



**Fracking  
Gas Drilling's Environmental Threat**

## N.Y. Enviro Commissioner Expects Little From EPA Fracking Study

*by Abrahm Lustgarten  
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When Joe Martens became commissioner of New York's Department of Environmental Conservation in March, he expected an unusual challenge. The department oversees everything environmental in the state, from managing 4.5 million acres of land to regulating ship ballast water in the Great Lakes.

But no contemporary issue is more dominant — or more controversial — than whether and how to allow energy companies to drill for natural gas in New York using hydraulic fracturing, or fracking.

Drilling in New York could access vast resources of gas, boosting local economies. However, across the country, drilling and fracturing have been linked to complaints about water contamination, air pollution and health problems. New York halted in-state drilling development in 2008 after an investigation by ProPublica revealed that the state was not prepared [1] to handle the waste from the process or the chemicals that would be injected underground. New York launched an in-depth environmental analysis of the risks of drilling, with the goal of setting new standards for how drilling would be permitted if it goes forward in the state.

Now that environmental review is close to completion, and it will fall to Martens, formerly president of a land conservation group called the Open Space Institute, to decide how the drilling will be governed and how quickly it might progress. The state could begin issuing permits to drill early next year. I spoke with Joe Martens on Aug. 3. The following questions and responses have been edited for length.

**Q: Fracking has become a national issue. By circumstance, New York is at the center of it. What extra responsibility does this put on the DEC, and what should New York's role be in that national debate?**

I don't think New York has faced an issue like this in a long period of time. It's a huge environmental issue, one of the biggest of my day.



*New York State Department of Environmental Conservation Commissioner Joe Martens points to a slide during a presentation at a news conference in Albany, N.Y., in July. (Mike Groll/AP Photo)*

I think we are setting the national standard, and that is the responsibility that I am comfortable with. The proposed requirements in our SGEIS (the generic environmental impact statement that will dictate drilling conditions) are the most stringent in the country. We have taken a very cautionary approach. We have set aggressive setbacks from water supplies; we have taken state land off the table; we are recommending prohibiting drilling in the New York City watershed.

**Q: The Environmental Protection Agency is in the midst of its own national study of the risks of hydraulic fracturing, but the results won't be known until after New York's review is finished. What if the federal government's findings contradict New York's?**

We obviously look at everything that is going on, and the EPA is an important player. If they find something that we have missed, absolutely we will incorporate it into our program. We don't have blinders on.

**Q: Why not wait a few more months to see what they determine?**

EPA is coming at this a bit later than we are. I think DEC is ahead of the game. I think we looked at the very things that EPA is looking at and we think that we have incorporated the problems that have occurred around the country. You can always wait for new information, but I don't expect the EPA study will add measurably.

**Q: One of the greatest environmental fears around fracking is that pressures exerted deep underground will allow chemicals used in the process to migrate into drinking water supplies. Has New York evaluated this risk, and how is it being addressed?**

There is no evidence that we found that fracking fluids can migrate through that ... distance and those zones. That is not to say that there aren't shallow migration problems. We just don't see any risk from the deep horizontal well that is very far underground and migration up to the lowest level of fresh water.

Obviously, lots of technically competent people are looking at this. I think they looked at virtually everything that is out there.

**Q: Our investigations [2] have identified a number of cases where deep underground migration may have caused well-water contamination, and just last week Environmental Working Group reported on an old EPA study of a case in West Virginia. Are these cases of concern?**

The case studies are inconclusive. DEC has reviewed the EPA contractor's 1987 report and additional information regarding the West Virginia incident where a gel contaminated a drinking water well. The report gave no explanation of how the gel found in the water well got there. Our counterpart agency in West Virginia in fact concluded that the most likely cause was not fracking but rather the use of gel at relatively shallow depths in drilling the gas well in the first place and completing or cleaning it out for operation.

One theory that has been discussed is that abandoned wells in the area were not properly plugged and may have allowed gel used in fracturing to migrate upward. Our revised draft SGEIS assessed this type of potential problem and would require drilling companies to survey the land generally within one mile of the proposed well location. If an unplugged deep well is found, the department would require the operator to properly plug and abandon it before fracturing begins.

The draft SGEIS does address the risks associated with underground gas migration through stringent well construction requirements and other protections.

In addition, the revised SGEIS would require hydraulic fracturing pumping operations to be monitored for pressure and flow during pumping and an immediate suspension of fracturing if any anomalous pressure occurs.

**Q: How did the DEC arrive at its various buffer measures—one safe distance from an aquifer, another different distance from a watershed boundary?**

We didn't have a formula. In general I'd say we erred on the side of caution for increased setbacks.

The department considered the nature of the potential environmental impact under the circumstances posed at each type of aquifer or water supply. For example, the risk of surface spills in the New York City and Syracuse watersheds includes the potential loss of an EPA Filtration Avoidance Determination and the resulting crushing potential cost to those two cities of filtering their drinking water.

Where the wetlands law might have proposed a 100-foot setback, we increased it in some cases by an order of magnitude just out of caution. Other states don't have nearly as generous setbacks as we do.

**Q: And what is the primary purpose of the setbacks then?**

It was basically to keep any activity sufficiently away from the area around the two watersheds (the New York City and Syracuse public water supplies) and a variety of other natural resources. It is surface activity, not the drilling 5,000 feet underground that we are concerned about, but the trucks carrying chemicals on the surface. We don't believe there is any risk of migration from the well bore to the underground aquifer above it.

**Q: Health complaints are emerging in drilling areas, and health impacts are both a growing concern and represent a significant scientific gap in the study of drilling's impacts. Pennsylvania is considering a health registry to track related complaints. What steps is New York taking?**

We are not planning to have a health registry. The main approach of the SGEIS is to prevent exposure of the public and any resulting health impacts. We are also requiring that private drinking water wells be monitored. DEC and DOH (Department of Health) have been coordinating in assessing public health risks associated with the drilling and gas extraction activities. In the unlikely event that contamination of groundwater occurred, the state and county health departments would first determine whether the public has been or might likely be exposed. Those agencies are also fully equipped to conduct epidemiological studies of exposed populations.

**Q: In 2008 ProPublica reported that New York state was not prepared to handle [1] the wastewater that would be produced from drilling. Later we wrote that drilling waste was likely to be dangerously radioactive [3]. Originally, New York planned to permit water treatment plants to accept the waste. Where do things stand today?**

Currently, no wastewater treatment plants in New York are equipped to treat or permitted to accept wastewater with the range of contaminants expected to be in fluids produced from high-volume hydraulic fracturing. These plants would need to make modifications or additions to the treatment systems at their facilities. These plants would need an SPDES (environmental discharge) permit from New York state. ... The plants would be required to perform a "headworks analysis" demonstrating they can safely treat the waste before DEC would grant or modify the permit. It is possible that these plans could include exporting waste to Ohio.

**Q: As more drillers recycle their wastewater, more of those fluids are left permanently underground in the well. Will New York have any requirements limiting how much fluid can be discarded underground before the drilling is considered "underground injection," a process extensively regulated by the federal government?**

DEC is currently examining this issue as part of its environmental and rule-making process. There should be more details once the draft SGEIS and accompanying regulations are finalized.

**Q: Can you explain the recent controversy about "lifting New York's ban" that was reported in the**

**national press? I never knew about a ban on fracking in New York.**

A moratorium certainly hadn't been lifted because a moratorium hadn't been in place. I think of a moratorium as an act of the legislature that says a state can't do something for a period of time, by law. Nothing about the situation changed other than we revised the draft. The revised draft was expected all along. And we are required by law not to consider applications to drill until the [environmental review] is completed. Everybody knew this was just another revision that had been promised for months.

I took exception to the way The New York Times reported the story when they heard we were coming out with our revised draft. It was a very misleading headline ... that the governor was trying to slip one by on people.

**Q: The DEC has a multitude of responsibilities and has faced severe budget and staff restraints. Will the drilling issue define the department and consume the state's environmental regulatory resources?**

We still have a large staff that deals with mining (which oversees drilling), and it is not going to dwarf any of the other functions of the agency. But we will need to be properly staffed. We are going to need the people to properly oversee it. I don't think this will ever dominate the agency's mission or focus.

**Q: Speaking of staff, New York has just 14 gasfield inspectors and has cut its staff by more than 20 percent since 2003. By comparison, Pennsylvania—which continues to be challenged by environmental problems from drilling—has doubled its inspection staff to more than 200. Your predecessor at the DEC was fired after warning that cuts would interfere with drilling oversight. How does New York now expect to be able to oversee drilling in the state?**

I've put together an advisory panel that's going to meet in August. One of the main focuses will be to look at the resource issues. They will look at Pennsylvania and how they have staffed it and how we have staffed. The advisory panel's work will flow into a budget process here in New York.

I'm not just talking about the mineral division, I'm talking about the water division, staff in lands and forests; it's across divisions that we will need additional resources to address issues around high-volume hydraulic fracturing.

If we don't get those resources, we will only review applications that we have the capacity to review at any given point in time. We are not going to approve permits just because we have lots of them.

**Q: The country appears on the verge of a second recession, and drilling could bring revenue. How do today's economic troubles affect New York's decision about whether to allow Marcellus Shale drilling?**

The fact that the economy is in recession is one factor, but it's certainly not the most important factor for the DEC. It hasn't affected the environmental review process. Our primary objective is to figure out how this can be done in an environmentally protective way.

**Q: What preferences have the governor and others outside the DEC expressed?**

I can say categorically that no one has exerted any pressure on me. There is a provision in the environmental conservation law that requires us to promote the efficient use of the state's oil and gas resources, so we have a legal obligation to try to use these resources efficiently. At the same time, we have air, water and solid-waste laws that make sure things are done in a way that meets national and state environmental standards. So, it is a balancing act, but the objective is to see if they can be simultaneously met and we have concluded that they can.

**Q: New York drilling regulations say that state authority usurps municipal authority when it comes**

**to regulating drilling, yet a number of communities are considering local bans or limits of their own. How will New York address these conflicts and is it prepared to fight them in court?**

It is likely that the courts will need to decide these issues in a lawsuit between the town and the drilling company, not the state.

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1. <http://www.propublica.org/article/new-yorks-gas-rush-poses-environmental-threat-722>
2. <http://www.propublica.org/series/fracking>
3. <http://www.propublica.org/article/is-the-marcellus-shale-too-hot-to-handle-1109>

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