What is hydraulic fracturing?

Hydraulic fracturing or **fracking** is a means of natural gas extraction employed in deep natural gas well drilling. Once a well is drilled, millions of gallons of water, sand and proprietary chemicals are injected, under high pressure, into a well. The pressure fractures the shale and props open fissures that enable natural gas to flow more freely out of the well.

Horizontal hydrofracking is a means of tapping shale deposits containing natural gas that were previously inaccessible by conventional drilling. Vertical hydrofracking is used to extend the life of an existing well once its productivity starts to run out, sort of a last resort. Horizontal fracking differs in that it is much more heavily industrialized and has been proven dangerous to groundwater and aquifer resources and it has been deregulated at the federal and state levels: the regulatory equivalent of **"diplomatic immunity."**

What the Gas Industry Doesn't Want You to Know

- Gas drilling is a boom-bust industry. Profits are short lived, with little money staying in the community. Large landowners who have benefited are likely to leave town. While some reap financial benefits, the entire community must pay for damages and to clean up a degraded environment.
- The gas industry claims that gas drilling has been done in OH for over 60 years. This is not true; the new technique of hydraulic fracturing for natural gas has only been in use since 2005 after it was exempted by Congress from the Safe Drinking Water Act.
- To open a small business in your neighborhood, you would be required to do an Environmental Impact Study, but none has ever been conducted for any of these hydraulic fracturing operations.
- Natural gas is not a bridge fuel; it is a non-renewable fossil fuel. Natural gas production diverts investment away from renewables. In fact, Cornell University found that shale gas is actually **dirtier than regular gas, oil, and even coal.** Plus, there is proven environmental damage to groundwater, aquifers, and surface water.
- Gas drilling is not about American energy independence; foreign companies are currently obtaining local leases, and gas is being sold on the international market.
- Common Cause has called state regulations in Ohio "the most lenient of any state." This is mostly due to huge lobbying expenditures by fracking interests. As a result, ODNR is staffed by industry picked employees, and Congress is filled with paid off politicians too friendly with gas developers.

Inadequate state and federal oversight has put the responsibility on local governments and home-town municipal attorneys to deal with multinational gas corporations and their vast and well paid legal teams.

Reasons to be Hopeful

- On Nov. 16, 2010, Pittsburgh was the first city in the US to ban natural gas drilling.
- On Nov. 30, 2010, New York State finalized its moratorium on hydraulic fracturing. Governor David Paterson said his state "would not risk public safety or water quality."
- More townships and municipalities are taking notice and are imposing bans and regulations on where and how this drilling can occur.
- Your involvement, along with others in your local group, can make the difference in your community. As a citizen, you have a say in the health of your community through local zoning and ordinances.

For more information:

Concerned Citizens of Medina County, OH
fracking.weebly.com

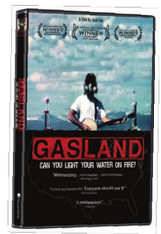
www.marcellusprotest.org

www.catskillcitizens.org

www.ewg.org/drillingaroundthelaw

When you're convinced, get your friends and neighbors involved!

GASLAND
is NOW AVAILABLE
on DVD
at Amazon.com



This brochure was adapted from a similar one produced by Marcellus Protest, by Concerned Citizens of Medina County.

the Myth of Clean Natural Gas

What ALL Ohio Residents MUST Know About Gas Drilling

Get Informed...
Get Involved...
Speak Up

This is not just an issue for rural landowners; Drinkable water and breathable air are at stake for all Ohioans.

10 Reasons Why You Should Be Concerned

1. 7,500 Gallons of Chemicals per Well

Gas companies say that frack fluid is 99% water but that equates to 7,500 gallons of chemicals used for every well drilled. According to experts, 93% of these chemicals have adverse health effects, 60% are known carcinogens and more than 40% are endocrine disruptors. These chemicals have already begun to show up in western Pennsylvania rivers and drinking water in recent months. The industry says "dilution is the solution," but that only spreads these chemicals to more people in more communities.

2. Accidental Spills, Deliberate Dumping

Any contamination of ground water and aquifers is a threat to public health, agriculture, and wildlife. After a recent spill of these toxic "fracking chemicals" in PA, the USDA quarantined cattle that drank contaminated water in an effort to protect the public from consuming potentially harmful products. However, humans are not directly protected because the gas industry is exempted from the EPA's Clean Water and Safe Drinking Water Acts.

Many cases of illegal dumping into creeks and rivers and onto roads have been documented in Pennsylvania and Ohio. Even when the water is transferred to local water treatment facilities, they are **not** equipped to filter out all of the toxic chemicals.

3. Health Effects to Your Body

BTEX is an acronym that stands for benzene, toluene, ethylbenzene, and xylenes. These are just a few of the chemicals known to be found in frack fluid. When ingested, these volatile organic compounds stick to fat in the body. Short term exposure can cause confusion, rapid pulse, anemia, damage to the nervous system, and death. Long term exposure can cause Acute Myeloid Leukemia, Secondary Aplastic Anemia and damage to the reproductive system.

4. The Halliburton Loophole

The Energy Bill that went into effect on 8/8/2005 removed the rights of the EPA to regulate hydraulic fracturing under the Safe Drinking Water Act, the Clean Water Act, the Superfund Act, the Resource Conservation and Recovery Act, the Clean Air Act, and the Emergency Planning and Community Right to Know Act.

5. Air Quality

Companies regularly engage in "burn-offs" - lighting the frack water on fire and evaporating it into the air. Ground level ozone and noxious chemicals can have serious health consequences on people, animals, and plants. For humans, this includes asthma, stroke, cardiovascular disease and irritable bowel disorders.

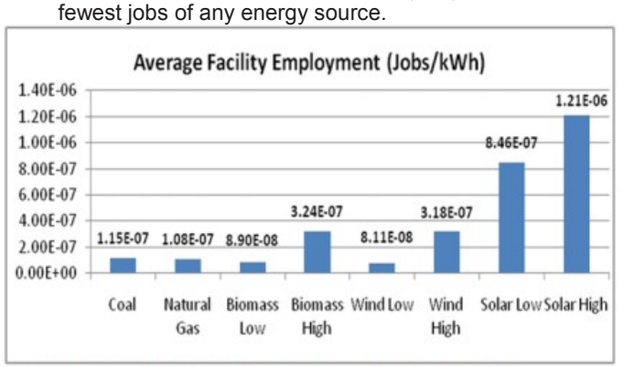
In addition, experts say that when methane (the principle component of natural gas) is transported, 3-5% of it escapes from pipelines and compressors. Unfortunately, there are no regulations in place in OH to monitor air quality related to gas drilling.

6. Effects on Water Sources

Gas drillers routinely draw water from local creeks and streams. Reduced oxygen levels, high levels of pollutants negatively affect aquatic life. A recent preliminary study from the Academy of Natural Sciences showed levels of aquatic life 25% lower in areas of high volume drilling compared to watersheds with low or no volume drilling. Fish kills and foliage reduction in these water sources have been widely reported in Pennsylvania and Ohio.

7. Job Creation Estimates Inflated

The gas industry has touted claims of 200,000 jobs to be created in Ohio. Larger claims were made in Pennsylvania, and the jobs never came.
In fact, Mark Partridge of OSU found that even a maximum of 20,000 jobs cannot be reasonably expected. The chart below shows that natural gas generates the fewest jobs of any energy source.



Source: Weinstein et al. (2010) chart using data from Kammen et al. (2004)

8. Declining Property Values

Most banks and insurance companies consider gas-leased properties to be an unacceptable risk. Many loan companies have policies which deny mortgages on those properties which have been leased. Insurance companies are balking at writing policies for leased parcels, as landowners can be liable for accidents related to natural gas drilling.

How does this affect you? Property values decline not only for those who have signed leases, but for everyone in the surrounding area.

Drilling will eventually depreciate the value of not only your residence, but of investment parcels as well. If you are considering selling your property, you must ask, "Will I be able to find a buyer that is willing and able to pay cash?"

9. Burden on Local Police, Fire, and EMS

Local news have documented multiple emergencies at Ohio well sites, including explosions, fires, contamination and deaths of drill operators. Local responders, lacking knowledge of the industry's secret techniques and materials, have had to deal with risks imposed by gas companies at a moment's notice.

10. Increase in Traffic

The increase in traffic will affect all communities, especially where congestion is already a problem.

Unfortunately, any increase in traffic leads to an increase in traffic accidents. School bus accidents and chemical tanker spills have occurred in other communities as truck drivers try to negotiate rural roads at high speeds.

Remember: Hydraulic Fracturing is

EXEMPT from Federal and State Regulations
Do YOU Trust Industry not to Cut Corners?

Why Ohioans Should Be Concerned:

The natural gas boom gripping parts of the U.S. has a nasty byproduct: wastewater so salty, and so polluted with metals like barium and strontium, most states require drillers to get rid of the stuff by injecting it down shafts thousands of feet deep.

Not in Pennsylvania, a state at the center of the gas rush and our neighbor to the East.

There, the liquid that gushes from gas wells is only partially treated for substances that could be environmentally harmful, then dumped into rivers and streams from which communities get their drinking water.

Pennsylvania regulators have banned this kind of disposal, so the industry has turned to Ohio, where hundreds of injection wells are not regulated. Here, they dispose of millions of gallons of toxic brine right in our backyards.

Of the roughly 6 million barrels of well liquids produced in a 12-month period examined by the AP, the state couldn't account for the disposal method for 1.28 million barrels, about a fifth of the total, due to a weakness in its reporting system and incomplete filings by some energy companies.

Do YOUR Part to Keep Hydrofracking Waste OUT OF Ohio!