

[EPA Sees Risks to Water, Workers In New York Fracking Rules](#)

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by Joaquin Sapien, [ProPublica](#), Jan. 13, 2012, 3:11 p.m.

New York's emerging plan to regulate natural gas drilling in the gas-rich Marcellus Shale needs to go further to safeguard drinking water, environmentally sensitive areas and gas industry workers, the U.S. Environmental Protection Agency has informed state officials.

The EPA's comments, in [a series of letters](#) [1] this week to the state's Department of Environmental Conservation, are significant because they suggest the agency will be watching closely as states in the Northeast and Midwest embrace new drilling technologies to tap vast reserves of shale gas.

New York is in the forefront of the shale gas boom and has been working on regulations for more than three years. Judith Enck, the EPA regional administrator who issued the agency comments, noted that New York "will help set the pace for improved safeguards across the country."

The EPA's comments are among 20,000 the state has received on its proposed plan to regulate the environmental effects of drilling. Many of the EPA's comments focus on how the state DEC will handle the chemically tainted wastewater from the drilling process known as hydraulic fracturing, or fracking.

To free the gas trapped in the Marcellus and other shale formations, drillers pump millions of gallons of water mixed with sand and chemicals deep underground under pressure. The wastewater can get into drinking water by being disposed of at sewage treatment plants, the EPA wrote.

As ProPublica first [reported](#) [2] in 2009, these plants don't typically have the equipment necessary to detect and treat the chemicals in drilling wastewater. Plant operators who accept drilling wastewater simply dilute it with regular sewage and then discharge it into water bodies. DEC wastewater samples had levels of radioactive elements thousands of times higher than drinking water limits, [ProPublica reported](#) [3].

In its comments, the EPA pointed out that New York's current permitting system for water treatment plants doesn't include limits on pollutants frequently contained in drilling wastewater, such as radionuclides, which can cause cancer at high levels.

The EPA said it needs to be more closely involved in analyzing and approving any treatment plant's application to accept drilling wastewater. And while the DEC's proposed rules suggest limits on radioactive elements such as radium, the EPA said it's not clear who would be "responsible for addressing the potential health and safety issues" related to radiation exposure.

The EPA also flagged health risks to workers close to wastewater and other potentially radioactive materials, like the large amounts of soil and mud unearthed by drilling. "At a minimum, the human health risks to the site workers from radon and its decay products

should be assessed along with the associated treatment technologies such as aeration systems or holding for decay," the agency wrote.

The EPA raised concerns about the sheer amount of wastewater. To deal with the excess water, the DEC listed a number of out-of-state treatment plants as potential recipients, but the EPA warned that several of the plants probably don't have the capacity to handle more wastewater.

ProPublica [reported](#) [2] that neighboring Pennsylvania became overwhelmed by drilling wastewater after the state embraced the industry. The Monongahela River, which provides drinking water to 350,000 people, became contaminated with drilling salts and minerals.

The EPA letters are the latest in a series of federal moves to tighten oversight of gas drilling. In December, the agency [scientifically linked](#) [4] underground water pollution to hydraulic fracturing for the first time. Last August, the EPA [announced](#) [5] that it would develop its own rules on wastewater disposal instead of leaving it up to states.

Industry and green groups have split over the DEC's proposed regulations, with drillers saying they are too restrictive and environmentalists contending they don't go far enough. Meantime, the EPA has launched a comprehensive review of the environmental impacts of hydrofracking.

In August, DEC Commissioner Joe Martens told ProPublica that he didn't think there would be much to learn from the EPA study and that the state was far ahead of the federal agency in its response to drilling