

January 17, 2013

Alabama Surface Mining Commission

Re: Black Warrior Riverkeeper LUM Petition

Position: to support BWR petition to declare lands adjacent to the Mulberry Fork unsuitable for mining.

Dr. Randal C. Johnson, Director.

There has been much controversy regarding the permitting of the Shepherd Bend Mine and Reed Minerals No. 5 mine in the vicinity of the Mulberry fork of the Black Warrior River. Any future proposals to surface mine for coal in the immediate vicinity of these two mines will surely result in further controversy. I am in support of Black Warrior Riverkeeper's (BWR) petition to declare this land unsuitable for this application based on many observations, not the least of which is the obvious problem with locating mining activities upstream and in near vicinity of a potable water intake for the City of Birmingham.

Ample evidence has been gathered over many years of the environmental impact of surface mining for coal in the form of topographical disfiguration, the release of toxic pollutants, increase sedimentation and acid/alkaline mine drainage to surrounding lakes and streams. A study published in July 2009 by the Federal EPA region 3 (Pond, Passmore, Borsuk, Reynolds and Rose) reinforces the position that there is a definite correlation between mountain top/surface mining (MTM) and the sustained degradation of the environment as evidence by the impact valley fills have on the macroinvertebrates in the study. This comprehensive study included data collected over a period of years and incorporated references from numerous other environmental research projects conducted by other professionals and universities.

The study included monitoring the release to receiving streams of heavy metals and secondary contaminant metals from MTM operations. The study used a comparison between un-mined vs. mined streams and revealed a direct correlation between the reduction/elimination of the study macroinvertebrates and increased conductivity of the receiving streams. Conductivity representing the concentration of dissolved metals and salts in the water.

This study was conducted on mining activities in West Virginia and Pennsylvania which typifies most acid mine drainage (AMD) mines in the Appalachian region. The coal characteristics and processing are similar in Alabama and the findings in the study are applicable to this region.

The current method for most coal mining operations to "treat" or control wastewater discharges is by means of a settling pond to allow retention of the solids/sediment in the water. This treatment does not address the metals that are bound to be present in a dissolved form due to low pH of the water. Raising the pH to a level to be compliant is not sufficient enough to treat the dissolved metals, primary and secondary, which require a higher pH adjustment in order to be removed. In addition, there is generally insufficient facility to contain water when a storm event occurs resulting in untreated stormwater runoff entering lakes and streams unabated.

It can be assumed that any mines within the petition area will be operated in the same manner as historically evident in this region resulting in releases of dissolved metals and sediment/erosion runoff

into the Mulberry Fork. To counter for the excess of contaminants, the Birmingham waterworks will have to employ additional treatment technologies, or at the very least, incur additional chemical costs to treat the water to potable specifications. This cost would be borne by the community as necessary to overcome the direct impact of mining operations on the banks of the Mulberry Fork.

As an environmental professional having worked in many disciplines, I have been privy to monitoring groundwater, lakes and streams in "reclaimed" areas from surface mining. I have seen the long term effects of environmental damage that remain even years after a site has been closed and "reclaimed". This is evidenced by extremely low pH values measured in surface waters and the absence of biological life in lakes. The lack of good topsoil in reclaimed areas inhibits the ability to reintroduce indigenous species of plants such that hybrid plants, that are more resilient to existing conditions, are planted in the hopes of negating additional topsoil erosion and to provide an organic matter base in which to diversify future flora.

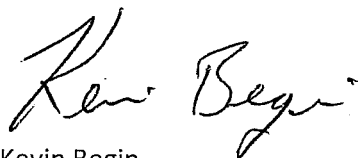
Having witnessed these conditions firsthand, a conclusion can be drawn that if the mines are located at the proposed site, it will continue to impact the area for decades costing the community incalculable funds for potable water treatment and result in a negative effect on water quality and the future use of the river.

If ever there was a reason to classify an area as "unsuitable for mining", this situation would be a perfect example. The fact that the proposed mine sites are located on the banks of a river that is designated as a primary drinking water supply and for recreational use should be enough to deny a permit to mine. To allow a mining operation of this magnitude on Mulberry Fork is in direct conflict with Alabama Department of Environmental Management's (ADEM) watershed management plan. To quote the purpose of the plan directly:

*"Watershed management fosters the coordinated implementation of programs to control point source discharges, reduce polluted runoff, and protect drinking water and identified sensitive natural resources. The goal of the Mulberry Fork Watershed Management Plan is to improve and protect water quality within the Watershed, in order to meet or exceed Alabama water quality standards".*

The ADEM Mulberry Fork WMP was developed in 2002 with the input of many stakeholder organizations as a means to address water quality issues and implement a process to restore the water quality in the affected areas. Many sections of the Mulberry Fork, as well as tributaries of the Black Warrior River, continue to be listed on the state's 303 (d) list as being impacted by various activities and contaminants. Many contaminates identified in the WMP and on the 303 (d) list can be connected to existing and past mining activities throughout the watershed area.

Considering that the water quality in the Mulberry Fork is already compromised, and continued mining activity will result in further degradation, it would seem prudent to grant the petition to declare the lands adjacent to the Mulberry Fork as unsuitable for mining..



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