

# *Coal Ash Pollution in the Black Warrior River Watershed*



Aerial View of Plant Gorgas' Rattlesnake Lake Coal Ash Impoundment | Flight by [SouthWings.org](http://SouthWings.org)

## Introduction

Coal ash is the toxic waste that remains after coal is burned. It contains high levels of heavy metals including, arsenic, cobalt, lithium, and molybdenum, and even radioactive elements like radium.<sup>1</sup> For decades, Alabama Power has disposed of this waste in unlined, leaking ponds or pits alongside our rivers.

The presence of these toxic waste pits beside our rivers has long been a concern for people in Alabama and across the nation. These coal ash pits discharge millions of gallons of wastewater into rivers every day and pollute groundwater.<sup>2</sup> Because of their proximity to rivers, catastrophic spills and the contamination of drinking water sources are real and documented risks. For example, in 2008 a dam at the TVA power plant in Kingston, Tennessee failed, releasing approximately 5.4 million cubic yards of toxic coal ash into the surrounding community and the Emory River.<sup>3</sup> Since that time, numerous other spills have occurred at ash ponds in the southeast and around the nation, polluting rivers, damaging other natural resources and endangering local communities.<sup>4,5,6</sup>

Because of these risks, power companies in other southeastern states are excavating their waste ash and recycling it and/or removing it to upland, lined landfills.<sup>7</sup> However, Alabama Power does not plan on following suit to protect the health and well-being of Alabama's citizens and rivers. Instead, they plan on leaving their coal ash in unlined, leaking pits next to our rivers and communities,<sup>8</sup> where the toxic ash will continue to pollute groundwater and rivers for decades.<sup>9</sup>



Plant Miller Ash Pond with Locust Fork in Foreground | Flight by [SouthWings.org](http://SouthWings.org)

## **What Can Be Done to Limit the Threat?**

In response to the Kingston disaster and other coal ash spills, the US Environmental Protection Agency (EPA) promulgated the Coal Combustion Residuals Rule, or 2015 CCR Rule, to address the harmful disposal of coal ash waste and to limit the potential for future environmental disasters.<sup>10</sup> The CCR Rule requires the closure of all coal ash ponds that do not meet current design specifications, but gives utilities a choice in how they plan to close their ponds.<sup>11</sup> One option is to leave the coal ash where it is, dewater the pond, and cover the coal ash with a water resistant cover.<sup>12</sup> This process is called “cap-in place.” The second option, referred to as “excavation,” also requires dewatering the pond, but is followed by removing the coal ash and taking it to a landfill with a composite liner and a leachate collection and removal system, or finding an alternative “beneficial use” such as recycling it into concrete.<sup>13</sup> Toxic pollutants are less likely to move into groundwater, communities, or rivers if landfills are properly engineered and maintained, and located away from communities and water resources. Excavation is the most protective option for ash pond closure.

Other utilities in southeastern states, including Georgia, North Carolina, South Carolina, and Virginia, have announced plans to excavate the ash from most (or all) of their current pits, and will either recycle and/or dispose of it in lined landfills.<sup>14</sup> In South Carolina, where removal has already begun, one study indicated that arsenic levels in the groundwater at one location dropped by up to 99% after removal of just one third of the coal ash in the pond.<sup>15</sup> The evidence is clear that these nearby states have the right idea. Excavation is not only safer for groundwater (and the rivers fed by that groundwater), but also drastically reduces the threat of catastrophic dam failure.

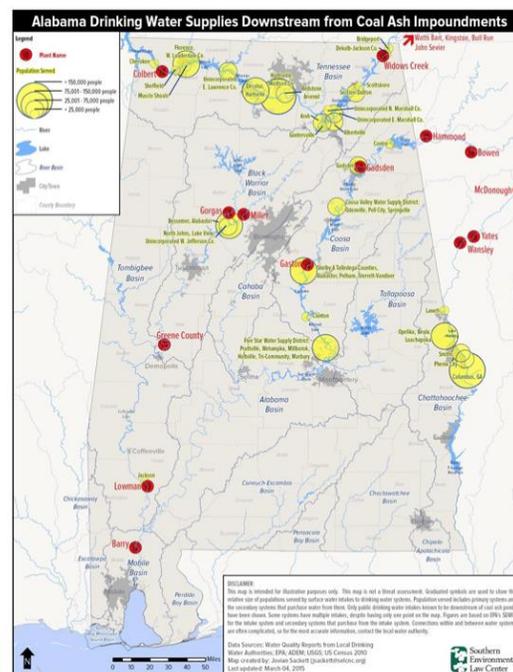


Plant Greene County Ash Pond (middle), Black Warrior River (foreground) | Flight by [SouthWings.org](http://SouthWings.org)

## Coal Ash on the Black Warrior River

The Black Warrior River watershed flows through one of the most biodiverse regions in the country and provides a source of drinking water for dozens of communities across north-central Alabama. Thousands of people use the river and its tributaries for fishing, swimming, hunting, and watersports, contributing to Alabama’s \$14 billion outdoor recreation economy.<sup>16</sup> Despite the river’s importance to our state, Alabama Power plans to keep three unlined, leaking coal ash pits along the river: Plant Gorgas (Mulberry Fork, Walker County), Plant Miller (Locust Fork, Jefferson County), and Plant Greene County (lower Black Warrior River).

These three pits contain a total of about 55 million cubic yards of coal ash, or an estimated 55 million tons (110 billion pounds, or 10 times the amount released in the Kingston disaster).<sup>17</sup><sup>18</sup><sup>19</sup> Alabama Power’s federally mandated groundwater monitoring indicates that groundwater around the pits contains unsafe levels of toxic contaminants such as arsenic, cobalt, lithium, and molybdenum.<sup>20</sup> Because of the groundwater pollution and the fact that the pits do not meet the current, minimum safety standards of the CCR Rule (they are too close to groundwater resources, because they were built on top of and in streams and wetlands), they must be permanently closed. Alabama Power plans to cap its coal ash in place and recently held public information sessions trying to sell the public on this dangerous plan.<sup>21</sup> This shortsighted decision was made prior to receiving required public input. The public deserves to be better informed about these massive toxic waste sites and meaningfully involved in determining what the future of coal ash disposal should be in Alabama.



## Conclusion

Because all three coal ash ponds in the Black Warrior River watershed are unlined and were built on top of existing streams and wetlands, legal and groundwater experts consulted by Black Warrior Riverkeeper believe that cap-in-place closure of the coal ash waste sites in our watershed will not satisfy the current federal and state rules. Alabama Power is still in the early stages of its plans to cap its coal ash in place. It is not too late for them to do the right thing: excavate and remove their coal ash away from our rivers. We want to fish, boat, swim, and enjoy the natural beauty of the Black Warrior River without worrying about toxic metals harming water and wildlife. We want to enjoy these pursuits without the threat of a major coal ash spill caused by a tropical storm or structural failure. We must demand that Alabama Power do better to protect Alabama and preserve our way of life. People should share their [concerns](#) with local, state, and federal elected [officials](#), state (ADEM) and federal (EPA) [regulators](#). It is our responsibility to tell them that we will not accept additional decades of water pollution or the threat of environmental disaster.

## About Us

Black Warrior Riverkeeper's mission is to protect and restore the Black Warrior River and its tributaries. We are a membership-based nonprofit organization dedicated to clean water advocacy for the sake of public health, recreation, and wildlife throughout the Black Warrior River watershed in Alabama. All research and documentation for this report was gathered and synthesized by Black Warrior Riverkeeper.



For more in-depth information on this issue, please see our full report here:  
<https://blackwarriorriver.org/wp-content/uploads/2020/06/BWRk-Coal-Ash-Report-6.25.2020.pdf>



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For more information, see references below:

- <sup>1</sup><https://www.psr.org/wp-content/uploads/2018/05/coal-ash-hazardous-to-human-health.pdf>
- <sup>2</sup><https://www.alabamapower.com/content/dam/alabamapower/Our%20Company/How%20We%20Operate/ccr/plant-gorgas/ash-pond/groundwater-monitoring-and-corrective-action/2018%202nd%20Semi-Annual%20GWPS%20Exceedance%20Notification%20-%20Plant%20Gorgas%20Ash%20Pond.pdf>
- <sup>3</sup><https://www.epa.gov/tn/epa-response-kingston-tva-coal-ash-spill>
- <sup>4</sup><https://www.epa.gov/dukeenergy-coalash>
- <sup>5</sup><https://www.waff.com/story/9646054/reported-coal-ash-spill-at-tvas-widows-creek-plant/>
- <sup>6</sup><https://www.powermag.com/notable-coal-ash-spills-slideshow/>
- <sup>7</sup><https://www.powermag.com/a-brief-history-of-u-s-coal-ash-since-the-kingston-spill/>
- <sup>8</sup><https://www.alabamapower.com/content/dam/alabamapower/Our%20Company/How%20We%20Operate/ccr/plant-gorgas/ash-pond/closure-and-post-closure/Notification%20of%20Intent%20to%20Initiate%20Closure%20-%20Plant%20Gorgas%20Ash%20Pond.pdf>
- <sup>9</sup><https://www.alabamapower.com/content/dam/alabamapower/Our%20Company/How%20We%20Operate/ccr/plant-gorgas/ash-pond/groundwater-monitoring-and-corrective-action/Assessment%20of%20Corrective%20Measures%20Plant%20Gorgas%20Ash%20Pond.pdf>
- <sup>10</sup><https://www.epa.gov/coalash/fact-sheet-2015-final-rule-disposal-coal-combustion-residuals-generated-electric-utilities>
- <sup>11</sup><https://www.epa.gov/coalash/fact-sheet-2015-final-rule-disposal-coal-combustion-residuals-generated-electric-utilities>
- <sup>12</sup><https://www.epa.gov/coalash/fact-sheet-2015-final-rule-disposal-coal-combustion-residuals-generated-electric-utilities>
- <sup>13</sup>[https://www.epa.gov/sites/production/files/2014-12/documents/factsheet\\_ccrfinal\\_2.pdf](https://www.epa.gov/sites/production/files/2014-12/documents/factsheet_ccrfinal_2.pdf)
- <sup>14</sup><https://www.powermag.com/a-brief-history-of-u-s-coal-ash-since-the-kingston-spill/>
- <sup>15</sup><https://www.southernenvironment.org/news-and-press/press-releases/south-carolina-groundwater-contamination-plummets-after-coal-ash-removal>
- <sup>16</sup><https://outdoorindustry.org/state/alabama/>
- <sup>17</sup><https://www.alabamapower.com/content/dam/alabamapower/Our%20Company/How%20We%20Operate/ccr/plant-gorgas/ash-pond/operating-criteria/Report%20of%20Annual%20Inspection%202019%20-%20Ash%20Pond.pdf>
- <sup>18</sup><https://www.alabamapower.com/content/dam/alabamapower/Our%20Company/How%20We%20Operate/ccr/plant-greene-county/ash-pond/operating-criteria/Report%20of%20Annual%20Inspection%202019%20-%20Ash%20Pond.pdf>
- <sup>19</sup><https://www.alabamapower.com/content/dam/alabamapower/Our%20Company/How%20We%20Operate/ccr/plant-miller/ash-pond/operating-criteria/Report%20of%20Annual%20Inspection%202019%20-%20Ash%20Pond.pdf>
- <sup>20</sup><https://ashtracker.org/index/facility#AL>
- <sup>21</sup><https://www.alabamapower.com/our-company/how-we-operate/ccr-rule-compliance-data-and-information/public-notice.html>