

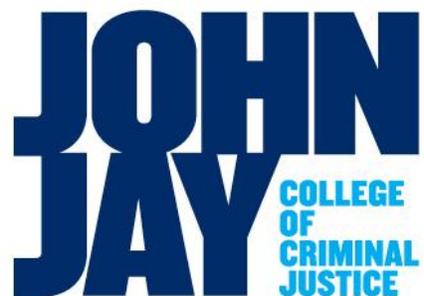
# DEPARTMENT OF ECONOMICS

## Working Paper

New York State's Negligent Stewardship Calls for Sustainability Study

Joan Hoffman

Working Paper 2011-01



## **New York State's Negligent Stewardship Calls for Sustainability Study**

*By Joan Hoffman Department of Economics John Jay College of Criminal Justice 11.28/2011*

New York State has been negligent in its performance of stewardship duties with regard to the consideration of hydrofracking. This failure in its service to the people of New York cannot be attributed solely to the wording of its environment conservation law. It is true that this law does not prioritize sustainable development. Although the law calls on the State to meet its “responsibility as trustee of the environment for the present and future generations” and to “enhance the health, safety and welfare of the people of the state”, this protective language is always co-mingled with language calling for the development of its natural resources. The law declares that it is State policy

“to conserve, *improve* and protect its natural resources” and  
“to enhance..the overall *economic* and social well being, “  
and the State is also to be  
“*promoting* patterns of development and technology which  
minimize adverse impact on the environment” (*italics mine*) (1)

While this language could be said, on balance, to privilege economic development by not prioritizing the protection of the health of the people and the environment, the law certainly calls for serious consideration and stewardship of the people's health and environment.

The ways in which New York State has violated by the spirit of protective stewardship as it has reviewed the hydrofracking process are disturbingly numerous. A few of them follow. Spacing laws needed by the hydrofracking industry were passed by the legislature before hydrofracking was understood throughout the legislature and by the people of New York (2). The New York State Department of Environmental conservation (NYS DEC) announced that it would take only written comments on its first environmental impact statement (Draft Supplementary Generic Environmental Impact Statement[ DGEIS]) for hydrofracking (3) and only the ensuing uproar induced the state to hold open hearings (4) . The DGEIS was, itself, negligent in its many flaws, such as the failure to consider the cumulative impact of hydrofracking drilling sites. The State has also failed to provide resources to agencies, such as those working with health at the county level, for the additional personnel and funding to work with problems of hydrofracking (5, 6). The current amended supplementary environment impact statement (SGEIS), issued in September of 2011, called for only four public hearings on this very critical matter(7).

Even more egregious is the recent issuance of proposed rules for hydrofracking (8). The federal government is conducting a study on the health effects of hydrofracking which is not due until fall of 2012 (9). A group of doctors and health professionals and health organizations wrote Governor Cuomo to criticize the health protections in the SGEIS and to urge a postponement of the consideration of hydrofracking in NYS until there had been a public health study (10). Normal policy would be for the State to issue rules after the comments period for the SGEIS had ended and the comments considered. The State issued proposed rules for hydrofracking even though the period of comments on the SGEIS was not finished and the Federal study has not been completed, and despite the call to wait for a public health study.

The natural gas industry used their links to the former Vice President Cheney to obtain exemption from protective environmental laws. This condition alone would seem to be a call to the State for extra caution. However, although New Yorkers across the state are deeply concerned about the impact of hydrofracking on their water supply and health, and although the well respected sources such as New York City Department of environmental protection (NYCDEP)(11) and the Scientific American magazine (12) have published evidence of the many problems and risks to hydrofracking, there has been continued rushing of the permit approval process by the NYS Dec and Governor Cuomo. This is negligent stewardship.

### **Dangers which are not addressed in the plan**

There are many dangers and risks which are not addressed in the current SGEIS and the proposed rules. They include the possibilities of leaks of toxic materials into water supplies and farm lands due to inherent weaknesses in cement and the unmapped fissures in the ground due to old wells whose locations are not now known (12) . Other dangers include inadequate buffering for the New York City watershed, inadequate information about toxic materials being used and lack of responsibility by the gas industry for harm from toxic materials, lack of biodiversity protections, and dangers from air pollution. A detailed list can be accessed through the Catskill Mountainkeeper web sites (14).

### **Illusions of gains: global warming and the economy**

It is argued that the dangers are offset by the gains made possible by hydrofracking. One is mitigation of global warming. However, natural gas is a warming gas, and fracked gas involves leaks of methane which is much more warming than carbon. Current technologies, such as those allowing methane flares, have resulted in hydrofracking causing 8 to 11 % more warming than regular natural gas production. Choice of the warming impact of methane can vary. One study, using a higher estimate of the warming impact of methane, argued fracked gas can cause as much warming as coal by some estimates (14). While regulations can reduce methane leaks, compliance costs money and this fragmented industry has already manifested non-compliant behavior with regard to road use in Pennsylvania (15). Monitoring compliance also costs money, and New York State's regulatory staffing levels have already been criticized as inadequate with regard to regulating fracking. In the case of road use, the State has a special incentive because the costs of abuse accrue to state and local governments. Methane leaks include a cost to the world at large and the State might not be as vigilant as needed to protect global concerns. It is estimated that the world, although not the US, has 130 years of natural gas that is obtained without hydrofracking (16). From a global perspective, it would be better to let the methane laden source of natural gas stay in the ground until the day that it is safer to allow the escape of warming gases.

### **Economic gains in perspective:**

To provide appropriate stewardship, the State government should explore whether the purported gains from shale exploitation will provide net and sustainable economic development for New Yorkers. There are reasons for doubt.

Hydrofracking in New York State would be characterized by bursts of activity employing, primarily, outside skilled labor followed by longer stretches of low level maintenance and monitoring work, some of which (with proper training) might be local (17,18). Not all of the short term gains to local retailers of food and lodging will be net, for the hydrofracking employees will compete with local residents and tourists for services (19).

What about the long run? There is evidence that economic areas relying on resource based industries such as hydrofracking do not do well in the long run(18). For instance, it is possible that hydrofracking undermines the long term tourist industry with higher prices due to competition and also because the area may become branded as "industrial" rather than a country getaway destination. (19). Attractiveness of the area for second home owners and retirees could also be adversely affected.

Farmers often need a separate job to stay in farming (20) Lease revenues have allowed some farmers to invest in their farms. However, there are serious concerns that, in the long run, hydrofracking can undermine the value of the land for farming (21).

Also, non-New Yorkers will claim some of the financial benefits. Examples include natural gas company owners and their investors as well as the imported skilled workers with industry experience. (17, 18). Some lease holders might live and spend their money elsewhere. It is also possible that lease holders will emigrate, especially if their land is harmed.

### **What are the economic costs of these gains?**

The economic costs of hydrofracking have certainly been underestimated. This is especially true for costs that do not accrue to the decision makers. The beauty of nature itself, as well as natural inputs such as pollinating bees, water, wind, grass roots holding the soil, and yet be understood services of bugs too small to see, are all essential to our lives and our production processes. The role played by this natural capital is not clearly perceived, understood or accounted for by people and economic organizations. Hydrofracking endangers many of these services.

Other more visible costs do not seem to reckon clearly in the State's evaluation. Evidence from Pennsylvania reveals that the trucks destroy the relatively weak local roads and that the companies willfully disobey the regulations requiring them to avoid those roads. State monitoring expenses have loomed (15). This is just one of the categories in which New York's plans do not provide sufficient resources for compensating local areas or monitoring. Another area is health. There has been no provision for funding local health offices which would bear the brunt of health emergencies and problems (22). In fact, New York is one of the only two hydrofracking states without a severance tax, which is normally used to compensate localities for the costs of hydrofracking. To push hydrofracking forward without enacting a severance tax is yet another example of negligence by New York State

(23). However, even if a severance tax was used to fund country health offices to address emergencies and short run health problems, such funding could not be adequate compensation if the toxic effects of fracking were to undermine the long run health of New Yorkers, their livestock and animals.

Dangers to existing industries have been largely ignored. Emerging research reveals problems for the real estate industry, for a variety of reasons, including unnoticed mortgage set back requirements (100 to 200 feet) between the homes and the drilling sites (24) and the range and durability of the rights granted to gas companies on leases for locating pipelines and gas storage under the land and long lasting drilling rights exceeding lives of leases (25). These factors could undermine sales to second home owners and retirees among others. Organic and other farmers and members of the wine industry are worried about the damage to the land and water they use from a range of sources including soil compaction, land, and therefore, crop pollution, endocrine disrupters affecting farm animal reproduction, water poisoning killing livestock , ozone reducing crop yields, arrival of invasive species and farm fragmentation (21).

### **Net gains: is this sustainable economic development for the State?**

One economic advantage that New York State has is a good water supply and relatively clean air. These assets are becoming increasingly valuable, and yet this industry, which threatens both of them, is being rushed in without adequate study. Just as there is a call for a public health study, there should be a long term economic study that takes full accounting of our reliance on nature's services and threats to existing industries.

It is true that the southern tier of New York is in economic need. Just as environmental impact statements require alternatives to proposed projects, so the economic study should include a study of viable, sustainable options for the southern tier. With climate change, the continued expansion of computing and internet capabilities, the economy is shifting. The need to reduce greenhouse gas emissions is likely to favor economic activities with shorter delivery distances. Economies are likely to become more regional. There is potential for responsible farming and forestry, niche manufacturing, and research into our new economic needs tied to local universities and governments. The experience of the New York City Watershed Collaboration in supporting the transformation of the Catskill Watershed economy could provide one of the models to start discussion (20) .

If New York State is going to provide real stewardship, it would slow down on hydrofracking and broaden its economic inquiry to alternative, healthy and sustainable futures for the NYS economy. If it does not, the State stands to lose much that , while not always visible to the naked eye is nevertheless, extremely necessary to our well being.

1. (New York State, N. NYS Environmental Conservation Law § 1-0101.( Article 1 Title 1) Declaration of Policy [http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$ENV1-0101\\$\\$@TXENV01-0101+&LIST=LAW+&BROWSER=EXPLORER+&TOKEN=00949580+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$ENV1-0101$$@TXENV01-0101+&LIST=LAW+&BROWSER=EXPLORER+&TOKEN=00949580+&TARGET=VIEW)

2. Dr. William Pammer, Former Planning Commission of Sullivan County, N.Y. and Associate Professor of Public Management, Public Management Department John Jay College of Criminal Justice

3. (NYSDEC), N. Y. S. D. o. E. C. "Draft SGEIS on the Oil, Gas and Solution Mining Regulatory Program (September 2009)

Well Permit Issuance for Horizontal Drilling And High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs." Retrieved 11/28, 2011, from <http://www.dec.ny.gov/energy/58440.html>.

4. (NYSDEC), N. Y. S. D. o. E. C. (2008). DEC ANNOUNCES PUBLIC HEARINGS (Monday, October 6).

5. **Comments heard by author at New York City hearings on the DGEIS**

6. **The Catskill Mountainkeeper site tracks hydrofracking proposal problems.**

<http://www.catskillmountainkeeper.org/node/290>

7. (NYSDEC), N. Y. S. D. o. E. c. (2011). "Revised Draft SGEIS on the Oil, Gas and Solution Mining Regulatory Program (September 2011)

Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing in the Marcellus Shale and Other Low-Permeability Gas Reservoirs." Retrieved 11/28, 2011, from <http://www.dec.ny.gov/energy/75370.html>

8. (NYSDEC), N. Y. S. D. o. E. C. "High Volume Hydraulic Fracturing Proposed Regulations

6 NYCRR Parts 52, 190, 550-556, 560, and 750." Retrieved 11/28, 2011, from <http://www.dec.ny.gov/regulations/77353.html>.

9. (USEPA), U. S. e. P. L. (2011). "Environmental Protection Agency Draft Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources.( February 2011.) " Retrieved 11/28, 2011, from [www.epa.gov/research](http://www.epa.gov/research)

10. Kusnetz, N. Doctors Ask New York to Study Health Impacts Before Allowing Fracking , Oct. 6, 2011, 1:24 p.m. [ProPublica](http://www.propublica.org) . <http://www.propublica.org/article/doctors-ask-new-york-to-study-health-impacts-before-allowing-fracking>

11. Hazen and Sawyer. (2009). "Final Impact Assessment Report :Impact Assessment of the natural Gas Drilling in the New York City Water Supply Watershed (December 2009)." Retrieved 11/28, 2011, from [http://www.nyc.gov/html/dep/pdf/natural\\_gas\\_drilling/12\\_23\\_2009\\_final\\_assessment\\_report.pdf](http://www.nyc.gov/html/dep/pdf/natural_gas_drilling/12_23_2009_final_assessment_report.pdf)

12. Mooney, C. (2011). "The Truth About Fracking." [Scientific American](http://www.scientificamerican.com) **Vol. 305**( Issue 5, ): p80-85.

13. ALECexposed. (2011). "DSGEIS Responses." Retrieved 11/28, 2011, from [http://www.sourcewatch.org/index.php?title=DSGEIS\\_or\\_Responses](http://www.sourcewatch.org/index.php?title=DSGEIS_or_Responses) <http://tinyurl.com/dSGEIS-Responses>.

14. Source:Comparing Life Cycle Greenhouse Gas Emissions from Natural Gas and Coal. March 14, 2011. Mark Fulton, Nils Mellquist (Deutsche Bank) and Saya Kitasei (Worldwatch Institute)[http://www.worldwatch.org/system/files/pdf/Natural\\_Gas\\_LCA\\_Update\\_082511.pdf](http://www.worldwatch.org/system/files/pdf/Natural_Gas_LCA_Update_082511.pdf)

15. Randall, c. j. (2010) Hammer Down: A Guide to Protecting Local Roads Impacted by Shale Gas Drilling Working Paper Series: A Comprehensive Economic Impact Analysis of Natural Gas Extraction in the Marcellus Shale

16. (UPI) (2011). Energy Resources IEA lauds unconventional gas reserves Jan. 19, 2011 [UPI.com](http://www.upi.com).

17. Jacquet, J. (2011). "Workforce Development Challenges in the Natural Gas Industry Working Paper Series: A Comprehensive Economic Impact Analysis of Natural Gas Extraction in the Marcellus Shale (February 2011)." [Community and Regional Development Institute in the Department of Development Sociology at Cornell](http://www.cornell.edu).

18. Kay, D. (2011). The Economic Impact of Marcellus Shale Gas Drilling: What Have We Learned? What are the Limitations? Working Paper Series: A Comprehensive Economic Impact Analysis of Natural Gas Extraction in the Marcellus Shale. Community and Regional Development Institute in the Department of Development Sociology at Cornell.

19. Rumbach, A. (2011) Natural Gas Drilling in the Marcellus Shale: Potential Impacts on the Tourism Economy of the Southern Tier in Christopherson, Susan. The Economic Consequences of Marcellus Shale Gas Extraction: Key Issues [Research and Policy Brief Series of Cornell University's Community & Regional Development Institute](http://www.cornell.edu)

20. Hoffman, J. (2010). The Cooperation Challenge of Economics and the Protection of Water Supplies: A Case Study of the New York City Watershed Collaboration, Routledge
21. Miller, N. B. (2011). "Fracking Up Our Foodshed: Agriculture and Hydrofracking are NOT Compatible (March 3rd, 2011)." Retrieved 11/28/2011, from <http://www.farmshedcny.com/farmshednation/wp-content/uploads/2011/03/Otsego2000Hydrofracking1.jpg>.
22. Wilson, A. and L. Morken (2011) "What Happens When Something Goes Wrong? Dealing with public health issues that come with hydraulic fracturing" in Christopherson, Susan. The Economic Consequences of Marcellus Shale Gas Extraction: Key Issues Research and Policy Brief Series of Cornell University's Community & Regional Development Institute
23. Lepori, S. (2011) Marcellus Shale: The Case for Severance Taxes in Christopherson, Susan. The Economic Consequences of Marcellus Shale Gas Extraction: Key Issues Research and Policy Brief Series of Cornell University's Community & Regional Development Institute
24. Arbetter, S. (2011) Gas Houses: Hydrofracking drilling leases may violate fine print on mortgages, title insurance Jun. 13, 2011 6:19 pm The Capitol
25. Radow, E. N. (2011) Fracking The Homestead. New York State Bar Association Journal. November/December 2011