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Tuscaloosa, AL 35487
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Alabama Surface Mining Commission
Attention: Ann Miles
P.O. Box 2390
Jasper, AL 35502

RE: Black Warrior Riverkeeper's Petition to Designate Lands Unsuitable for Mining (LUM) Upstream of the Birmingham Water Works Board's Mulberry Fork Water Intake

Dear Surface Mining Commission:

I am a Professor Emeritus within the Department of Biological Sciences at the University of Alabama. My students and I have been studying rivers in Georgia (Satilla and Ogeechee Rivers) and Alabama (Sipsey and Cahaba Rivers) and their ecological conditions for 38 years. I was also coordinator of the UA Aquatic Biology Program for 16 years and have been recognized in my profession on several occasions. My expertise is on natural communities of freshwater invertebrates (e.g., aquatic insects and crustaceans), the base of the food web for most river fishes and other vertebrates. In 2005, I organized and edited an 1144 page book entitled "Rivers of North America", the only such comprehensive book of its kind. Suffice it to say, I have a lot of first-hand familiarity with the natural conditions and impacts of industry and pollutants on the rivers of our continent and particularly in Alabama.

Given my background knowledge on the ecology of rivers, I fully endorse Black Warrior Riverkeeper's petition to designate that "Lands Unsuitable for Mining (LUM)" be applied to the land proposed for coal mining on Shepherd Bend, and other proposed mining activities upstream of the Birmingham Water Works Board's Mulberry Fork water intake. Mulberry Fork and the Black Warrior watershed have been degraded and polluted by industries, particularly coal mining, for far too long. In a modern country, we should be seeking ways to restore the quality of our vital resources, particularly freshwater, rather than making the same old mistakes and compounding the problem. One thing we know about damaging our freshwater resources – it is far less expensive to not degrade them in the first place than try to fix them after the fact, if the latter is even possible.

As you should be well aware, mining is one of the most environmentally toxic industries in the world and its impacts on the natural environment and human health are often greatly underestimated because of "self-monitoring". We can predict with certainty the release of lead, mercury, cadmium, and many others, as well as enormous silt loads. The only question remaining is "how much contamination and how much damage?" The

predictable degradation and costs associated with Birmingham's water supply has been well argued by many groups from the Birmingham Water Works Board, to the Mayor and City Council, to conservation groups, to student organizations. Given such well-informed opposition to the mining, it is incomprehensible to me that such a project could go forward. The only point I wish to emphasize is that treating the water will not only be expensive, it will not be 100% effective. Regardless of the treatment, we will be poisoning our own citizens and our own environment! How can decision-makers live with that? Do we want to push Birmingham to be among the top 10 cities in the U.S. for most contaminated tap water supplies?

As if the poisoning of Birmingham's water supply isn't bad enough, most people overlook the fact that such mining also poisons the river and its organisms downstream. Heavy metals, other toxic chemicals and siltation are well known for their harm to the primary consumer animals (invertebrates) and thus for fishes, reptiles, amphibians and others. These harmful substances can kill organisms outright, destroy habitats, or their effects can be magnified up food webs. Many fishes in Alabama such as largemouth bass already have mercury concentrations that cause significant health risks in humans. People not only fish in these rivers, but they swim and boat, unknowingly exposing themselves to potentially contaminated waters. How far downstream will this pollution travel? We really don't know. But the USA Triathlon National Championship organization would never come back to swim in the Black Warrior River at Tuscaloosa if they knew such mining activities were going on upstream.

Any responsible management of our rivers should never allow any kind of mining in river floodplains and near-shore areas. There is simply no doubt that Shepherd Bend and similar areas are unsuitable for mining. To maintain a reasonably high quality, rivers and their major tributaries should have adequate vegetation buffer zones. Mining and other intensive activities should be kept well away from the river's edge and pollution discharge into these rivers and their tributaries should be avoided. It is ludicrous that our modern society allows mining on the banks of any river.

In summary, I strongly encourage the ASMC to approve the petition by Black Warrior Riverkeeper. There are no substitutes for freshwater. Please help protect our rivers.

Sincerely,

Arthur C. Benke, Ph.D.
Professor Emeritus
University of Alabama