

LONGWALL MINING FOR CLEAN COAL ‘PERMANENTLY’ DAMAGED 6 STREAMS IN PENNSYLVANIA

New scrutiny of ‘longwall’ mining finds damage in Pennsylvania streams



The brutally efficient coal-extraction method known as “longwall mining” has permanently damaged a half dozen streams in Pennsylvania, state regulators have found — a finding that could trigger deeper waves for such operations in the state. In December, the state’s Department of Environmental Protection, or DEP, sent a little-noticed letter relaying its unusual decision to the coal company that has tried to repair one such stream for five years, Consol Energy.

Regulators determined the unnamed tributary, UT-32596, “has not been restored to conditions that existed prior to undermining.”

They called further remediation attempts “futile,” and demanded the company compensate “for the loss of Commonwealth resources.”

The same day, the DEP sent another notice to Consol conveying a similar conclusion about five other streams “not recovered from the effects of underground mining.” The agency said it “now requires Consol to perform compensatory mitigation or enhancement measures.”

Traditional underground mines use a technique known as “room-and-pillar,” which leaves blocks of coal behind to support the earth. By contrast, longwall mines involve hulking steel shearers that slice off entire coal seams hundreds of feet below ground, and leave in their wake caverns up to five feet tall. The consequent shock waves cause severe damage to structures, disrupt wildlife and deplete water resources.

The state scrutiny targets streams that include a once-gushing waterway cutting across Kim Jones’ 62-acre farm in Wind Ridge, in the bottom corner of western Pennsylvania.

In 2004, when the tributary first fell victim to longwall mining, Jones predicted it would never return. The state-approved plan to “restore” the stream has done little to change her mind, she says.

At her KD Farm and across southwestern Pennsylvania, where five of the nation's largest longwall mines operate, the full-extraction method has sucked dry water resources and disrupted aquifers for nearly two decades, often with little intervention from the state.

“We knew our stream couldn't be fixed and we were telling DEP all along, ‘This isn't working,’” Jones says, referring to the agency's required remediation. “DEP kept telling us, ‘Yeah, it is.’”

Still, she says of the regulators' newest finding: “I was surprised that DEP did what it did.”

Anti-longwall activists believe the rulings could impact future longwall mining activities in Pennsylvania and beyond. Currently, Consol is applying for a permit revision to expand its largest operation, Bailey Mine, by 3,135 acres, which would mean undermining more than a dozen additional area streams. Most would endure “temporary” damage, including the loss of stream flow, according to the company's application.

The DEP's determination could complicate that application, experts say, forcing the company to reconsider its expansion plans or to use a less destructive method beneath water resources. Indeed, the agency's letters to Consol warn it may have to revise its permit plans to ensure that future longwall mining “will not result in a similar outcome.”

Consol did not respond to repeated requests for comment, but the company has challenged the DEP's rulings, filing appeals in January with the state's Environmental Hearing Board.

Some activists hope the agency's rulings pave the way for a moratorium on longwall mining beneath all streams, springs, seeps, and wetlands for not just Consol, but other coal companies throughout northern Appalachia.

"This is the first time a state agency has come out and admitted permanent damage to a stream from longwall mining," says Aimee Erickson, director of the Citizens Coal Council. Now, "we have the evidence to try to do something to stop longwall mining."

And that evidence continues to mount, critics say.

All six of the irreparably damaged streams have suffered "flow loss" from Consol's Bailey Mine, which snakes beneath 144 square miles of rural terrain in Greene County. Here, Bailey's longwall machine has caused such hydrologic chaos that Consol has had to conduct state-required remediation on miles of creek, the Center for Public Integrity reported in 2009. Four of the broken streams run above Bailey's 1-1 to 4-1 longwall panels, the same panels underlying Ryerson Station State Park. In 2005, the park lost its 62-acre Duke Lake when its dam cracked after the longwall machine had moved beneath the park.

State officials later filed an unprecedented lawsuit against Consol over the alleged damages; in April, they announced a multi-million-dollar settlement with the company to repair the dam and re-open the lake.

In court documents, Consol describes the recent DEP action as “arbitrary, capricious, contrary to law and ... an abuse of discretion.” The company says it has “complied with all its obligations” under existing consent orders, and “minimized the impacts of mining on the streams ... to the extent possible using the best technology currently available.”

Citing the pending litigation, the DEP has declined to elaborate on its determinations.

Stephen Kunz, a Pennsylvania ecologist who has chronicled the effects of longwall mining, believes these are “the first in a wave of streams that we’ll find out the mining companies have been working on for years, and can’t restore the flow.” He cites other tributaries that have suffered harm.

From 2003 to 2008, 55 stream-damage claims were filed with the DEP alleging harm from longwall mining, according to a January 2011 agency report cataloguing the effects of underground mining across Pennsylvania. Of those, 24 involve dewatered streams because of Bailey’s longwall machine. To date, most of the claims remain “not resolved,” including 13 relating to the streams now at issue in the DEP case.

Kunz fears the kind of irreversible damage the state law authorizing longwall mining, known as Act 54, supposedly prevents. “Act 54 was meant to say, ‘If you broke it, you fixed it,’ ” he asserts. But “that regional hydrologic impact is not being fixed.”

A Stream Runs Through It

Jones’ stream has long served as a poster child for those pushing to reform Act 54. Since Consol began mitigating it in 2007 — injecting its bed with grout, pumping water into its channel — coalfields activists have toured the tributary with reporters and regulators. Sometimes, water returns at a reduced rate, flowing below the banks. Other times, it remains dry. Years’ worth of photographs and video taken by Jones depict more and more plants sprouting up in the stream’s channel, gradually erasing it from the landscape.

Officials with the federal Office of Surface Mining and Reclamation took in this scene last fall. At the time, Consol had completed its mitigation, and Jones was pressing the DEP for a report. “I kept getting the runaround,” she recalls. When she relayed the situation to the OSM officials, Jones says, they “pretty much told me to file a citizen’s complaint.”

On December 10, she sent a letter chronicling “stream and subsidence damage at my Wind Ridge Property” to the OSM’s David Hamilton, who oversees the DEP’s coal-mining programs.

The federal agency took action. By December 17, Hamilton's office had issued a 10-day notice to the state agency, warning it "has reason to believe [Consol] is in violation" of mining regulations, and requiring the DEP "to take appropriate action." The notice cites two alleged violations involving the stream loss — a "failure to maintain the value and reasonably foreseeable uses of a perennial stream as they existed prior to coal extraction"; and a "failure to mitigate the adverse effects to a perennial stream caused by underground mining."

On December 24, DEP officials essentially confirmed the federal notice.

They stated that "a letter is being prepared in conjunction with our legal staff to inform Consol that [its] underground mining operations ... have adversely affected an intermittent or perennial stream."

The DEP's final report on Consol's efforts to remediate Jones' stream, dated Oct. 22, 2012, shows that "for most of the monitoring time there was no flow" along the tributary at any of five monitoring points. "We concur with the state," Hamilton explains. "Nothing can be done to restore the stream flow and therefore ... it's over."

He considers the pending litigation "a big deal," adding, "This is the first case I've heard where the agency has made this type of legal finding."

The DEP has actually gone to court over a dewatered stream before.

In 2004, UMCO Energy, operating a now-defunct longwall mine in Washington County, had dried up a stream. Like Consol, the company tried to repair it, using epoxy grout and plastic liners. Workers even tapped a fire hydrant to augment the flow. State regulators required the company to prove it would not cause “irreparable” damage to a nearby stream — or else. By November 2004, they had modified the UMCO permit to prohibit longwall mining underneath that stream; the company appealed.

Kurt Weist, of the Citizens for Pennsylvania’s Future, an environmental group that intervened in the UMCO case, says that, eventually, the agency allowed the company to turn off its hydrant.

The current case hinges on the DEP’s revised stream protection policy. That document dates to 2005, a year after the UMCO case. Under the guidelines, a stream damaged by longwall mining will be considered “adversely affected” if it cannot be restored to its pre-mining condition after five years of remediation trying everything “technologically and economically feasible”; the operator may then be required to perform “compensatory mitigation,” such as restoring an eroded stream bank.

The OSM’s Hamilton says the DEP’s policy represents “an attempt to get some environmental benefit out of a bad situation,” explaining that its compensation provision exceeds what federal mining law requires.

In its appeal, Consol argues that the agency's stream policy, contained in a "technical guidance document," is just that — a guidance. "Such reliance is improper," the company claims, "and constitutes an invalid attempt to impose binding norms and regulatory requirements through a guidance document."

Currently, the court proceedings have been put on hold after the DEP and Consol requested a stay, in May, "in hopes of reaching a settlement." The judge set an August 29 deadline to yield a pact, or continue with the case.

When Jones heard that the DEP case is on hold, "I thought, 'Guess what? They're going to allow Consol to walk away.' "

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