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New York City Council

Committee on Environmental Protection Hearing:

Oversight – Natural Gas Drilling in the New York City Drinking Water Watershed

September 10, 2008

As one of the signatories to the 1997 New York City Watershed Memorandum of Agreement (MOA), and in keeping with our mission to safeguard the ecology integrity of the Hudson River, and the New York City drinking water supply watershed, Riverkeeper welcomes the opportunity to participate in this hearing.

If we are to transform our energy policy away from dirty coal and dependence upon foreign oil, natural gas may be a reasonable and necessary interim option. However, natural gas development is progressing across the vast Marcellus Shale at a pace and scale no one ever envisioned.

Lost in the rush for access to this mineral reserve is the fact that the entire West-of-Hudson portion of the New York City watershed sits on top of the Marcellus Shale.¹ The much admired New York City drinking water system is a modern wonder of the world. The New York City watershed comprises roughly 4.2% of the state's land, yet supplies unfiltered drinking water to over 9 million New Yorkers on a daily basis. Surface water collects in large reservoirs and travels via gravity through tunnels and aqueducts to the taps of consumers upstate and in New York City, which receives 1.2 billion gallons daily. The inimitable taste of New York pizza and bagels is but one benefit of this award winning tap water. In short, the New York City Watershed is the city's greatest capital asset and the state's most precious natural resource.

Natural Gas Drilling – The Process and Impacts

Hydraulic fracturing involves the high-pressure injection of millions of gallons of water, sand and toxic chemicals into horizontal wells at depths over 1 mile below ground. After the “fracking” process, the water and chemicals must be recovered and delivered to a suitable treatment center. While we need to learn more about the “fracking” process to understand its environmental impacts fully and support the State's decision to conduct a supplemental environmental review, we already know that natural gas exploration brings with it a whole host of activities and apparatus that are unacceptable within this pristine natural resource. A web of pipelines to transport the gas and noisy compressors to push

¹ See Exhibit A (Large Map of Marcellus Shale Formation – NYS Dept. of Environmental Conservation, available at, <http://www.dec.ny.gov/energy/46381.html>).

gas from wells through the pipeline system will be needed; large drilling pads capable of handling several wells will be constructed; and hundreds of tanker trucks will be used to haul in water and to remove waste water. All of this upheaval and disruptive surface activity that would accompany any drilling process, occurring in a watershed infamous for heavy flooding and where all surface runoff flows into New York City's unfiltered water supply, is not acceptable. Moreover, allowing this activity would be reckless in the context of the filtration avoidance determination (FAD) and the prospect of the city paying for a \$10 billion filtration plant (with \$300 million in annual operating costs) should the FAD be revoked.

Inconsistencies with 1997 MOA

In the MOA all the parties (including New York State and New York City) agreed that "the New York City water supply is an extremely valuable natural resource that must be protected in a comprehensive manner."²

All the parties also agreed that economic development within the watershed communities must be consistent with watershed protection.³ However, no economic development is less consistent with watershed protection than this. Furthermore, the MOA did not contemplate and does not protect the economic vitality of out-of-state gas companies.

All parties also agreed to maintain and enhance the social character of the watershed towns.⁴ As I described, natural gas drilling brings with a whole host of activities that would be incongruent with the social character of the watershed towns.

Justifications for Designating the NYC Watershed Off-limits for Drilling

In addition to the MOA's requirements, I want to touch briefly on just two traditional themes and underpinnings of environmental law that provide sound basis and justification for designating the NYC Watershed off-limits for natural gas drilling

1. Theodore Roosevelt – Foresight and Wise Use

One hundred years ago President Theodore Roosevelt said that the "prosperity of our people depends directly on the energy and intelligence with which our natural resources are used."⁵ Roosevelt had convened a Conference of Governors at the White House to discuss conservation and the proper use of natural resources. The country was faced with an exponential growth in industrial progress, and Roosevelt proclaimed the need for foresight and wise use of our natural resources as a duty to posterity.

² 1997 NYC Watershed Memorandum of Agreement, ¶ 5.

³ MOA, ¶ 6.

⁴ MOA, ¶ 6.

⁵ See PROCEEDINGS OF A CONFERENCE OF GOVERNORS IN THE WHITE HOUSE, MAY 13-15, 1908 (Gov. Printing Office) (1909) [hereinafter CONFERENCE OF GOVERNORS] at 7.

The need for foresight and planning in the use of natural resources is just as relevant today as it was in Roosevelt's time. There can be no better example than a watershed that supplies unfiltered drinking water to over half of New York's population. To that end, Riverkeeper played a lead role in negotiating and drafting the MOA, praised internationally as a model for watershed protection. Designating the watershed off-limits would heed Roosevelt's call for wise use of this natural resource, particularly when the New York City watershed is such a small percentage of New York's portion of the Marcellus Shale.

2. *The Tragedy of Commons:*

In 1968 a little known biology professor named Garret Hardin from the University of California, Santa Barbara published an article in Science magazine.⁶ Its premise was that there is a class of problems to which there are no technological solutions. Nuclear war, population growth, and pollution are common examples. Hardin himself used an example of herdsman grazing cattle on an open common. He noted that each individual herdsman, being a rational actor, will try to exploit the pasture as much as possible, until the point when it is useless to all.

The tragedy of the commons teaches that there is a need for regulation in situations where individual rational decisions eventually will produce collectively irrational results.

We must strive to ensure that out-of-state gas companies do not try to privatize the commons that is the New York City watershed and exploit it for their own private gain, to the detriment of all New Yorkers.

Conclusion

Riverkeeper thanks the City Council for the opportunity to participate in today's hearing and your attention to this very important issue.

⁶ Garret Hardin, *The Tragedy of the Commons*, in SCIENCE MAGAZINE'S STATE OF THE PLANET 2006-2007 115 (Donald Kennedy, ed., 2006).

EXHIBIT A

Large Map of Marcellus Shale Formation – NYS Dept. of Environmental Conservation
available at, <http://www.dec.ny.gov/energy/46381.html>

Marcellus Shale Well Extent 2007 Production - Recent Wells

