



# CLEANING UP COAL ASH FOR GOOD

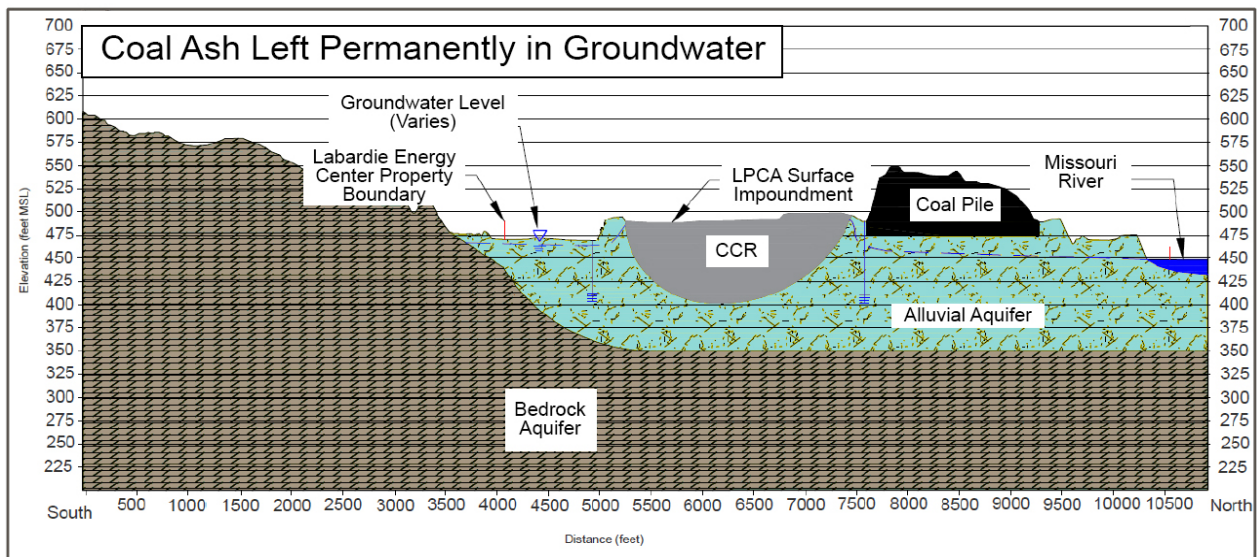
## Economists and Environmental Engineers Show Benefits of Clean Closure

### Urgent National Closure Issue

Coal ash is the toxic waste generated by the combustion of coal and is one of the largest industrial waste streams in the U.S. Nearly all coal-burning power plants have severely contaminated nearby groundwater by disposing of their toxic ash into leaking storage ponds and landfills. Hundreds of these toxic waste ponds will close to comply with EPA safety requirements. For this report, economists, engineers and hydrogeologists compared the economic, environmental, and community impacts of different closure methods. Their analysis finds significantly higher benefits from a “clean closure” where all ash is removed from leaking ponds, and the local community is engaged in the closure, cleanup, and redevelopment planning processes. The findings are published in the report *Cleaning Up Coal Ash for Good* which includes three separate technical studies by the experts.

Coal ash ponds often contain millions of tons of

heavy-metal laden waste spanning hundreds of acres. Recent industry data show that 92 percent of coal ash ponds are polluting the underlying groundwater to levels that exceed federal drinking water standards. This contamination contains carcinogens, neurotoxins, developmental toxins and other dangerous chemicals. This contaminated groundwater can flow to drinking water wells or pollute nearby surface water. Because hundreds of polluting coal ash ponds around the country must close in the next few years to comply with federal regulations, it is essential that these closures permanently protect health and the environment. Ash must be completely removed (“clean closure”) when the toxic material is in contact with groundwater or threatens surface water. Excavated ash can be disposed in dry landfills or used as a raw material in products such as concrete or drywall. Clean closure prevents further groundwater pollution and eliminates the risk of catastrophic spills due to floods and extreme weather events.



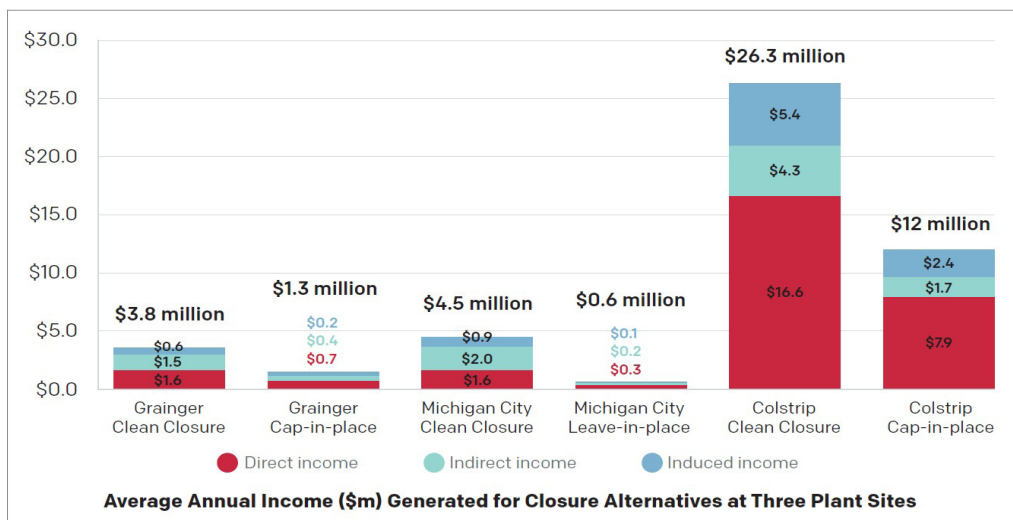
Cross-section of the leaking coal ash (CCR) pond containing more than 16 million tons of ash at the Ameren Labadie Energy Center, MO. The ash pond extends 75 feet into the alluvial aquifer and is about 900 yards from the Missouri River. Ameren capped the unlined pond in place, leaving ash in contact with the aquifer, in the flood plain, and in close proximity to the River. *Haley & Aldrich Inc., Corrective Measures Assessment (prepared for Ameren), May 2019 (color adjusted).*

### VIEW THE FULL REPORT HERE

More information on coal ash pollution:  
[www.earthjustice.org/coalash/map](http://www.earthjustice.org/coalash/map)

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**Average Annual Income (\$m) Generated in Local Communities for Closure Alternatives at Grainger Generating Station, Michigan City Generating Station, and Colstrip Steam Electric Station.** Income generated by clean closures exceeds cap-in-place closures by 2 to 7.5 times in the three communities.

The economists, engineers and hydrogeologists studied the positive economic and environmental impacts of responsible and safer coal ash pond closure at three coal-burning power plants: the Grainger Generating Station in South Carolina, the Michigan City Generating Station in Indiana, and the Colstrip Steam Electric Station in Montana. At each of the three plants evaluated in this report, coal ash was disposed of in unlined surface impoundments or fill areas that are in contact with groundwater. For each site, the team compared the outcomes for a cap-in-place (or leave-in-place) alternative and a clean closure alternative. **Clean closures resulted in 2 to 7 times greater positive economic impact for each community.**

Improper and ineffective closure such as cap-in-place may lead to legacy pollution that can devastate both the social fabric and economic well-being of a community. While this analysis focuses on the increase in jobs and economic benefits from effective coal ash closure, it is also critical to consider additional benefits that flow from proper closure, such as improved public health outcomes, increased property values, healthy freshwater ecosystems, and redevelopment opportunities. Further, it is important to recognize that the social, economic and health burden of coal ash pollution, nationwide, is carried disproportionately by communities of color and low-income communities. All three of the sites examined in this report are located near populations that

have a disproportionate percentage of low-income residents and/or people of color.

Complete and effective coal ash closures and cleanups depend upon strong regulations, rigorous enforcement and oversight from regulatory agencies, and fully-funded community engagement. It is incumbent on our state and national leaders, agencies and legislators to strengthen and enforce federal coal ash regulations and ensure no coal plant community is left with a toxic waste legacy. The recommendations in this report are aimed at ensuring that proper closure and cleanup are carried out at every coal ash site in the United States.

### Policy Recommendations

The U.S. Environmental Protection Agency (“EPA”) must:

1. Enforce the 2015 federal Coal Combustion Residuals (CCR) Rule’s prohibition on cap-in-place closure when the coal ash impoundment is in contact with groundwater. Failure to enforce this provision is resulting in the closure of toxic dumps in groundwater, ensuring that hazardous chemicals will continue to leak into water in perpetuity.
2. Enforce the CCR Rule’s prohibition on cap-in-place closure when the coal ash impoundment is located in a floodplain and susceptible to floods that may destabilize the toxic waste. Failure to enforce

this provision will result in significant and long-term threats to water resources throughout the United States.

3. Provide financial assistance to frontline communities through EPA’s Technical Assistance Services for Communities (TASC) Program and other grant programs to empower residents to participate meaningfully in the cleanup and closure of toxic coal ash dumps and achieve just transition.

4. Provide oversight in communities where closure and cleanup are occurring to ensure coal ash excavation, transport, reuse and disposal are done safely and without the release of toxic contaminants to air, soil or water in the host communities, at the work sites, in communities along transport routes, and at the final disposal site. Excavation and transport of coal ash requires air monitoring and protective measures to prevent the inhalation of toxic ash by cleanup workers and nearby residents. Finally, ensure that final disposal does not disproportionately burden communities of color and low-income communities.

**State and Local Officials must:**

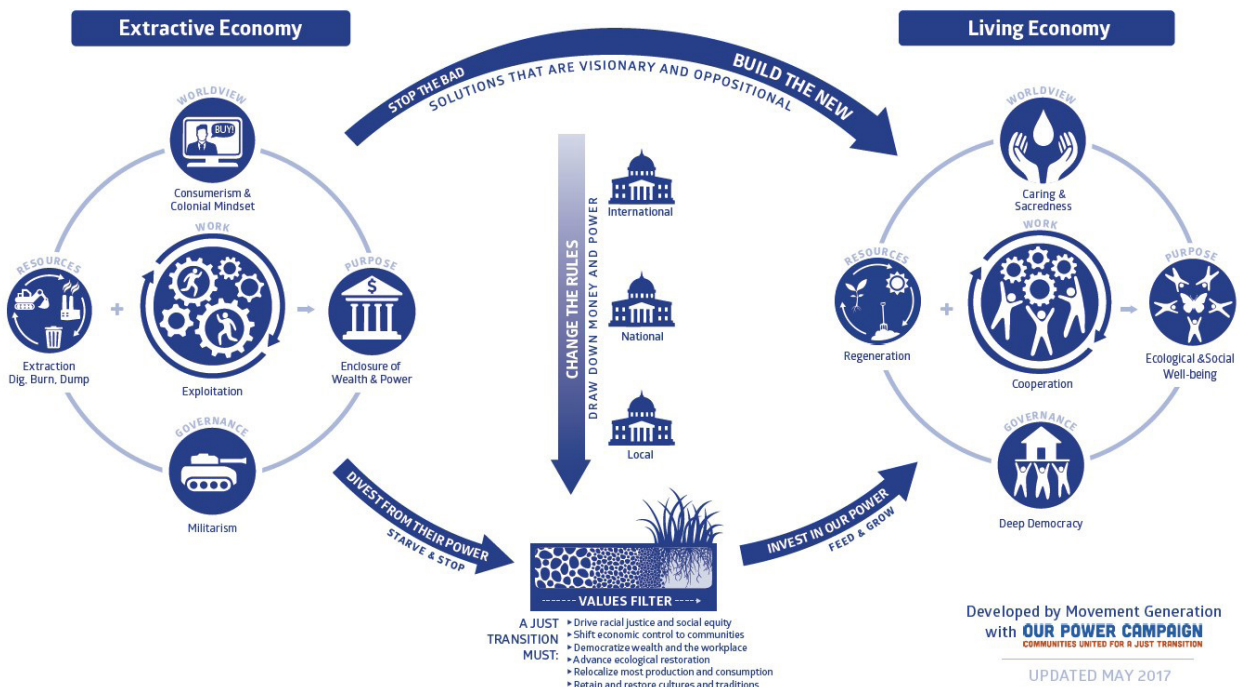
1. Provide oversight and enforcement to ensure that the requirements of the 2015 CCR Rule are followed by all owners and operators. States have the authority to enforce all provisions of the CCR Rule, or equivalent state regulations, including the prohibition on leaving coal ash in groundwater and floodplains and the requirement to initiate a timely cleanup of contaminated groundwater.

2. Provide support and resources to local communities. State and local officials must consider the local economic and environmental impacts of coal pond closures and assist communities in advocating for the most positive result.

**The U.S. Congress must:**

Provide financial resources for just transition: The U.S. Congress must recognize that additional financial resources are needed in communities facing coal plant closures. Funding is imperative to ensure equitable and just transitions: it will enable affected communities to build capacity to meaningfully participate in the planning for site reuse, ensure workers are protected, and provide safe and healthy transitions of their environments and economies.

### A STRATEGY FRAMEWORK FOR JUST TRANSITION



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