

GOOD TIMES BAD TIMES



MAY 2010

A RESIDENTS GUIDE TO GAS DRILLING

ISSUE #1

Many of us have read articles in the papers or seen the news on TV about what happened in Dimock, PA last year – more than a dozen drinking wells were contaminated after an explosion caused by drilling in a neighboring gas well.

Three months before the explosion, our own County Board of Supervisors overwhelmingly passed a resolution (#191) in favor of gas drilling, in which they cite the following example as evidence: ***“in the Town of Dimock in nearby Susquehanna County Pa., Cabot Oil and Gas projects annual revenues from gas production would yield nearly \$23 billion with annual royalty payments of \$2.9 billion to local landowners.”***

Since Dimock has only about 1400 residents, that would mean more than \$2,000,000 for every man, woman and child, every year. What they are telling us just can't be right. So a few of us in Meredith have formed a group and done some independent research to try to get a better picture of what is really likely to happen in our town if drilling is allowed. The following is what we have found out so far.

THINGS YOU SHOULD KNOW BEFORE YOU SIGN A LEASE

1) **Landowner Coalitions.** If you join a coalition, make sure you understand how much you will have to pay if you sign one of their leases. Some coalitions charge you, some get a percentage from the gas companies for every lease they deliver, while others are only a loose, informal group, sharing information, with everyone just trying to lease their own land.

The coalition usually gets a fee based on the number of acres you lease, often between \$25 and \$50. Whatever you pay, you'll pay up front, even if a gas well is never drilled. If you're looking for a gas lease with the maximum protection for yourself, be warned: coalition leaders often try to persuade members to drastically lower their expectations – “the economy is very weak now” or gas prices are really low, etc. – for fear that too many demands will make the gas companies go elsewhere. If that happens, they will lose their fees.

2) **The Bonus.** Sign-up bonuses have gone up and down over the last 2 years from anywhere between \$50/acre to

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THINGS YOU SHOULD KNOW IF YOUR NEIGHBOR SIGNS A LEASE

1) **The Unit.** Your neighbor is part of a “pool” or “unit,” covering an area of 640 acres (1 square mile), designated by the gas company in its permit application. By law, gas drillers can place up to 16 horizontal wells within each unit, spaced every 40 acres. Since wells are usually developed one at a time over a period of years, even decades, the impact will be both gradual and long-lasting.

2) **Integration.** You may be surprised to learn that **you** may also become part of the unit, even without your agreement. If 60% of the land in a unit has been leased to the gas company, the owners of the remaining 40% can be forced to participate, through a state-approved procedure called “compulsory integration.”

You'll receive a 30-day notice by registered mail, after which you automatically become a “non-participating” member of the unit and the gas company can extract the gas beneath your land by drilling horizontally from a neighboring well. You should receive a check for the state-mandated minimum royalty of 12.5%, but since the gas

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BOOM AND BUST

The potential scale of development of the Marcellus and other gas-bearing shales beneath our feet dwarfs any previous human activity in our area. What are the long-term social and economic implications?

To address this issue, The Northeast Regional Center for Rural Development at Pennsylvania State University published a paper entitled, “*Energy Boomtowns and Natural Gas: Implications for Marcellus Shale Local Governments and Rural Communities.*”



Abandoned well pads in western Colorado

Their analysis is based primarily on the long-term effects of energy development on small towns in the western United States, since large-scale natural gas development has come to the Northeast only recently. Although our region differs in many respects from western gas drilling areas, there are several key similarities, including the process used in the extraction of the gas, the type of workforce employed by the industry, and the rural nature of the economy. The study found that:

- The economic consequences of a boom have an uneven, often disturbing, impact. Some sectors benefit more than others. Huge influxes of capital and temporary workers into a small community can lead to rapid inflation in the costs of goods and services. Small local businesses may have difficulty retaining a workforce.
- Severe housing shortages for newcomers lead to skyrocketing real estate prices and rents. Those on fixed incomes, such as retirees, often endure debilitating hardship, imposing physical and emotional duress.
- Gas industry jobs often require skills ill-matched to residents,

so local employment gains may be less than anticipated. Transient workers, brought in for a specific aspect of the development, comprise a workforce without indigenous moorings or loyalties to the local community.

- Local governments have little influence on the level of natural gas development, but those institutions need to provide an increased level of services funded by the local taxpayer. Local governments may be unable to keep up with demand, leading to a decline in the availability and quality of services.



The view from Mt. Meredith

- Unpredictability marks the social impact of a boom. From the Virginia tobacco boom to the building of the Alaska pipeline, American history tells us that this is so. Disproportionate increases in social problems such as crime, mental health problems, community dissatisfaction, family breakdown, alcoholism, and educational shortfalls have been reported in some gas drilling areas.
- The production phase of natural gas development typically lasts about 30 to 40 years. In small communities with few other employment options, an economic bust typically follows.

Another report, “*Fossil Fuel Extraction as a County Economic Development Strategy,*” from Headwaters Economics, an independent, nonprofit research group, shows that counties hosting intensive oil and gas extraction performed more poorly over 35 years than similar counties where there was little or no drilling. “Energy-focusing” counties ended up with smaller economies, lower student graduation rates, and greater gaps between rich and poor residents.



TOXIC WASTE

Why should we be worried about the toxic chemicals in the fluids that return from hydrofracked gas wells? Because the people who understand these risks are very concerned. They include public health officials in NY State, the staff of the NY State Dept. of Environmental Conservation, and the federal Environmental Protection Agency. All of these groups have written critically of how the current DEC proposals deal with fracking fluid.

These fluids contain some of the most dangerous chemicals known, like gluteraldehyde, and cancer-causing agents like toluene and benzene (see our website for a list). The gas industry says fracking fluid contains only 0.5% chemicals (1 part per 200), but benzene is banned from drinking water in concentrations above 1 part per billion.

Each time a well is fracked, millions of gallons of toxic fluids flow back up to the surface, bringing with it dangerous heavy metals like arsenic, and radioactive materials like uranium and radon, in concentrations hundreds of times above acceptable levels. All this adds up to many billions of gallons that must be processed and disposed of, but there are no facilities in NY that can do this.

This is what the NY State Council of Environmental Health Directors – the local officials whose job is to protect our public health – says of the NY DEC’s plan to regulate hydrofracking:

Impact of mud pits on groundwater quality: *In some counties there are well documented studies that identify reclaimed mud and cutting pits as a source of groundwater contamination. . . The DEC says it is ok to spread “well-related fluids” on local roads. This is a potentially huge public health exposure risk.*

Naturally Occurring Radioactive Material (NORM) *are not adequately addressed. The elevated radiological results from the drilling flowback water and tailings present the potential for significant public health risk.*

Municipal Publicly Owned Treatment Works (POTWs) *are not designed to treat constituents in flowback water and should not be used for treatment or disposal. Flowback waters are an industrial waste, and separate industrial wastewater treatment facilities should be constructed to specifically treat them.*

There are no existing facilities in New York State designed to treat flowback. No viable disposal option, NO drilling.

Until recently, the EPA has been restricted by Congress from looking at the health and environmental risks of hydrofracking. But after gas drilling contaminated home drinking wells in Wyoming, Colorado and Pennsylvania, the EPA became concerned and Congress has now mandated that the EPA study the true risks of hydrofracking. As the EPA recently stated:

There are compelling reasons to believe that hydraulic fracturing may impact ground water and surface water quality in ways that threaten human health and the environment, which demands further study.

This December, the association of professional, scientific and technical employees of the NY DEC strongly criticized the DEC’s own proposal (the “dSGEIS”) to regulate gas drilling:

NYS should not finalize plans to authorize expansion of drilling in the Marcellus Shale until after the US Environmental Protection Agency finished the recent Congressional legislative mandate to re-evaluate the safety and environmental implications of extracting gas from the Marcellus Shale.

The dSGEIS is not adequate for protecting our water resources from the huge amounts of water withdrawals necessary for hydrofracking. Existing public municipal water supplies could also be negatively impacted.

New York’s water is one of its most valuable natural resources.

One has to wonder – if the DEC’s own scientists say the plan does not protect our health and the environment, who actually wrote that plan?



THINGS YOU SHOULD KNOW BEFORE YOU SIGN A LEASE *continued from page 1*

more than \$5000. Call your neighbors and see what they are being offered. Then check online to see what the going rate is in other areas.

However, be aware that a sign-up bonus doesn't mean you'll get all the money *when* you sign – a large part of many bonuses (as much as 90%) is conditional, depending on various factors, like when the DEC regulations finally go into effect, or when gas drilling begins on your property. It's a *deferred* payment that may never be paid at all. But since leases are treated like deeds and filed in the County Clerk's office, there's no getting out of it once you've signed.

3) **Taxes.** Since your sign-up bonus is treated as income, not as capital gains, the amount you will have to pay in federal and state taxes will reduce what you keep by as much as 50%.

4) **Royalties** are supposed to be based on the actual amount of gas produced, but the gas companies are the ones controlling the meters, and there's no easy way to challenge their figures. You may, at your own expense, have an audit done on their books, but that assumes they have only one set of books and that their meters are tracking all of the gas that is being removed. (Before you consider taking them to court to get your money, be aware that the burden of proof is on you and if *they* win, you could end up paying *their* attorney's fees too!)

Monthly royalty statements are usually based on sales made in the 4th month prior to the statement and deduct a range of "marketing" expenses from the total (for items like "compression," "dehydration," "gathering," "processing," etc.). If a severance tax is imposed (in Texas, it's 7.5%), that will also be deducted before your percentage is calculated.

The first year your well is in production generates most of the revenue you'll ever receive. The second year production typically goes down 50%, and in subsequent years, far lower. So don't expect big royalty payments after the first few years a well is in operation, even though the gas equipment will likely remain for years, even decades. Your lease allows them to stay on your property *indefinitely*, long after the initial lease period (usually 5 years) has expired.

Having a gas well on your land is an "improvement." As a result, your assessment may increase significantly, along with the amount of property taxes you pay, and once your assessment has gone up, it probably won't go down again until all the gas is extracted, and you may be paying those extra taxes year in and year out even if you no longer receive substantial royalty checks.

5) **Lawsuits.** If you lease your land, you can be sued for accidents and spills, even if they happen on other people's land. Make sure there's a clause in your lease that says the gas company will assume ALL liability for any damages. Your homeowner or farm policy won't cover you.

As for the gas company's insurance, ask to see their Environmental Impairment Liability policy and check if you – *and* your neighbors – will be covered. Even if they have EIL insurance, they can drop it, or sell your lease to a company that doesn't carry it.

Just because they have proper insurance and your lease says you're protected doesn't mean you won't be sued. If there's an accident, you probably will be sued, and you will have to hire a lawyer to defend you in court. If the gas company offers you a lawyer, with all legal expenses paid, consider carefully whether they will be representing your interests, or theirs. Lawsuits like these typically go on for years.

6) **Restoration.** When you sign a lease, the gas company has the right to come on your land whenever they want and do pretty much whatever they please. You will lose control of your property and your privacy. They can, for example, build access roads, lay pipelines, dig big pits for toxic waste storage, bulldoze a hillside for the pad, cut down your trees, dump garbage, dig up your fields, use your woods as a toilet, and alter the water run-off on your land, resulting in extensive soil erosion.

There's usually a clause in leases requiring the gas company to return your property to its original condition when they leave. But they may not leave for many years. If they transfer your lease to another company without assets, your land won't ever be restored.

7) **Mortgages.** FHA rules prohibit mortgages on properties with a gas lease, so if you have one on your home and you sign, you will likely have to find another lender. Even if you have a mortgage from someone else, most lenders prohibit hazardous substances from being brought onto the landowner's property, so you may be required to pay off the mortgage in full before a gas well can be drilled.

You may also have difficulty with your homeowner's insurance, which may be cancelled at any time – at the very least, you'll likely see a substantial increase in your premiums.

8) **Second Thoughts.** If you sign a lease and have second thoughts later on, don't think you can sell your property while

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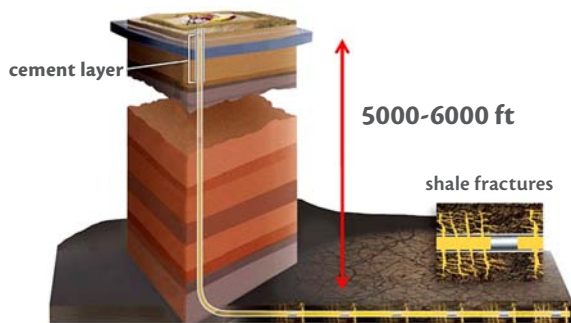
THINGS YOU SHOULD KNOW IF YOUR NEIGHBOR SIGNS A LEASE *continued from page 1*

company is doing all the accounting, there's no practical way to ensure their honesty. (You also have the option during the 30-day period to join the unit as a "participating" member. If you choose to participate, then the gas drillers can come onto your land, and you'll share liability for accidents.)

3) **Construction.** First, a pipeline (a "gathering line") will be laid down from the main gas line (most likely the Tennessee pipeline that runs east-west across Otsego County) to the town boundary and then across various property owner's lands and under town roads until it reaches your neighbor's well head.



After the gathering line is in place, a horizontal well usually takes about 1 to 2 months to complete. A well pad will be constructed on your neighbor's land, covering about 4 or 5 acres. Then a gas rig, up to 150 ft. high, will be built on the pad (a minimum of 150 feet from your house) and drilling will begin, down to a depth of over a mile, and then extending horizontally for another few thousand feet.



The outer casing of the well bore is supposed to be lined with a layer of cement to prevent leakage of gas and toxic materials into the groundwater, but problems have been reported in other states involving improper procedures and cracks that develop over time.

The drilling is done by work crews brought in from places like Texas, working 12-hour shifts around the clock, under bright lights at night, like the kind you see in football stadiums.



The noise from the generators, pumps and compressors will be constant. Expect ozone levels to rise and the smell of diesel fuel and other chemicals like benzene to be in the air pretty much all the time (in Kansas, they call it "the smell of money"). You'll also need to get used to vibrations and the intercom system blaring messages to the work crew at any hour. And the barking of the guard dogs that many sites use to keep intruders away.

4) **Fracking.** Once the drilling is over, the tanker trucks will start arriving every day with water. Fracking a well – each can be fracked an average of 5 times or more – requires at least 2



million gallons. At 6,000 gallons per truck, each weighing over 30 tons, it will take at least 333 truckloads. So expect to see a long parade of tankers rumbling back and forth over every dusty road. Assuming 8 wells per square mile (more if there are overlapping units tapping into different layers of shale, like the Utica) and just 25% of our 58 square miles are drilled, that's 193,000 vehicles weighing 6 million tons coming in and out of town, just to bring in the water.

THINGS YOU SHOULD KNOW IF YOUR NEIGHBOR SIGNS A LEASE *continued from page 5*

Other trucks will be carrying barrels of sand and hazardous chemicals that are mixed (about 1 gallon to every 200 of water) into the fracking fluid that will be injected under extreme high pressure into each well to shatter the shale and release the trapped methane gas.

By the DEC's own estimates, somewhere between 9 and 35% of the fluids will flow back up the well to the surface over the next few days, bringing with it briny deposits and natural radioactive material that must be processed in special toxic treatment facilities, none of which currently exist anywhere in New York State.

That means up to 91% of the toxic chemicals in the frack fluids will remain deep below the surface. Whether any of these toxics will migrate upward (over months or even decades) through the thousands of fissures and larger faults that exist in our region's underground geology – no one knows for sure.



<http://abclocal.go.com/wabc/story?section=news/investigators&id=7135129>

5) **Contamination.** In case there's a toxic chemical spill or leak on your property from your neighbor's well, and it affects your drinking or tap water (in Dimock, PA, some residents can light their faucets with a match), report it immediately to the NY DEC at **877-457-5680**. The local EC Officer for our town is George Wilber (267-5479).

The gas industry managed in 2005 (with the help of ex-Halliburton CEO Dick Cheney) to get Congress to exempt drilling from the provisions of many federal environmental regulations, but the regional office of the Environmental Protection Agency has recently established a monitoring program called Eyes on Drilling. Their hotline number is **877-919-4372**.

"Pollutants" in the water supply are specifically excluded in almost every homeowner policy, and currently no insurance companies in New York offer such coverage as an extra. So if you suffer environmental or health damages, your

only recourse will be to sue. Don't go to your personal lawyer – hire someone with extensive experience in environmental lawsuits. You will need to prove that gas drilling caused the problem. If your water has been contaminated, then you must show your water was *not* prior to drilling. However, such testing can be quite expensive (a minimum of several thousand dollars from a certified lab).

The main obstacle you will need to overcome in a lawsuit isn't proving your well was contaminated, or even that it was contaminated by the drilling on your neighbor's land – under NY State law, you must also prove **negligence** on the part of the gas company or your neighbor, in other words, that they violated the proper procedures mandated by the DEC.

In spite of all this, you still have a chance of eventually winning some kind of out-of-court settlement, since the company may prefer to avoid all the negative publicity of a long, drawn-out legal battle. Many gas companies have already factored in such settlements as a routine cost of doing business, planned for as a "contingency" long before drilling begins. But if you settle, you won't ever be able to speak about what happened.

6) **Local Prices.** If a gas boom develops, more and more itinerant workers will move into the area. Some businesses will grow to meet the increased demand for goods and services, but so will prices. There will be a shortage of housing; rents will rise, and some people may be priced out of the market altogether. Expect the cost of many services to double or even triple. The strain on municipal services like fire-fighting and EMS will increase significantly. At some point, the boom will end. If the local economy has become dependent on gas drilling, the boom will likely turn to bust.

7) **Property Taxes.** Many people, even those who support drilling, acknowledge there is some environmental risk, but cleanup bills will depend on what kind of problems actually develop. Road damage, however, is pretty much a certainty – none of our roads are built to handle traffic from tens of thousands of tanker trucks and tractor trailers. According to Highway Superintendent Bill Jester, there are 80 miles of town roads (and 21 of county/state roads), and replacing just one of those miles will cost at least \$310,000.

Currently, 75% of our town budget – \$731,486 – goes for road maintenance. Our town board may be able to pass an ordinance to restrict some of this traffic and require gas companies to

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the lease is still in effect. The market for such properties is virtually non-existent. Who wants to buy property encumbered by a perpetual gas lease? There's no sign-up bonus and much, if not all, of the royalties have likely already been distributed, leaving the buyer with a huge property tax bill and long-term legal exposure for damages, perhaps even a pond full of toxic waste still waiting to be removed to a treatment facility that may never be built.

Don't take our word – call a few local realtors in areas with a lot of gas leases (Otsego, Broome, Chenango, Ithaca) and ask them how many leased properties they've sold recently.

So consider **very** carefully before you sign. You'll be in it for the duration and the consequences for yourself and your neighbors will likely last for a generation or more.

IF YOUR NEIGHBOR SIGNS continued from page 6

post a bond against road damage, but if the damage is severe enough, everyone's property taxes will go up.

8) **Property Values.** If you have been compulsorily integrated into a gas drilling unit, you won't be liable for any damages (unless you chose to be integrated as a "participating" member), but your inclusion in the unit may make it difficult for you to sell your property.

After the first few years, whatever royalties you receive will diminish, and your proximity to gas wells in the unit will make your property less attractive to potential buyers. Even if you've managed to avoid integration, nearby gas drilling activities will likely lower the value of your property. If you have enough land and still own the mineral rights, your only option may be to move.

*You can send questions or feedback to us at
info@meredith-coalition.org*

WHO WE ARE

The Meredith Landowners Coalition is a non-profit community group of local residents whose goal is to promote a better understanding of industrial gas development in our rural area.

The impact of such development will affect everyone in our community for many years to come. Our own position, based on the research we have done so far over a period of several months, is that the potential long-term risks to the community as a whole appear to far outweigh the possible benefits. At the very least, we believe it's worth waiting for the Environmental Protection Agency to complete its current study of the safety of hydraulic hydrofracking before any drilling takes place. The gas has been there for over 360 million years. It will still be there in another couple of years.

We are mailing this newsletter to every resident and landowner in Meredith, in the hope that it will open an honest dialogue between neighbors about the pros and cons of a very complex issue. The current newsletter just scratches the surface. Many aspects haven't been examined at all, or just touched on briefly, without the kind of detail residents need to make an informed decision about what to do.

Future newsletters will try to answer some of these questions more thoroughly, and as practically as possible. For example: what exactly should I be testing my well for, and who should I call and what will it cost? If I receive a letter compelling me to become part of a neighboring unit, what are my options? If a gas company offers me money for a right of way through my land for a pipeline, should I accept?

If you feel this kind of information is of value, please consider making a contribution to our organization to support our educational efforts. Our mailing address is **POB 2, Meridale, NY 13806**.

The Steering Committee of the Meredith Landowners Coalition, in alphabetical order:

Larry Bennett, Nancy Cannon, Bob Rosen, Kelley Snodgrass, Cynthia Waterman, Sara Wright

A copy of this newsletter, with color photos, is available for download from our website at www.meredith-coalition.org.