

# Broome County Environmental Management Council

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Attn: Scope Comments  
Bureau of Oil and Gas Regulation  
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Email : [dmnog@gw.dec.state.ny.us](mailto:dmnog@gw.dec.state.ny.us)

**RE: Scope Comments for the draft Supplemental Generic Environmental Impact Statement (dSGEIS) on the Oil, Gas and Solution Mining Regulatory Program, Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs**

Dear NYSDEC Representatives:

The Broome County Environmental Management Council (BCEMC), a citizen's advisory group to County government on environmental matters, thanks you for this opportunity to comment and express recommendation about the draft Scope document for the above-referenced dSGEIS.

The BCEMC offers background information for perspective and points for your consideration as you analyze and prepare a final scope for and prepare the dSGEIS.

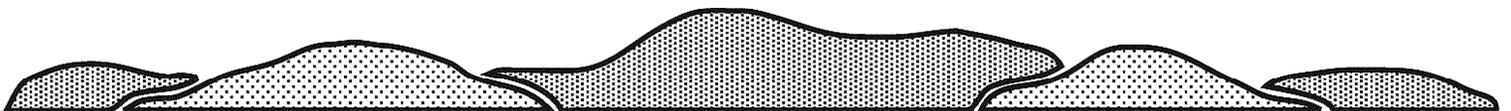
## **Background**

The BCEMC reviewed extensive documentation about environmental issues associated with horizontal gas drilling using high-volume hydraulic fracturing techniques that have been used extensively in Colorado, New Mexico and Wyoming, and to a lesser extent in Ohio and Pennsylvania. It is clear from the literature that a suite of potential environmental impacts can and do occur. These impacts affect water, air, soil and wildlife resources to varying degrees.

It is important to know that Broome County has a rather dark history with respect to industrial development when you consider the adverse environmental impacts caused by these operations. New York, and in particular this region, has many examples of environmental degradation in terms of soil, ground and well water contamination, and indoor air quality pollution (due to vapor intrusion) that are linked to past industrial actions.

Many private and municipal wells in the Southern Tier of New York are at risk for ground water contamination due to the porous nature of the unconsolidated aquifer in the river valleys. Hydrologically isolated bedrock aquifers hold water in fractures and are common in rural areas of Broome County. In addition, Broome County is often called "Sinus Valley", which may be attributed to poor atmospheric dispersion qualities as a result of the local topography and wind patterns.

Although gas exploration, production and extraction falls under jurisdiction of the Division of Mineral Resources, the sheer magnitude of potential cumulative impacts resulting from this type and extent of gas exploration necessitates careful interagency cooperation with those whose responsibilities address air, water, and wildlife resource quality and protection. For this reason, it is imperative that all divisions and bureaus of



not only the NYSDEC, but of other relevant agencies address this topic in a coordinated and transparent manner.

With the previous background statements in mind, the Broome County EMC offers the following recommendations and comments:

**Land Use Impacts - Long-Term and Cumulative**

It must be recognized that horizontal gas drilling, and the subsequent delivery infrastructure, constitutes a significant change in land uses for rural regions of the state that contain the majority of agricultural, natural and rural land areas. These new uses add up to a shift to industrial land use within the most ‘wild’ regions of the state. To plan for and adequately mitigate adverse impacts from advances in the gas drilling and development industry, it is crucial that the dSGEIS consider potential cumulative and long-term impacts when evaluating impacts on air, soil and water quality; wildlife and regional ecosystems; environmental justice and human health and quality of life.

**Regulatory Impact Assessment**

The DEC should conduct a Regulatory Impact Assessment to address staffing and oversight matters and include this assessment as part of the dSGEIS.

**Community Health Impact Assessment**

Cumulative and sometimes indirect impacts stemming from hydraulic fracturing actions have the potential to impact communities for years to come. As part of the dSGEIS, the DEC should advocate for the State Health Department to conduct an independent, comprehensive Community Health Impact Assessment specific to the oil and gas development industry before drilling permits are issued to address air, water, and soil issues (potential contamination), but also social environmental justice concerns.

**Revise the Mining Environmental Assessment Form (EAF)**

The DEC should modify/update the existing drilling EAF to include more useful and relevant information about environmental and social conditions related to horizontal drilling so that reviewers can make better informed decisions.

**Require Use of Best Management Practices and Technologies**

1. The DEC should require by permit condition or through regulation that all drilling operations use closed-loop systems to limit release and exposure to toxic and/or waste materials.
2. The DEC should support Assembly bill A11606 or other regulation calling for use of non-toxic fracturing solutions.
3. The DEC should require that pumping/compressor stations use fuel-efficient and low-noise engines and compressor designs, and require building wraps to further mitigate noise impacts.
4. The DEC should require use of electric generators whenever power supplies exist and whenever practical to help mitigate impacts from diesel fumes. In addition, use of clean fuels, such as low-sulfur diesel, should be mandated because of the duration and magnitude of action.
5. Require submission of Spill Prevention Response/Countermeasures Plan as a requirement for a permit. Ensure that all drill pads have secondary containment and/or ensure that all tanks and mixing areas where fracturing fluids will be combined have secondary containment in place. Bulk storage of mixing agents onsite should require special permit conditions to ensure safety.
6. The DEC should require by permit condition or through regulation that all gas drilling, fracturing, extraction and delivery operations comply with all state health, agriculture and markets, soil and water, and environmental conservation laws and standards, and meet the equivalent of or exceed all federal standards and regulations (Safe Drinking Water Act, Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, etc).

### **Require Use of Benchmark and Milestone-Based Resource Quality Testing**

1. The DEC, working with NYSDOH, should require by permit condition or through regulation that the vicinity of any proposed drill site undergo baseline testing of the local soil, water and air (at the expense of the drilling company and only by state certified contractors) to establish background levels for all pollutants that are an expected consequence of the drilling operation.
2. This testing should be repeated at critical times during the drilling activity, and again once the drilling is complete and the drill site reclaimed.
3. To accomplish this testing, full disclosure of the chemicals and materials used in the fracturing, drilling and maintenance processes must be disclosed to the DEC, the local Health Department and to local Emergency Services/Planning Coordinators.
4. The DEC should require testing of the sand product used in fracturing to ensure it is free of contaminants. DEC should also require disclosure of other proppant agents that can and will be used for fracturing.
5. DEC must also require that waste brines be tested for other contaminants before authorizing a beneficial use for roadways.
6. The DEC should require site photographs accompany each permit for pre and post operation documentation.

**Establish Drill Site Standards** that protect human health, comfort, and natural resources from all potential adverse impacts of the drilling operation (setbacks, steep slopes, roadways, erosion control, air quality, closed-loop systems, etc.)

1. The DEC should require by permit condition or through regulation justifiable setback requirements from source water supplies, critical habitat areas, sensitive infrastructure (erosion and flood control, dams, flood hazard areas, wetlands, etc), residential and institutional developments, etc.
2. Meaningful setback limits for air quality must be based on dispersion analyses for all drilling-related airborne pollutants for a full range of topographical situations, meteorological conditions and the number of operating drill sites within a community.
3. Although controlled by conditions in lease agreement between landowners and gas companies, DEC should evaluate drilling permit applications for potential impacts resulting from citing drill pads and/or access roads on steep slopes. Whenever possible, drill sites or access roads must not be permitted on steep slopes to reduce the risk of contamination from spills and to reduce opportunities for erosion.
4. To reduce the chance for invasive species introduction, foreign soils or fills must not be permitted onto a drill site. Unused freshwater disposal into other bodies of water poses another opportunity for transfer of invasive species and is therefore discouraged. Similarly, soils and fills should not be transported from a site to other locations.
5. Drill site selection must consider the impact of future feeder and transmission lines that provide delivery of natural gas from viable wells.
6. Drill site selection must consider the potential adverse impacts to local aircraft operations in the vicinity of local public and private airports.
7. Prohibit water extraction from local aquifers that could compromise water supplies. Make it a permit requirement that damage to a public or private water supply by pollution or diminution be fixed, or the water supply replaced.
8. Prohibit open waste pools (refer to closed-loop system recommendation made earlier). If pits are permitted, they must be reclaimed within 45 days of operation. The BCEMC expresses significant concern over the number of DEC inspectors available for the frequency and level of oversight and the quality and types of training they are receiving. Effective training of DEC personnel must also encompass the evolving and different varieties of new issues arising with horizontal drilling techniques as opposed to vertical drilling.

9. Prohibit storage of waste materials and unused equipment on a drill site once the drilling and fracturing operations are complete.
10. Mandate adequate security fencing and other measures to securely confine drilling equipment and materials.
11. Require certification and proof that vertical casing design will withstand pressures greater than those documented for any gas drilling activities. The steel and cement used in these casings must meet minimum strength standards and be capable of maintaining integrity for at least 100 years.
12. Extended horizontal drilling should be encouraged so that larger spacing pools are established which would reduce the effective footprint of drilling within a locality.
13. Reclamation plans should be developed and approved prior to allowing any drilling. These plans must include ecosystem recovery and address habitat improvements or enhancements, as appropriate for the site under consideration.
14. Waste tanks or lined pits present a type of visual pollution for the landscape. The DEC should ensure that measures are taken to measure and minimize visual pollution impacts with fencing, vegetative buffers, or other practical means of screening.

**Transmission Infrastructure Standards** (size and location of pumping/compressor stations, issues of eminent domain for transmission lines, density, impacts upon ecosystems/habitats, etc.)

1. Pumping/compressor stations should be sited where they do not lower residential quality of life or adversely impact sensitive wildlife.
2. Although the Public Service Commission has jurisdiction over feeder and transmission lines, the DEC should keep in mind full build out possibilities and permit wells that best use existing utility corridors to the maximum extent possible. Perhaps site specific EISs should be required to determine the overall environmental impact of the full build out scenario.
3. Feeder and transmission lines should be sited and designed to minimize fragmentation of local ecosystems.

**Require Application of ‘Conservatively’ Acceptable Contamination Standards**

1. Standards for defining unacceptable and unsafe concentrations for the pollutants associated with gas drilling and gas delivery should be based on science, without any political leveraging.
2. Total pollutant concentration levels from multiple pollutants should be no more than the minimum acceptable concentration of any one of the pollutants in question. This is necessary since risk assessment to human health is determined one pollutant at a time. The impact of exposure to multiple pollutants is not understood, so a conservative approach should be adopted.

**Enforcement: Creative Methods for Insuring Affordable and Effective Policing of Industry**

1. Since the extent of drilling proposed in New York will likely over-extend the manpower resources currently employed by NYS DEC, delegation of authority to county or municipal entities, with appropriate training, should be considered for providing regulatory oversight of drilling and pipeline operations.
2. This authority could also be granted to private environmental firms, again with appropriate training.
3. Funding to employ additional regulatory personnel could be accomplished through well permit and registration fees, a natural resource depletion tax, increased fees for violations or other similar mechanisms.
4. Adequate bonding for the reclamation or closure of drill sites should be required. This could serve as a deterrent to less-than-environmentally friendly practices.
5. DEC should increase fees for penalties and use the funds to establish corrective action funds as in the state’s hazardous waste site remediation programs.

6. The DEC should establish an industry-specific (drilling) complaint hotline for each DEC region.

#### **Require Standards for Use of Local Water (and other) Resources**

1. As stated previously, no water for drilling should be taken from local aquifers, which are critical resources for local municipalities, agriculture, and private residential wells.
2. Any water withdrawals from local streams or lakes must be coordinated with current weather conditions (such as drought or flood situations).
3. Any water withdrawals from local streams or lakes must be coordinated with NYS DEC Division of Wildlife, NYS DEC Division of Water Resources and the appropriate River Basin Commissions.
4. No streams or lakes should be used as a location for waste disposal from any well site.

#### **Require Standards for Disposal and Re-Use of Waste Products**

1. A disposal plan for all waste materials associated with the drilling operation must be accepted *before* a drilling permit is issued.
2. Waste disposal plans should not propose burying or burning of wastes at any location.
3. Waste disposal plans should not include dumping into any bodies of water, streams, or wetlands.
4. Haulers with valid NYCRR Part 364 Waste Transport Permits will transport waste fluids for disposal. DEC should maintain a list of certified reputable haulers as part of their oversight and enforcement of this expanding sector of the industry.
5. Steel holding tanks for waste fluids are encouraged and preferred over open pits. DEC should ensure tank safety in terms of corrosion and defects in seams, etc.
6. Pit liner specification and details are necessary in addition to general performance standards to ensure that compliance and adequate maintenance of a liner system can halt pollution.
7. If brine wastes are permitted for discard along roads for dust control, the brine should be required to be tested for other contaminants that were used in the fracturing fluids and deemed “chemical-free”.
8. Any radioactive waste must be treated in at least the same manner as medical radioactive waste.
9. The re-use of fracturing waste products should be encouraged.

#### **Require Full Build-Out Analysis (include combined impact from all forms of gas drilling and transportation)**

1. An assessment of the full impact of multiple drill sites, access roads, feeder and transportation pipelines and compressor/pumping stations within a community is necessary to determining the full environmental impact of this large-scale industrial enterprise.
2. The cumulative impact of increased truck traffic, drilling equipment operation, well venting and burn-off, and pipeline compressor station operations on local air quality must be assessed and mitigated.
3. The impact of light and noise pollution due to increased truck traffic, drilling equipment operation at multiple well sites, well venting and burn-off, and pipeline compressor station operations must be assessed and mitigated.
4. The impact of multiple drilling operations upon local soil and water quality due to water withdrawals and waste disposal must be assessed and mitigated.
5. The cumulative impact of multiple access roads, drill sites and pipelines upon the quality of local habitats and ecosystems, and the ensuing impact to flora and fauna must be assessed and mitigated. A regional plan for minimizing the spread of invasive species and minimizing ecosystems fragmentation must be developed.
6. The cumulative impact of multiple access roads, drill sites and pipelines upon local agriculture must be assessed and mitigated.

We look forward to reviewing the dSGEIS and responses to comments, if any regarding this draft scope document. We thank you for your ongoing efforts to protect New York's environment, including its air, land, water and wildlife resources, and ultimately, human health and human quality of life in New York.

Yours sincerely,

*André LaClair*

(electronically signed)

André G. LaClair  
EMC Chairman

AGL & SM

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