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Attn: dSGEIS Comments

NY State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-6510

Re: Comments on Revised Draft Supplemental Generic Impact
Statement ("sGEIS")

Dear Mr. Leff:

My wife and I live in Cooperstown, N.Y. on the shores of Lake Otsego. Our area is noted for its natural beauty and tourist attractions that include, among others, the Baseball Hall of Fame, the Glimmerglass Opera, the N.Y. State Historical Association, the Cooperstown Dreams Park, the Otesaga Hotel, Hyde Hall, Doubleday Field, Ommegang Brewery, and the Farmer's Museum.

Twelve thousand acres surrounding Lake Otsego are in the Glimmerglass Historic District, part of the National Register of Historic Districts. In addition, some twenty-eight thousand acres in Otsego County are either on the National Register of Historic Districts or are eligible for such designation.

The possible advent of High Volume Hydraulic Fracturing ("HVHF") gravely concerns my wife and me as well as numerous other citizens of Otsego County. We do not believe the alleged economic benefits of HVHF outweigh the negative impacts of an unwanted heavy industry in our community. To give you an idea of the broad opposition to fracking in our area, last year the Cooperstown Chamber of Commerce and some 300 businessmen, took out an advertisement in our local paper to express their opposition to HVHF.

Attached are my comments on the sGEIS keyed to the section and page numbers of that document. In addition to those detailed comments, I would note the following:

- It is unacceptable that the Revised dSGEIS of September 7, 2011 incorporates by reference the provisions of "all volumes of the 1992 GEIS". How is the ordinary citizen supposed to keep track of which provisions of the 1992 GEIS are superseded by the 2011 sGEIS and which provisions are not? This appears to be an attempt to hide the regulatory ball from the uninitiated. The final version of the EIS for HVHF should be a complete version, one that does not require the hapless reader to bounce back and forth between an out-dated ten year old EIS, and today's EIS.
- Why were proposed drilling regulations promulgated at the same time as the sGEIS? How can anyone be expected to comment effectively on proposed regulations when the EIS is still in draft form? This certainly gives the flavor that DEC considers the public comment period to be but a pro-forma exercise and not a serious effort to consider the opinions of the public.
- NYC and Syracuse water gets more protection than my water. The only apparent justification for this discrimination is political science.
- If HVHF had taken place in New York in the last five years, the effect of floods that affected our area would have been disastrous, even catastrophic. Imagine floods sweeping into drilling sites and the resulting devastating pollution that might have resulted. Floodplain maps in New York are tragically inaccurate and out of date. No drilling should be permitted in New York until floodplain maps have been updated. If DEC insists on rolling the dice as to the impact of flooding, it should at least prohibit gas drilling within 1000 feet of the old floodplains.
- Why wasn't a public health risk assessment part of the sGEIS? Surely the DEC is aware that medical societies throughout the State have expressed concerns about the health impacts of HVHF. People in Pennsylvania have, on their Doctor's advice, abandoned their homes because of illnesses apparently caused by drilling. None of Commissioner Martens Advisory Panel is a physician or a public health professional. Why not?
- Where does the sGEIS assess the cumulative impacts of HVHF? Isn't this a core requirement of SEQRA? What about the environmental impacts of compressor stations and collection pipelines?
- It appears that gas industry reports and assessments are accepted in the sGEIS at face value while other studies, for example, the Duke study, are pooh-poohed or ignored. This certainly leaves the impression that the DEC is biased in favor of the industry.
- The sGEIS does not establish setbacks from gas drilling activities and homes, schools, hospitals, or other public buildings. This must mean the DEC intends that the 1992 GEIS be the source for these important buffers.

Thus, a gas well can be drilled within 100 feet of my house and within 150 from any school in Otsego County. This is unconscionable! Can the DEC seriously contend that a 100' setback from a residence is an adequate protection from the noise, fumes and truck traffic involved in gas drilling? Flower Mound, Texas requires a setback of 1,500 feet from a residence. Texas!

The sGEIS certainly passes the "weight test." But I question whether the sGEIS is a serious effort to comply with the strictures of SEQRA. Many sGEIS sections regurgitate a lot of somewhat interesting data, but fail to grapple in any meaningful way with the issues presented by HVHF. Difficult issues are ducked. Important information is ignored. It seems unlikely that the DEC will go back and do its duty until ordered to do so by the Courts. Unfortunately, given the essentially shoddy performance of the DEC, this seems likely to happen.

Very truly yours,

M. Langhorne Keith

Enclosure

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Section	Comments
1.4.2.2 Pg. 1-5	<p data-bbox="391 275 1393 310"><u>Exclusion of Communities with Filtration Avoidance determinations</u></p> <p data-bbox="391 352 1393 533">The DEC should explain why it finds HVHF “is not consistent with the preservation” of some watersheds using unfiltered water supplies, i.e., New York and Syracuse, but it is consistent with the preservation of other unfiltered water supplies, i.e., all other watersheds and private wells.</p> <p data-bbox="391 575 1393 1205">The DEC should also explain why in its view filtration makes a difference. Is there any evidence that small municipal treatment plants can handle the additional contaminants which massive surface disturbance will unleash once drilling commences? Second, many, if not most of the fluids used in HVHF are soluble so what does simple filtration accomplish? DEC admits that even wastewater treatment facilities cannot treat flowback water. See Section 6.1.8.1 (“Salts and dissolved solids may not be sufficiently treated by biological treatment and/or other treatment technologies which are not designed to remove pollutants of this nature”, i.e., “residual fracturing chemicals and naturally-occurring constituents from the rock formation...”). It seems obvious that drinking water treatment facilities will be even less capable of adequate treatment. In fact, DEC refers to return water as a “diverse mixture of chemicals and high concentrations of TDS [total dissolved solids]”(page 6-58), further indicating that DEC is aware of that water filtration is a “distinction without a difference.” See also Section 7.1.5.</p> <p data-bbox="391 1247 1393 1430">If “standard storm water control and other mitigation measures will not fully mitigate the risk of potential significant adverse impacts on water resources from high-volume hydraulic fracturing” in the NYC and Syracuse watersheds, then they are equally unavailing in other watersheds.</p>
1.7.5 Pg. 1-11	<p data-bbox="391 1472 1393 1507"><u>Local Planning</u></p> <p data-bbox="391 1545 1393 1877">Why are applicants allowed to certify that their projects do or do not comply with local land use law? In the mining context there have been reports that applicants have certified their use is consistent with local zoning when this is not true. The Regulations and the required Application (Appendix 4) should require the attachment of a certification from the Town where the drilling is proposed stating either (1) drilling is a permitted use under the Town’s Land Use Law, regulations, plans or policies, or (2) the Town has no Land Use Law, regulations, plans or policies that affect gas drilling. This is not an</p>

<p>1.7.7.2 Pg. 1-12</p>	<p>unusual concept. The federal Clean Water Act, Section 401 (copy attached) requires such a certification from the state in which a discharge to navigable waters originates.</p> <p>Moreover, the proposed sGEIS procedure stands the normal zoning process on its head. Usually, a project cannot obtain a permit until the zoning officer certifies that the project complies with local land use law. Here, a drilling permit will issue even if the Town notifies the DEC that drilling is not a permitted use. This forces Towns to incur legal expenses to enforce their zoning. A certificate of compliance procedure would restore the proper relationship between a Town, its land use law and a prospective driller. It would place the burden of obtaining a “sign-off” where it belongs –on the driller. And it would take the DEC out of the loop if there are zoning disputes between a Town and a driller. The DEC can simply insist that an application is incomplete unless the driller submits a certificate of compliance and leave the issue with the driller to obtain the certificate. If the DEC does not modify the sGEIS to include this sensible procedure it should explain why.</p> <p><u>Well Construction</u></p> <p>On What basis would cemented intermediate casing requirements be waived? What “site-specific documentation” will support such a waiver?</p> <p>This seems like a very bad idea given the history of methane migration in other states. The only apparent reason for a waiver is to make it less expensive for an operator to drill. This should not be DEC’s job.</p> <p>The DEC should know that multi-layer casings are helpful but at some point a casing faces earth and rock that can result in spaces for methane to escape. See the Duke study at http://www.nicholas.duke.edu/hydrofracking/methane-levels-17-times-higher-in-water-wells-near-hydrofracking-sites. Thus, every casing counts.</p> <p>If casing waivers remain a part of the sGEIS and regulations, then the criteria for such waivers should be expressly set out. Otherwise, landowners have no way of knowing whether a waiver has been properly processed and approved.</p> <p>Further, If a casing waiver is requested, adjacent landowners must be notified at the time the waiver request is filed.</p>
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<p>1.7.9 Pg. 1-13</p>	<p><u>Flowback Water Disposal-Publicly Owned Treatment Works (POTW)</u></p> <p>Are there any POTW facilities in New York that currently can accept flowback water or production brine? If so, they should be identified. If not, the sGEIS should so state. What are the limits for NORM in the influent? This should be specifically stated so readers can determine whether they are appropriate limits.</p>
<p>1.7.13 Pg. 1-16</p>	<p><u>Habitat Fragmentation</u></p> <p>What is a “Grassland Focus Area”? This term is not defined in the Glossary.</p> <p><u>State Forests, etc.</u></p>
<p>1.7.14 Pg. 1-17</p>	<p>Why is only surface disturbance banned in State-owned lands? This prohibition should include sub-surface disturbance as well to preclude any possibility that state lands will be adversely affected by HVHF.</p> <p><u>Precautionary Measures –Setbacks and Buffers</u></p>
<p>1.8 Pg. 1-17</p>	<p>What is the scientific basis for a 4,000 foot buffer around the NYC and Syracuse watersheds but only a 500 foot buffer for primary aquifers, a 2,000 foot buffer for public water supplies, and a 500 foot buffer from a private water well or domestic use spring? If a 4,000 foot set back is the appropriate buffer for NYC and Syracuse then it would seem that 4,000 feet is the appropriate buffer for primary aquifers, public water supplies and private wells and domestic use springs.</p> <p>Why is the 4,000 foot buffer permanent but after 2 years buffers for aquifers, and after three years buffers for public water supplies, will be reconsidered? Why is one buffer for 2 years and the other buffer for 3 years?</p> <p>What will be the basis for reconsideration? The criteria should be spelled out now so citizens will know why such protections could be removed. It appears that the 2 year and 3 year moratoriums are nothing more than a scheme to “phase in” gas drilling in the affected areas. See Section 9.2 (the DEC’s proposed program partially adopts phased permitting by restricting resource development in public water supply areas and aquifers)</p> <p>The Achilles heel of all setbacks is that the protection is only as good as the shortest setback from water within the aquifer’s watershed. If 2,000 feet is needed to protect Lake Otsego, then all the streams that</p>

	<p>feed the lake should have the same setback.</p> <p>Finally, why hasn't the DEC re-visited the 1992 GEIS setbacks from houses, schools and public buildings? In parts of Texas there is a 1,500 foot setback from a private residence. In New York the setback is an incredible 150 feet.</p>
<p>2.2 Pg.2-4</p>	<p><u>Public Need and Benefit</u></p> <p>The estimate of 489 Tcf in the Marcellus shale has been substantially reduced. See the August 23, 2011 USGS report estimating that the entire Marcellus Shale recoverable reserve is 84 Tcf.</p>
<p>2.4.15 Pg. 2-188</p>	<p><u>Existing Environment</u></p> <p>Otsego County's County seat is Cooperstown, not the City of Oneonta!</p>
<p>3.1 Pg. 3-1</p>	<p><u>Use of a Generic Environmental Impact Statement</u></p> <p>The use of a generic EIS for all gas drilling in New York State is highly questionable. Generic impact statements are authorized under SEQRA if the proposed use creates "similar types of impacts." The impact of HVHF on some communities will be vastly different than it will be on other communities. For example, the impact of heavy industrialization on the Lake Otsego/Cooperstown area, with its reliance on the tourist industry, will be significantly different than the impact of such industrialization on communities that do not have a tourist industry.</p>
<p>3.2.2.1 Pg. 3-6</p>	<p><u>sGEIS Applicability</u></p> <p>There is no explanation as to why the "threshold" for high volume hydraulic fracturing has been increased to 300,000 gallons of water from 80,000 gallons of water. Fracking in tight shale formations with less than 300,000 gallons of water is more closely related to HVHF in tight shale than it is to the conventional formations covered by the 1992 GEIS.</p> <p>No plausible rationale exists for issuing permits for wells using two separate environmental impact statements or why smaller wells get a free pass from mitigation measures that DEC says are necessary to protect the environment.</p> <p>The "Two GEIS" regime envisioned by the DEC leads to absurd</p>

<p>3.2.3.3 Pg. 3-10</p>	<p>results. Among them, that the DEC will notify Towns about some wells, but not others; that some wells can be drilled within a few feet of water supplies and aquifers, but not others; that flowback can be stored in open pits by some wells, but not others; and that some wells will be impacted by local land use law but not others.</p> <p>The DEC must explain why it proposes this Two GEIS dichotomy and justify the anomalous results of its proposal.</p> <p><i>Disclosure Distances</i></p> <p>Why is an applicant required to disclose the existence of public waters supplies, etc. within 2,640 feet of its well pad, but disclose the existence of aquifers, lakes, streams, wetlands only within 660 feet, and the existence of residences or public buildings only within 1,320 feet of the well pad? It would seem that the disclosure distance should be the same for all “resources and cultural features.” (perhaps the DEC can explain the irony of allowing a driller to disclose the existence of a residence within 1,320 feet of its well pad while the same driller is allowed to drill within 150 feet of any residence on the disclosure list. See the comment to Section 1.8 above).</p> <p>Why is the disclosure distance one mile only for existing and/or abandoned wells? Again, the disclosure distance should be the same for all the listed resources and features.</p>
<p>3.2.3.4 Pg. 3-11</p>	<p><u><i>Water Well Information</i></u></p> <p>Why is the well operator’s duty to disclose the existence of private or public waters wells limited to 2,640 feet? This distance should be increased to at least 3,000 feet and probably to one mile (the same as the disclosure for existing or abandoned gas wells)</p> <p>Also, any well that is on the disclosure list should be baseline tested at the operator’s expense, not just within 1,000 feet of the well pad as proposed in Section 4.1.4.1. The tests should be performed by an independent laboratory approved by the DEC.</p> <p>Experience in Pennsylvania has shown that well operators routinely deny that their wells are the cause of methane migration or other pollution. Baseline testing would help eliminate this tactic.</p> <p>The regulations should provide that if a well within the disclosure distance is contaminated, then a presumption arises that the contamination was caused by the operator’s well. The well operator</p>

<p>4.5 Pg. 4-25</p>	<p>should have the burden of proof to rebut this presumption.</p> <p>Additionally, operators should be required to include “tracers” in their fracking fluid to help indentify the source of contamination.</p> <p>Finally, the regulations should prohibit well operators from requiring confidentiality agreements as part of a settlement of any contamination claim.</p> <p><u>Seismicity in New York State</u></p> <p>Figure 4.13 does not include the latest data on faults in New York State.</p> <p>HVHF near faults can open up channels for the migration of fracking fluids and methane to drinking water. The DEC requires that there be large distances from a proposed gas well and an abandoned gas well. Yet the DEC has proposed no setbacks from geological faults that can potentially provide much larger channels to the surface than abandoned wells.</p> <p>This whole section should be redone to reflect recent events in Oklahoma, Texas and other localities where seismic activity has resulted from fracturing.</p>
<p>4.7 Pg. 4-38</p>	<p><u>Naturally-Occurring Methane</u></p> <p>This is one of the more egregious sections of the sGEIS. It ignores the principal findings of a peer-reviewed Duke study - that methane contamination has occurred as a result of gas drilling. The DEC ‘s attempt to discredit the Duke study relies on the Ross 1 well in Otsego County. But this well was never an active producing well and should never have been included in the data.</p> <p>This section should be redrafted to reflect accurately the Duke study. See http://www.philly.com/philly/opinion/20111202_DEP_protecting_water_or_gas.html.</p>
<p>5.5 Page 5-79</p>	<p><u>Transport of Hydraulic Fracturing Additives</u></p> <p>Because of the danger of spills, leaks and accidents, the transportation of fracking fluids should be prohibited on any road that is within a required set-back (see Section 6.1.5.1 at page 6-48 concerning the risks from the transportation of toxic compounds). For example, Lake Otsego</p>

	<p>is a public water supply. As such, a 2,000 foot buffer is required around it, at least temporarily. In some places roads next to the Lake run within a few feet of the water’s edge. All of the lake roads are within the 2,000 foot buffer. A spill on these roads would devastate Cooperstown’s water supply.</p> <p>According to a report by CBS News, spills measured in the millions of gallons took place in 2010. In Pennsylvania alone CBS reported there were 1,555,265 gallons spilled by the Oil and Gas industry. Go to http://www.cbsnews.com/stories/2011/04/12/eveningnews/main20053283.shtml for the full story. And the DEC has acknowledged that “the risks associated with high volumes of truck traffic transporting chemical and petroleum products associated with high-volume hydraulic fracturing is inconsistent with effective protection of an unfiltered water supply.” sGEIS, page 6-51. Obviously, It is also inconsistent with the protection of a water supplies that cannot filter out the chemicals associated with fracking. See sGEIS, page 6-62.</p> <p>Whatever the fate of the 2,000 buffer (see Section 9.2) the prohibition of fracking truck traffic on roads next to lakes and other important water supplies should be permanent. A spill could happen at any time and the absence of spills for three years doesn’t mean an accident won’t happen when the buffer is removed.</p> <p><u>Centralized Impoundments</u></p> <p>5.7.2 Pg. 5-85 This section should state that centralized water storage impoundments are subject to local land use laws.</p> <p><u>Hydraulic fracturing Procedure</u></p> <p>5-9 Page 5-96 A picture is worth a 1000 words. Page 5-96 dramatically demonstrates why HVFC is completely incompatible with localities’ land use laws that have “zoned out” heavy industry.</p> <p><u>Flowback Water Characteristics – DEC has Little Information Concerning</u></p> <p>5.11.3 Pg. 5-100 Why does the DEC accept this situation? That is, why didn’t the DEC “direct or oversee sample collection or analysis efforts” of flowback water? Isn’t that DEC’s job? Flowback water is one of the major risks of HVFC. DEC should not duck this responsibility.</p> <p><u>Reuse of Flowback Water</u></p> <p>5.12.2.1 This section demonstrates that the reuse of flowback water is</p>
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Pg. 5-122	<p>unlikely to have a significant impact on flowback water disposal. The SRBC data shows that only 11% of flowback water was reused. Thus, the disposal of flowback water remains the 800-pound gorilla where HVHF is concerned. The sGEIS essentially assumes this problem away but the facts show flowback water disposal has not been dealt with by either the gas industry or the DEC.</p> <p><u>Waste Disposal</u></p>
5.13 Page 5-129-30	<p>Why are HVHF cuttings considered “industrial non-hazardous waste”. It seems quite clear that cuttings are hazardous waste and should be handled as such.</p> <p>Why are well operators allowed to “consult with the operators of any landfills they are considering using for disposal regarding the acceptance of Marcellus Shale drilling cuttings”? Shouldn’t that be a DEC responsibility? A landfill operator may have an economic incentive to accept cuttings that include NORM and have little incentive to reject it. DEC presumably has the expertise in this area. Cuttings disposal should be regulated by DEC.</p> <p><u>Water Resource Issues</u></p>
6.1 Pg. 6-1	<p>Why weren’t adverse impacts to the Finger Lakes and the Upper Susquehanna/Lake Otsego included in this list?</p> <p><u>Impacts to Aquatic Habitat</u></p>
6.1.1.4 Pg. 6-4	<p>Fishermen can no longer wear felt boots because of the risk of transferring invasive species such as “rock snot” (didymo). It is not enough for the sGEIS to provide that “additional site-specific mitigation consideration may be necessary.” A well operator should be required to test water for invasive species and certify that they are not present.</p> <p><u>Potential Impacts to Aquifers</u></p>
6.1.3.4 Pg. 6-39	<p>The DEC admits that HVHF has the “potential to cause a significant adverse impact to the quality of the drinking water resources provided by Primary and Principal Aquifers...” Yet the sGEIS provides different protections for Primary and Principal aquifers and these protections are less than those required for other water resources in the State. Why? The only difference between a Primary and a Principal is that one aquifer is currently in use while the other aquifer is in reserve. Why does the DEC think our future water supply deserves less protection?</p>

<p>6.1.4.2 Pg.6-41</p>	<p><u><i>Groundwater Impacts – No Contamination Reported</i></u></p> <p>DEC needs to redraft this section. The EPA has now found fracking compounds in a Wyoming aquifer. See http://www.propublica.org/article/epa-finds-fracking-compound-in-wyoming-aquifer. See also http://www.nytimes.com/aponline/2011/12/08/business/AP-US-Fracking-Groundwater-Pollution.</p>
<p>6.1.5 Pg.6-42- Pg.6-52</p>	<p><u><i>NYC and Syracuse Watersheds</i></u></p> <p>In this section of the sGEIS the DEC discusses, in great and alarming detail, the potential adverse effects of HVHF on unfiltered water supplies and concludes that HVHF poses “the risk of causing significant adverse impacts to water resources.” DEC further concludes that “standard mitigation measures...would only partially mitigate such impacts” and that “such partial mitigation is unacceptable”. <i>But only in the NYC and Syracuse watersheds!!</i> Other unfiltered water supplies are given minimal and apparently temporary protections.</p> <p>If the risk of HVHF is unacceptable for any unfiltered water supply it is unacceptable for all unfiltered water supplies.</p>
<p>6.1.7 Pg. 6-56</p>	<p><u><i>Waste Transport – Reuse of Flowback Water</i></u></p> <p>This section should be reconciled with Section 5.12.2.1. In that section the SRBC reported that only 11% of flowback water is recycled. This will only marginally alleviate the truck trips required to transport waste. This waste should be classified as hazardous waste not “non-hazardous industrial commercial waste.”</p>
<p>6.1.8.1 Pg. 6-62</p>	<p><u><i>Publicly Owned Treatment Works (POTW)</i></u></p> <p>”There is questionable available capacity for POTWs in New York State to accept high-volume hydraulic fracturing wastewater.” And no POTW has requested that it be permitted to accept flowback or produced water. Further no POTW in New York state has TDS specific treatment technology. If this is the situation in New York, why is DEC allowing drilling permits? DEC knows that millions of gallons of fracturing wastewater will result from HVHF but has put its collective head in the sand when confronted with the non-existence of disposal facilities.</p>

<p>6.1.8.4 Pg. 6-64</p>	<p><u>Disposal Wells</u></p> <p>Disposal wells require a site-specific review with consideration to local geology but HVHF wells do not. DEC does not explain why. If injected fluids have a “potential for movement” into “underground sources of drinking water” that mandate a site-specific review, why doesn’t any well that injects fluids require such a review? This is a prime example of why a generic environmental impact statement is improper. If it is necessary to consider “local geology” for disposal wells then it is necessary for HVHF wells and site-specific reviews are mandated under SEQRA.</p>
<p>6.1.9.2 Pg. 6-65</p>	<p><u>Cuttings</u></p> <p>This section states that the only way to eliminate the potential impact on water resources from drill “cuttings” is storage in tanks as part of a closed loop system. But DEC does not require this. Why not?</p>
<p>6.4.1 Pg. 6-69</p>	<p><u>Ecosystems and Wildlife</u></p> <p>In this section DEC admits that “additional research would be necessary to determine the precise impacts to species and wildlife from [HVHF] drilling in New York’s Marcellus Shale.” But DEC does not propose that such research by done. Why not? A precise determination should be part of the sGEIS.</p>
<p>6.4.1.2 Pg. 6-81</p>	<p><u>Impacts of Forest Fragmentation</u></p> <p>“Additional assessment work conducted for New York based on estimates and locations of well pad densities across the Marcellus landscape could better quantify expected impacts to forest interior habitats and wildlife.” Then do it. If DEC does not propose to make such an “additional assessment,” why not?</p>
<p>6.4.4 Pg. 6-91</p>	<p><u>Impacts on State-Owned Lands</u></p> <p>Here the DEC admits that the level of truck traffic associated with HVHF “would significantly degrade the experience” of those using public recreation facilities. Won’t this also be true of private recreational facilities and tourist attractions?</p>
<p>6.5.4 Pg. 6-183</p>	<p><u>Air Quality Monitoring</u></p> <p>DEC proposes that air monitoring of drilling sites “would be the responsibility of industry.” DEC admits that it would be preferable to</p>

	<p>have air monitoring done by its own Division of Air Resources. Isn't air quality protection one of the prime functions of the DEC? But this duty is avoided because DEC cannot monitor air quality without "additional staff and equipment resources." Why not require an air monitoring fee from the industry that would pay for additional staff?</p>
<p>6.11.2 Pg. 6-308</p>	<p><u><i>Impact of HVHF on Traffic and Roadways</i></u></p> <p>"Given the generic nature of this analysis, and the lack of specific well pad locations to permit the identification of specific road-segment impacts, the projected increase in average annual daily traffic (AADT) and the associated impact on the level of service of specific roadway segments, interchanges, and intersections cannot be determined. " Exactly. The traffic section of the sGEIS is yet another example of why a generic EIS is improper.</p>
<p>6.11.4 Pg. 6-312</p>	<p><u><i>Damage to Local Roads, Bridges and Other Infrastructure</i></u></p> <p>While DEC cannot determine the cumulative impact of HVHF on state and local roads (again, the defects of a generic EIS), it acknowledges that the "loads and numbers of heavy trucks proposed by this action could effectively reduce the lifespan of several roads and early repairs or reconstruction, which would burden the State and its taxpayers." DEC estimates that the costs could be as much as 31 million dollars for replacement of a bridge and the average will be 3.3 million dollars per bridge. DEC does not explain where the money to make such repairs will come from. It should.</p>
<p>6.13 Pg. 6-319- 6-328</p>	<p><u><i>Seismicity</i></u></p> <p>This section is a whitewash of the dangers posed by HVHF-induced seismic activity. For example, it does not reference the earthquake induced by fracturing in England, see http://www.blackpoolgazette.co.uk/news/local/drilling_did_cause_earthquake_13876146. If "induced seismic events can be reduced by engineering design and by avoiding existing fault zones", page 6-320, and it is important to avoid injecting fluids into known, significant mapped faults when hydraulic fracturing,"page 6-322, why does the DEC leave it up to operators to avoid such faults?</p> <p>There must be setbacks imposed from known fault lines. DEC should take a far more active role in preventing drilling near known and potentially dangerous faults.</p> <p>It is a dereliction of duty for DEC to rely on an undocumented</p>

	<p>assertion that “operators typically endeavor to avoid faults for both practical and economic considerations”, page 6-327. DEC does not rely on operators to do the right thing in other areas - why does DEC rely on operators to do it in connection with Seismicity?</p>
<p>7.1.1.1 Pg. 7-2</p>	<p><u>Degradation of Water</u></p> <p>Why does DEC require only an annual report of water withdrawals? Such an interval is inadequate to determine whether operators are degrading water quality. The reports required by this section should be on a quarterly basis at a minimum.</p> <p>The DEC should require the operator to reveal whether the operator or any of its proposed contractors have been involved in any incidents involving spills. Detailed information should be required concerning such incidents including any required remediation. Permits should be denied to operators with a bad track record.</p>
<p>7.1.3.5 Pg. 7-41</p>	<p><u>Aquifers</u></p> <p>Why will the DEC permit horizontal drilling under Primary and Principal aquifers? This should be prohibited at least during the 2 year period that well pads are not permitted on the surface over Primary and Principal aquifers (see comment above at Section 1.8 as to the 2 year reexamination).</p>
<p>7.1.4 Pg. 7-42</p>	<p><u>Potential Groundwater Impacts</u></p> <p>DEC proposes only that there be an “opportunity for state regulators to witness cementing operations.” This should be mandatory. No inspectors? No fracking. End of story.</p>
<p>7.1.4.2 Pg. 7-51</p>	<p><u>Surface Casing Cement</u></p> <p>The minimum WOC of 8 hours should not be waivable. The incentive to “fudge” data is too great to allow operators an opportunity to do so. An 8-hour wait on cement time is not onerous. Responsible drillers should be able to live with this requirement.</p> <p>Likewise, intermediate casing requirements should NOT be waived. Page 7-52.</p>
<p>7.1.5</p>	<p><u>NYC and Syracuse Setbacks and Buffers</u></p> <p>See the comments to Section 1.4.2.2 above.</p>

Pg. 7-55	<p><u>Hydraulic Fracturing Procedure</u></p>
7.1.6 Pg. 7-59	<p>A site-specific review should be required for any proposed HVHF where the top of the target fracture zone at any point of the wellbore is less than 3,000 feet below the base of a known freshwater supply, not 1,000 feet below such supply.</p>
7.1.7 Pg. 7-59	<p><u>Waste Transport</u></p> <p>Because of the risk of spills and accidents no HVHF waste transport should be permitted on roads that are within set-back buffer zones. For example, Otsego Lake is a public water supply and thus, temporarily, enjoys a 2,000 buffer zone where no drilling pads may be located. Roads surround Lake Otsego and are well within the 2,000 foot zone. In some cases the roads are mere feet from Lake Otsego. A spill of flowback or brine water would have disastrous consequences for Cooperstown's water supply. This possibility would be substantially mitigated by banning truck traffic on roads within the buffer zone.</p>
7.1.7.2 Pg. 7-60	<p><u>Production Brine – Use on Roads</u></p> <p>Runoff of production brine whether or not it contains NORM, has a substantial potential for polluting streams and even water supplies. The brine concentrations in production water are extremely high. The risk involved in runoff is not balanced by the benefit of using production water on state or local roads. There should be an absolute ban on the use of production brine for road spreading. The DEC should not issue BUDs for this use.</p>
7.1.11.1 Pg. 7-71	<p><u>Setbacks from Groundwater Resources</u></p> <p>As noted above (Section 1.8), DEC should explain why public water supplies enjoy a 2,000 foot buffer but private water supplies only have 500 feet of protection. If 2,000 feet is necessary for public water supply why isn't necessary for private water supply?</p>
7.1.11.2 Pg. 7-74	<p><u>Setbacks from Other Surface Water Resources</u></p> <p>Why will the DEC permit well drilling within 150 feet of a public stream, river or other body of water. This seems to be inviting disaster. How does the DEC justify this setback in view of the much more extensive setbacks from other water sources? One would think that the DEC's learning curve would be better in light of its failure to protect the</p>

<p>7.11.1.1 Pg. 7-136</p>	<p>Hudson River from PCBs. The setback from streams, rivers and other bodies of water must be substantially increased. See the comments at Section 1.8 above.</p> <p><u>Development of Transportation Plans</u></p> <p>The DEC should require more than asking operators whether they have entered into a transportation plan with local governments. A transportation plan with local government should be a requirement of any HVHF permit. Many local governments are understaffed and do not have the ability to prepare the kind of road use agreements necessary. The onus should be on the operator to initiate and finalize such agreements.</p>
<p>7.11.2 Pg. 7-140</p>	<p><u>Damage to State Roads</u></p> <p>In this section the DEC once again identifies a serious problem but proposes no solution for the problem. Operator-local government road use agreements with adequate cash or corporate surety bonds, would mitigate much of the damage to local roads but DEC is not requiring such agreements. See 7.11.1.1. Why isn't DEC proposing similar agreements with the State? Why isn't the DEC requiring road use agreements?</p>
<p>7.11.3 Pg. 7-141</p>	<p><u>Operational and Safety Impacts on Road Systems</u></p> <p>Once again, this section demonstrates why a generic EIS is inappropriate. ("Due to the generic nature of this analysis...it is not possible at this time...to identify operational or safety mitigation strategies..."). In effect, DEC avoids its responsibility to determine the operational and safety impacts of HVHF on road systems.</p>
<p>7.12 Pg. 7-144-7-146</p>	<p><u>Community Character Mitigation Measures</u></p> <p>In this section DEC ignores the strictures on land use imposed by local jurisdictions. Instead the DEC proposes only to "request additional information" if the well drilling applicant indicates its use is "inconsistent with local land use laws, regulations, plans or policies."</p> <p>In failing to recognize local land use law, the DEC apparently relies on ECL § 2303.2 which provides that its provisions "supersede all local laws or ordinances relating to the regulation of the oil, gas, and solution mining industries..." If so, this reliance is misplaced. In the landmark case of <i>Frew Run Gravel Products v. Town of Carroll</i>, 71 N.Y.2d 126, (1987) the Court of Appeals dealt with almost identical language in the</p>

ECL allegedly preempting town zoning law in the mining context. The *Frew* Court held that the ECLs preemption language was only intended to prevent “local regulations dealing with the actual operation and process of mining...” *Id.* At 133. To read this intent to also “preempt a town’s zoning ordinance prohibiting a mining operation in a given zone...would drastically curtail the town’s power to adopt zoning regulations granted [by state laws]” *Id.* at 133. “in the absence of any indication that the statute had such a purpose, a construction of ECL 23-2703(2) which would give it that effect should be avoided. *Id.* At 134. Since 1987, when *Frew Run* was handed down, the Legislature has never amended ECL § 23-0303.2 to indicate that its language was intended to preempt local zoning as opposed to the preemption of the actual operation and process, i.e., the “regulation” of gas drilling.

In the light of *Frew* the DEC should recognize the continued viability of local zoning law. The sGEIS and regulations should go much further to facilitate local law than they do at present.

Perhaps the DEC feels constrained by the holding in *Valley Realty Dev. Co. v. Jorling*, 217 A.D.2d 349 (4th Dept., 1995). That case held that the DEC had to “continue to process a mining application even where mining is prohibited by local law.” *Id.* at 354. The 4th Department so held even though it recognized that under the ECL that a complete application for a mining permit requires “a statement by the applicant that mining is not prohibited at that location.” *Id.* At 353. While the tortured reasoning of *Valley Realty* is unlikely to be followed by the Court of Appeals, its holding relied primarily on the existence of a DEC Technical Guidance Memorandum concerning mining permits not present here. *Id.* At 353-54.

Nonetheless, the DEC can avoid the strictures of *Valley Realty* by taking itself out of any dispute between an applicant and a local town. Under the present scheme, see page 7-145, the project sponsor can indicate that its application is consistent with local laws and the “potentially impacted local government” can advise the DEC that the town believes the application is inconsistent with local laws. This puts DEC in the position of adjudicating whether or not local zoning applies to the applicant – a role that the *Valley Realty* court and other courts might find to be a usurpation of the role of the judiciary.

The conflict presented under the existing sGEIS is easily avoided by amending the sGEIS to require the submission of a certificate from local government that either (1) the application is consistent with local laws or (2) there are no local laws that apply to the application. This prevents applicants from gaming the system by filing false or inaccurate

<p>8.1.1 Pg. 8-1</p>	<p>“identification” of conflicts with local laws and gives the DEC a simple decision – has the applicant filed the certificate? Other statutory schemes do exactly this. For example, see the Clean Water Act § 401.</p> <p><u>Local Governments</u></p> <p>See the discussion above at Section 7.12.</p>
<p>8.1.1.1 Page 8-3</p>	<p><u>SEQRA Participation</u></p> <p>Table 8.1 provides that the NY DEP and River Basin Commissions have a role in well siting “in certain circumstances.” What circumstances? This should be explicitly stated so citizens will know who does what when it comes to well siting.</p>
<p>8.1.1.3 Pg. 8-4</p>	<p><u>Local Government Notification</u></p> <p>Both the applicant and the DEC should be required to notify local governments of an application for HVHF permit. Also the applicant should be required to notify all adjacent landowners of the application. Finally, the applicant should be required to erect a sign on its proposed well site with a notice approved by DEC about the pendency of the drillers’ application.</p>
<p>8.1.1.4 Pg. 8-4</p>	<p><u>Road-Use Agreements</u></p> <p>As noted above, see Section 7.11.2, road use agreements should be required, not just encouraged.</p>
<p>8.1.1.5 Pg 8-4</p>	<p><u>Local Planning Documents</u></p> <p>. The statement that “The Department’s exclusive authority to issue well permits supersedes local government authority relative to well siting,” is true only if the statement is narrowed to mean the <i>regulation</i> of siting. That is, set backs, required acreage, road access, etc. The Department does not have exclusive authority where the question is whether the well is a permitted use under local zoning. See, <i>Frew Run Gravel Prods. v. Town of Carroll</i>, 71NY2d 126 (1987) and the comments above on Section 7.12.</p>
<p>8.1.2.1 Pg. 8-16</p>	<p><u>Public Service Commission – Gas Transmission Facilities</u></p> <p>The amended certification process for gas transmission lines excludes adjacent landowners and local governments from the process. Since DEC gets notice of these potentially high impact activities, the</p>

	<p>sGEIS should be amended to state that DEC will notify local governments of the pendency of any application or NOI for gas transmission lines.</p> <p><u>Material Safety Data Sheets (MSDS) – Disclosure of Fracturing Chemicals</u></p>
<p>8.1.3.2 Pg. 8-23</p>	<p>A cost of the business of gas drilling in New York State should be full disclosure of all fracking fluids. If a driller wants to preserve a so-called trade secret, then it doesn't have to drill in NY. The DEC should not allow any applicant to conceal the chemicals it is using under the rubric of "trade secret."</p> <p><u>Required Hydraulic Fracturing Additive Information</u></p>
<p>8.2.1.1 Pg. 8-29</p>	<p>This section baldly states that well design "explains why ground water contamination by migration of fracturing fluid is not a reasonably foreseeable impact." Yet the EPA is investigating the migration of fracturing fluid into aquifers in Wyoming. Why isn't the DEC waiting until the EPA concludes its investigation?</p> <p><u>Other Department Permits and Approvals</u></p>
<p>8.2.2 Pg. 8-32</p>	<p>"The Division of Environmental Permits manages most other permitting programs in the Department..." Then why isn't DEP the primary manager for well permits? Most commentators agree that the failure of the federal government to separate final approval authority in the agency responsible for effectuating off shore oil drilling was a prime suspect in the BP gulf disaster. Here we have the same situation. The Division of Mineral resources may be an excellent source of gas drilling expertise but it has other fish to fry when it comes to the environment. The DMN could review the technical data but the DEP should have final approval authority. To do otherwise is to invite disaster.</p> <p><u>Water Well Testing</u></p>
<p>8.4.2.2 Pg. 8-56</p>	<p>Even Pennsylvania presumes that an operator is the cause of "adverse water quality impacts." New York should do the same and the presumption should extend at least 3,000 feet from the well pad.</p> <p><u>Phased Permitting Approach</u></p>
<p>9.2 Pg. 9-4</p>	<p>How will the DEC "limit permit issuance to match the Department resources that are made available to review and approve permit applications and to adequately inspect well pads and enforce permit conditions and regulations"? What are metrics of such a "match"?</p>

	<p>Without this data how can citizens be assured that permits will indeed be matched to the DEC's capacity to review them?</p> <p><u><i>Prohibitions in Place for at Least 3 Years</i></u></p>
<p>9.2.3.2 Pg. 9-6</p>	<p>The 3 year prohibition of drilling within 2,000 feet of public water supplies should be a permanent prohibition and not a quasi phasing device.</p> <p><u><i>Prohibitions in Place for at Least 2 Years</i></u></p>
<p>9.2.3.3 Pg. 9-6</p>	<p>Same comment as in Section 9.2.3.2.</p> <p><u><i>Permit Issuance Matched to Department Resources</i></u></p>
<p>9.2.4 Pg. 9-7</p>	<p>See comment in Section 9.2</p> <p><u><i>Application Form for Permit to Drill, etc.</i></u></p>
<p>Appendix 4</p>	<p>This application form should be modified to require the zoning certificate referred to in Section 7.12 above as well as a listing of any citations the applicant has received concerning violations of gas or oil drilling regulations.</p> <p><u><i>Environmental Assessment Form (EAF)</i></u></p>
<p>Appendix 5</p>	<p>Section 5 of the EAF should be modified to require a listing of any geological fault within 1 mile of the project site.</p> <p>This form should be required for all well permits not just those whose water usage exceeds 300 thousand gallons. The 1992 generic impact statement has been taken over by recent history and is wholly inadequate to protect communities from the risks of gas drilling whether HVHF or otherwise.</p>