

New York Shale Gas Drilling Plan Endangers Drinking Water

The New York Department of Environmental Conservation has released a draft environmental impact statement that will help set standards in New York for gas drilling in the state's Marcellus Shale deposits. Environmental Working Group's analysis concludes that the New York State government is not prepared to protect drinking water supplies from drilling pollution. At the same time, state officials concede that permitting the inherently risky process, a combination of horizontal drilling and high-volume hydraulic fracturing, would not create many jobs for local residents.

Gas drilling creates jobs -- for out-of-state workers

New York needs jobs now. But state officials estimate that 77 percent of the workforce on initial drilling projects would consist of transient workers from out of state. Not until year 30 of shale gas development would 90 percent of the workforce be New York residents.¹

State lacks facilities to treat toxic wastewater

New York's wastewater treatment plants may not be equipped to remove toxic chemicals from the millions of gallons of wastewater generated by hydraulic fracturing, according to the state plan.²

Cleaning contaminated drinking water could cost billions

If upstate drilling contaminates New York City's drinking water, the state plan estimates that the cost of building a filtration plant is \$8 billion AT MINIMUM. Cleaning up pollution in private water wells could be expensive, too. The state of Pennsylvania has estimated that it would cost almost \$12 million to extend public water lines to just 19 families whose well water had been polluted by natural gas drilling.³

Few state inspectors

New York has just 14 inspectors to oversee 13,000 existing natural gas and oil wells. The state is woefully unprepared to monitor the significant increase in drilling that would come with shale gas development.⁴

Plan would allow drilling too close to groundwater, aquifers

In Colorado and Ohio, natural gas and drilling chemicals have traveled as far as 4,000 feet horizontally under the earth's surface.⁵ Yet New York State would allow drilling as close as 500 feet from private water wells, 500 feet from aquifers used for major municipal water supplies and 2,000 feet from other public water supplies.⁶ The plan proposes 4,000-foot buffers between drilling operations and the watersheds for New York City and Syracuse, but those are still too close for comfort. Horizontal gas wells that begin outside the buffer could extend 4,000 feet or more into the watershed. In some cases, hydraulic fracturing could occur underneath reservoirs and dams.⁷

Weak safeguards near NYC underground aqueducts

The state has proposed to allow drilling within 1,000 feet of New York City's underground aqueducts if a site-specific analysis were conducted. But because the area is laced with underground channels that could carry toxic fluids and gas, the city wants to bar drilling less than seven miles from its aqueducts.⁸

Abandoned wells could spread pollution

New York has about 75,000 abandoned oil and natural gas wells, only about half of which have been mapped. Drilling experts say that hydraulic fractures could break into abandoned wells, sending hydraulic fracturing fluid, natural gas and other contaminants up toward the surface, where they could pollute groundwater.⁹ The state plan calls for drillers to find and plug abandoned wells,¹⁰ but with so many undocumented wells, there is no guarantee all would be found. The potential for contamination remains high as long as drilling is allowed close to drinking water.

Flooding precautions weak

Flooding of drilling sites could wash contaminants from waste pits or rupture tanks of toxic fluids, polluting soil and groundwater. The state proposes to prohibit drilling in 100-year floodplains, but in some New York counties along the Marcellus Shale, flooding has exceeded 100-year levels several times between 2004 and this year. Maps of floodplains have proved inaccurate in recent floods.¹¹

More research urgently needed

There is not enough scientific research to determine where drilling can be conducted without threatening drinking water sources. The U.S. Environmental Protection Agency is conducting a scientific study of hydraulic fracturing's impacts on drinking water supplies. The state of New York could launch its own scientific study to determine how and whether fracking can be done safely. **At the very least, New York should wait for the results of the EPA study before moving forward with a gas drilling process that could cost New Yorkers billions of dollars and endanger precious water supplies.**

¹ New York State Dept. of Environmental Conservation, Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs, Rev. Draft, Sept. 7, 2011, at 6-233, 234 [hereinafter NYDEC SGEIS 2011].

² NYDEC SGEIS 2011, at 6-62.

³ See NYDEC SGEIS, supra note 1, at 6-47. Legere, Laura. DEP Drops Dimock Waterline Plans; Cabot Agrees to Pay \$4.1M to Residents, Scranton Times-Tribune, December 16, 2010.

⁴ McAllister, Edward. "Insight: NY Water at Risk from Lack of Natgas Inspectors?" Reuters, Jul. 29, 2011. Accessed online Oct. 4, 2011 at <http://www.reuters.com/article/2011/07/29/us-newyork-shale-drilling-idUSTRE76S5FA20110729>.

⁵ URS Corporation, Phase I Hydrogeologic Characterization of the Mamm Creek Field Area in Garfield County, Prepared for Board of County Commissioners, Garfield County, Colorado, Mar. 13, 2006, at 5-10. Colorado Oil and Gas Conservation Commission, Order No. 1V-276, Sept. 2004. Ohio Department of Natural Resources (ODNR). Report on the Investigation of the Natural Gas Invasion of Aquifers in Bainbridge Township of Geauga County, Ohio, Sept. 1, 2008, at 6. Bair, E. Scott et al. Expert Panel Technical Report, Subsurface Gas Invasion Bainbridge Township, Geauga County, Ohio, Submitted to ODNR Division of Mineral Resources Management, June 2010 at 3-113. Ohio Department of Natural Resources, Order Number 2009-17, Apr. 14, 2009 at Attachment A, Attachment B.

⁶ See NYDEC SGEIS, supra note 1, at ES 20-22.

⁷ See NYDEC SGEIS, supra note 1, at ES-20. New York City Dept. of Environmental Protection, Final Impact Assessment Report, Impact Assessment of Natural Gas Production in the New York City Water Supply Watershed, Dec. 2009, at D-3 [hereinafter NYDEP 2009].

⁸ See NYDEC SGEIS, supra note 1, at ES-6. Rush, Paul, Deputy Commissioner, Bureau of Water Supply, New York City Department of Environmental Protection, Before the New York City Council, Committee on Environmental Protection, Sept. 22, 2011.

⁹ Urbina, Ian. A Tainted Water Well, and Concern There May Be More, New York Times, Aug. 4, 2011, at A13. Environmental Working Group, Cracks in the Façade, Aug. 4, 2011. Accessed online Oct. 4, 2011 at <http://www.ewg.org/reports/cracks-in-the-façade>. New York Department of Environmental Conservation, Division of Mineral Resources. New York State Oil, Gas and Mineral Resources, 2008, at 23. Accessed online Dec. 5, 2010 at <http://www.dec.ny.gov/pubs/36033.html>.

¹⁰ NYDEC SGEIS 2011, at 7-58.

¹¹ NYDEC SGEIS 2011, at 7-76. U.S. Geological Survey. Flood Investigations in New York. Accessed online Oct. 4, 2011 at <http://pubs.usgs.gov/of/2006/1319/>. U.S. Geological Survey. Remnants of Tropical Storm Lee Cause Record Flooding in the Susquehanna River Basin, Table of Provisional Flood Peaks and Flood Frequency Estimates, Sept. 8, 2011. Accessed online Oct. 7, 2011 at <http://ny.water.usgs.gov/leeindex.html>. NYDEC SGEIS 2011, at 2-32 and 2-33.