



# Fracking: Myths and Facts

*Don't believe the hype.* Natural gas industry groups, such as the Marcellus Shale Coalition, here in Pennsylvania, are spending millions of dollars on ads, lobbying, public relations and campaign contributions to promote a series of myths about hydrofracking. Here's the truth about some of their claims.

Drill site in Dimock, PA

**MYTH:** There is no non-toxic alternative to fracking fluids.

**FACT:** Regulations for offshore drilling require the use of non-toxic fluids to protect marine life. Meanwhile, our fresh waters are absorbing toxic fracking fluid from this land-based technology, simply because the industry is not being required to use non-toxic fluids!

**MYTH:** Downstream water-drinkers, such as those of us in Philadelphia, are not at risk from gas drilling upstream, in the Upper Delaware River watershed.

**FACT:** The Delaware River watershed, which includes the Schuylkill River, is the *source of Philadelphia's drinking water*. Toxic contaminants travel hundreds of miles. Studies show that PCBs traveled 200 miles in the Hudson River.

Drinking water treatment cannot remove all the chemicals used in fracking, such as biocides, endocrine disruptors, and carcinogens. Even trace amounts of toxic chemicals can harm human health.

**MYTH:** In Pennsylvania, the industry and its allies say, "we've been fracking for 60 years without a problem."

**FACT:** Hydraulic fracturing in shallow, "conventional" layers has happened for 60 years. There have been many problems, particularly with methane migration. But Marcellus Shale fracking is much more harmful.

This new, unconventional drilling method:

- often goes over a mile deep and over a mile horizontally;
- uses about *67 times more water and toxic chemicals* than conventional drilling. About *4 million gallons of water* is withdrawn from our rivers and streams and mixed with 20,000 pounds of chemicals for each frack. The water use alone has sucked some Pennsylvania streams dry.

**MYTH:** Marcellus Shale drilling is creating hundreds of thousands of jobs in Pennsylvania.

**FACT:** An industry lobby group—the Marcellus Shale Coalition—paid two Penn State University professors who wildly exaggerated the number of jobs being brought to our state by the industry. This "PSU study" is actually a Marcellus Shale Coalition product from which a Penn State University dean is now distancing himself publicly.

Most drilling jobs so far have gone to workers from out of state.

**MYTH:** Marcellus Shale drilling is great for the economy.

**FACT:** Drilling hurts our economy in several ways. Already we are bearing the costs of severe road damage, intense pollution, regulatory overload, and damage to property, the environment, and public health in contaminated areas. The future costs from pollution-related illness; efforts to restore degraded water supplies; and expensive cleanup projects could escalate for decades.

- Every fracking pad could become a “Superfund site,” but the industry will not be obliged to pay, since they have gotten themselves exempted from Superfund Law provisions. With hundreds of thousands of fracking wells planned for PA, cleanup costs will be exponential.
- PA’s second largest industry is tourism, mostly in our extraordinary parks, forests and river systems—the beauty and health of which are threatened by fracking. Trout fishing is a \$4.7 billion industry, but trout thrive only in pristine headwaters, exactly where gas companies want to frack.
- To thrive economically, communities need to avoid pollution, health risks, and environmental degradation.

**MYTH:** Surely the federal government will protect us.

**FACT:** In 2005, Congress exempted unconventional drilling from key provisions of the Superfund law and the Clean Water, Clean Air, and Safe Drinking Water Acts.

The EPA has *only just begun* its first major study of the air and water risks posed by unconventional gas drilling. In September 2010, this \$1.9M EPA study is still being designed!

**MYTH:** Most of the chemicals used in fracking are safe.

**FACT:** Scientists have identified 596 chemicals in fracking fluids. These include *carcinogens*, *pesticides* and *biocides* (substances designed to kill living things), *neurotoxins* (which hurt the brain and nervous system) and *endocrine disruptors* (which disrupt hormonal function, reproduction, cell growth).

When 19 cows drank fracking fluid (Louisiana, 2009) they all died in agony, bleeding from both ends.

The flowback fluid (which returns from deep underground) is even worse. It contains all the original chemicals mixed with substances from the shale layer, including heavy metals like *arsenic*, *cadmium* and *Radium 226*.

**MYTH:** The industry is highly motivated to prevent accidents and to take care of any harm done.

**FACT:** The industry works hard to minimize, deny and avoid responsibility for harm they cause. Even with no accidents, water and air contamination are inherent to the extraction process.

- Cabot Oil & Gas denied all responsibility for the migrating methane which *blew up Norma Fiorentino’s water well* in Dimock, PA, in 2009, and which then *contaminated an entire 9-mile aquifer*, depriving 14 families of drinking water for 18 months.
- DEP found *565 violations* by drillers in the first 6 months of 2010; 80 of those were incidents of illegal disposal.
- During the Clearfield blowout, June 3rd-4th, 2010, the drilling company waited 5 hours before calling the Pennsylvania DEP emergency hotline, while toxic flowback and *explosive methane blew 75 feet into the air* continuously. The company did not even have more than one blowout prevention mechanism in place.
- Over *1,000 instances of water pollution* have been documented by *ProPublica*.

**MYTH:** Water quality and water quantity issues are the *only* real problems associated with fracking.

**FACT:** Fracking also degrades air quality. People and animals living near natural gas operations *breathe in carcinogens and neurotoxins*; early studies show increased blood-levels of toxins. Shale drilling in the Fort Worth, TX, area produces more air pollution than all the cars in Fort Worth.

**MYTH:** Natural gas is a green energy source that helps reduce global warming.

**FACT:** CO<sub>2</sub> released during the extraction of natural gas contributes to global warming. And, far from being the “bridge fuel” portrayed by the industry, methane is a greenhouse gas that traps even more heat than CO<sub>2</sub>. Neither state nor federal regulations require the industry to curb *massive routine emissions* in the extraction, processing and transportation of natural gas.

*Democracy matters. Tell Philadelphia Councilmembers, PA State Representatives and Senators: Support a moratorium until cumulative impact studies are complete. We want justice, and not for just us: wildlife, birds, fish, our neighbors and grandchildren ALL need clean water to live. Don't frack with our future!*