How can we respond?

The New York State Department of Environmental Conservation (DEC) is tasked with protecting our environment, including air, water, and land. They have released a Supplemental Environmental Impact Statement (SGEIS), which establishes guidelines for this new method of gas drilling (www.dec.ny.gov/energy/58440). Due to severe budget cuts, they have around 17 inspectors to make sure that the gas companies obey the laws and do their jobs properly. When the SGEIS comes out, local residents need to read it and then send prompt comments to the DEC. In Danby, we formed a Marcellus Shale Gas Drilling Task Force, to work with leaseholders and non-leaseholders to understand the situation, and to respond to the state government and DEC about our concerns. Keeping up with the issue is hard, but we have excellent coverage in our local newspapers, and we can also write to them to express and share our findings and views (the Ithaca Journal, The Broader View, and Tompkins Weekly).

We can attend Town Board meetings and gas-related forums at the Danby Town Hall, which are usually advertised in the Danby Area News. Our Town Board has been very active in informing the community on gas drilling. They are currently working on ordinances (road, storm-water, etc.) that protect our community resources. We can talk to our neighbors. We can write to our Town, County and State representatives with our concerns and hopes... and expectations for their action.

Gas Drilling in the Marcellus Shale

The Technology

Hydraulic fracturing ("fracking") has been developed to extract natural gas from deep formations such as the Marcellus Shale, which underlies the Finger Lakes region, as well as most of Central New York, Pennsylvania, and West Virginia. This is not the simple, relatively safe, shallow gas well familiar to most people.

Fracking shafts are drilled vertically for as much as a mile or so, and then turn horizontally, traveling through the gas bearing shale. Multiple wells can be sunk from a single drilling pad. Millions of gallons of water, under enormous pressure, are used for each shaft to split the rock. Every well shaft requires several semi-trailer sized diesel compressors running constantly, to develop the pressure. Huge trucks transport the water, 24 hours a day, 7 days a week. In addition to water, sand is in the fracking fluid to keep the shale open. To increase the effectiveness of this liquid "hammer," a vast array of surfactant and microbicidal chemicals is added to the water. The drilling companies call the chemicals "proprietary", and have not let the public know exactly what is being pumped into the ground. After drilling, some portion of the fracking mix is removed, containing toxic and radioactive chemicals, both from the original proprietary fluid, and also newly unearthed from the deep underground.

These millions of gallons of toxic wastewater are often stored at the well site, and a safe treatment has not yet been agreed upon. If the gas itself contains unwanted or toxic impurities, these are removed by flaring into the atmosphere at the well site.

Environmental Impact

The enormous amounts of water for fracking are taken from local supplies. The effects of excessive water use in the Northeast are not fully researched, but depletion of water supplies and toxic concentration of salts and minerals have both been observed in other parts of the country. Furthermore, there is no safe method for permanent disposal of fracking wastewater and contaminant chemicals. Local treatment facilities cannot handle this type of wastewater. Evaporation in artificial ponds risks toxic runoff into local groundwater, and produces a toxic sludge. And transporting the vast amounts of toxic wastewater to other processing sites increases the risk of accidental spills.

Gas produced from fracked wells must be delivered immediately. This requires construction of a pipeline network with resulting destruction of many miles of forest landscape and habitat.

Adequate monitoring of drilling and production operations will require a large and expensive New York State inspection staff, which currently does not exist.

The economic benefits of gas drilling are speculative at best. No one knows how much quality gas reserve is recoverable. Looking back after a period of 20 years, we may see that the economic benefits were greatly outweighed by the costs to the local community.

Economic Impact

Upstate New York is a scenic region with a diverse economy of tourism, specialty agriculture, higher education, small business, and recreation. Extensive gas drilling will significantly alter our rural landscape, diminishing the comfort and desirability of locating here. It could also lead to severe degradation of soil and water, with adverse effects on all aspects of economic life.

The promise of new jobs and revitalized economies due to drilling has not been realized. Outside companies oversee all of the drilling operation, and they do minimal local hiring.

Communities in Texas, where there is ongoing drilling, report population losses and abandoned properties, resulting in a devalued tax base. Higher-income residents leave, and those who stay pay higher taxes to repair infrastructure damaged by drilling and well production. Mortgages become hard to get, and it is difficult or impossible to sell properties.

Infrastructure Impact

Drilling, fracking, and pipeline operations involve large machinery and heavy truck traffic. Wells are typically in rural areas where roads are not built for this kind of use. Under the added pressure of heavy truck use, our roads will disintegrate even more quickly than experienced in the Southern and Western gas drilling areas, because of the freeze/thaw cycle in New York State.

Local fire and medical services are not trained to deal with large-scale drill-site disasters. Fracking chemicals are not publicly disclosed, so exposure for rescue personnel and local inhabitants is especially dangerous.

A large number of water supply contaminations have already occurred with fracking (Pennsylvania, Wyoming). Contamination of our ground water and deep aquifer by the chemicals used in gas drilling is a permanent effect that will never go away. Without water, we cannot live.