



SULLIVAN COUNTY
DIVISION OF PLANNING AND ENVIRONMENTAL MANAGEMENT
SULLIVAN COUNTY GOVERNMENT CENTER
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January 11, 2012

Hon. Joe Martens, Commissioner
New York State Department of Environmental Conservation (DEC)
625 Broadway
Albany, New York 12233-1011

Re: Comments of the County of Sullivan on DEC Division of Mineral Resources on:

- “Revised Draft Supplemental Generic Environmental Impact Statement (SGEIS) on the Oil, Gas and Solution Mining Regulatory Program (September 2011),” regarding
- “Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing in the Marcellus Shale and Other Low-Permeability Gas Reservoirs.”

Dear Commissioner Martens:

On behalf of the Sullivan County Legislature, I hereby submit to the Department of Environmental Conservation (the “Department”) the County’s comments on the September 2011 Revised Draft Supplemental Generic Environmental Impact Statement (the “RD-SGEIS”) on the proposed “Oil, Gas and Solution Mining Regulatory Program” (the “Regulatory Program”). Before proceeding, **I urge the Department to reconsider the Legislature’s request that the comment period be reopened and further extended until March 5, 2012.** While I recognize the comment period is closed as of today, given the complexity of the issues and the concerns voiced throughout the State and within our own community, I believe that extending the comment period for an additional two months is warranted.

Sullivan County has a long history of evaluating the potential impacts of natural gas development in the Marcellus Shale. In February 2009, the Sullivan County Natural Gas Development Task Force issued a report entitled, “PREPARING FOR NATURAL GAS DEVELOPMENT: UNDERSTANDING IMPACTS AND PROTECTING PUBLIC ASSETS,” which has been widely cited by other municipalities throughout the state (See Attached). Among the actions that resulted from the report the Sullivan County Legislature passed two resolutions in June 2009, one urging the NYS Legislature to amend the Oil and Gas Solution Mining Law (or “ECL 23-0303”) in order to “provide jurisdiction to local governments over natural gas development similar to those afforded municipalities with regard to mining under the Mined Land Reclamation Law”; and the second urging the Delaware River Basin Commission to ban drilling in both 100 year AND 500 year floodplains. In a February 2010 resolution,

the County requested that the DEC “require a local SEQR process related to local community impacts.” In March 2010, the County issued a resolution banning “hydrofracking” on all county-owned property “until potential environmental and economic impacts are identified and addressed.”

In our review of the September 2011 RD-SGEIS, the County has identified several areas of continued concern that I shall outline below. The County urges further action on these issues in order to mitigate the continued challenges and unanswered questions posed by development in the Marcellus Shale, as follows:

1) Municipal Infrastructure: Transportation Impacts

- a. As stated previously, the authority to require that developers execute a Road Use Agreement has been of the utmost importance to municipalities in Sullivan County. Towns here have organized under the banner of the Multi-Municipal Task Force (the “MMTF”) to address the need to protect the public’s assets and safety with respect to local roads. The MMTF towns have been among the leaders in the state on this issue. With the County’s assistance and working with the consultant team of Delta Engineers and Counsel from Whiteman Osterman and Hanna LLP, the MMTF has researched the means to quantify the impacts and associated costs of heavy-vehicle traffic on local roads related to potential natural gas development, and to devise a rational, scientifically based “Road Preservation Program” intended to mitigate these impacts. The MMTF members intend to implement this program by local law, thus requiring natural gas developers and other heavy-industry activities to execute Road Use Agreements. **The County supports the MMTF towns’ view that this measure is the best available means of managing the upkeep and maintenance of town-road networks as development proceeds.** (See attached – Draft Generic Environmental Impact Statement for MMTF Road Preservation Local Law, May 13, 2011).
- b. **In the RD-SGEIS, Chapter 7 (Mitigation Measures), the Department affirms the authority of towns to pass laws requiring Road Use Agreements between operators and municipalities under Town Law. The County is in agreement with the State’s reading of these statutes and urges that this protection be made a requirement of the final version of the Regulatory Program.**

2) Coordination with Municipalities

- a. While the revised Regulatory Program now provides for notifying local governments of drilling permit applications and requires coordination of permitting decisions with local governments, the County is of the view that towns must have the right to review permit applications and comment—as involved agencies under SEQR—as to whether the

application exceeds thresholds of the Generic EIS or conflicts with local land use plans, as follows:

- i. Towns must be consulted on local planning and environmental issues, such as use of roads, local land-use laws, unique environmental and cultural resources, and community impacts. The towns' assessment of these issues must be factored into the Department's considerations in granting permits.**
 - ii. Local communities must have a say in determining when thresholds for the Generic EIS have been met and when local conditions warrant conducting a site-specific EIS for the proposed development.**
 - iii. As stated in the County's March 2010 resolution, the Regulatory Program must include a consideration of local community impacts that extends beyond the "generic" conditions that the SGEIS considers in all cases.**
 - b. It is the County's expectation that final implementation of the Regulatory Program will ensure respect for Home Rule, with regard to zoning and land-use plans and to other laws pertaining to the health, safety and welfare of local communities.** The County shares the view that the supersession clause of ECL 23-0303 that does not override local zoning or other laws of general applicability, in its reference to "local laws or ordinances relating to the regulation of oil, gas and solution mining industries."

3) Protection of Groundwater Aquifers:

- i. The RD-SGEIS is clearly inconsistent in its assessment of risk. Residents of Sullivan County and other rural areas are not afforded the same level of protection as those who use the New York City or Syracuse water-supply systems, or draw water from primary or principal aquifers.**
 - ii. While the proposed Regulatory Program acknowledges "risk" to those major metropolitan-area water supplies by making them off limits to drilling, it does not address how the risk to groundwater sources in other areas is measured, or, if contamination occurs, how it can be mitigated. The RD-SGEIS must more fully**
 - a. While the Revised Draft gives attention to threats to aquifers and water wells and proposes mitigation measures such as limiting operations on the surface above "primary" and "principal" aquifers, it is unclear what mitigation measures are proposed or even possible if contamination to water wells or groundwater aquifers occurs. The majority of Sullivan County's residents and businesses are served by groundwater sources, only a small percentage of which come from primary or principal aquifers that receive higher-level protections under the RD-SGEIS. Therefore, the County concludes the following:**

address questions as to the extent of risk posed to contamination of ground-water sources, how the potential sources of contamination will be tracked, and what measures are available in the event that contamination occurs.

- b. The RD-SGEIS relies on claims that the transport of fluids between geological layers is impossible, citing layers of “protective rock” separating the zone of the shale gas from the strata of aquifers located nearer the surface. Yet, **research on the hydrogeology of the region and the processes involved in developing of natural gas shales through horizontal drilling and hydraulic fracturing raises the possibility of fluids migrating vertically between these layers through interpenetrations such as seismic faults** (See Myers, T., “Potential Contaminant Pathways from Hydraulically Fractured Shale to Aquifers,” contained in comments submitted by Natural Resources Defense Council et al). In light of this concern, the County concludes the following:

- i. **The analysis contained within the RD-SGEIS must be revisited to account for the possibility of vertical migration of fluids and whether risks or damages from this phenomenon can be mitigated.**
- ii. **At a minimum, the Department must devise a protocol of requiring monitoring wells to detect contaminants entering an aquifer as a result of drilling and hydro-fracking.**

4) Flood-Prone Areas:

- a. With respect to concerns over drilling activity exacerbating the impact from flooding, the County urges a ban on drilling in ALL floodplain zones. The RD-SGEIS and proposed Regulatory Program only address drilling in 100-year flood zones. **It is the County’s position that drilling shall be excluded from both 100-year and 500-year zones.**
- b. **Given recent patterns of increased frequency and severity of flood events, the County urges the Department evaluate holistically the prospect of drilling activity within generally flood-prone regions. This analysis must account for impacts of climate-change, which may result in increased flooding over time based on weather patterns that diverge from historical trends.**
- c. **The Department must propose appropriate mitigation measures, or bans, to address the identified risks of drilling and hydro-fracking in flood-prone areas.**

5) Hazardous or Toxic Materials – Handling, Storage and Transport:

- a. With respect to practices of handling, storage, and transport of frac fluids and flowback materials, the County notes that that the Department has increased the requirement for its

proposed “disclosure regime” to follow the proposed “FRAC Act” and regulations in other states that are “leading the way on chemical disclosure.” **Nonetheless, the County believes these measures fall short of what is needed to ensure the public’s health and safety and requests the following measures be incorporated into the Regulatory Program and RD-SGEIS:**

- i. Full, public disclosure of all chemicals and chemical concentrations used in every phase of drilling and hydraulic fracturing.**
 - ii. Require developers to post this information at the well-site and transmit data on chemicals compositions and quantities used at drill-sites to the County Emergency Management office.**
 - iii. Evaluate chemicals proposed to be used for their environmental and health effects, and ban or limit the use of chemicals or applications determined to be unsafe by objective, peer-reviewed science. (*Under the proposed regulations, no chemicals, even known carcinogens and neurotoxins have been prohibited; the County believes this to be unsound policy, which needs to be revisited.*)**
- b. It is known that materials resulting from gas extraction may contain radioactive or “NORM” components, toxic heavy metals and high levels of chlorides and bromides. Therefore, the County requests that Department classify all potentially hazardous waste materials from shale gas extraction as “hazardous,” in order to ensure proper transport and disposal of waste products leaving drilling sites, based on the following considerations:**
 - i. Without the requirement that all waste by-products be classified as hazardous, records of hauling liquid waste will retained only by the companies involved and will not be subject to FOIL. As a result, it is possible that hazardous materials will be improperly disposed of by being spread on roads, illegal dumping, or delivery to treatment plans that are incapable of handling them, subsequently discharging into rivers and streams that may serve drinking water supplies downstream.**
 - ii. The Regulatory Program must provide for a full public reporting process, ensuring that waste materials are disposed of properly, that waste water treatment systems and the water bodies receiving discharge from these facilities are not burdened beyond their capacity.**
- c. Beyond disclosure of chemicals used in the “fracking” process, the proposed Regulatory Program places no restrictions, limitations or guidelines on what products may be added to drilling mud. The County urges the Department to require that approved drilling**

techniques allow only water-based/water-soluble additives for drilling mud, and that drilling mud leaving the well-pad site be treated as hazardous material.

6) Cumulative Impacts from Pipelines, Compressor Stations and Ancillary Construction:

- a. **The County takes issue with the Department’s approach of deferring completely to the Public Service Commission on assessing impacts from the network of gathering lines, pipelines and compressor stations that will be required to bring the gas from the drilling sites “to market.”** This approach “segments” the impacts of natural gas development in the Marcellus Shale, in contradiction of SEQRA.
- b. Given that the proposed development of the Marcellus Shale cannot occur without a transmission network, **the County requests that the Department, in coordination with the PSC, undertake a thorough analysis of the impacts of transmission networks as part of this SGEIS.**

7) The health of surface water bodies, natural ecosystems and agricultural lands:

- a. With regard to surface-water networks, Sullivan County and many of its towns maintain stringent land use practices to protect and maintain these resources, such as requiring special use permits for clear-cutting forested areas of more than a few acres. **The regulations governing natural gas development must be at least as rigorous as these local laws with regard to protecting the lakes, rivers and streams that make up our unique and relatively pristine surface water networks.** Accordingly, the County recommends the following actions:
 - i. Typical wellpads are five (clear-cut) acres in size; additional land is disturbed to construct access roads, feeder lines, pipelines and infrastructure such as compressor stations. The contours of land can be radically reshaped to suit the needs of this development, resulting in increased stormwater flows that leads to turbidity in water bodies and exacerbates flood conditions. **This pattern of physical modifications to existing land use patterns may radically affect the surface water networks within an area of development and needs to be studied at a cumulative level across the region.**
 - ii. In terms of mitigation, as with potential damage to groundwater resources, the RD-SGEIS is lacking in identifying measures for “cleaning” water-bodies and related habitat if contamination – whether from fracking fluids, flowback material or migrating gas – occurs. **Each of these scenarios, in which contamination is recognized as possible, must be analyzed at varying scales and mitigation measures identified.**

- b. Sullivan County is particularly attuned to the health and stewardship of the Upper Delaware River. While the Delaware River Basin encompasses a much larger area covering six states, Sullivan County, New York, has the unique position of being home to two-thirds of the 70-mile reach of the National Upper Delaware Scenic and Recreational River along our border with Pennsylvania. **Some key facts and figures about the Upper Delaware and the active role of Sullivan County communities in its stewardship, include the following:**
- i. The Upper Delaware is known for clean, free-flowing waters (as the longest “undammed” river in the Northeast), world-renown fisheries (trout, shad, American eel), protected vistas and unique habitats for terrestrial species that include the timber rattlesnake and American (or “bald”) eagle. **The main stem of the Upper Delaware attracts more than 20,000 visitors to Sullivan County each year and generates \$70 million in tourism revenue – while providing drinking water to millions of people in small communities and urban areas downstream.**
 - ii. The Upper Delaware has been recognized for its regional and national significance. Congress constituted the Delaware River Basin Commission, an interstate compact, charged with overseeing the management of all three reaches (Upper, Middle and Lower) of the Delaware River, extending from Central New York to the mouth of the Delaware Bay. **Unique within its overall length, the Upper Delaware received designation by Congress as part of the “National Scenic and Recreational River” system.**
 - iii. **All six of the Sullivan County Towns that border on the Upper Delaware are signatories to the National Park Service’s Upper Delaware River Management Plan** and are members of the Upper Delaware Council, the organization charged by the Federal Government with monitoring and administering the plan.

Given the aforementioned significance, it is the County’s general concern that the RD-SGEIS provides inadequate safeguards or assurances that Shale Gas Development within Sullivan County to ensure the protection of the Upper Delaware. Areas where the County requests additional attention are in the regulating of drilling and ancillary activities in floodplains, in the handling and transport of toxic materials, and in respect for local decisions and policies on land-use planning, habitat conservation and other controls designed to protect the Upper Delaware River and its tributaries, consistent with the River Management Plan.

- c. **As in the past, Sullivan County continues to urge banning all open pit storage within our region and urge the highest safety in specifications for flowback storage, requiring double-lined steel storage tanks.** The County understands that the proposed Regulatory Program does not ban open-pit storage, but cites only that industry practice is moving in the direction of employing only closed-tank storage flowback storage. Given the frequency and intensity of severe-weather and flooding events experienced in our region in the past five years, it is our continued position that the Regulatory Program should be changed to exclude open reserve-pit storage, and that “best management practices” should govern every phase of development.
 - d. **Another consideration that the County has identified previously is that the Department issue specifications for structurally anchoring tanks and other infrastructure containing fracking materials to resist movement during severe floods or freeze-thaw cycles.**
- 8) Impacts on overall socioeconomic health of communities, accounting for losses in other sectors:
- a. **The RD-SGEIS needs to further examine potential negative impacts and propose mitigations measures to protect existing industries in the region, such as tourism, agriculture, health care and real estate, which will be negatively affected by this activity, in order to help businesses engaged in these sectors to survive and prosper during and after the period of shale gas development in our region.** Specifically, the County notes the following concerns:
 - i. The RD-SGEIS is inadequate in assessing the adverse impact that shale gas extraction will have on existing sectors that are vital to Sullivan County’s local economy, namely **tourism, agriculture, health care** and the **second-home market**. The document acknowledges that tourism is likely to be adversely affected in areas experiencing natural gas development; however it does not quantify this loss in direct revenue and local multipliers. **The gains to the region cited in the Department’s “Economic Assessment” fail to offset anticipated gains resulting from natural gas development by the losses in these sectors.**
 - ii. According to the Oxford Economic Study, “nearly 674,000 jobs were sustained by tourism activity in New York State last year (2010) with total income of \$26.5 billion.” It also states that “7.9% (1 in 13) of all New York state employment is sustained by tourism, either directly or indirectly.” *The report also states that Tourism generates 15.7 percent of total labor income in Sullivan County.* **The potential impacts of shale gas development on tourism in Sullivan County and other tourism-destination areas should be explored and examined in much greater depth than presented in the Revised Draft.**

b. Economic gains from shale gas development will likely displace or partially substitute for losses in other sectors that contribute to the local economy today, namely agriculture, second-home real estate and the expansion of residential health-care facilities. These sectors benefit from Sullivan County's proximity to the New York City Metropolitan market and from the available of open lands, scenic vistas and a relatively "clean," pristine environment. The County Legislature has identified these sectors as key to the economic development vision for the County and raises the following reasons for concern as to the compatibility of natural gas development with this vision:

- i.** Agriculture in Sullivan County has an economic impact of \$230 million to annually, and the trend is growing. Sullivan County's farmers and agri-businesses are benefitting from the growth the buy-local movement both within our region but most significantly within the NYC Metro market as a contributor to the city's "food-shed." **The demand in this movement is for the production of organic goods, which is generally incompatible with natural gas development.** Our department is aware of at least one farm in Pennsylvania that is at risk of losing its certified-organic status due to the proximity of an exploratory gas well nearby.
- ii.** Second-home owners contribute millions of dollars annually to the local economy. The population of second-home owners is roughly equal the year-round, full-time population, with earnings and spending potential that is higher than full-time residents. Anecdotal evidence from real estate agents indicates that sales of second-homes are down well below the trends suggested by the national recession, hinting that the prospect of gas drilling may be the cause. **Many potential purchases cannot be lured even with the "good deals" offered in Sullivan County, when facing the uncertain future that comes with gas drilling in areas that have historically been the most popular for vacation and weekend homes.**
- iii.** The development of residential health facilities is one the most important and growing sectors of the economy in Sullivan County, due to the proximity to major population centers combined with a bucolic and relatively "pristine" environment. The nationally recognized Center for Discovery (CFD) is located here; it is the County's largest employers and is a leader in the treatment of children and adults with autism and the full-range spectrum disorders. **Facilities in this sector have located and expanded here in part because of our natural environment; the industrialization of the landscape that would result from gas drilling could discourage further expansion of this sector.**

In closing, we urge the Department to direct further attention to the issues raised above. Moreover, as stated at the outset, we repeat our request that the Department allow more time for public comment and review in order for all parties to understand the full implications of the proposed regulatory program.

Thank you for your consideration.

Sincerely,

Luiz C. Aragon
Commissioner

Cc: New York State Senator John J. Bonacic
New York State Assembly Member Aileen M. Gunther

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