPP) lacks any clear procedures for permit calculations and implementation for Outstanding Resource Waters. Rule 6.401(B) only applies a 10/15 CBOD5 and TSS threshold and case-by-case determinations for Ecologically Sensitive Waterbodies. The AGFC requests more clear antidegradation procedures and permit review and issuance procedures for the protection of aquatic life in Outstanding Resource Waters. Biologists with AGFC are also willing to assist in providing technical review of possible effects to Ecologically Sensitive Waterbodies and the occurrences of rare and/or sensitive species, such as SGCN (Species of Greatest Conservation Need). This assistance and technical review would be conducted in accordance with Section 11 Intergovernmental Coordination and Review of the AIM document.

Reservoirs

The draft AIM fails to clearly provide antidegradation procedures for reservoirs, including determination of BWQ and assimilative capacity for Tier 2 reservoirs. At present, Rule 6.401(C) states for dischargers to reservoirs, “In all cases, applicable water quality standards must be met”. The current CPP and Rule 6.401 do not contemplate lake depth, volume or hydrologic retention which greatly influence BWQ and effects of a discharge to water quality. For example, a minor municipal wastewater treatment plant operating at near design capacity (i.e. 0.9 mgd) would have a greater impact on water quality of a 450 acre reservoir than a 4,500 acre reservoir, despite meeting applicable water quality criteria. The AGFC encourages DEQ to further expand reservoir water quality monitoring and to continue to review appropriate models and permitting strategies for the protection of reservoir water quality. The AGFC is concerned with reservoir water quality as a 2017 report indicates that recreational anglers have over \$3 billion dollars invested in equipment to pursue their hobby. Furthermore, recreational anglers spent about 40% of their efforts fishing reservoirs and large rivers (Hunt and Westlake 2018). Reservoirs as

fishery resources are invaluable economic drivers for the State of Arkansas and water quality protections should be included with clear AIM procedures.

Applicability of Waters

As emphasized by agency comments during the stakeholder discussions, the AGFC would advise against narrowing the scope of applicable waters by tying antidegradation to the federal definition of a Water of the United States (WOTUS) as the proposed AIM procedures currently do. This definition is subject to much litigation and it changes frequently with court rulings and executive actions. We want to emphasize that antidegradation procedures should be applicable to karst and ephemeral streams. These streams are often critical to the physical, chemical, and biological integrity of downstream waters and the myriad of SGCN which occupy these stream types. The EPA, during stakeholder discussions, also encouraged the applicability of antidegradation procedures to all waters of the state, regardless of their federal jurisdictional status.

Economic Analysis

During the stakeholder discussions, ADEQ engineers stated they would be responsible for conducting socio economic analyses to determine the need and public interest of projects seeking to significantly degrade high quality waters. Significant degradation occurs when projects intend to use up more than ten percent of the assimilative capacity of a waterbody. While EPA provides an economic guidance document for water quality standards, Arkansas is a diverse state, both ecologically and socioeconomically. We recommend that an environmental economist be utilized to fully assess the costs and benefits associated with instances of significant degradation.

The AGFC appreciates the opportunity to participate in stakeholder discussions and to comment on this proposal. We look forward to working with the DEQ to ensure that the trust resources of this state are conserved while balancing the many needs and interests of all Arkansans.

Sincerely,



Chris Racey

Deputy Director

References

Hunt, K.M. and S.M. Westlake. 2018. Characteristics, Participation Patterns, Attitudes, and Preferences of Arkansas Anglers. Department of Wildlife, Fisheries and Aquaculture, Mississippi State University. Prepared for the Arkansas Game and Fish Commission. 53 pp.