

GAS DRILLING: COMING TO A FIELD NEAR YOU?



Field photos: © Marie Read



This is our home...

**REPRINT #2
UPDATED ARTICLES!
SEPTEMBER 2011**



how will FRACKING change it?



“**Hydrofracking** is coming to NYS,” is the pitch New Yorkers have heard for years now. **In fact, NYS can still decide whether or NOT to allow this form of fracking.** While the gas industry paints a rosy picture, the experiences of other states tell a different story. We have the opportunity to look hard at all the available data and make a good choice for our state.

What is fracking, or hydrofracking? They are both shortened versions of “hydraulic fracturing,” usually referring to high volume slickwater hydraulic fracturing that is used to extract methane (or “natural”) gas from layers of shale deep underground. While some forms of hydraulic fracturing have been used in NY State, we have not yet experienced high volume slickwater hydraulic fracturing – and Pennsylvania’s experience with the process and the industry surrounding it has been a strong cautionary tale for NY.

Current Status At the time of this printing, the statewide moratorium on hydrofracking has expired and NYSDEC has just released the latest draft of their Supplemental Generic Environmental Impact Statement (SGEIS) on Hydraulic Fracturing, a document that outlines recommendations for regulating the process. There is a 90-day comment period ending on December

12, 2011. The previous draft SGEIS drew 13,000 comments. Many groups are calling for a longer comment period, given that the SGEIS runs over 1000 pages on this very complicated and crucial topic. Once the comment period ends, the DEC will finalize the SGEIS, and plans to begin permitting fracking.

Can it be regulated effectively? Some people are working towards strict regulation, oversight, and disaster remediation. Others look to Pennsylvania and conclude that all the planning in the world can’t make this a safe process, and want a state-wide ban. Many local governments have already passed bans on high volume hydrofracking. There is considerable pressure from the oil and gas industry on federal and state governments to allow HVHF as soon as possible with minimal oversight. It is very important for NYS residents to understand that the DEC is tasked with both regulating and promoting oil and gas extraction in NY. While it is doing everything it can to protect us, the ultimate decision of whether or not to allow high volume slickwater hydraulic fracturing in NY must be made at a higher, political level – which is influenced by the will of the people of NY. The only way to protect ourselves is get informed and act. This handout is intended as a starting point to do just that.

A shout-out to some of the hundreds of local groups across NY and PA that are concerned about shale gas drilling / hydrofracking – find who’s nearby and get involved! Shaleshock - ShaleshockCNY - Neighbors of the Onondaga Nation (NOON) - Izaak Walton League - Citizens Campaign for the Environment - Sierra Club Atlantic Chapter (Gas Drilling Task Force) - Gas Drilling Awareness of Cortland County (GDACC) - NY Residents Against Gas Drilling (NYRAD) - Otisco Lake Preservation Association - Catskill Mountainkeeper - FrackAction - Environmental Advocates of NY - Chenango-Delaware-Otsego Gas Drilling Opposition Group (CDOG) - (F)leased - Enfield Neighbors for Safe Air and Water - Neighbors United for the Fingerlakes (NUFF) - Dryden Resource Awareness Coalition - Residents Opposing Unsafe Shale-gas Extraction (ROUSE) - Earthworks / Oil & Gas Accountability Project

Fracking New York State

To drillers, “hydrofracking” refers to a very precise moment in the development of a well, the injection of fluids under high pressure to break bedrock. There have been methods of doing this used in NY since the 1940s, a fact that gas industry officials like to tout to support their claims that the process is safe. What has not been done here, and is wreaking havoc in other states, is a new process developed in the 1990s known as high-volume slickwater hydraulic fracturing. What a mouthful! Can you blame people for shortening this to simply “hydrofracking” when they talk about it?

Most people consider “hydrofracking” to mean this new process and all supporting processes, such as trucking, drilling, casing the well, disposing of flowback fluids, etc. It is shorthand for a method and scale of gas drilling that is new to NY. The industry’s claims that hydrofracking is safe rely on their very narrow definition of hydrofracking; they don’t, for example, consider a well casing failure that sends natural gas into a neighbor’s drinking well a “hydrofracking accident”.

injection into the gas well. The chemical combinations in the fluid have been closely guarded, with much of the technology owned by Hal-

liburton. However, analysis of samples in Colorado, Wyoming and New Mexico revealed diesel fuel and “over 200 different kinds of chemicals, over 95% of which have adverse effects including brain damage, birth defects and cancer.” The gas industry reassures us that fracking fluid is only 0.5% chemicals. Do the math (0.5% of 5.6 million gallons = 280,000 gallons of chemicals each time) and any reassurance quickly dies.

Toxic Water Out Some of the fracking fluid (estimates range from 15-70%) comes back out, but the fate of the rest is unknown. Does it stay trapped in the shale, or eventually move through soil and rock layers, reaching underground water supplies? What does

come out (called “flowback”) is even more hazardous than what went in because fracturing releases radioactive materials (such as radon and radium), heavy metals (such as arsenic, lead, mercury), and many salts from the shale. Some drilling enthusiasts have suggested that “green” fracking fluids might eliminate all the soil, air, and water pollution created by drilling, but the sad reality is that even if pure water were used in place of fracking fluid, the resulting flowback would still be polluted. Once drilling is completed and the well is producing natural gas, it continues to generate waste fluids as the gas comes out of the ground mixed with water. This “produced water” or “brine” is also toxic, and must continually be trucked away. What happens

to the enormous quantities of contaminated wastewater retrieved from the wells? There are problems with the three options tried so far:

Processing through standard wastewater treatment plants

In October 2008, 350,000 Pittsburgh residents were told to use bottled water because of the high level of contaminants in their water supply from the Monogahela River. The municipal treatment plants were unable to process drilling waste water sufficiently. In NY, wastewater treatment plants accepting flowback fluids (like Watertown, NY) have done so in very small quantities, depending on the old erroneous belief that “dilution is the solution to pollution”; if you can’t detect it, it’s not there. This method will not handle the quantities proposed from widespread drilling.

Got References?

We do! Check out the online version to learn more about the facts and figures quoted throughout this handout, and discover more in-depth information.

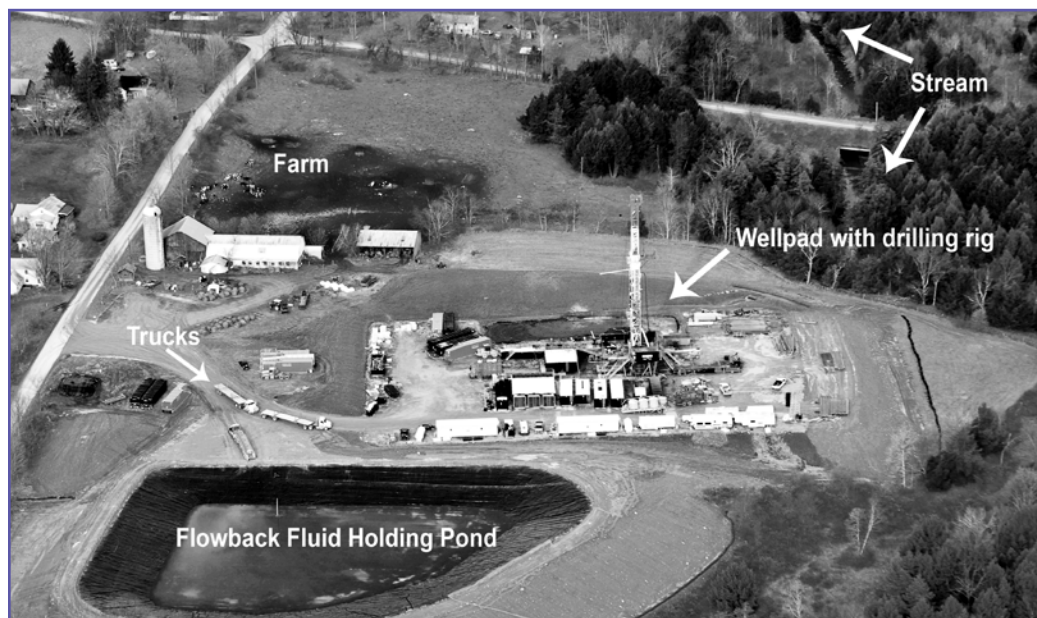


Photo courtesy of Laurence P. DeWitt and Environmental Advocates of NY. For more aerial photos visit www.eany.org

The 14 neighbors in Dimock, Pennsylvania who have lost their water beg to differ. The EPA is considering using this broader definition as they undertake their study into how hydrofracking affects drinking water, but are under pressure to use the industry’s narrow definition.

Our water is our most precious resource...

Fresh Water In An average of 5.6 million gallons of fluid is used per “frack job”. Each well can be fracked multiple times. The fresh water used is taken from lakes, rivers, streams, and aquifers. The Susquehanna River Drainage Basin requires permits and regulates water withdrawal, but nothing similar exists yet for the Great Lakes watershed. Sand and a chemical cocktail (see T. Shelley article on page 3) are mixed with the water before

continued on page 8

The Hazards of Chemicals Used in Hydrofracking

Tom Shelley

"This stuff is so safe you can drink it"—or so the gas drilling industry would like us to believe. They also compare chemicals used in high-volume, slick-water hydrofracking processes to those found in common household cleaners. Indeed, some small set of those hazardous materials are found in some household products, although many are not. Those that are, often are accompanied by poison control labels.

It is estimated by the DEC that 9 to 35 percent, or about 90,000-350,000 gallons per million gallons used, of fracking fluid immediately comes back out of the ground in the form of "flow back" water. Over time, a similar amount of "produced water" is delivered to the surface with the gas produced by the well. This produced water contains some of the fracking chemicals and is further contaminated by heavy metals and radioactivity, along with compounds that are formed by the interaction of the fracking fluids in the hot underground environment with the natural materials in the rock itself. Large amounts of strong salt solutions (brine) are also components of the produced water. These contaminated brines are difficult to dispose of safely.

These fluids are typically stored in ponds near the well pads until they are transported to treatment facilities or off-site storage, such as injection wells. The ponds have leaked and contaminated soil and surface water around the ponds. Volatile organic compounds (VOCs), many of which can cause moderate to severe health problems, evaporate from the ponds before the contaminated water can be removed for processing or off-site storage.

Almost all "flow back" and "produced water" would be classified as hazardous industrial waste if the gas industry were regulated as thoroughly as other chemical-

intensive industries. Unfortunately, the industry has a long history of NOT being regulated under federal RCRA (Resource Conservation and Reclamation Act) or state hazardous waste regulations. The health of the communities around natural gas drilling suffers due to of this lack of regulation.



Above: Chemical transport trucks on a drilling site. Photo: NYS Department of Environmental Conservation



Right: A 2007 hydraulic fracturing operation on a Marcellus Shale gas well showing the number of trucks involved. Photo: US Geologic Survey

Chemicals and compounds of concern

Here are some of the more commonly used hazardous materials of concern found in the products used in the fracking process:

Benzene and other aromatic hydrocarbons such as toluene, ethylbenzene and xylene (BTEX). These volatile organic compounds (VOCs) are widely found in gasoline, petroleum distillates, diesel fuel and other petroleum-based products that are or have been in the past used in the fracking mixtures.

Polyaromatic hydrocarbons (PAHs) are larger molecules made up of benzene building blocks. All of the above compounds are found in produced water as well as some of the fracking mixtures.

The BTEX suite of hydrocarbons are known carcinogens (leukemia), cause

damage to the liver, central nervous system (narcotic effects) and other organs, may cause damage to fetuses, and may cause genetic changes, as well as being irritants of the skin.

Formaldehyde is a gas, used in an aqueous solution. It is used in low concentration, but is very toxic and dangerous even at these low concentrations. It is used as a biocide along with many other very hazardous chemicals. It is a known carcinogen, a severe irritant (eyes, skin, lungs), a systemic poison, and will cause an allergic reaction with repeated exposure.

1,4-Dioxane causes damage to the central nervous system, liver and kidneys. It is toxic, an irritant, and also a probable carcinogen.

Heavy metals—arsenic, barium (dissolved), cadmium, chromium, cobalt, lead, molybdenum, nickel, selenium, silver, strontium, thallium—are found in both the "flow back" water and the "produced water." Some are components of the fracking chemicals, and others are from the shale itself.

2-Butoxyethanol is readily absorbed by skin or by inhalation. It is an

irritant, causes central nervous system effects, may damage the liver, kidneys and lungs, and is a suspected carcinogen. It is also a known endocrine disruptor with effects noted at extremely low concentrations.

There are dozens of other hazardous materials in use in the fracking "chemistry" and the byproducts of the fracking process, all of which can cause serious individual or public health problems if allowed to enter our air or water. We have seen serious instances of such problems in various Western states and close by, very recently, in Pennsylvania.

For more information on hydrofracking chemicals and health effects, check out Dr. Theo Coburn's work with The Endocrine Disruption Exchange at endocrinedisruption.com.

Tom Shelley is a chemical safety and hazardous materials specialist in Ithaca, New York.

Mineral Leases: How NYS Is Being (F)leased

Michael Bosetti

Over the past few years, the gas industry quietly acquired thousands of gas lease agreements encompassing millions of rural acres across several states. Lease activity intensified in NYS with the expectation that high volume hydrofracking would be permitted in the Marcellus Shale region. Landmen blanketed the targeted counties, often using a "standard" industry lease about 3 pages long. Landholders were rarely, if ever, informed of the different gas drilling method to be used, or of the potential hazards to water, air, soil, people and animals. A lot of people didn't know to read the fine print that wasn't there.

These leases run with the land. Once a landholder signs an agreement, that contract is passed along to subsequent holders of the property – whether they want it or not. Gas companies also attempted to fraudulently extend old leases. In November 2009, then Attorney General Andrew Cuomo said, "Many of these companies use their size and extensive resources to

Michael Bosetti is a Cortland County landowner who successfully terminated his expired lease.

manipulate individual property owners who often cannot afford to hire a private attorney. This land grab practice must stop."

The amount of land under lease also impacts how much adjacent land can be subject to compulsory integration (see Bernhard, page 5). Gas companies are also allowed to seize land through eminent domain for compressor stations and laying pipeline. Heavily leased areas are at higher risk for both.

Consider this: the Joint Landowner Coalition lease is nearly 40 pages. The 2006 DEC agreement leasing NYS forest land runs 90 pages. But even leases with the most protective language do not truly protect the land or landholder. They only provide a legal option when something goes wrong.



Many people who signed the so called standard industry lease now believe they were duped.

An organization, Fleased, is working with landholders to document their experiences and explore legal action. Contact Fleased at fleasedny@gmail.com.

Hydraulic Fracturing Threatens Drinking Water

Sue Smith-Heavenrich

Dusty Horwitt, senior counsel for Washington DC-based Environmental Working Group (EWG), recently visited upstate NY to speak about the risk of gas drilling to drinking water. His focus: that drilling companies continue to inject petroleum distillates into their mix of fracking chemicals.

Diesel, used for years as a friction reducer in drilling, is regulated under the Safe Drinking Water Act (SDWA) because of its high benzene level. Companies can still use diesel, but they need to get a permit from the US EPA. For the most part diesel gets ignored while companies use other petroleum distillates—the ones that don't need any permits.

That practice, warns Horwitt, is threatening drinking water supplies from Pennsylvania and New York to Wyoming. Just four months ago he released Drilling Around the Law, an EWG investigation into petroleum-based fracking chemicals used by companies drilling for natural gas.

Because of exemptions allowed for fracking, drilling companies are allowed to inject kerosene, mineral spirits and a number of other petroleum distillates into wells. Horwitt notes that these distillates often contain high levels of benzene. Benzene is a carcinogen so toxic that the EPA says more than five parts per billion (ppb) in drinking water is unsafe. That's the equivalent of five drops of benzene in 500 barrels of water.

"Ironically, these other petroleum distillates can contain 93 times more benzene than diesel," Horwitt said. Petroleum naphtha contains 93,000 ppm benzene – 18.6 million times higher than the EPA standards.

How much benzene might potentially contaminate NY drinking water?

Drilling horizontal wells in Marcellus and other shales will take anywhere from one to eight million gallons of water and fracking chemicals per well.

continued on page 6



Dusty Horwitt talks with residents about potential impacts of hydrofracking on drinking water. Photo: Sue Heavenrich

Haudenosaunee Statement on Hydrofracking

On November 5, 2009 the Haudenosaunee Environmental Task Force, a scientific agency of the Haudenosaunee Confederacy, issued a strongly worded statement calling for a ban on hydrofracking. Visit bit.ly/diJb1q to read the statement.

"Representatives of the Onondaga Nation and the Haudenosaunee Environmental Task Force have visited communities impacted by hydrofracking in Pennsylvania. We have seen first-hand the impacts of hydrofracking...even when things are done 'right' the impacts are devastating."



How NY Can Force You to Allow Gas Drilling Under Your Property

By Mike Bernhard

Landowners who have rejected a landman's attempt to lease may think they have the final say in protecting their lands and families—but they do not. DEC can force landowners to surrender their subsoil rights. Here is how:

When it applies for a permit from the DEC to drill a well, the gas company proposes a "Drilling Unit" from which gas will be extracted [by horizontal drilling]. The unit boundaries may cut across property lines and include parts of, or all of, unleased properties.

If the driller affirms (rather than provides evidence) that 60% of the land surface in the proposed unit is leased or owned outright, the DEC will schedule a Compulsory Integration hearing (in Albany on Tuesdays) which will give the driller the remaining landowners' subsoil gas rights to that gas formation. This process serves to extort acceptance of the gas company's lease offer.

Of the three "options" offered to the integrated property-owner (30 days before a hearing), most landowners choose to receive royalties at a rate equal to the lowest rate paid to lessors in that unit.

The other, riskier "options": going into partnership with the driller by sharing upfront the drilling and maintenance costs of the well; or owning all production attributable to his/her integrated acreage after the driller has triple-covered his or her costs. These also involve the assumption of liability on the part of the landowning "partners."

If my property is integrated, what happens?

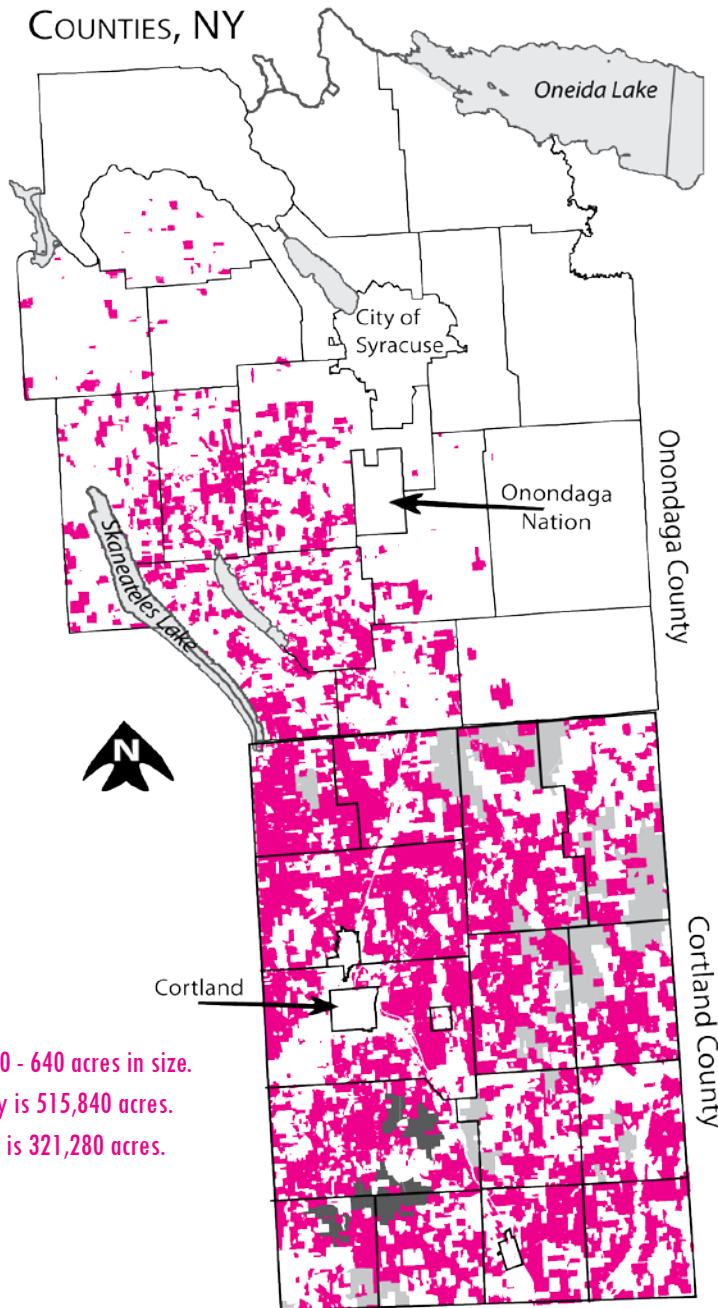
The integrated property can be "mined" of its gas. The new horizontal drilling techniques have increased the likelihood of multiple hydraulic fracturing events far from the wellhead.

Integrated owners have no power to specify environmental protections, protect their property values, prevent the storage of commercial gases or the injection of used fracking fluids under their homes, nor prevent storage-associated access or pipeline easements taken by eminent domain.

So, if your neighbors have leased or sold to the gas corporation, there's a good chance your property will suffer the impacts of gas drilling, which is almost completely exempt from federal environmental law, and minimally regulated by New York State. However, if you and your neighbors deny them the 60%, then they can't drill.

Most importantly, by not signing a lease, you give them no rights to do anything on the surface of your property.

GAS LEASES IN ONONDAGA AND CORTLAND COUNTIES, NY



Drilling units are 40 - 640 acres in size.

Onondaga County is 515,840 acres.

Cortland County is 321,280 acres.

- Land where gas drilling / hydrofracking may occur (Gas companies have leased the mineral rights)
- Leased State Forest Lands
- State Forest Lands not yet leased

Excerpted from an article written by Mike Bernhard of the Chenango Delaware Otsego Gas Drilling Opposition Group (CDOG). Read the full article, including ways to oppose compulsory integration, online at un-naturalgas.org.

Map created November 2010 by Lindsay Speer
Lease data for Onondaga County and Cortland County compiled by
Neighbors of the Onondaga Nation, February 2010
and Cortland County Planning Department, August 2010

Gas Drilling: Economic Boom or Bust?

Joan Tubridy

On January 19, 2010, New York State Oil and Gas industry lobbyist Brad Gill stated that because of gas drilling [using hydrofracking], Pennsylvania is “thriving with tens of thousands of jobs and tremendous economic vitality.” We must closely scrutinize the widely-held assertion that the economic benefits of gas drilling in shale will outweigh its true costs.

Won't gas drilling bring jobs and 'economic vitality'?

Not many jobs have been created after two years of intensive drilling in Pennsylvania, where crews are often brought in with the rigs. New York's and Pennsylvania's unemployment rates from 2005 to the present run neck and neck, and the current average weekly wage in New York is \$868 compared with \$805 for Pennsylvania. At their April 14 meeting, Commissioners of Susquehanna County, PA, a county of intense drilling activity, adopted a resolution designating the county a “Recovery Area”, denoting significant poverty, unemployment, home foreclosures, or general distress.

Will gas drilling have an effect on other economic endeavors?

Existing industries such as grapes, wine, agriculture, tourism, outdoor recreation, hunting, and fishing are threatened by industrial shale gas drilling. The estimated potential gain of \$22 billion from gas drilling in New York State over the next 20 years pales in comparison with the projected gain of \$300 billion from these other industries over the same period. A diverse economy will be ruined and replaced by a boom and bust industry.

Could there be increased tax revenues to municipalities?

While energy boomtowns see revenues increase from gas drilling, it is rarely enough to meet the increased demands on infrastructure, maintenance, and administration. Deprived of local control over gas extraction, municipalities will face new costs without adequate funding of base-line water testing, emergency response, health department monitoring of complaints, tax assessment changes, and demands on school systems.

Will the economic benefit to local communities exceed the infrastructure costs of building and repairing roads?

The NYS DEC's own figures project 715 to 2615 truck trips per single gas well. Communities have seen a rise in road repair and infrastructure costs that far exceed the revenues generated by gas drilling. Without adequate bonding, taxes will increase.

Will there be any effect on social services, emergency services, and law enforcement from gas drilling?

Areas of gas drilling activity have experienced increases in crime and drug use; demands on emergency services from chemical spills, fires, accidents on the rigs and on the roads; demands on health care/emergency room services; and requests for housing assistance by non-industry residents.

Will property values be affected by gas drilling?

The Department of Housing and Urban Development Handbook states, “A property with a gas or oil lease is therefore not eligible for Federal Housing Administration financing...” and,

“No existing dwelling may be located closer than 300 feet from an active or planned drilling site.” This will affect leased as well as adjacent unleased properties. Visions Federal Credit Union, located throughout the Southern Tier and in Syracuse, will not give a mortgage loan secured by the property if there is an oil and gas lease on the property. Some insurance companies have either raised premiums or will not insure properties with gas leases, considered business exposures with increased risk of injury.

Won't landlords enjoy higher rents from gas rig workers?

Yes. And homelessness is on the rise in areas of gas drilling activity, as fixed income residents and those not involved in the industry are squeezed out of affordable housing by industry workers able to pay higher than average rents.

The economic considerations above do not even attempt to address the enormous environmental and health concerns of water, air, and soil pollution from gas drilling. A more in-depth analysis is available in Dr. J. M. Barth's March 2010 white paper. When the drill rigs roll into town there will be winners and losers, the haves and have-nots, but even the winners will lose.

Joan Tubridy is a middle school teacher and member of Chenango Delaware Otsego Gas Drilling Opposition Group (CDOG). After two years of intense study of unconventional gas drilling, CDOG stands firm in its demand for a statewide ban of this practice.

**Maps of gas leases in CNY are available through
NOON: www.peacecouncil.net/noon/**

Drinking Water... continued from page 4

The companies insist that they only add small amounts of petroleum distillates into the frack fluid. “Point zero eight (.08) percent,” Horwitt said. “It sounds like a miniscule amount, but do the math.” He calculates that anywhere from 800–6400 gallons of petroleum distillates could be injected for a single frack job.

“That's enough to contaminate more than 100 billion gallons of water,” Horwitt exclaimed. “More than ten times the amount the state of New York uses in a single day!”

Horwitt would like to see the exemptions for oil and gas drilling eliminated; he thinks they should obtain a permit for any chemical they inject. “Why require a permit for only one type of petroleum chemical?”

Furthermore, when he asked Department of Environmental Conservation officials whether they checked to see what chemicals companies are injecting, the response was no. “They [drillers] could easily be injecting diesel,” Horwitt said. And indeed, Halliburton, Schlumberger and other companies have admitted doing just that in some states.

Dusty Horwitt's full report can be found at ewg.org/drillingaroundthelaw.

Sue Heavenrich is a freelance journalist writing about Marcellus gas issues, the environment and science for local media. She is a member of the Society of Environmental Journalists.

Time for New Energy Policy

Sarah Eckel

Energy policy is never simple, and in the US it reflects the profit-driven interests of Big Oil and Gas. If we are to refocus our energy development to renewable energy then we must change the policy, because policy drives investments.

Energy policy rewards fossil fuels

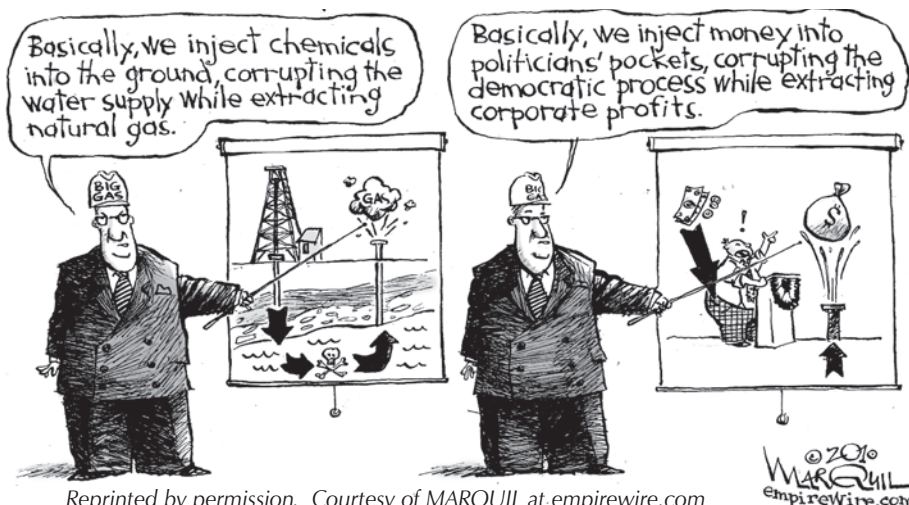
It's no secret that we are overly dependent upon foreign fossil fuels. Interest in developing domestic sources of fuel has shaped the direction of the US energy policy. Following passage of the Energy Policy Act of 2005, tax breaks, subsidies and exemptions for oil and gas companies reached new heights, giving these companies increased exemptions from federal environmental regulations like Superfund, the Clean Water Act, and the Safe Drinking Water Act. The Energy Policy Act of 2005's subsidies and tax breaks were directed to reducing carbon emissions, however the choice for that policy was to direct the majority of public subsidies to nuclear power and "clean-coal" technology with a token nod to renewable energy. In addition, efforts to end oil and gas subsidies in 2007 were eventually stripped out of the final energy bill. How energy is developed in the US remains guided by a reliance on fossil fuels because we continue to reward those technologies. The Obama Administration has made significant investments in renewable energy, smart grid technology, and energy efficiency, especially compared to the previous Administration. Unfortunately, Obama's Administration is still giving the lion's share of benefits to conventional energy production.

In 2009, New York State revisited its Energy Plan. It took a good step in the right direction, valuing the benefits of renewable energy and energy efficiency. Unfortunately, it also continued to place too much value on the use of fossil fuels, including natural gas. However the primary shortcoming with New York's Energy Plan is not its continued dependence on fossil fuels, but that it is not enforceable and is only a guidance document for state agencies.

Hope for the future

Moving our state and country away from fossil fuels will take much more than guidance documents and token investments in renewable energy. Currently in the US House and Senate is a bill that would reverse the Safe Drinking Water Act exemptions currently given to the gas companies, called the Fracturing Responsibility and Awareness of Chemicals Act (FRAC Act).

Sarah Eckel works for Citizens Campaign for the Environment as the Policy Analyst. CCE is a grassroots advocacy organization that empowers communities and advocates solutions that protect public health and the natural environment. Contact Sarah at seckel@citizenscampaign.org.



Reprinted by permission. Courtesy of MARQUIL at empirewire.com

It is important to start removing the exemptions given to oil and gas companies and hold them accountable. Here in New York a laundry list of bills exists that only deal with hydraulic fracturing. In the end, however, we must move away from fossil fuels. Pushing for a strong investment in a sustainable energy future will require citizens demanding that government reward and invest in renewable energy technology. We must increase the call to our elected officials that energy policies focus on energy technology that does not pollute.

TAKE ACTION NOW!

COMMENT ON THE SGEIS

<http://1.usa.gov/sgeis>

BAN HYDROFRACKING

Get involved statewide
at frackaction.org

Get your town to limit or
ban fracking

<http://bit.ly/townregs>

DEMAND STRINGENT REGULATIONS

Visit citizenscampaign.org to find out the current legislation to support. Contact your legislators to demand that no permits are issued until regulations are codified.

SEND COPIES OF YOUR COMMENTS AND LETTERS

TO...

Governor Andrew Cuomo
NYS State Capitol Building
Albany, NY 12224

Your State Legislators

www.nysenate.gov
assembly.state.ny.us

Your Federal Legislators

www.house.gov
www.senate.gov

Dr. Steven Chu Secretary of Energy

The.Secretary@hq.doe.gov

Visit ShaleshockCNY.org to find local ways to get involved in protecting our communities and environment from exploitive gas drilling.

Fracking NY State / from page 2

Open evaporation pits/tanks

These are used in the arid southwest climate resulting in serious problems (see the film *Split Estate*); they are not considered practical for our climate as they are apt to overflow.

Deep well injection

Pumping the waste into non-producing gas wells is highly controversial since nothing is known of its long-term safety.

In October 2009, Chesapeake Energy submitted a permit application to the NYSDEC to create a disposal well in Pulteney, NY, less than 1 mile west of Keuka Lake. The company has withdrawn its application, but it had planned to inject up to 181,440 gallons of toxic brine per day for 10 years from hydrofracked wells in NY and Pennsylvania.

Deep well injection has been associated with frequent small earthquakes in parts of Arkansas and Texas. Arkansas took action to shut down some wells in 2011 for this reason.

Air and Noise Pollution

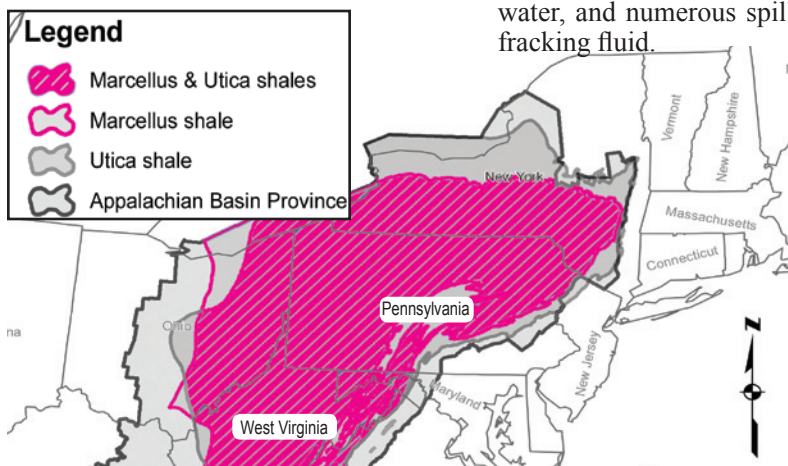
Diesel generators, drill rigs, huge tanker trucks for transporting fracking components to and from well sites, compressor stations operating 24/7 for the life of a well (up to 40 years) — every piece of equipment needed for hydrofracking generates significant air and noise pollution. Add in well flaring, venting, routine gas leaks. Now imagine the visual pollution of our beautiful upstate NY landscape by the clearcutting needed to build thousands of wellpads covering 3-5 acres apiece, compressor stations, pipelines, huge tanker trucks demolishing rural roads and degrading the adjacent soil, water and wildlife habitat. For the dirty details, please visit tcgasmag.org or ProPublica.org.

There now exists a clear record across the US of serious problems caused by gas extraction operations using hydrofracking. These include methane migration resulting in exploding wells and ignitable drinking water, increased ground-level ozone, carcinogens and neurotoxins in air and water, and numerous spills and leaks of fracking fluid.

Yet in the face of all this, the industry maintains that fracking is safe, and denies responsibility—even while acknowledging that accidents will happen. Oil spill in the Gulf, anyone? The pollution exemptions granted the oil and gas industry under the 2005 Energy Act are not accidental; neither are the subsidies, tax advantages or royalty relief the Act provides. Safe drinking water, clean air and water, even our right to obtain critical information were whittled away.

Each state is on its own to oversee fracking. We in NY are being warned and informed by the tragic experiences of many other states. The DEC has only 17 staff to enforce drilling regulations throughout the entire state, which already contains 13,000 active oil and gas wells. It is critical that we insist that NY look past the dollar signs of leasing bonuses and potential royalties (the DEC has leases on 63,591 acres of state land), and see the true costs to people and the environment.

Adapted by Marilyn Willits and Lindsay Speer from material by Sandy Podulka at www.tcgasmag.org



Geographic extent of shale layers targeted for drilling. Image: NYSDEC

This insert was created by **Neighbors of the Onondaga Nation (NOON)** and published as a special section in the June 2010 Peace Newsletter, published by the Syracuse Peace Council. Subscriptions are only \$15/year.

Contact: 2013 E. Genesee St., Syracuse, NY 13210

(315) 472-5478 or www.peacecouncil.net.

For more information on NOON, visit

www.peacecouncil.net/noon

Accept the Marcellus Challenge!

Hydrofracking poses unacceptable risks to our region; yet drilling advocates insist that the constantly increasing demand for natural gas means that extraction is inescapable. But what if demand for natural gas stopped growing, or even fell? What if more people embraced moving straight to a clean energy future, bypassing an era of massive hydrofracking?

We invite you to accept the Marcellus Challenge. Pledge to reduce your consumption of natural gas and other fossil fuels. We'll collect your pledges, provide you with resources, and share our results with media and elected officials. If you've already taken steps to reduce your fossil fuel consumption, please let us know so that our movement can take credit for changes that have already been made. It's very simple and quick: go to sustaina-

PLEDGE TO REDUCE WHERE YOU CAN



Marcellus Challenge

Smart energy use. A more sustainable community.

sustainabletompkins.org

bletompkins.org and look for the Marcellus Challenge button.

Together we can say no to destructive, extractive industries...and say yes to green jobs, responsible lifestyles, and wise stewardship of our land and water.

—Gay Nicholson, President, Sustainable Tompkins