

EPA Action Halts Disposal of Mining Waste in Streams at Spruce No. 1 Mine to Protect Environment, Water Quality, and Appalachian Communities

EPA's Decision: Using authority provided under the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) completed its 15-month comprehensive review of impacts on water quality and wildlife from the Spruce No. 1 mountaintop coal mine in Logan County, West Virginia. EPA concluded, based on a substantial body of new scientific work completed since 2007, that the mine would result in significant environmental impacts from burying over 6.6 miles of ecologically valuable streams under mining waste and would also cause unacceptable adverse environmental effects to wildlife in downstream waters. As a result, EPA is acting under the CWA to protect wildlife, water quality, and Appalachian communities, who rely upon healthy streams, by prohibiting the Mingo Logan Coal Company from disposing of 110 million cubic yards of mining waste into waterways as part of proposed mountaintop coal mining at the Spruce No. 1 Mine. The Spruce No. 1 Mine, among the largest mountaintop coal mines ever proposed in Appalachia, would disturb approximately 2,278 acres (about 3.5 square miles) of forestlands in southern West Virginia and bury over six miles of streams under waste rock and mining debris. Two of these streams, Pigeonroost Branch and Oldhouse Branch, are two of the last-remaining high-quality streams in the watershed and are protected by EPA's action.

Summary of EPA Findings: EPA's decision to stop mining waste discharges to high-quality streams at the Spruce No. 1 mine is based on several major environmental, water quality, and wildlife concerns:

- Burying more than 35,000 feet (more than 6 miles) of high-quality streams under mining waste, which will eliminate all fish, invertebrates, salamanders, and other wildlife that live in them;
- Polluting downstream waters as a result of burying these streams, which will lead to unhealthy levels of salinity and toxic levels of selenium;
- Causing downstream watershed degradation that will kill aquatic wildlife, impact birdlife, reduce habitat value, and increase susceptibility to toxic algal blooms; and
- Inadequately mitigating for the mine's environmental impacts to high-quality streams, by using mining ditches, for example, to offset the functions provided by these natural streams.

In addition, EPA is concerned that the Spruce No. 1 Mine will expose Appalachian communities to additional mining related sources of pollution in a watershed already highly impacted by mining activity.

Key Background: Under CWA section 404(c), Congress authorized EPA to prohibit or restrict activities involving the placement of pollutants in the nation's waterways where the Agency determines that these pollutants will cause unacceptable adverse effects to municipal water supplies, shellfish beds and fishery areas, wildlife, or recreational areas. EPA has used its Section 404(c) authority sparingly, prohibiting just 13 projects, including the Spruce mine, since 1972. In this case, EPA is taking this action because a substantial body of new scientific studies and work completed since the mine was permitted in 2007 demonstrate that the burial of Pigeonroost Branch, Oldhouse Branch and their tributaries will have direct, unacceptable adverse effects on wildlife, including fish, salamanders, and waterfowl; and will contribute to downstream water quality degradation and associated adverse impacts to wildlife.

Mountain streams within the Central Appalachian ecoregion have some of the richest aquatic animal diversity of any area in North America, including one of the highest concentrations of salamanders in the world, as well as many rare species of mayflies, stoneflies and caddisflies, which are ecologically important aquatic insects that form the foundation of stream food webs. The project will bury 6.6 miles of some of the last remaining high quality streams and riverbank areas within the Coal River watershed. These streams contain important wildlife communities and habitat and they rank extremely high in comparison to other streams in West Virginia and in Central Appalachia. Including their riverbank areas, the streams within the Spruce No. 1 Mine area provide important habitat for over 40 species of amphibians and reptiles, 4 species of crayfish, and 5 species of fish, as well as numerous birds, bats, and

other mammals. The Spruce No. 1 Mine will eliminate the entire suite of important physical, chemical and biological functions provided by these streams and will result in the loss of salamander, fish, and other wildlife populations that depend on that habitat for survival.

Burial of Pigeonroost Branch and Oldhouse Branch will also result in unacceptable adverse effects on wildlife by increasing levels of pollution to downstream waters, where over 25 different species of fish are found. Full construction of the Spruce No. 1 Mine will bury streams on site beneath tons of broken mining waste rock that will leach pollutants, particularly total dissolved solids and selenium, into downstream waters and adversely impact the wildlife communities that live in or utilize these streams. The loss of food sources caused by these increased pollution levels, as well as additional exposure to selenium will cause adverse effects to fish species found in Spruce Fork as well as amphibians, reptiles, crayfish, and bird species that depend on downstream waters for food or habitat.

Section 404(c) Review Process: Key steps in EPA's CWA review of the Spruce No. 1 Mine:

- October 2009: EPA begins coordinating with Mingo Logan Coal Company and Corps of Engineers to identify potential corrective actions that reduce mining impacts and would eliminate need for further CWA review. Company does not agree to alternative mine configuration to avoid impacts.
- March 26, 2010: EPA Region III publishes comprehensive Proposed Determination outlining the project's environmental effects and requests public comments.
- May 18, 2010: EPA conducts Public Hearing in Charleston, West Virginia to discuss anticipated mine impacts and provide opportunity for public input. EPA receives over 50,000 public comments – most in support of EPA's review of the Spruce No. 1 Mine.
- September 24, 2010: EPA Region III prepares Recommended Determination for EPA Headquarters concluding that discharges associated with the Spruce No. 1 Mine would be likely to lead to significant adverse environmental effects. Region III developed its Recommended Determination in consideration of the Corps permit record, 50,000 public comments, and extensive scientific information relevant to the Spruce No. 1 project.
- October 2010: EPA Office of Water initiates second consultation process with Corps, Mingo Logan Company, State, and landowner to identify potential corrective actions that might eliminate need for EPA action. Company expresses unwillingness to improve its mining operation.
- January 13, 2011: EPA Office of Water completes Section 404(c) review of the Spruce No. 1 Mine and publishes Final Determination concluding that the project, as currently designed, would cause unacceptable environmental impacts, including water quality impacts, to waterways at the Spruce site and prohibits disposal of mining waste in streams.

A copy of the Final Determination is available at

http://water.epa.gov/lawsregs/guidance/cwa/dredgdis/404c_index.cfm