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STATE OF NEW YORK  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK 12233-1010

Honorable Robert K. Sweeney  
New York State Assembly  
625 Legislative Office Building  
Albany, NY 12248

Dear Assemblyman Sweeney:

Thank you for the opportunity to testify on October 15 regarding gas drilling in the Marcellus shale. I appreciate your interest in exploring the many issues that have been raised about the anticipated drilling, and I will continue to respond to questions from you, your colleagues, and constituents as we move forward with the Supplemental Generic Environmental Impact Statement. The purpose of this letter is to provide additional comments about some matters presented at the hearing.

### **Waste Transportation**

Oil and gas well drilling fluids are considered an industrial waste, regulated in accordance with 6 NYCRR Part 364. Any person that wants to transport regulated waste originating or terminating in New York State must have a valid and current 6 NYCRR Part 364 waste transporter permit that specifies the types of waste proposed to be transported. The permit must also identify the final destination facility permitted to receive each waste type. This information is found on the actual permit issued to each transporter. Only wastes listed on the permit may be transported and transporters may only dispose of wastes at approved facilities that appear on the permit. Each transporter must file an annual report accounting for all waste transported and identifying each location where the waste was disposed.

There was some discussion at the hearing regarding transportation of water for large scale hydraulic fracturing operations. Based on the use of 5,000 gallon water trucks, a 2.5 million gallon horizontal well hydraulic fracture would require approximately 500 truck trips to haul water to the site, although these trips may be spread out over a period of time.

### **Hydraulic Fracturing Fluid Composition**

As I noted in my testimony, we have already declared that the industry will have to disclose to DEC all of the components and additives in the fracturing fluid in their permit applications - a standard that we will apply to all future drilling operations. Such submissions to DEC are not limited by any federal laws. However, they are subject to the New York State Freedom of Information Law, which allows companies to assert confidential business or trade secret status for this information.

Industry may assert trade secret protections for specific formulations or recipes of chemicals, or for the chemicals themselves, depending on the degree to which the constituents have been made public. If the identity of the various chemical constituents within an additive are generally known within the industry, but the relative proportions of these constituents are not, trade secret protection can be awarded for the formulation. If, however, the identity of specific chemical constituents have not been divulged to anyone outside of the chemical manufacturer's employees, or made public via the manufacturer's marketing materials or material safety data sheets, the chemical itself may qualify for trade secret protection. Nevertheless, all of the chemical information will be available to DEC for making regulatory decisions, but public access to any trade secret protected submissions will be subject to the provisions of the aforementioned Freedom of Information Law.

We stated that the use of benzene, toluene, ethylbenzene or xylene (BTEX) in Marcellus hydraulic fracturing did not rise to a level of concern based on the information provided to us by operators, which indicates that BTEX is found in certain corrosion inhibitors. Some operators have recently proposed to replace these corrosion inhibitors with "greener fluids" that do not contain any BTEX compounds.

It is important to reiterate that New York prohibits permanent waste disposal pits for oil and gas wastes. Well construction requirements protect groundwater from hydraulic fracturing fluids, and from well production fluids and natural gas. Any hydraulic fracturing flow back fluids temporarily stored on site must be transported to approved disposal locations by licensed waste haulers. The Division of Mineral Resources requires the operator to identify the disposal site prior to drilling permit issuance.

### **Well Construction to Protect Groundwater**

My testimony discussed DEC's strict well casing and cementing requirements to protect groundwater resources of the state. A question was asked by the panel regarding the specific dimensions of the well casing and cementing. Typically, there will be at least two strings of steel casing, encased in concrete across the ground water zones. Outer dimensions of this construction are in the range of 12 to 14 inches in diameter for deeper wells. The inside diameter of the open hole will typically range from 4 to 7 inches depending on the depth and location of the well.

### **Local Government Role and State Supersedure**

Several questions were asked by the panel regarding local government authority over oil and gas development. The Environmental Conservation Law, §23-0303, provides for the supersedure of all local laws or ordinances relating to the regulation of the oil, gas and solution mining industries. However, local government retains jurisdiction over local roads and specific rights under the real property tax law. Local governments have the same authority over use of local roads by oil and gas operations as for any other road uses, and DEC encourages local governments to use this authority to protect local roads.

The Real Property Tax Law (RPTL) provides a uniform, statewide method of valuing oil and gas producing properties for real property tax purposes. It mandates the assessment of oil and gas properties in production separately from all other interests in the property (such as land and buildings).

The Office of Real Property Services (ORPS) is responsible for determining and certifying the appropriate unit of production value for use in the assessment of oil and gas rights. DEC works closely with ORPS to provide oil and gas production data and other information. ORPS annually establishes units of production values and certifies them to assessors for use in assessing oil and gas economic units. Oil and gas producing properties are assessed as economic units. To compute the assessment of an oil and gas economic unit, the assessor must multiply the amount of production by the appropriate unit of production value. The result of this calculation must be multiplied by the most recent state equalization rate to determine the amount of local tax. Consequently, the amount of local taxes will depend both on the amount of production and the equalization rate for the town.

### **Setbacks from the Pennsylvania State Line**

Questions were raised by the panel regarding wells permitted near the Pennsylvania border. New York has a 330 foot setback requirement for any wells near the state border. Pennsylvania does not have a setback from the state border, but does have a 330 foot setback requirement from an unleased parcel. This would protect any unleased parcels near the border. DEC intends to work closely with the Pennsylvania Department of Environmental Protection to coordinate permit application reviews for any wells, including horizontal wells, proposed near the state border.

### **Economic Impacts Evaluation**

A question was raised by the panel as to whether economic impacts would be addressed in the Supplement to the Generic Environmental Impact Statement. SEQR requires the agency to weigh and balance environmental impacts with social and economic impacts. Therefore, the draft scoping document states on page 35 that the draft SGEIS will include "evaluation of potential economic and energy supply impacts of developing the Marcellus Shale and other low-permeability reservoirs in New York."

### **Seismic Exploration Regulation**

As we discussed at the hearing, there are no New York state laws regarding seismic exploration. However, as managers of state lands, DEC has not allowed seismic exploration of state reforestation areas from public roads in the absence of an oil and gas lease or other explicit permission.

### **Drilling Impacts on Water Wells**

My testimony emphasized DEC's stringent regulation of oil and gas drilling operations to protect public health, safety and the environment, including groundwater. I also testified that our environmental protections are comprehensive and strong. They are the reason that oil and gas drilling has been a successful industry in New York for so many years and will continue to be successful in the future, without harming our environment.

I understand that a later witness at the hearing discussed an incident that occurred a year and a half ago in the Town of North Brookfield. DEC is fully aware of this incident and took firm enforcement and compliance action to ensure remediation. The incident did not involve hydraulic fracturing operations.

In February 2007, a drilling contractor new to New York state began operations for an oil and gas company. The contractor was drilling using compressed air and had only reached a depth of approximately 400 feet when the drill bit became stuck. No surface casing had yet been installed. Instead of shutting down operations, the crew left the air compressor running over the weekend. This resulted in air and turbidity being introduced into the local aquifer, and a number of local residential water wells were affected.

DEC responded immediately, required an immediate shut-down of drilling, closely monitored attempts to resume operations, and subsequently required the operator to plug the well. In addition, DEC worked closely with the Madison County Health Department and required the operator to address the water well problems. The operator and its insurance company spent hundreds of thousands of dollars in remediation. Remediation included: providing motels and restaurant meals to affected residents; arranging for a water well driller to evaluate, develop and repair mechanical problems in the wells; installing treatment systems in eleven residences and the town fire hall as well as drilling four new wells; and providing lump sum payments to residents for treatment system maintenance. The operator was required to sign an Order on Consent requiring additional sampling for turbidity and bacteria for up to two years at the discretion of the Madison County Health Department, providing a potable water supply to the Town Park and paying a \$5,000 penalty for contamination of groundwater and contravention of water quality standards. One additional round of sampling is proposed to be conducted by the Madison County Health Department, though previous results have indicated that the water treatment systems installed have reduced turbidity levels to conform to drinking water quality standards.

This was an extremely rare, isolated incident. This was one of 509 wells drilled in 2007 with no incident at any of the others, 514 wells drilled the year before with no incident, and 421 wells drilled since then with no incident. Again, the accident did not involve hydraulic fracturing, the problems involved turbidity not toxicity, and DEC took firm enforcement action against the operator and required the well to be plugged.

Thank you again for your interest in Marcellus Shale gas drilling and the associated environmental impacts. As you know, I am committed to thoroughly examining and addressing these impacts and I assure you that any gas drilling in New York will be undertaken in an environmentally protective manner.

Sincerely,

/S/

Alexander B. Grannis

c: Honorable Robert Sweeney  
Honorable James Bacalles  
Honorable Adam Bradley  
Honorable Daniel Burling  
Honorable William Colton  
Honorable Steven Cymbrowitz  
Honorable Ruben Diaz, Jr.  
Honorable Jeffrey Dinowitz  
Honorable Adriano Espaillat  
Honorable Gary Finch  
Honorable Michael Gianaris  
Honorable Deborah Glick  
Honorable Aileen Gunther  
Honorable Ellen Jaffee  
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Honorable Barbara Lifton  
Honorable Peter Lopez  
Honorable Donna Lupardo  
Honorable Daniel O'Donnell  
Honorable William Parment  
Honorable Crystal Peoples  
Honorable Annie Rabbitt  
Honorable Joseph Saladino  
Honorable Teresa Sayward  
Honorable Michelle Schimel  
Honorable Fred Thiele, Jr.  
Honorable Matthew Titone  
Honorable Harcey Weisenberg  
Honorable Kenneth Zebrowski  
Mr. Steven Liss