

September 13, 2010

Obscure Regulator Hits Brakes on Northeast Shale Drilling Rush

By MIKE SORAGHAN of

TYLER HILL, Pa. -- Marian and Ed Schweighofer know right where they want their gas well to be drilled. It's a flat spot on top of a knoll, out of view of their two-story home, where hay now grows.

But they do not know when it will be drilled, or if it will be. The Marcellus Shale drilling that has raced across Pennsylvania for the past five years has stopped short of the dairy farms and hay fields here in the Poconos foothills.

That is because the Delaware River Basin Commission, an obscure-but-potent federal agency, has stopped the gas rush in its tracks in northeastern Pennsylvania's Wayne and Pike counties.

"If we lived a couple of miles the other way, we wouldn't have a problem," a frustrated Marian Schweighofer said. "Anybody else in Pennsylvania doesn't have this to contend with."

The commission -- or DRBC, as it is called -- has imposed a moratorium on Marcellus drilling while it prepares regulations for drilling in the four-state river basin where it controls development.

That makes the state-federal hybrid agency one of the first regulatory bodies to initiate a moratorium on drilling and marks the most skeptical approach yet to driller's claims that producing gas from shale is perfectly safe for human health and the environment.

DRBC executive director Carol Collier said Pennsylvania and New York regulators do not have strong authority to regulate water issues, and the commission can fill in the gaps to protect the Delaware watershed.

"We are hoping to have a stronger umbrella of protection because of the Delaware's unique qualities," Collier said.

The regulations it will propose as soon as Wednesday could be some of the toughest in the country, if not the toughest. They are expected to require companies to put aside much more

money than the state requires for reclamation and cleanup. The state requires companies to post \$25,000 bonds for multiple wells, but DRBC officials have discussed bonding requirements of millions of dollars.

But the commission's approach is not skeptical enough for Barbara Arrindell, a resident of nearby Milanville, who is alarmed that gas development threatens to turn the countryside of small farms into an industrial zone.

"Once the industry starts, you're done," said Arrindell, who has a quiet mien but is given to blunt statements. An artist with an undergraduate degree in bioengineering from Columbia University, she believes that the high-pressure "hydraulic fracturing" injections used in drilling could force toxic chemicals up through fissures in the local bedrock and into drinking water aquifers.

Arrindell and the Schweighofers are leading the charge for their respective sides in a classic "nature vs. development" fight that is turning this rural community into a crucible of the fight about water and gas in the Marcellus Shale.

The path that DRBC charts here could have ramifications far beyond this pastoral community.

Shale drilling is spreading quickly to states unaccustomed to large-scale petroleum production, like Ohio and Michigan. They will be looking to states like Pennsylvania and regulators like DRBC to guide their policies. Congress, too, is nervously eyeing the shale gas drilling debate.

'Gasland'

The landscape of rolling hills around the Schweighofers' farm has become a key crossroads in the debate about shale and hydraulic fracturing. After all, it is "Gasland."

Which is to say, their farm is just a few miles down the gravel road from the land featured in HBO's anti-drilling documentary of that name. A lease offer from a drilling company set filmmaker Josh Fox, whose family has owned the land for decades, on a cross-country exploration of the gas industry.

It is just a few more miles to the country's "most endangered river." The environmental group American Rivers gave that title to the Upper Delaware River in June after it was nominated by Arrindell's group, Damascus Citizens for Sustainability. American Rivers called on DRBC to block drilling until a thorough and lengthy study can be done of its effect on the watershed([Greenwire, June 17](#)).

Marian Schweighofer's husband's family has been farming these hillsides and dales for generations. The property owners she and her family assembled, the Northern Wayne Property Owners' Alliance, is one of the most politically active landowner groups fighting for drilling to start.

The Delaware basin provides drinking water to 15 million people, about 5 percent of the country's population, including New York City and Philadelphia. It includes Pennsylvania, where lawmakers are eager to cash in on the drilling boom with a severance tax (*Greenwire*, Sept. 8), and New York, where the state Legislature could vote in a temporary drilling moratorium this month (*E&ENews PM*, Aug. 4).

New York Mayor Michael Bloomberg (I) has vehemently fought drilling in upstate New York, fearful that it could contaminate the water that flows unfiltered from upstate reservoirs into the city's taps. Contamination, or even fear of it, could require the city to spend billions of dollars on water treatment (*ClimateWire*, July 9).

And the Philadelphia City Council in March weighed in with a resolution calling on DRBC to block drilling until it does a full study of the environmental effects of drilling.

'This time it's real'

Three years ago, Wayne County had a lagging rural economy getting what boost it could from second-home sales and tourism. Then the "landmen" started knocking on farmhouse doors, trying to snap up the rights to drill from local landowners.

The sales pitches were not anything new, residents say. There was a history of landmen showing up every 10 years or so and paying people for options on their mineral rights. But the drill rigs would never show up. Landowners came to regard it as "free money" and did not think much more about it.

But this was the Marcellus Shale, a concrete-like deposit that gas companies have figured out how to tap only recently, with tremendous results.

The trick, they found, was combining horizontal drilling with hydraulic fracturing, in which as much as 7 million of gallons of water, sand and chemicals, are injected into a well at high pressure to blast apart the rock and release the gas.

Schweighofer, an energetic farm wife who has been active in local affairs for years, started hearing complaints at Farm Bureau meetings about farmers being lied to and ripped off in other parts of the state, sometimes leasing their fields for as little as \$25 an acre and finding out that provisions in the fine print siphoned off the royalties they were expecting. Some

landowners are now fetching as much as \$10,000 an acre.

She got friends, family and neighbors together, asking them to get the word out.

"We told people, this time it's real," she said.

The families banded together, hired experts and law firms (spending \$600,000 on legal fees). The Northern Wayne Property Owners Alliance now has 1,500 members who own 100,000 acres, and Schweighofer is the group's executive director. They signed a lease with Hess Corp. and Newfield Exploration Co., giving the companies a significant foothold in Wayne County.

The money was a boost for struggling farmers. Schweighofer said people who have lived their lives in mobile homes are building houses. The "bonus payment" of \$1,000 an acre helped Schweighofer's neighbor, Tim Coulter, snatch his horse farm out of the jaws of foreclosure last year.

"Most of these farms, we're in trouble," said Coulter, leaning on a blue pickup truck and looking out over his property.

Battle lines

But that bounty is under threat, and landowners blame DRBC.

Newfield and Hess have put their lease contracts on hold, citing a "force majeure" clause that allows such suspensions because of regulation outside the "normal and ordinary course of business."

The companies' move has created uncertainty about \$230 million in bonus payments that the landowners were expecting, in annual increments, through January 2013.

But Greg Swartz fears his bounty may be snatched away as well. Swartz and his wife have started an organic farm on land in the northern end of the county. All the land surrounding it has been leased to gas drillers.

"We just made a six-figure investment in infrastructure," Swartz said. "If anything happens to the quality or quantity of our water, we're screwed. It may be unpleasant. It may be unsafe. It may not be safe for me to sell vegetables from here."

When Arrindell saw the drilling coming, she got people to band together, not to get a better deal, but to fight the development tooth and nail.

She and her fellow opponents began compiling stories from other parts of the state with

drilling -- exploded water wells in Dimock Township, which is in neighboring Susquehanna County. Cows dying after drinking contaminated water. Well water turning brown. Methane levels so high in homes that they could explode.

"This is the same thing that happened in Dimock," Arrindell said. "They were sitting on their front porch saying, 'This is the sound of progress.'"

As the battle lines were drawn along the Delaware River, a similar fight was brewing on Capitol Hill.

Democrats, including Pennsylvania Sen. Bob Casey, have proposed legislation that would strip away an exemption to the Safe Drinking Water Act that Congress and the George W. Bush administration had given to drillers for hydraulic fracturing (*E&E Daily*, June 24).

As an interim step, the lawmakers got U.S. EPA to revisit a 2004 fracturing study that Congress had cited to justify the exemption.

It was amid this boiling cauldron that last year, DRBC executive director Collier stepped into the drilling debate. In May 2009, she asserted jurisdiction for the commission, telling gas companies they needed a permit from DRBC, in addition to the state, if they wanted to drill.

"It's a new industry, coming to a very different topography," Collier explained in an interview.

Since then, DRBC has worked on drafting regulations and has issued no permits for gas production wells. Essentially, it is a moratorium.

Policing water quality

Before the moratorium, many of the landowners in this part of Pennsylvania's Wayne County had never heard of the Delaware River Basin Commission. But the agency has been around significantly longer than EPA and predates the modern environmental movement.

The commission was created in 1961 as part of a four-state compact, approved by Congress, to resolve decades of conflicts over water supplies between New York, Pennsylvania and other states. But in the decades since, it has expanded its reach beyond doling out water to cleaning it up. Considered one of the most polluted rivers in the world in the 1950s, the Delaware River now exceeds water quality standards.

The commission's powers trump those of the member states when it comes to water and development in the 13,539-square-mile basin, which includes parts of Pennsylvania, New York, Delaware and New Jersey.

And its approach has been markedly different from its neighboring compact commission to the west, the Susquehanna River Basin Commission. SRBC has largely limited itself to monitoring how much water drillers are taking, rather than whether their methods pollute that water.

That has allowed large-scale drilling to proceed in the basin, which includes Dimock Township, where drilling blew up or contaminated numerous water wells with methane before the state ordered Houston-based Cabot Oil & Gas Corp. to permanently shut down some of its wells, pay nearly \$250,000 in fines and permanently provide drinking water to 14 affected families. In the drilling debate, Dimock has become shorthand for how badly things can go wrong.

And in recent weeks, newspapers in neighboring Bradford County have been filled with stories of well contamination and houses that had to be evacuated because of methane buildup.

DRBC's staff of about 45 -- including hydrologists, geologists, engineers and lawyers -- work in the commission's headquarters in Trenton, N.J. The offices are tucked behind state police headquarters just off Interstate 95. They are less than a mile from the Delaware River, which serves as the border with Pennsylvania.

The commission is a complicated political body. Its diffuse governing structure -- with policy guided by four governors (The job is usually delegated to a mid-level appointee.) and a federal representative -- leads critics to charge it with being an unaccountable bureaucracy.

And as the stakes have risen, those in the fight believe a lot is going on behind the scenes.

Drilling opponents assert that Pennsylvania Gov. Ed Rendell's (D) appointees are leaning on DRBC. Meanwhile, drilling supporters say the commissioners delegate too much authority to their staff members in Trenton, who they believe have an urban mindset that does not factor in rural concerns.

The immense amount of water used in the fracturing process that is essential to shale drilling raises questions for regulators at nearly every level.

To fracture the wells, companies suck millions of gallons of water from the rivers and streams, to the point where they could dry up creeks and affect water levels in rivers.

Fracturing fluid can include carcinogens such as naphthalene and xylene, linked to nervous system problems. Such chemicals make up a fraction of the mix, but they can be highly toxic at low levels.

What comes back up after the fracturing process is even worse. The "flowback" water brings with it brines and sometimes even radioactivity from uranium ore. In other parts of the state it has leaked into creeks and streams. It has to be treated before it can be discharged, and some has leaked from well sites.

Drilling opponents have told the commission that they want drilling banned in the Delaware River Basin. Short of that, they want an in-depth study of all of the possible effects on the watershed, rather than a limited one-well-at-a-time approach that focuses on the volume of water in the river. Such "environmental impact statements" can cost millions of dollars and take years to complete.

Rep. Maurice Hinchey (D-N.Y.), an ardent critic of shale drilling, has proposed giving \$1 million to the U.S. Geological Survey to do an in-depth study of how drilling would affect the watershed. But the Senate has not approved the money, and DRBC spokesman Clarke Rupert said the commission's members do not want to wait.

"That kind of undertaking would take years," Rupert said. "The commissioners have decided we can't wait that long."

At the same time, Rupert rejects criticism from gas companies and their supporters that DRBC is dragging its feet and holding up economic development unnecessarily.

"A way of describing our approach would be: We want to get this right," Rupert said. "We believe that justifies an overlay above and beyond the rules of our state. We want to make sure it's done right."

Next step

In Wayne County, the fight over drilling has gotten personal.

The two sides are battling it out in the letters columns of local newspapers and in lawsuits. The landowners who have leased their land refer to opponents as "antis" (pronounced ANN-ties), and dismiss them as New Yorkers who have fled city life and simply want to shut the door to development behind them. Opponents fume that they have been heckled at public meetings.

In spring, things heated up for DRBC. Opponents traveled to Trenton, N.J., to speak against a drilling proposal by Stone Energy Corp. In July, hundreds of people showed up as both sides marshaled their armies of supporters, and "Gasland" filmmaker Fox tagged along with his camera.

As the year progressed, the battles got more detailed about whether exploratory wells should be allowed or if they were simply an end run around the commission's rules. Both the Northern Wayne Property Owners Alliance and the Damascus Citizens for Sustainability are appealing DRBC's decision to allow some "exploratory" wells but not others.

All of this sets the stage for an explosive September. DRBC's rules are to come out at some point, possibly at its meeting Wednesday in Trenton.

At the same time, EPA is planning public meetings today and Wednesday in Binghamton, N.Y., on shale and fracturing. The meetings were postponed last month because of the agency's concerns about handling the large crowds expected to attend.

Those seeking a complete ban when the commission sets its path are likely to be disappointed. DRBC appears likely to allow some sort of drilling to go forward. But that won't necessarily open the throttle to development. If the rules are tougher than the rest of Pennsylvania or other states, it could affect the way companies decide to invest their resources.

"There are ways of saying 'yes' when you mean 'no,'" said energy analyst Kevin Book, managing director of the Washington-based consulting firm ClearView Energy Partners.

The easiest way to do that, Book said, could be to require higher-than-normal financial assurance demands, or bonds.

"I'm hearing that a high bonding amount has been discussed," Book said. "The DRBC can make the cost prohibitive. A \$5 million bond? That's a way of saying 'yes' when you mean 'no.'"

Schweighofer said that commission officials discussed such high bonds -- "in the millions of dollars" -- when she met with them over the summer.

The DRBC debate plays out against a national debate on the dangers of fracturing and shale gas drilling, especially as shale drilling expands into new areas.

Pennsylvania, Book said, is likely to set the tone for development in other places. If DRBC says that drilling would harm drinking water, it could do a lot more than keep hay growing in the Schweighofer's field. It would provide powerful political ammunition to drilling opponents from New York to Ohio, and beyond.

And conflicting rules could invite questions that attract more federal scrutiny of hydraulic fracturing and the water-intensive process required to blast gas out of rock and send it to the surface.

"It says to EPA that something weird is going on," Book said. "The end result is that federal law could change."

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