

# Fracking Linked to Water Contamination, Health Problems In Several States

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Gas drilling via a process called hydraulic fracturing has been the subject of controversy across the nation. Critics of hydraulic fracturing, also called fracking, claim the chemicals used in the process, coupled with a lack of regulation, are endangering both the environment and the health of people who live near such drilling operations. Indeed, water contamination, air quality problems, and an increase in health ailments have been reported in several communities where fracking operations are prevalent.

Hydraulic fracturing is now used in about 90 percent of US gas and oil wells. The process involves injecting water, sand, and a cocktail of chemicals at high pressure into rock formations thousands of feet below the surface. Because the federal Energy Policy Act of 2005 exempted hydraulic fracturing from regulation under the Safe Drinking Water Act, shale gas drillers don't have to disclose what chemicals they use. According to a report issued by the Environmental Working Group, fracking has already been linked to drinking water contamination and property damage in Colorado, Ohio, Pennsylvania and Wyoming.

According to a recent Associated Press report, the majority of people surveyed in one Wyoming community where fracking is taking place reported respiratory problems, headaches, nausea, itchy skin, dizziness and other ailments. According to the Earthworks Oil and Gas Accountability Project, many residents of the small town of Pavillion also reported that their well water was tainted by fracking.

Earlier this decade, the Canadian drilling company EnCana began ramping up gas development in the Pavillion/Muddy Ridge field. In 2000, more than 100 new wells were drilled, and two compressor plants – a large one and a smaller facility – were built in the area.

According to the Associated Press, Earthworks suggested in a news release that the reported respiratory ailments result from exposure while people shower or wash dishes with contaminated water. Various ailments residents reported are associated with contaminants the U.S. Environmental Protection Agency has identified in Pavillion well water.

Texas' Barnett shale region is another area where fracking is booming. But it may be costing residents their health. Last August, an air sampling in the Texas town of DISH by Wolf Eagle Environmental "confirmed the presence in high concentrations of carcinogenic and neurotoxin compounds in ambient air near and/or on residential properties." The report indicated that air in DISH exceeded the Short-term and Long-term Effects Screening Levels (ESLs) according to Texas Commission on Environmental Quality (TCEQ) regulations.

In June 2010, tests by the Texas Railroad Commission showed arsenic, barium, chromium, lead and selenium in a residential water well in DISH. The tainted water turned up at a home in DISH shortly after a nearby gas well was drilled. Results of air testing by the commission released the same month detected benzene concentration, 37 parts per billion, at a Devon Energy complex on Jim Baker Road between the towns of Justin and DISH. The highest benzene reading overall, 95 ppb, was detected at a Stallion Oilfield Services commercial disposal well in Parker County. All six facilities that state inspectors revisited are within about 1,000 feet from people's homes.

Benzene is a known carcinogen. According to the EPA's hazard summary for benzene, continuously breathing air with an average of 0.4 ppb of benzene increases cancer risk to 1 in 100,000 over a lifetime.

Pennsylvania's Marcellus shale, a formation rich in natural gas deposits, is another area coveted by gas drillers. We recently reported that drillers in Pennsylvania are advocating for the adoption of a "pooling law" which would force property owners to sign drilling leases if enough of their neighbors did so. Those who object to such laws say they allow drillers to abuse landowner rights, and may limit a landowner's ability to negotiate a better deal from a drilling company. While no pooling bills have yet been introduced in the Pennsylvania legislature, at least a couple of bills are in the drafting stages.

People in the town of Dimock, Pennsylvania have seen first-hand what damage poorly regulated fracking can do. Cabot Oil & Gas drilled dozens of wells in Dimock. Sadly, problems with the cement casing on 20 of those caused contamination of local water wells, driving down property values and causing sickness. In some cases, levels of methane in some Dimock water wells are so high that homeowners are able to set water aflame as it comes out of their taps. Fifteen Dimock residents whose wells were contaminated are now suing Cabot.

According to a report recently released by the Pennsylvania Land Trust Association, the state has identified 1,435 violations by 43 Marcellus Shale drilling companies since January 2008. Of those, 952 were identified as having or likely to have an impact on the environment. A separate analysis by Clean Water Action released earlier this summer found 565 violations at Marcellus Shale gas drilling sites between Jan. 1 and June 18 this year alone.

The Marcellus shale extends into New York, another state where fracking is causing controversy. The Marcellus shale in that state encompasses the entire Catskills watershed that provides New York City with all of its drinking water. People there are worried that drilling could pollute the watershed. The concern prompted the New York City Department of Environmental Protection to commission an independent study of fracking. It concluded that the process would be a threat to water quality if done in the watershed.

Permits for fracturing operations in the state have been on hold for two years while regulators conduct an environmental review, which is expected to be completed this year. Earlier this month, the New York State Senate overwhelmingly approved a bill that would place a moratorium on granting new drilling permits in the state until May 2011. The bill still has to be voted on the state assembly before it becomes law.