Environmental Concerns Resulting From Horizontal Drilling And Potential Legal Issues

By
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I. Water Extraction
a. Traditional gas drilling used approximately 80,000 gallons of water per frack. Horizontal drilling uses high intensity fracking, which requires up to 3,000,000 gallons per Frack, and multiple fracks per well. (sometimes it takes less, but certainly in the millions of Gallons)
b. Assuming the proposed estimate of 10,000 wells in the Southern Tier of New York, there has not been any significant environmental review of the effects of this massive water withdrawal on surface water resources, aquatic life, etc. This is especially a concern for waterways like the upper Delaware River, which has been designated as a Wild and Scenic River, and for areas that draw their drinking water from these surface water resources.

II. Water Contamination
a. The industry likes to say that there has never been any well contaminated from fracking of the Marcellus shale, or from any other fracking. They claim that fracking has been done safely for nearly a century. These claims are simply not true. A recent Duke University study linked flammable drinking water to hydrofracking. See Pro Publica article of 5/9/11 attached. In our Dimock, Pa. Case, we tested the methane found in the water, and were able to determine that it came from the deep aquifer underlying the area. Moreover, if your well is contaminated, it doesn’t matter to the homeowner if the contamination came from fracking, from sloppy drilling or poor well casing, or from a spill. All of these problems occur.
b. While the industry claims that the chemicals used in the fracking fluid is a trade secret, investigations have determined that chemicals hazardous to human health and the environment are regularly used.
c. While the industry claims that most of the fracking fluid is water and sand, and less than 1% is made up of these hazardous chemicals, at millions of gallons a frack, even ½% constitutes a significant amount of hazardous material.
d. If there is a major contamination incident in, say, the areas where New York and Philadelphia obtain their drinking water, the disaster that would be created is
obvious. Are we sure that drilling is safe enough to avoid this kind of a disaster?

III. Waste Disposal
   a. Somewhere between 20% and 40% of the fracking fluid is returned to the surface as processed waste water. Moreover, this waste water not only contains whatever hazardous materials were in the fracking fluid, but also picks up naturally occurring contaminants from the ground such as heavy metals and radiological materials.
   b. This will require the disposal of billions of gallons of hazardous waste.
   c. First, temporary storage is necessary, which has largely been in open pits at the well site.
   d. The industry points to public treatment works for permanent disposal, but the amount of material contemplated would overtax existing waste water facilities.
   e. A solution to the waste disposal problem has not been found.

IV. Aesthetic and other environmental effects
   a. Traditional drilling used an approximately one acre well pad. Horizontal drilling uses up to a five acre well pad, and usually 30 acres are necessary when disposal pits and out buildings are included.
   b. Roads need to be built to the well site.
   c. Pipelines are necessary to move the gas.
   d. Stripper plants are necessary to process the gas, which in at least one of our cases, caused significant odors in the neighborhood around the plant.
   e. Huge amounts of truck traffic is necessary to bring the water to the site, and remove the waste. Some estimates are 1000 truckloads per frack at each well.
   f. The Southern Tier of New York where the drilling will occur is largely agricultural. Ten thousand wells will turn the Southern Tier into an industrial zone, also impacting tourism, which is the number one economic engine in New York State.
   g. No environmental review has considered the aesthetic and other effects on historic viewsheds, wetlands or other significant environmental amenities.
   h. Finally, the new Forest Management Plan just adopted by the DEC may allow for drilling in the State forests. Pennsylvania has opened up both the State parks and forests to drilling.

V. Potential upcoming legal Issues
   a. Hydrofracking In the State Forests
   b. Whether the DEC environmental review of Hydrofracking will comply with the requirements of SEQRA
c. Whether Municipalities have the right to ban, as opposed to regulating, hydrofracking

d. Common Law lawsuits by neighbors harmed by gas drilling