

**JAMES F. GENNARO**  
COUNCIL MEMBER  
24<sup>TH</sup> DISTRICT, QUEENS

□ **DISTRICT OFFICE**  
185-10 UNION TURNPIKE  
FRESH MEADOWS, NY 11366  
(718) 217-4969  
FAX: (718) 217-4968

□ **CITY HALL OFFICE**  
250 BROADWAY, ROOM 1773  
NEW YORK, NY 10007  
(212) 788-6956  
FAX: (212) 676-0471

[gennaro@council.nyc.ny.us](mailto:gennaro@council.nyc.ny.us)



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February 19, 2009

Pete Grannis  
Commissioner  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, New York 12233-0001

Dear Commissioner Grannis:

I am writing to express my grave concerns that the state Department of Environmental Conservation (DEC) is misleading the public and the New York City Council Environmental Protection Committee in stating that there are no significant risks from hydraulic fracturing, a drilling technique that may be used to extract natural gas in and around the water supply of the city of New York. The DEC has made this statement in at least two public documents: a final scoping document for an environmental impact statement regarding hydraulic fracturing released February 6, 2009 and a previous draft released October 6, 2008.

Specifically, the state noted that it "does not... find a significant environmental impact associated with [hydraulic fracturing], which has been in use in New York State for at least 50 years." Yet in response to a Freedom of Information Law (FOIL) request by the Washington, DC-based Environmental Working Group (EWG), the DEC admitted that over the same period, it had performed no tests of its own and lacked testing by others to support this conclusion. I have attached the state's responses to the FOIL request.

This cavalier approach to the science is unacceptable, particularly when the integrity of New York's drinking water is at stake. Contrary to the DEC's assertion, a consistent body of emerging science indicates that hydraulic fracturing can contaminate water supplies.

As you know, the state of New York has witnessed a surge in applications to drill for natural gas. As a part of proposed drilling operations companies are planning widespread use of horizontal drilling and a technique known as high-volume hydraulic fracturing. Hydraulic

fracturing involves the underground injection into each well of as many as five million gallons of water laced with toxic chemicals in order to bring more natural gas to the surface and enhance production. The use of “hydrofracking,” as it is called, is of particular concern to me because energy companies plan to use these techniques to extract natural gas from the Marcellus Shale, a formation in southern New York that underlies the watershed for New York City’s drinking water.

Hydraulic fracturing presents serious risks to water supplies because many fracturing fluids are laced with highly toxic chemicals. For example, companies have used diesel fuel as a fracturing fluid. A 2004 report by the U.S. Environmental Protection Agency found that 30 percent of four toxic chemicals in diesel fuel – benzene, toluene, ethylbenzene, and xylene – remain underground after injection and are “likely to be transported by groundwater supplies.” In 50 percent of cases where fracking was studied in coal bed formations, fracturing fluids traveled from the coal bed to adjacent rock formations including shale. And the EPA’s prior draft report found that at the point of injection, nine chemicals were contained in hydraulic fracturing fluids in concentrations that exceeded water quality standards. A 2008 investigation by EWG and a Paonia, Colorado-based organization, The Endocrine Disruption Exchange, identified at least 65 chemicals used in gas drilling that were classified as hazardous or toxic under six different national environmental laws. Many of the chemicals are used in hydraulic fracturing.

Under current law, companies generally do not have to disclose the specific chemical composition of fluids used for hydraulic fracturing. The state says that it is collecting information from companies regarding the chemicals they are using, but a recent investigation by New York-based nonprofit news outlet ProPublica and WNYC indicates these efforts began only last year after inquiries from these two news organizations. Nor does it appear that the state is making this information available to the public.

New York is not the only state operating in the dark. The federal government and most state and local governments do not require oil and natural gas companies to disclose what chemicals they are using in hydraulic fracturing or any other aspect of their operations. As a result, states would not even know for which chemicals to test. According to a recent front-page story in the Denver Post by ProPublica EPA scientists say the lack of knowledge makes it impossible to assure the public that the drilling process is safe or to accurately measure its effects.

Joyel Dhieux, a drilling field inspector who handles environmental review at the EPA’s regional offices in Denver told ProPublica that "I am looking more and more at water quality issues...because of a growing concern...But if you don't know what's in it I don't think it's possible."

We do know that hydraulic fracturing is used in 90 percent of oil and gas wells in the nation and that it has been associated with water contamination and serious illness.

This summer, the Bureau of Land Management documented that groundwater in Sublette County, Wyoming, is contaminated with benzene, a toxic substance linked to cancer and nervous system disorders. Sublette County is the site of one of the nation’s largest natural gas fields. The

total number of wells drilled in Sublette County during the past two presidential administrations alone is more than 4,000. Thousands of wells may be drilled in New York State.

Benzene is found in hydraulic fracturing fluids and is also found in condensate, a liquid that is produced along with natural gas. The maximum safe amount of benzene in drinking water is just five parts per billion, and the EPA has recommended that the goal for benzene in drinking water be zero. The Sublette County case is particularly alarming because the county is rural, and there are no likely sources of benzene contamination other than natural gas drilling and hydraulic fracturing.

Last spring, the Durango (Colorado) Herald reported that a nurse became gravely ill after being exposed to fracturing fluids that had spilled on a natural gas worker she was treating. As the nurse suffered from liver failure, heart failure and respiratory failure, the company that manufactured the fracturing fluid refused to tell her doctor what was in it, citing the need to protect trade secrets. The doctor had to guess how to treat his patient who later recovered.

As you know, New York City has spent millions of dollars to protect its drinking water supply and, as a result, is one of only a few major cities that does not need a filtration plant. Should our water become contaminated due to hydraulic fracturing or other drilling activities, we would have to build a plant at a cost of \$20 billion or more. Due to the contamination risks inherent in the drilling process that we have documented in two hearings before my committee, I urge the state not to allow drilling in New York City's watershed or anywhere in which water supplies might be threatened.

In addition, the state should take the following steps:

- 1) Acknowledge its lack of evidence about the dangers of hydraulic fracturing in current statements and subsequent documents related to its pending environmental analysis (the supplemental generic environmental impact statement regarding horizontal drilling and high-volume hydraulic fracturing in low-permeability gas reservoirs).
- 2) Require that all companies drilling in New York publicly disclose all chemicals that they propose to use in gas drilling operations, including chemicals used in hydraulic fracturing operations.
- 3) Conduct testing for environmental impacts at wells in New York that have been hydraulically fractured. Prior to such tests, companies involved in the fracturing should disclose to the state the chemicals involved and the state should test for those chemicals in addition to other toxics commonly associated with drilling such as benzene.
- 4) Conduct testing for environmental impacts at drilling sites that, as near as possible, use the same chemicals and similar techniques to those expected to be used in drilling in New York State. Prior to such tests, companies involved in the drilling should disclose to the state the chemicals involved and the state should test for those chemicals in addition to other toxics commonly associated with drilling such as benzene. Alternatively, the state should obtain testing results from reputable organizations conducted under similar circumstances.

Though natural gas is often billed as a “clean” source of energy, the extraction process poses serious risks for water contamination. The state must conduct its environmental review in a thorough, transparent manner to ensure that the citizens of New York can count on clean, safe drinking water – now and for generations to come.

Sincerely,

A handwritten signature in black ink that reads "Jim Gennaro". The signature is written in a cursive, flowing style.

JAMES F. GENNARO  
Council Member, 24<sup>th</sup> District