

# Arguing for Liability Reform to Help Solve an Old Problem

By Peter J. Fontaine

*How legal liability impedes efforts to use Marcellus Shale gas extraction to help address Pennsylvania's acid mine drainage legacy*

Thousands of current and future Marcellus Shale natural gas extraction wells are located near Pennsylvania's 250,000-plus abandoned coal mines, many of which discharge acid mine drainage into local streams and rivers. Acid mine drainage, which leaches heavy metals from surrounding rocks and kills aquatic life, is the biggest single cause of stream impairment in Pennsylvania. It has rendered unusable more than 5,500 miles of streams, contaminated untold numbers of household water wells and left Pennsylvania's citizens with a toxic legacy projected to cost billions of dollars. While Pennsylvania historically spends about \$19 million annually on abandoned mine reclamation, this modest effort is dwarfed by the sheer magnitude of the problem. For the first time in five generations there is a real opportunity to address this intractable issue by aligning the interests of the state and environmen-

talists with Marcellus Shale drillers if legislators will only seize it.

Hydraulic fracturing requires copious amounts of water that can be supplied by acid mine drainage in lieu of water from surface streams or groundwater resources. Hydraulic fracturing also requires the construction of water treatment infrastructure to handle wastewater (flowback and production water) that can be adapted to treat acid mine drainage as well as natural gas wastewaters through centralized treatment facilities strategically located to support multiple well sites and acid mine drainage areas. Unconventional wells in remote locations also require significant investment in new roads, the absence of which heretofore has made acid mine drainage abatement in remote locations difficult. Finally, each new natural gas well will have a 15- to 20-year lifetime during which service personnel can also monitor the performance of passive and active acid mine drainage abatement

systems. For all of these reasons, the flow of money and resources into Pennsylvania's Marcellus Shale region could be leveraged meaningfully to address the intractable problem of acid mine drainage.

In order to transform this vision into reality, however, a new approach is needed to eliminate the open-ended liability associated with using acid mine drainage for hydraulic fracturing. With the right mix of legal and economic incentives, the Marcellus Shale could represent not just an opportunity to secure a dependable supply of cleaner-burning fuel but also the promise of lasting improvement to Pennsylvania's streams and rivers.

To capture this opportunity, several reforms must be implemented.

- Clear and certain acid mine drainage treatment targets must be established.
- The state Department of Environmental Protection (DEP) should encourage the deployment of central-



Photo by Robert Donnan

Anyone encountering pre-existing acid mine drainage in the course of resource extraction potentially is subject to open-ended liability to treat the acid mine drainage.

ized treatment systems capable of servicing multiple natural gas wells and acid mine drainage areas through a watershed-based approach.

- A larger impact fee than what is being considered by the Pennsylvania Legislature should be enacted to bring Pennsylvania in line with other states that assess an extraction tax of around 5 to 6 percent. Also, a greater portion of this impact fee revenue should be dedicated to acid mine drainage abatement so that the annual investment in acid mine drainage treatment is increased to as much as \$200 million — or roughly 10 times the current funding level.
- This article focuses on a fourth recommendation: liability protection. DEP and the federal Environmental Protection Agency should establish clear and unambiguous liability protection for operators to encourage voluntary use of acid mine drainage.

Acid mine drainage remains an environmental challenge in large part because anyone encountering pre-existing acid mine drainage in the course of resource extraction potentially is subject to open-ended liability to treat the acid mine drainage.

Under Pennsylvania's Clean Streams Law, any person whose activities encounter pre-existing acid mine drainage can be held strictly liable to abate all of the acid mine drainage even though that person may have had nothing to do with creation of it in the first instance. This rather draconian rule was enshrined into law by the 1965 amendments to the Clean Streams Law and a series of Pennsylvania Supreme Court decisions. Once DEP becomes aware that pollution or even the threat of pollution exists, it can order any landowner or occupier to correct the condition. Fault is not a prerequisite for establishing liability. Thus, natural gas operators attempting to utilize

acid mine drainage for hydraulic fracturing could be liable for the discharge of acid mine drainage under the Clean Streams Law even if the acid mine drainage was caused by another entity and had migrated from another source. For obvious reasons the risk of incurring perpetual treatment obligations potentially costing tens of millions of dollars is a major disincentive for reusing acid mine drainage as "frac" water.

Pennsylvania attempted to solve this problem when it enacted the Environmental Good Samaritan Act of 1999. The act was designed to encourage voluntary reclamation of lands affected by mining or oil and gas extraction. It limits

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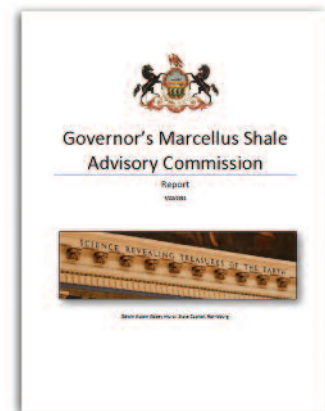


Governor's Marcellus Shale Advisory Commission information on the DEP website at [http://pa.gov/portal/server.pt/community/marcellus\\_shale\\_advisory\\_commission/20074](http://pa.gov/portal/server.pt/community/marcellus_shale_advisory_commission/20074)

a person's liability arising from the voluntary reclamation of abandoned lands or the reduction and abatement of acid mine drainage. A person providing equipment, materials or services at no charge or at cost for a reclamation or water pollution abatement project has a defense to civil liability if additional pollution occurs. To qualify, a detailed plan for the project must be submitted to DEP. It will be approved if it is likely to improve and not worsen water quality. Persons providing equipment, materials or services at cost for a water pollution abatement project are immune from liability for injury or damage arising out of the water pollution abatement facilities constructed or installed during the project and for any pollution emanating from the water pollution abatement facilities. However, immunity will not attach if the person affects an area hydrologically connected to the water pollution abatement project work area and causes increased pollution by activities unrelated to the implementation of the water pollution abatement project. Also, the Environmental Good Samaritan Act does not provide immunity for water pollution abatement projects that would otherwise exist; cause injury or damage resulting from reckless or gross negligence, willful misconduct or unlawful activities; or fail to provide written notice.

As applied to beneficial use of acid mine drainage for hydraulic fracturing, however, the Environmental Good Samaritan Act suffers from a major weakness. It does

not give DEP authority to determine who does or does not receive the protections from liability. If a lawsuit is filed for injury or damage the participant still has the burden of proving that he or she qualifies for the protections in the act. For Marcellus Shale drillers, this uncertain scope of protection and the prospect of defending Clean Streams Law citizen suits designed to stop production are major disincentives to beneficial use of acid mine drainage.



Governor's Marcellus Shale Advisory Commission Report

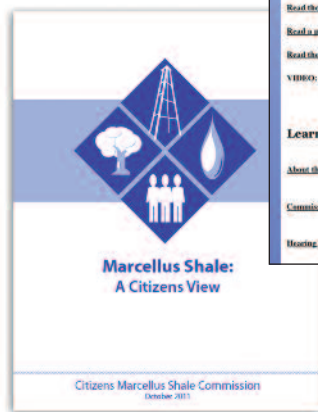
The Governor's Marcellus Shale Advisory Commission has recognized this problem and recommended legislation to provide operators with immunity from environmental liability for the use of acid mine drainage water. The Citizens Marcellus Shale Commission, however, has rejected this recommendation in its competing assessment of Marcellus Shale activities in Pennsylvania.

Recently DEP published a draft white paper, "Utilization of Acid Mine Drainage in Well Development for Natural Gas Extraction," which offers two solutions for eliminating the risk of long-term acid mine drainage treatment liability. DEP suggests that the Environmental Good Samaritan Act could protect operators from long-term treatment liability or that DEP could enter into consent orders and agreements promising not to hold operators liable for long-term treatment for the use of acid mine drainage provided certain conditions are met. Neither approach is likely to encourage operators to use acid mine drainage because both still give rise to uncertainty and therefore risk.

To be meaningful, a clear directive from DEP is needed to confer broad liability protection to drillers approved to use acid mine drainage beneficially and to treat flowback from hydraulic fracturing. DEP guidance or legislative reforms along the lines of Pennsylvania's landmark Land Recycling and Environmental Remediation Standards Act could create the necessary certainty to encourage voluntary use of acid mine drainage.

Liability protection could be structured in the same manner as the release of liability and covenant not to sue provided to persons who voluntarily remediate contaminated land under the Land Recycling and Environmental Remediation Standards Act. The regulatory certainty and liability protection offered by the act is credited with encouraging the voluntary remediation of tens of thousands of brownfield sites across Pennsylvania. The program gives a remediating party certainty and finality once the party completes the act's process under the oversight of DEP, which reviews and approves or disapproves the cleanup reports. A party completing the process, current and future owners, any person who develops or otherwise occupies the site, and their successors and assigns receive a release of liability and covenant not to sue — essentially a promise not to require additional clean

Citizens Marcellus Shale Commission website, <http://citizensmarcellusshale.com>



Citizens Marcellus Shale Commission Report



up on the property and to protect the remediating party against third-party suits for cleanup expenses.

As part of any comprehensive natural gas legislation, the Legislature should authorize DEP to furnish a release of liability and covenant not to sue to operators approved to treat acid mine drainage for hydraulic fracturing. The approach outlined in DEP's acid mine drainage white paper is an excellent start toward a comprehensive watershed-based program that identifies opportunities for deployment of centralized treatment systems to service both multiple wells and acid mine drainage areas. This approach would build upon the base of knowledge developed through Operation Scarlift (a state program to remediate land damage from mining) and subsequent watershed restoration efforts and would implement a public-private partnership among DEP, operators and local watershed organizations to pool resources for construction of centralized wastewater treatment systems working to abate acid mine drainage.

Under this approach operators and the commonwealth (through its various funding sources) would design and construct centralized wastewater treatment systems to handle flowback and production waters and acid mine drainage using watershed-based planning.

To transform this vision into reality, though, a new approach is necessary. With clear liability protection for using acid mine drainage for hydraulic fracturing, Marcellus Shale natural gas could represent not just an opportunity to secure a dependable supply of cleaner-burning fuel but also the promise of lasting improvement to Pennsylvania's streams and rivers. ♦



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