

December 22, 2009

The Honorable Pete Grannis  
Commissioner, Department of Environmental Conservation  
State of New York  
625 Broadway  
Albany, NY 12233

Dear Commissioner Grannis:

I am writing to provide my formal comments in response to the Department of Environmental Conservation's (DEC) draft Supplemental Generic Environmental Impact Statement (dSGEIS) for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus Shale. New York is facing the prospect of large numbers of natural gas drilling sites that necessitate a strong set of regulations, along with significant resources and staff, to protect the region's quality of life, surface and groundwater resources, and public health.

I recognize the potential economic benefits that natural gas drilling could bring to the State of New York. However, accessing the gas reserves in the Marcellus Shale must be done in an environmentally responsible manner with the proper safeguards in place to protect our water resources, air quality, and public health. The economic consequences of failing to do so would far outweigh the economic benefits associated with drilling.

The dSGEIS proposes a range of thoughtful and common sense modifications to the existing permitting process for natural gas drilling in New York that would help to protect public health and the environment. I commend the DEC for the enormous amount of time and resources devoted to updating the state's existing oil and gas drilling regulations.

Despite these improvements, more work is needed in order to properly safeguard against the risks that hydraulic fracturing poses to drinking water, air quality, public health, and local infrastructure before Marcellus drilling should be allowed to go forward. Additional analyses must be conducted and greater protections are required in order to live up to the spirit and letter of the State Environmental Quality Review Act (SEQRA). These should include the following items:

**1. A cumulative impact analysis of natural gas drilling in the Marcellus formation to understand the full impact drilling could have on our water resources, air quality, local roads and infrastructure.**

The draft SGEIS dismisses the need for any cumulative impact of natural gas drilling in the Marcellus formation. The document incorrectly asserts that under SEQRA, the impacts of gas drilling activities are limited only to the surface area of individual well drilling areas and notes that any cumulative or regional impact assessments would be "purely subjective and indefensible." The SGEIS also indicates that any analysis or estimation of cumulative impacts would be "difficult."

As someone who personally worked to develop and strengthen the state's SEQRA process during my tenure in the New York State Assembly, I strongly disagree with this interpretation. SEQRA requires an aggregation and accounting of cumulative impacts. Without understanding the full impacts of a build-out scenario, we cannot begin to mitigate possible cumulative impacts. The dSGEIS provides an estimate from one energy company as to the possible peak rate of development for new wells in the Marcellus Shale. The NYSDEC should also survey land leases throughout the formation and derive an estimate of a possible build-out number of wells based on the amount of land leased and the current densities allowed

under New York's well spacing regulations.

I am fully confident that NYSDEC could determine a reasonable estimation of a build-out scenario and use that as a basis to assess and mitigate cumulative impacts. It is specious to assert that the cumulative impacts of unconventional, high-volume gas drilling is in any way equivalent to conventional natural gas drilling. The former process is incredibly water intensive and will require hundreds of millions of gallons of water and tens of thousands of truck trips through rural communities of our state. The latter requires a small fraction of the water usage and transportation requirements. It is also clear that for unconventional drilling, the duration of the drilling is much longer than envisioned in the original GEIS.

## **2. A prohibition on the use of toxic chemicals in all fracturing fluids in order to prevent groundwater and surface water contamination.**

Hydraulic fracturing fluids contain toxic chemicals and known carcinogens, such as benzene and toluene. According to recent reports, upwards of 40,000 gallons of fracturing chemicals may be used at a single well site. While the dSGEIS states in Section 8.2.1.2 that "...adequate well design prevents contact between fracturing fluids and fresh ground water sources..," it is unreasonable to expect that all wells will be designed and constructed properly. I believe that the dSGEIS falls short on this issue and should be revised to recognize the potential for ground and surface water damage from chemicals used in hydraulic fracturing. Given that current Environmental Protection Agency (EPA) investigations in Pavillion, Wyoming have linked well water contamination with hydraulic fracturing, there is an obvious and documented need to consider ground water as a potential exposure pathway in the dSGEIS.

The dSGEIS noted the presence of toxic chemicals in fracturing fluids, and indicated a clear preference for the use of non-toxic chemicals. However, the dSGEIS said it would not be feasible to require the use of non-toxic chemicals because there was no "metric" in place in the U.S. to determine the difference between toxic and non-toxic chemicals. This is not the case. At least one federal agency, the Minerals Management Service (MMS), which oversees off-shore drilling, currently applies such a "metric."

Given the difficulties NYSDEC appears to be having in finding the legal authority to compel full public disclosure of fracturing fluid, I strongly urge the DEC to consult with MMS, as well as the EPA, to develop regulations that would prohibit vast amounts of toxic chemicals from being injected into the ground.

## **3. Require public disclosure of chemicals used in hydraulic fracturing.**

NYSDEC should strengthen its proposed methodology for disclosing chemicals which is based on whether or not fluid impoundments are covered or uncovered in a list on known fracturing fluid chemicals included in the dSGEIS. This approach strikes me as unnecessarily confusing and challenging to enforce. I don't believe the dSGEIS is explicit in describing how "full chemical disclosure" differs from "identification of additive products and proposed percent by weight of water" relative to covered impoundments and open surface impoundments.

As a coauthor of the FRAC Act (HR 2766), a bill that would establish a national standard for disclosure, I firmly believe that the state can and should do more on this critical matter. The state must be clear and precise in seeking the full proprietary chemical formulation used by any company engaged in hydraulic fracturing in New York State. I believe the state has the legal authority to gather this information as a condition for granting a drilling permit and I see no compelling reason for the state not to exercise that authority. In addition, the state can and should maintain internal records of exactly what is being used for each drilling operation.

## **4. A thorough review of the growing number of incidents from other states, including Pennsylvania**

**and Wyoming, in which gas drilling is alleged to have caused explosions, well-contamination, ecological damage and health impacts.**

In August of this year, the EPA opened a formal investigation into links between contamination at 11 drinking wells in Wyoming and nearby natural gas development, including wells that hydraulically fractured. The following month, the Pennsylvania Department of Environmental Protection ordered Cabot Oil and Gas, one of the most active natural gas companies in the state, to stop its hydraulic fracturing operations in Susquehanna County after several large spills of fracturing fluids contaminated nearby streams.

In many cases water contamination, particularly to groundwater, is irreparable. A more extensive and inclusive review of available reports and field research at some of these sites is needed, especially considering the widely held concerns of New Yorkers regarding the protection of our unparalleled water resources.

**5. Mandate that all baseline well water tests and complaints be handled by DEC, instead of county and local government as proposed in the dSGEIS, and be paid for by drilling companies.**

The proposals in the dSGEIS to mandate baseline well testing within certain distances to well-drilling operations and to require disclosure of the chemical composition of hydraulic fracturing fluids represent a step in the right direction. However, there remain serious concerns and questions in terms of administering and enforcing such protections. In terms of baseline well testing, the dSGEIS proposes that county departments of health take primary responsibility for investigating initial complaints and testing wells. Some counties have noted that they do not have the capacity to monitor wells and handle complaints related to gas drilling. Particularly at a time of chronic local budgetary shortfalls, this mandate would require additional public resources to implement, thereby externalizing the costs of gas drilling activities to taxpayers. Such costs should be paid for by gas drillers, and all testing and complaints should be handled by the NYSDEC.

**6. Develop a comprehensive wastewater plan for high-volume gas drilling in New York and require industry to put in place the necessary infrastructure to process and treat flowback fluids prior to the issuance of any drilling permits.**

Fundamental questions and concerns about where millions of gallons of flowback fluid will be processed and disposed of responsibly remain unanswered by the dSGEIS. While the document provides a long list of pretreatment facilities in New York State, I am not aware that any of them are licensed or prepared to treat flowback fluids with high levels of dissolved solids, industrial and hazardous chemical additives, naturally occurring radioactive materials (NORM) and other constituent materials that cannot currently be handled by Publicly Owned Treatment Works (POTWs).

The dSGEIS recognizes that transporting the prodigious amounts of flowback fluids out of state is much more impactful, particularly in terms of greenhouse gas production, than disposal within New York State. The gas industry needs to put in place the necessary infrastructure to process and treat flowback fluids before New York commits to an unprecedented expansion of hydraulic fracturing across the Marcellus Shale. The final SGEIS must include a comprehensive wastewater plan for high-volume gas drilling in New York.

**7. Require on-site processing and reuse of fracturing fluids to minimize impacts from transportation and ensure that water is used as efficiently as possible.**

Each fracturing well site requires millions of gallons of water that will be withdrawn from critical watersheds across New York. Thousands of truck trips are required to transport that water to the drilling site, which would adversely impact air quality, roads, and noise levels. As such, DEC should require on-site processing and re-use of fracturing fluids to minimize impacts from transportation and ensure that

water is used as efficiently as possible.

**8. Extend supplementary reviews with public input for key sensitive areas within the Marcellus Shale, including the Upper Delaware Scenic and Recreational River and Catskill State Park, and accept calls for a drilling prohibition in the New York City Watershed.**

In the 1992 GEIS and the draft SGEIS, NYSDEC has recognized that in some cases, additional protections and reviews are merited based on certain site conditions or locations for proposed natural gas drilling. These documents recognize that under certain conditions, it may not be sufficient for an applicant to simply demonstrate conformance with the GEIS so that SEQRA is satisfied, which only requires NYSDEC staff to file a record of consistency with the GEIS. In these cases, supplemental reviews or site-specific determinations as to the significance of a proposal are required to protect critical environmental or public resources.

For example, the issuance of an individual permit to drill a gas well is always considered "significant" and always requires a Supplemental Environmental Impact Statement ("SEIS") when the proposed location is within 1,000 feet of a municipal water supply well. Section 3 of the SGIES also proposes a host of additional conditions under which NYSDEC would require site-specific environmental assessments and SEQRA determinations.

NYSDEC should extend such supplementary reviews with public input for key sensitive areas within the Marcellus Shale, including the Upper Delaware Scenic and Recreational River and the Catskill Park. In these areas, tremendous public and private resources have been expended to conserve critical environmental assets or public resources. Extensive land-use planning and protections have been established to protect these resources, and there is a substantial public interest in safeguarding scenic, environmental, cultural, recreational, and water resources.

In these sensitive regions, an industrialization of the landscape through a proliferation of natural gas drilling operations is inappropriate and incongruous with the established uses and designations of these areas. Any proposed drilling operations in these areas should face additional scrutiny and public input before gas drilling permits are issued. Requiring a SEIS within these sensitive areas is warranted and necessary to ensure that proposed gas drilling activities do not undermine and threaten significant public interests.

In addition to this heightened review process for key sensitive areas, I support calls for a prohibition on drilling in the New York City watershed. I believe all watersheds must be protected; however, the New York City watershed is a nationally unique resource. In addition to providing water to over 10 million people, it is also the nation's largest unfiltered water system. For thirty years I have fought to maintain and strengthen this watershed's natural filtration system, and I believe we must do all that we can to ensure it is sustained. Just one accident in the New York City watershed could have devastating consequences in terms of public health and public money. Several gas companies have already indicated they will not drill in the New York City watershed, including the largest lease holder in the area, Chesapeake Energy. NYSDEC should follow those companies' leads and simply not permit drilling projects within the New York City watershed.

**9. Dramatically increase the resources and staffing devoted to the permitting and oversight activities related to high-volume hydraulic fracturing.**

As has been mentioned many times, the Marcellus Shale is estimated to be the largest natural gas deposit in the country and one of the largest deposits in the world. In Broome County alone, it is estimated that 2,000 to 4,000 wells could be drilled in the next decade, if drilling is permitted. In the rest of New York, that number is expected to be in the tens of thousands. With only a handful of staff devoted to oil and gas

activities, there is absolutely no means for the DEC to effectively permit, and just as importantly oversee, drilling activities. Given the state's limited budget resources and current hiring freeze, it seems highly unlikely that the DEC would be able to access the resources and provide the staffing levels it would need to oversee unconventional drilling in New York. Until the required resources are in place, it would be dangerously irresponsible to allow Marcellus drilling activities to begin, given the known risks to water resources, public health, and our local communities.

**10. Only after addressing the questions raised by those who submit comments to the dSGEIS and dramatically improving safeguards and regulations for hydraulic fracturing, the DEC should adopt a phased-development approach to the Marcellus Shale and limit initial gas drilling permits to areas without significant environmental concerns in order to assess those operations and make adjustments to the permitting process.**

As I mentioned previously, the widespread use of high-volume fracturing is a radically different process from conventional gas drilling with substantially more risks and potential impacts to the environment, public health and the region's quality of life. Additionally, it is vital to keep in mind the likely massive scope of unconventional natural gas drilling in the Marcellus Shale.

Given this massive scope, NYSDEC should initially issue permits on a pilot basis in a limited number of areas before the state considers widespread permitting of unconventional gas drilling operations, in order to assess those operations and make adjustments to the permitting process. Such a guarded and cautious approach will provide a much-needed safety margin for these activities and ensure that the State of New York's regulatory framework is protective enough to avoid the unfortunate incidents we are witnessing unfold in Pennsylvania and elsewhere. Such permitting should only take place after the DEC has addressed the outstanding regulatory issues raised by myself and others.

**11. Extend the public comment period for an additional 90 days.**

Gas drilling in the Marcellus Shale represents one of the biggest changes our state has ever witnessed. It is absolutely critical that the public is fully engaged and that all proposed regulations are thoroughly vetted. I greatly appreciated the initial 30 day extension NYSDEC provided, but it is now clear to me that additional time is required to allow the public to fully digest and comment on the dSGEIS.

Natural gas drilling, when done properly, has an important place in our national energy policy. The Marcellus Shale provides New York with a real opportunity for economic growth if the proper environmental and public safety protections are in place. However, we cannot afford to get this wrong. While the economic benefits of drilling are potentially great, the potentially disastrous economic and public health consequences of failing to protect our water supplies would be exponentially greater.

Thank you for the opportunity to provide these comments. I appreciate the work you are doing and share your goals for protecting public health and the environment for all New Yorkers, while supporting responsible economic development.

Best regards.

Sincerely,

Maurice D. Hinchey