



Plan for Hydro-Fracture Drilling for Unconventional Natural Gas in Upstate New York

Posted by [Glenn](#) on July 23, 2008 - 10:30am in [The Oil Drum: Local](#)

Topic: [Environment/Sustainability](#)

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New York State is about to approve [Hydro-Fracture Drilling](#) permits for Upstate New York in the area of the Marcellus Shale. There is a major concern about the impact on waste water containing many toxic chemicals, including areas near NYC drinking water reserviors.

Here's a [slideshow](#) of some of the key images. I'll have more on this as information becomes available. Kudos to WNYC and ProPublica for uncovering this in a great example of investigative journalism.

Here a transcript of one of the reports:

NEW YORK, NY July 22, 2008 —The Marcellus Shale is what industry people call an unconventional play. It's loaded with natural gas, from Eastern Ohio to the Catskill Mountains. But the gas is very hard to extract. It's packed tight 7,000 feet deep.

Today, with energy prices at record highs, extracting that gas looks to be affordable, and energy companies and landowners are lining up to reap profits potentially worth billions.

But WNYC has learned in a joint investigation with ProPublica – a non-profit investigative news organization – that New York state regulators have been actively promoting the safety of a practice that has caused environmental damage elsewhere. And they may not be ready to handle the regulatory complexities. WNYC's Ilya Marritz has the story.

REPORTER: For over a decade, gas companies have been intensively tapping unconventional plays in western states like Colorado. Drill rigs have brought a lot of wealth, but at the same time they've dredged up a host of environmental problems – contaminating water supplies and drying up aquifers.

The culprit is a practice called hydraulic fracturing. It's never been done much in New York. But it's the only way to get gas out of the Marcellus Shale. Basically the driller blasts the bottom of the well shaft with water, sand, and chemicals, under very high pressure in order to free up the gas. Hydrofracking demands a huge amount of water of water – up to six million gallons per well.

KAPPELL: How are you gonna dispose of that water?

REPORTER: Bill Kappell works for the U.S. Geological Survey. He says there are serious questions that have to be answered,

KAPPELL: It's going to be a learning process. How are you going to treat that water so you can properly dispose of it without despoiling the water resources of New York State?

REPORTER: The US Department of Energy considers the waste water that is produced in gas drilling some of the most toxic of all industrial byproducts. Kappell is particularly concerned about the chemicals used – he doesn't even know what they are.

KAPPELL: Nothing. They're proprietary; they're particular to the company. They don't have to divulge it.

REPORTER: But in sworn testimony before Congress last fall, environmental health analyst Dr. Theo Colburn – an opponent of drilling - said she was able to obtain a list of one fracking chemicals to be used in Colorado drilling. She says there were 171 substances on the list, and that 92 percent of them had health effects ranging from sinus irritation to reproductive organ damage.

All this has just landed on the desk of Bradley Field, the Director of Mineral Resources and a career employee at the New York Department of Environmental Conservation. It's his job to consider new applications for drilling permits.

FIELD: Based on what we have in front of us now, we don't expect to see any permits being issued for horizontal Marcellus well until, it could be mid- to late fall.

REPORTER: WNYC and ProPublica found Brad Field and his agency unable to answer many questions. Given that the federal government exempts disclosure of the chemicals used in drilling – will New York State demand disclosure?

FIELD: We'd have to take a look. I can't say for sure right now.

REPORTER: Why not require full disclosure?

FIELD: Because it would be a departure from how we typically do this. So I just want to make sure that what we ask for is something we can look at and be sure of. So I haven't really come to terms with that just yet. We're still in looking into it phase.

REPORTER: Field says a few treatment plants in Pennsylvania would probably take the waste water from drilling. But four private waste treatment plants we spoke with say they are close to capacity already. Could municipal treatment plants also accept waste water?

FIELD: I don't really know right now. I'd say that as this development starts, that that's an issue that's going to be addressed. I'm not up on municipal treatment plants in New York, and what they can or cannot take or at what volumes.

REPORTER: If no one except the gas company knows what's in the fluids, how can the public be sure that even treated waste water is safe?

Following our interview, DEC said it had sent out letters to interested energy companies requesting detailed information about chemical additives. But the agency still has not made it a requirement.

Near the source of the Delaware River in the Catskill Mountains sits the picturesque town of Walton. A few miles to the west, the stream widens into reservoir that holds drinking water for New York City. And 7,000 feet below all of this, there's natural gas.

One pleasant evening last month, a couple hundred citizens gathered in Walton's old

movie theater. For three hours, they listened as community activists from Western States shared their experiences of gas drilling. A slide projector showed aerial photographs of the Powder River Basin in Wyoming. Well pads dotted the landscape right up to the horizon, like dabs of calamine lotion. Longtime resident Jill Morrison told the audience the drills didn't just extract gas, they spoiled drinking wells.

MORRISON: Now people are dealing with groundwater contamination from the chemicals used in the drilling process.

REPORTER: Afterwards, Laurie Spaeth from Colchester, New York - also in the New York City watershed - said her thinking about drilling had completely changed since she and her husband were first approached about leasing their acres a few months ago.

SPAETH: When we first got phone call and letter, it sounded like it had possibilities. And the more I searched and the more I learned, the more I thought there is absolutely no way that you can ever make enough money from this to pay for the damages.

REPORTER: But the while Spaeth is worried, the DEC has been vouching for the industry, reassuring legislators that hydraulic fracking is safe.

On May 29th, as the legislative session was winding down, the DEC was pushing a bill through the legislature to get the gas drilling process started. Brad Field gave a reassuring pitch to state legislators. In a PowerPoint slide presentation later supplied to ProPublica and WNYC, the DEC declared:

“Adequate state regulatory programs already in place.”

And the agency entrusted with protecting New York's environment put a slide on the screen that read:

“All oil and gas states surveyed. Not one instance of drinking water contamination in over one million frac jobs.”

Brad Field:

FIELD: That was a survey taken by the Interstate Oil and Gas Compact Commission of the states that do hydraulic fracturing and that statement was made in testimony.

MARRITZ: Is that true?

FIELD: That's what he said. So.

REPORTER: After our interview, the DEC said a 2002 EPA study was actually the source. But state regulators in New Mexico have compiled hundreds of instances of groundwater contamination resulting from gas and oil drilling. In Colorado, an industry watchdog group has gathered evidence of contamination in 300 cases. And in the Barnett Shale in Texas - the formation geologists consider most similar to the Marcellus Shale - the state has overseen the cleanup of radioactive material dredged up at hundreds of gas drill sites.

That information was not presented to legislators. Republican Clifford Crouch is an Assemblyman from Binghamton who saw the PowerPoint.

CROUCH: I was much more reassured of what was going on after seeing the presentation, yes.

REPORTER: On the last day of session, June 23, the gas well spacing bill was passed -

along with a dozens of other bills. Democratic Queens Assemblywoman Toby Ann Stavisky says she - and most of her colleagues - first heard about DEC's bill just hours before they voted on it.

STAVISKY: Why didn't I have more information was my first reaction because it's very detailed scientific language. What's going to happen to the environment, to the air quality, noise pollution, what about pipelines?

REPORTER: But the DEC's Val Washington rejects the idea that the bill would speed things up. She says the state has 13,000 conventional wells pumping gas right now, with no instances of groundwater contamination.

WASHINGTON: If there's any doubt in anybody's mind about we're going to proceed with these applications without full consideration and protection of the environment, they're just wrong. This is not New Mexico, this is not Colorado, this is New York.

REPORTER: New York does have a lot more environmental regulations than some other states - a point Tom West is eager to make. He's an energy industry lobbyist who spoke with the DEC as it was writing this bill. He says there was a healthy back-and-forth between the agency and the companies he represents.

WEST: The byproduct was a compromise which is very common in the legislative process that's acceptable to industry, acceptable to the department, acceptable to some of the other stakeholder groups.

REPORTER: West estimates gas companies are ready to spend a billion dollars or more on infrastructure investments in upstate New York.

WEST: I can't think of any other example where an industry is willing to come in to New York State and spend that kind of money developing local resources, without asking for a handout. The oil and gas industry is doing this on their own. They're asking for a regulatory environment that makes it work.

REPORTER: Environmental groups are dismayed. The Sierra Club's Roger Downs says the DEC is enabling industry, when it should be planning for all the hundreds of things that can go wrong when a company receives a permit to drill.

DOWNS: Every step of the way there are problems and there are chemical solutions to those problems. So if you get a shaft stuck in the well, how do you get it out? Well there are certain lubricants you use. Are those lubricants safe?

REPORTER: Almost all the city's drinking water comes from reservoirs on the Marcellus Shale's Western edge - like the one near Walton. The city's Department of Environmental Protection is known as a fierce guardian of those waters. Yet so far it has issued only a perfunctory statement, saying it's committed to protecting drinking water.

The DEC in Albany says it still hasn't managed to get together with the city to discuss.

FIELD: We've had some extensive phone tag and vacations and whatnot but no, we haven't exactly yet. No.

REPORTER: DEC's bill to streamline permitting in the Marcellus Shale in on the Governor's desk. He has until Wednesday to sign it.

For WNYC, I'm Ilya Marritz.

If anyone has any expertise on this type of drilling technique, please offer your thoughts in the comments section.



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