



**Office of the Supervisor**  
***Bernard R. Johnson***  
***Supervisor***  
**Town of Tusten**  
**210 Bridge Street**  
**Narrowsburg, NY 12764**  
(845)252-3668  
[bjohnson@tusten.org](mailto:bjohnson@tusten.org)

December 29, 2009

Mr. Jack K. Dahl, Director  
Bureau of Oil and Gas Regulation  
Division of Mineral Resources  
New York State Department of Environmental Conservation  
625 Broadway - Third Floor  
Albany, NY 12233-6500

**RE: Public Comments on the draft Supplemental Generic Environmental Impact Statement (the draft) on the Oil, Gas, and Solution Mining Regulatory Program**

Dear Mr. Dahl:

This letter offers comments on the draft on behalf of the Town of Tusten, which are rooted in a recent resolution (see, Resolution No.91-08 attached) unanimously supported by the Town Board. The Town of Tusten is located in western Sullivan County within the federally designated Upper Delaware Scenic and Recreational River. Much of the land situated within this area contains "rugged topography, unique habitats and other sensitive areas." Specifically, these include state-protected natural areas, DEC protected trout streams; state agricultural districts recognized for soils of statewide significance and as visual resources--through scenic/open space easements; contiguous forest lands of regional and "global" significance.

In addition, much of our town, and the surrounding towns in the western portion of the Sullivan County contains old and under-developed infrastructure in terms of the network of roads and bridges that would be required for gas development. Furthermore, our town, and other municipalities in the Western Catskills and Upper Delaware region have experienced major flooding events resulting in millions of dollars in property damage and loss of life over the past decade. These events have ranged from regional phenomena like Hurricane Ivan, to isolated but violent flash floods in 2006 and 2007 resulting in property damage and loss of life within a concentrated area.

For these reasons, we wish to see the following issues developed more in the draft, and, in turn, translated into new regulations to promote responsible gas development while allowing us to pursue agri-tourism and we preface our comments with the premise that forthcoming regulations must allow municipalities in the state to adequately meet their mandate of protecting the health, safety, and welfare of their citizens through timely notification by the NYSDEC commencing at the time an applicant applies for a drilling permit.

**The New Regulations Need to Formerly Recognize Towns as Both an Involved Agency and Interested Agency under SEQRA to Promote a Coordinated Review.** Under SEQRA, Towns are both involved and interested agencies. As such, the NYSDEC must coordinate with towns on review of potential gas development projects even if a developer meets the forthcoming thresholds. To be more succinct, as an involved agency, the Town of Tusten will be issuing permits to gas developers, for example driveway permits, and requiring hauling routes per local road use agreements (RUA) in compliance with the Environmental Conservation Law Article 23, Title 3 (ECL-23). Therefore, coordination on all applications will be necessary to allow the town to meet its mandate under ECL-23 in protecting road and bridge infrastructure. As an interested agency, the town can participate in the review process because of its concern about the proposed action which could have implications for its public infrastructure, and health and safety of its residents. Given these status positions to towns under SEQRA, we request that a coordination protocol of allowing affected municipalities to review an application and offer comments on how that proposed project will impact them, and to allow them to offer input on addressing impacts particularly in reference to impacts on public assets such roads and bridges. This protocol must ensure advance communications and negotiations with gas developers. *Our research on highway impacts indicates that the town needs at a minimum of nine (9) months notice, which is both crucial and essential in order to implement and enforce the Road Use Agreement (RUA) protocol we have developed to allow us to meet the general intent under the ECL-23<sup>1</sup>.* This protocol can also benefit developers in that, based on an extensive road impact analysis conducted over the past year, many of our roads are substandard and will require significant upgrades to handle gas exploration vehicles. Hence, establishing an advanced regulatory communication protocol will assist the developers with adequate planning as well.

**The New Regulations Need to Formerly Recognize Towns as Both an Involved Agency and Interested Agency under SEQRA to Promote a Coordinate Action on Local Permitting.**

As an involved agency, the Town of Tusten also issues; (1) building permits including temporary building permits, (2) sign permits, and (4) logging permits. These permit categories may have some relevance to gas development. Specifically, gas development will involve the construction of facilities and, in many cases, clear cutting for drill pad sites separate of the hydro-fracing process. Therefore, given these activities towns should have some input. As such, we request that a coordination protocol of allowing affected municipalities to review an application and offer comments on how that proposed project will impact them, and to allow them to offer input on permitting related to the categories of permits outlined above.

**The New Regulations via the Supplement Must Establish a Mechanism for Notifications to Municipalities by NYSDEC Upon Receipt of a Permit Application.** On October 15, 2008, municipal officials from different parts of the New York State offered detailed testimony to the NYS Assembly Standing Committee on Environmental Conservation of issues related to gas development. A common theme mentioned among these officials was the lack of *timely notification by the state of when a gas company is applying for a permit. As such, the draft needs to develop a means for municipalities to be informed when the NYSDEC receives a permit application.* The new regulations should outline a mechanism of notification for impacted municipalities and surrounding municipalities as well. In addition, the new regulations should also outline procedures for municipalities to review proposed developments given that road and bridge infrastructure will be adversely impacted. This process will allow timely coordination between the town and the developer to address road impacts via a road use agreement (RUA). *As noted above, the municipalities need extended notification and coordination with the applicant in reference to managing roads under the Environmental Conservation Law Article 23, Title 3 (ECL-23).*

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<sup>1</sup> *Managing Natural Gas Development Impacts: Strategies to Protect Town Infrastructure and Land Use, 2009. A Multi-Municipal Report on Natural Gas Development. This project was funded by the Upper Delaware Council (UDC) Technical Assistance Grant, TAG#2008-07*

**The New Regulations via the Supplement Must Include a Requirement that the Developer Notify a Municipality of a Permit Approval and Coordinate with Municipalities on Local Permitting.** As a corollary to the aforementioned point, the draft document needs to include an evaluation *for reasonable timeframes for notification, response and interfacing with a municipality on a road use agreement (RUA) prior to the start of drilling.*<sup>11</sup> We noted above, that a lead time of nine (9) months is necessary for municipal preparation. Furthermore, the draft document needs to incorporate a municipal coordination component that outlines a required interface of the gas companies with municipalities on road and driveway permits, and a discussion and plan on routes to be used to gain access to a potential drilling site. This assessment should outline a time period for the gas companies, and their subsidiaries, and consideration should be given to this time period and process as prerequisite to issuance of a drill permit.

**Underscore a Mechanism Requiring all Applicants that they be Required to Include, as Part of their Application Document, Statements from each Affected Municipality Regarding Potential Impacts and Suggested Mechanisms to Address such Impacts.** Municipalities need to emphasize that their involved and interested status should allow them coordinated review of a proposed gas development project to allow sufficient time for preparation in infrastructure impact planning. As such, the draft document needs to incorporate analysis of allowing affected municipalities to review an application and offer comments on how that proposed project will impact them, and to allow them to offer input on addressing impacts. This input can be part of the municipal coordination component outlined above.

**New Regulations Must Require Sound Environmental Practices of Storage and Transportation of Fracing Fluids, particularly if such is to take place in 100 and 500 Year Flood Plains.**

We noted in our response to the scoping document that we welcome the DEC's pledge to review "information about fracturing fluid additives collected from service companies and chemical suppliers" and to review "fluid handling and whether any additional controls are required." However, we want to re-emphasize that the draft needs to resort to independent science on the fracturing fluid additives, beyond what is provided by industry, and assess and identify best-practice management as for the handling of these materials.

Additionally the draft must assess potential hazards and evaluate using and transporting these materials in flood plains given that Sullivan Towns and the Western Catskills are prone to violent and sudden weather events. The draft must be expanded to incorporate FEMA's new guidelines on floodplain boundaries, plus local conditions where flash flooding has occurred in creeks and streams.

The Town acknowledges the DEC's intent to examine "whether pit liner specifications should be required for high-volume hydraulic fracturing flow back operations" and "whether steel tanks should be required in some or all areas to contain flow back fluids. The Town urges to the DEC to apply the most expansive criteria in determining why and where these safeguards are to be implemented, as we see no benefit to taking risks in the handling of these fluids, particularly given the high incidence of flood events over recent years within our region—a rate of incidence that is only expected to increase in coming years.

Of particular concern in chapters five and six of the draft are the following recommendations:

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<sup>1</sup> *Managing Natural Gas Development Impacts: Strategies to Protect Town Infrastructure and Land Use, 2009. A Multi-Municipal Report on Natural Gas Development. This project was funded by the Upper Delaware Council (UDC) Technical Assistance Grant, TAG#2008-07*

Section 5.11 The draft should require that all return water be treated for reuse or reclamation, and not allow return water to be discharged without treatment including that which may be returned in the waste water injection wells.

Section 5.11.1 The draft should require ground water monitoring wells and surface monitoring to detect drilling and post drilling contamination of ground and surface water sources.

Section 5.11.2 The draft should limit the storage duration for flow back water to 45 days to reduce the potential for excessive rainfall to overflow the storage pit, and require treatment to reclamation quality water and removal of solid waste generated from treatment if a time period of greater than 45 days is allowed.

Section 5.12 The draft should mandate reuse and/or reclamation for discharge of flow back water. The filtration technology exists to allow reuse/reclamation with the added benefit of reducing the demand for fresh water hydro fracturing.

Section 5.12.2.1 The draft should mandate the use of dual liners with leak detection and additional surface water monitoring to reduce the potential environmental harm from centralized storage of flow back water. This should also include a hollow fiber microfiltration as a resistant way to protect runoff which also has been proven to reduce upstream pre-treatment. A modular aspect of this membrane system can be easily moved from well to well.

Section 5.13.3 Additional analysis is needed on the safety of disposing of returned fluids in injection wells and determining “whether any additional controls are warranted. The Town urges the DEC to require “well permitting procedures” that mandate “verification of a disposal well permit or contract with a specific treatment plant,” because municipalities in western Sullivan County are not served by industrial treatment plants or local sewage treatment facilities with unused capacity to process these fluids. Equally important, the scoping document needs to offer an examination of the question of enforcement on disposition and the need for resources to carry out enforcement, either by DEC personnel or local authorities, must be addressed as part of this evaluation—as must be the identification of mitigation measures.

The draft should, if waste water injection wells are allowed, require the addition of ground water monitoring wells and surface monitoring to detect drilling and post drilling contamination of ground and surface water sources.

Section 5 5.18.3.2 page 158 storm water runoff – The draft should require the collection and treatment of storm water runoff to prevent the contamination of the soil and localized surface water with oils, hydro fracturing additives, etc.

Section 6 6.1.6 The draft should change the requirement to include manifesting to allow tracking of any of the listed materials to ensure proper disposal. With the number of wells projected, the volume of this waste will be large and should be accounted for.

Section 6 6.1.9 The draft should require the disposal of all solid waste in regulated landfills. It should not allow burial of solid waste outside of landfills.

When it comes to Natural Gas Production in flood plains or flood-prone regions like the Town of Tusten (i.e. with mountainous conditions, steep slopes and narrow floodways—all prone to flash flooding), the draft should evaluate the likely specs for well-pad sites against land-use conditions that typically trigger site plan review and approval. For instance, several municipalities have local laws and ordinances requiring special permits for construction in flood zones and for clearing areas of forested land of a specified number of acres. Construction of well-pad sites could indirectly increase downstream flood conditions, either through the size of the area of surface disturbance or due to impermeable or lower-permeability materials covering the well pad site.

In effect, the draft needs to assess the environmental impact from well pad development on local flood conditions. In particular, consideration of the impacts from larger well-pad sites needs to be part of the evaluation of Horizontal Drilling. The town of Tusten welcomes the Department's pledge to "examine the likelihood of larger well pads to determine whether there are any associated environmental impacts not addressed by the GEIS" (2.1.4 Natural Gas Production). As such, the town recommends that the Department consider the aforementioned impacts, both site specific and cumulative, related to flooding and erosion that may be caused either directly or indirectly by larger, potentially impermeable well pads. The Department should further consider what mitigation measures would be required, and under what conditions well pads should be prohibited.

#### **Assess the Cumulative Impacts of Truck Traffic on Road and Bridge Infrastructure.**

Consistent with our opening statement on notification, the draft needs to provide data on estimates for vehicle traffic based on industry projections on the number of wells and duration of drilling activities and the duration of these activities. Furthermore, the issues of vehicular traffic and damage to roads and bridges must be examined within "Cumulative Impacts." Research by our consortium of towns shows that estimates of one-way truck traffic can be established for each phase of the drilling process, and, these data can be used to establish road impact fees for municipalities to recover costs. Recent testimony by municipal officials before the NYS Assembly Standing Committee on Environmental Conservation noted that road bond agreements they sought with the gas industry were inadequate for their circumstances. Therefore, it is imperative that a quantitative assessment of truck traffic be established to not only gain a general understanding of impacts on local roads, but provide a methodological justification for financial recovery to protect the public interest of municipalities and offer a justification for the gas industry of costs due to impacts to mitigate disputes between parties (i.e., municipalities and gas companies). Consistent with this point, the draft needs to acknowledge that this activity and the associated truck traffic will be occurring in areas like the Town of Tusten and western Sullivan County that lack a modern roadway infrastructure developed for industrial activity of this magnitude. As such, the new regulations need to require that developers interface with municipalities via an RUA as noted earlier.

#### **Assess Impacts on Aquifers and Individual Wells Due to Drilling Activity.**

The Town encourages the DEC to evaluate potential aquifer depletion from the incremental increase in withdrawals and mitigation measures related thereto, in the case of consumptive uses of potable water from public water supply systems. However, the Town urges the DEC to also examine the potential for depletion of aquifers from cases where permits seek to draw water from *private* wells, whether on other *private* water wells or on the aquifers in general.

In terms of "Groundwater Quality" the Town welcomes the DEC's pledge to "evaluate whether anticipated [activities under review] have the potential to create any groundwater pollution scenario that is not examined by the draft or is not addressed by existing requirements and practices." The Town urges the DEC to take an inclusive view of past experience with similar practices in other regions of the country as well as the unique conditions of regions like the Western Catskills within New York State.

Furthermore, while the Town acknowledges that "Casing and Cementing Practices" have been determined to seal freshwater aquifers from contamination by fracturing fluids or naturally occurring contaminants during operations, we urge the DEC to review incidents where contamination of aquifers and water wells has occurred during the drilling and installing of these casings prior to operations. Beyond the initial installation, the scoping document should review all possibilities for contamination via breaks or failures in the casings, mitigation measures and liability for address contamination of aquifers from unforeseen circumstances.

In Section 5 under water well testing the draft should require baseline testing prior to drilling followed by weekly testing during drilling and continuing for a period of six months after drilling operations are complete.

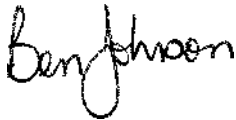
While touching on these issues, it is important to note that the town has established a Wellhead Protection District (WHPD). The purpose of the WHPD is to facilitate the adequate provision of water through the elimination or prevention of groundwater contamination in the vicinity of public drinking water supply wells operated by the Narrowsburg Water District. We request that the draft consider thresholds that would prohibit gas development in and around WHPDs.

### **Final Comments**

In closing, we urge the DEC to include the aforementioned categories and issues within the draft supplement to frame the new regulations. While the draft is narrowly targeted to the practices of horizontal drilling and high-volume hydraulic fracturing, the DEC must acknowledge and evaluate the full spectrum of industrial activities that can be projected to occur in our area as relates to development of the Marcellus and/or other shale basins, which will be made possible by the use of these practices.

We thank you for the opportunity to provide these comments on the draft supplement to the Generic Environmental Impact Statement on the Oil, Gas, and Solution Mining Regulatory Program.

Sincerely,



Bernard R Johnson  
Supervisor  
Town of Tusten

Cc: Hon. Charles Schumer, United States Senator  
Hon. Kirstin Gillibrand, United States Senator  
Hon. Maurice D. Hinchey, United States House of Representatives  
Hon. David A. Paterson, New York State Governor  
Hon. John J. Bonacic, New York State Senate  
Hon. Aileen M. Gunther, New York State Assembly  
Jonathan F. Rouis, Chairman, Sullivan Town Legislature  
David A. Sager, Sullivan Town Legislator  
Stuart F. Gruskin, Executive Deputy Commissioner, NYS DEC  
G. Jeffery Haber, New York State Association of Towns

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