

**To: Department Of Environmental Conservation, New York**

**From: Stanley R Scobie, PhD**  
on behalf of  
**New Yorkers for Sustainable Energy Solutions Statewide**  
37 OConnell Rd., Binghamton, NY 13903  
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**Date:** November 6, 2008

**RE:** Draft Scope for dSGEIS, Marcellus,  
Testimony at the Scoping meeting, Allegany, NY

Hello,

My name is Stanley R Scobie. I am representing a group called "New Yorkers for Sustainable Energy Statewide" that is concerned with the health, environmental, social, and socio-economic impacts of gas drilling and production.

As a resident of Broome County, I am here today because I became very aware of some of the unique aspects of Allegany County this summer, when I began working on the Whitesville oil/gas variance hearing. Allegany and some of the other western counties have three unique aspects regarding gas drilling in the "unconventional" formations like the Marcellus. First, although Western NY was prominent in energy development in the early part of the 20th century, the "gas rush" excitement that has been in many of the eastern counties for the past nine months or so has not been felt much here. Thus, probably most citizens do not know much about the implications of this development; even though the Marcellus is a broad sheet or blanket formation that underlies much of the southern tier.

Second, the formation is thinner here than in the east and likely to be somewhat less productive. Thus, development here will come later - well after most of the drilling controls and regulations are firmly established. It will be difficult for many people to comment effectively at hearings such as these without the background that comes from relatively long and concentrated exposure to specific gas drilling development issues.

Third, and most unique to western NY counties, is the double whammy of having a substantial but unknown number of undocumented and unplugged wells and the fact that a considerable number of landowners do not own their mineral rights. This means that some landowners are not afforded the option of at least some control over whether or not drilling takes place near them by means of leasing or not. They can't build any protections into their leases, as many of us can, because they don't control the right to lease. And finally, if and when drilling does occur, they have to bear whatever burdens of the disruption of industrial development bring without any of the compensatory benefits such as leasing bonuses and royalty payments that might allow them substantial mitigation.

I want to discuss five issues about the draft Scope. The first four are general to the entire state. The last will expand on the unique features of the western NY region.

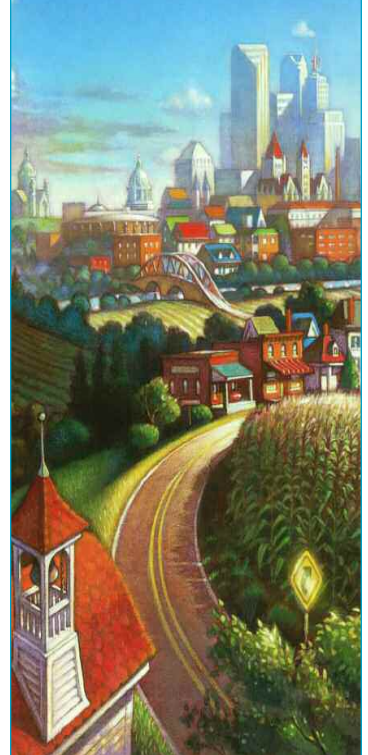
**1** Throughout the draft Scope there is reference to experience in NY. For example, in section 4.1.2 reference is made to using pictures of NY sites with regard to appearance. This makes no sense as there is not any sort of representative set of Marcellus-like horizontal wells in NY. Probably the only comparable mature model would be in the Barnett shale in TX. The use of NY pictures would just not be useful.

Also, the draft Scope makes reference to experience with hydrofracturing in NY. And, again, there is no set of hydrofractured horizontal Marcellus wells from which to draw any sort of experiential lessons. The vast majority of hydrofractured NY wells are small and relatively shallow wells that are in no way comparable. The much smaller number

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of existing large hydrofractured horizontal wells are not configured in the multiple horizontal manner envisioned in the 2008 amendments to NY gas and oil law. These will be about a mile square, have one or just a few 5 acre well pads with a large number of horizontal wells coming from each pad – in a so-called zipper configuration. These multi wells can be drilled over a three-year period – hardly a “weeks instead of years temporary disruption” and inconvenience – more like years instead of weeks.

It is entirely appropriate to use data and experience from other states that are roughly comparable to what development will be in NY. There is no reasonable basis for relying much at all on NY experience; it would be like comparing apples to bananas. Both are a food and a fruit. That's about it.

- 2 In the draft Scope there is occasional mention of health issues and occasional mention of coordination with other agencies. Under NY 617.7(c)(vii) “creation of a hazard to human health” is listed as a criterion for determining environmental impact significance. There is ample evidence that industrial processes like gas drilling and production are threats to human health. However, with regard, for example, to potable/drinkable water, although it occasionally speaks about water testing, the DEC does not have a suggested water testing protocol on its WEB site. Certainly a substantial health-related concern is contamination of drinking water (surface or subsurface) by one or more of the gas development procedures. The Department of Health does have a fairly extensive water testing protocol posted.

One would think that, because perhaps the greatest overall concern with Marcellus and similar development is human health, that the DOH should be a co-lead agency. Or at least its participation in Scoping and supplemental GEIS development should be far clearer and much more specific. And, again, the NY experience is not particularly relevant regarding health issues because NY has not had the large scale extraction experience that is envisioned, and that has an experiential base in other states (e.g., the Barnett shale in Texas).

Because of the relatively large number of anecdotally-reported drinking water-and health-related incidents in other states where large scale gas drilling is more mature and thus more appropriate as models, we suggest that a special task force be constructed to evaluate, using the best science possible, the likely health impact of natural gas development in NY. As far as we are aware there is no good science that proves gas drilling poses no threat. Therefore, following the precautionary principle of “first try to do no harm,” and using the clear knowledge that this is an industry that uses some very health-damaging chemicals in settings outside the fairly well-controlled industrial settings that most of us are familiar with, an unconflicted, blue-ribbon panel of experts should be assembled to consult and recommend on health matters for the SGEIS.

- 3 The dismissal of the participation of the Public Service Commission in the GEIS process is inappropriate. What is unacceptable is that the DEC refuses to assess the impact of gathering lines, transmission lines, and accidental spills or releases as part of the EIS process. This appears to be segmentation of an inherently integral process.

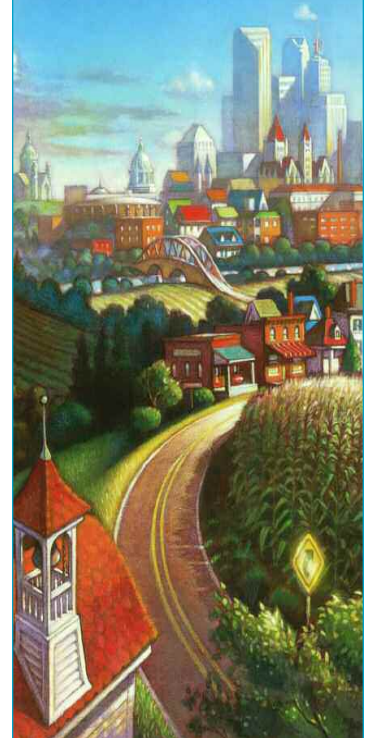
DEC's reasoning is that there will be no PSC involvement (regarding gathering lines) until after a well is drilled and thus no involvement with EIS issues prior to issuing a permit for a particular well - this is backward. There will be no wells without gathering and transmission lines. One of the first things that O&G Co's do is to arrange rights of way in their leases prior to drilling so that when they drill they can market the gas.

We know that the Marcellus is a sheet/blanket formation and success is about 98%. Probably the DEC's position on excluding the PSC and gathering lines from the GEIS is an historical legacy that was somewhat appropriate for the types of wells drilled in the 1980s and 1990s that had much lower probabilities of success, but it is not now.

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4 Private Potable Water Wells. The Scope should revisit the subject of gas well setbacks from private water wells for four reasons:

- a No coherent reasoning was ever presented in the 1992 GEIS for wanting a 2000 ft. setback from municipal water wells and specifying a minimum setback from private wells of only 150 ft. The language in the 1992 GEIS: "...extremely unlikely" and "...most common...was short term...problems" does not inspire confidence in individual homeowners who have only one well. The issue must be reexamined in light of the use of much larger volumes of hydrofracking fluids with a wide variety of chemicals, some of which may well be synthetic ones unanticipated in 1992, and many of which are known to be dangerous to human health.
- b The setbacks suggested in 1992 were examined relative to 40 acre well spacing. The 2008 amendments to ECL allow units as large as 640 acres, with multiple horizontal wells that can be drilled over a 3-year period from a few pads within the unit. It is unclear what the implications of these very different configurations and the semi-continuous drilling over a long period of time may have.

There is anticipated a very large number of Marcellus wells (2000-3000 per county may be likely: assuming 25% of the total land is filled with wells at 16 per 640 acre density) because of the wide-area sheet configuration of the formation and the high predicted hit rate. This large number of wells means that with even with very small probabilities of damage to private water wells ("unlikely"), there will almost certainly be some meaningful number of water wells damaged. Current regulations and procedures require private owners to pursue damage claims versus having a presumption of causation by the gas drilling. This all imposes an unreasonable burden.

- c Again, the Scope should absolutely not limit itself to data from the NY experience. NY has little experience with this kind of drilling and there are numerous examples of potable water problems in a number of other states using horizontal hydrofracturing. Thus, the 1992 GEIS suggested there were problems, although rare; and the experiences in other states support the idea that there can be problems. With much larger and more wells the number of problems will increase considerably.
- d The massive horizontal drilling and hydrofracturing of these "unconventional" formations uses much larger fluid volumes and there are much larger amounts of produced fluid than was ever envisioned in the 1992 GEIS. Thus simple probabilistic analysis of the almost certain accidental spills resulting in loss of control of these fluids implies strongly that there will be more opportunities for surface and ground-water contamination. This, coupled with the large number of Marcellus wells virtually insures a meaningful number of serious challenges to private water wells. Therefore, the setback provisions for private wells should be no different than for municipal wells. Moreover, the setbacks and other protective provisions for both should be revisited.

5 Special Regional Circumstances. There is clear acknowledgment of the "special" aspects of the NY City watershed and the Delaware river area. However, there are likely to be special smaller region issues – ones that potentially affect far fewer people and likely rural populations.

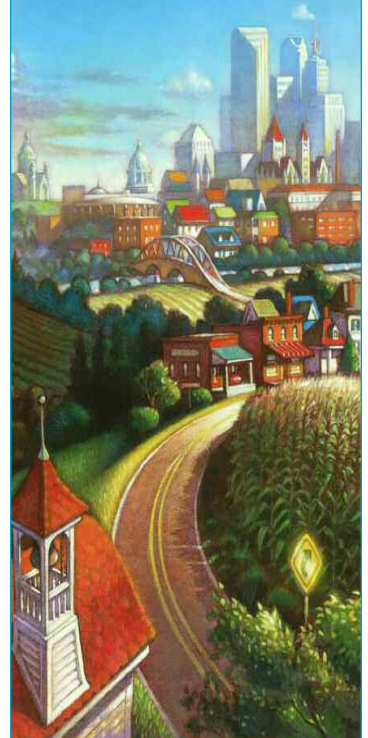
The one I wish to quickly review here is the issue of old undocumented and unplugged inactive wells. These exist (acknowledged by DEC) in western counties of NY. They are typically old non-productive wells where, for example, the steel casing was pulled for salvage. There has been oil and gas drilling in western NY for many decades prior to modern regulatory practice.

The issue is that with potentially large numbers of Marcellus wells, using massive amounts of fluids, the likelihood that a hydrofracture job would communicate with an unplugged abandoned well, make a u-turn, and come back up into water bearing stra-

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ta and cause serious and possibly widespread water well contamination becomes fairly high. The double whammy I mentioned earlier, represents a particularly nasty problem for the landowners who do not control their mineral rights, and who probably bought their land under very different circumstances than we now face. I assume many bought with the good faith assurances that gas and oil development was just about over for this area – as it seemed until quite recently. It imposes an undue burden to expect them now to live with the consequences that could not be foreseen as little as three years ago by both the DEC and by the NY Legislature when it passed the 2005 amendments to environmental conservation law. Dealing with this problem will be difficult but necessary. The Scope must include it.

Thank you.

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