What's in the water?

Find out how hydraulic fracturing works — and how it can affect the water you drink.

1. Benzene
   Benzene is a part of the diesel fuel that is often used as a fracking fluid. It can cause leukemia — even in quantities as low as 0.005 parts per million. [F-1a and b]

2. Arsenic [F-2]
   A Pennsylvania farmer — the largest supplier of heirloom tomatoes on the East Coast — found levels of arsenic at 2,600 times the EPA's standard in the water on his land.

3. 2-Butoxyethanol
   A mother developed a rare tumor of the adrenal gland after drinking water contaminated with the common fracking chemical 2-butoxyethanol near a fracking operation in Colorado. [F-3a and b]

4. Methanol [F-4a and b]
   Hydraulic fracturing uses more methanol than any other chemical. Even a few ounces of it can cause blindness.

5. Naphthalene [F-5a and b]
   The EPA found naphthalene, the cancer-causing chemical that moth balls are made from, in water testing wells drilled near fracking sites in Wyoming.

And that's just the beginning...
What the Frack?

Hydraulic fracturing — sometimes called fracking* — is a way to extract natural gas from shale rock deep underground.\[1-1\]

Fracking chemicals, water, and sand are forced under massive pressure into underground cracks.\[1-2\]

The cracks expand and release the gas, which is then collected back at the surface and used as a source of energy.\[1-3\]

Fracking is now taking place in 34 states. In those states, fracking chemicals, gas, and other substances have already contaminated drinking water supplies and harmed human, animal, and environmental health.\[1-5\]

And now, fracking is coming to the Marcellus Shale, a rock layer that stretches 600 miles under six\[1-6\] states, and is the home to the water supply of 15.6 million people — from New York City to Delaware.\[1-7\]

\* "Fracking" is a general term used to refer to all of the industrial activities involved in gas production — including the specific technique of hydraulically fracturing rocks.

**Why Now?**

Recently, an economic bubble caused gas prices to increase to the point where fracking (a relatively expensive technology) became a more affordable method of gas extraction. But that bubble is about to burst.\[1-8\]

**Marcellus Shale Wells Drilled in Pennsylvania Per Year**\[1-9\]

- 2004: 27
- 2005: 76
- 2006: 320
- 2007: 380
- 2008: 650
- 2009: 975
- 2010: 1,500
- 2011: 2,000
- 2012: 2,500

**Up to 30,000**

**Expansion of drilling is actively being pursued in the Marcellus Shale, which overlaps the Delaware River Basin, a watershed that supplies water to 15.6 million people in New York, New Jersey, Pennsylvania, and Delaware.**\[1-10\]

**How Big is the Impact?**

- \[1-11\] 35% New York
- \[1-11\] 34% New Jersey
- \[1-11\] 43% Pennsylvania
- \[1-11\] 85% Delaware

Hydraulic fracturing has never taken place so close to so many people.\[1-12\]

**History of Fracking in the U.S.**

- 1949: Low-pressure fracking first used in Oklahoma & Texas
- 1963: Clean Air Act
- 1972: Clean Water Act
- 1974: Safe Drinking Water Act
- 1980: Superfund
- 1988: First low-pressure horizontal fracking well drilled in Texas
- 2005: Halliburton-Lophysol Exempted the oil & gas industries from Safe Drinking Water Act, Clean Air Act, Clean Water Act, & others
- 2011: Delaware River Basin Commission (DRBC) releases draft rules to allow 18,000 wells
- 2011: DRBC regulations challenged in court by NY Attorney General, Damascus Citizens for Sustainability, Delaware Riverkeeper, & others

**Drinking Water in Danger!**

Number of people in New York, New Jersey, Pennsylvania, and Delaware who rely on drinking water from the Delaware River Basin

- 7.4\ MILLION PEOPLE
- 1.4\ MILLION PEOPLE
- 643,000 PEOPLE
- 4.1\ MILLION PEOPLE

**Delaware River Watershed**

- Catskill Aqueduct
- Delaware River Aqueduct
- Delaware River

**New York City**

- New York
- New Jersey
- Pennsylvania
- Delaware

**Tributaries**

- Croton Watershed
- Catskill Watershed
-Delaware Watershed
15.6 million people in New York, New Jersey, Pennsylvania, and Delaware get their drinking water from the Delaware River Basin.

That water is at risk. Hydraulic fracturing is a process that forces water, sand, and chemicals into underground cracks, under high pressure, in order to release natural gas. It causes air and water pollution, contaminates drinking water supplies, kills animals and plants, and poses serious risks to humans.

And it's coming to your drinking watershed.

Find out how hydraulic fracturing works, what can go wrong, and what you can do to protect your drinking water today.

For more information and documentation on these fracking facts, visit: DamascusCitizens.org/references