Director Keogh, Caleb Osborne, and Sarah Clem:

According to the ADEQ public notice, proposed revisions to the 2018 list may be incorporated into the 2018 Arkansas Integrated Water Quality Monitoring and Assessment Report after approval by the ADEQ Director and the Region 6 Office of the U.S. Environmental Protection Agency. In the interest of the most effective remedy for the impairment of the Buffalo National River and its tributary, Big Creek, I propose that they be placed on the category 5 list, not the 4b list. This change will allow for priority investigation, monitoring and direct remedy. Since category 5 sets TMDLs (Total Maximum Daily Loads) on impairments, addressing these waterbodies in category 5 ensures that Arkansas will be able to meet the goals for clean water set by the EPA and expected by the citizens of Arkansas.

Listing these waterbodies as category 4b means that voluntary Best Management Plans (BMPs) would be encouraged, but not required. Governor Hutchinson's Beautiful Buffalo River Action Committee (BBRAC) through its Buffalo River Watershed Management Plan (BRWMP) declined to identify Big Creek as one of the priority streams that the plan would address, in spite of repeated requests and evidence provided by BRWA and concerned individuals during its several public meetings. I don't see any way that the BRWMP will now cure the problems of the impaired Big Creek. If the BRWMP is the "alternative plan in place" per 303d's Category 4b, it will fail to address Big Creek, as Big Creek was excluded from the six streams prioritized for implementation of BMPs, making it very unlikely that financial incentives will be provided for landowners in the Big Creek subwatershed. Plus, the BRWMP specifically does NOT address permitted facilities, and it's safe to assume that the single largest confined animal feeding facility (CAFO) in the Big Creek sub-watershed is a major contributor to impairment. Further, adopting BMPs under the BRWMP is strictly voluntary and non-enforceable. Only by moving Big Creek to Category 5 can the impairment sources be confirmed (through TMDLs) and properly and promptly corrected through enforcement action if necessary, things not possible in Category 4b.

By postponing definite and enforceable category 5 actions by ADEQ, this issue will grow more complicated and acute. Excessive phosphorus is routinely applied to fields in the watershed and, combined with accumulating "legacy" phosphorus previously applied, nutrients and associated pathogens are reaching unacceptable levels. The overload washes into surface water through runoff and seeps into groundwater springs that supply our streams, promoting accelerated pathogen growth which results in erratic levels of dissolved oxygen confounding the lives of freshwater fish and aquatic species up and down the food chain. When established biotic systems are disturbed and disrupted, the naturally balanced, pristine waters of streams are impaired. We are seeing exponential growth of algal masses in the mainstream of the Buffalo. 20 mile stretches that dismayed us two years ago have increased to stretches that are 70 miles long in this 2018 summer. This is not accidental or unforeseen. Science tells us that the river is widening and creating shallower waters. Higher temperatures and record levels of sedimentation washing in from new pasturelands and logging projects exacerbate the cumulative effects of nutrients. Impairment is accelerating. Phosphorus in agricultural runoff may be dissolved or sediment bound. This is not a simple problem. Voluntary land management practices like BMPs are insufficient since few people make use of them. Spreading increasing amounts of nitrogen and phosphorus across more acreage in the watershed is not the solution. Nutrient overloading and pathogens from raw animal waste are impacting Big Creek and the Buffalo now, and it is critical that ADEQ change the

status of Big Creek to category 5. Taking direct actions to remedy the pathogen and dissolved oxygen impairments, ADEQ can restore our clear mountain streams for fishing, recreation and the small local family farms and businesses that depend upon them. Let's make Arkansas great again, by cleaning up the troubled water in the Buffalo River watershed.

Sincerely, Karen L Geiger 14 Santistaban Way Hot Springs Village AR 71909