

Don't Frack Michigan



What's Happening in "Pure" Northern Michigan

State Excelsior well 3-25 HD1 sits within the Mackinaw State Forest in Kalkaska County. This area of forest, previously used by hunters, mushroomers, snowmobilers, skiers and hikers is now surrounded by "No Trespassing" signs. Acres of trees were clear-cut to accommodate well pads, open storage pits and roads. Truck traffic and noise are constant. This is becoming a common sight in our state forests.

Encana Corporation, owner of this particular well, holds the dubious distinction of using and contaminating the largest volume of water to date for one fracking event. According to FracFocus, an industry website, on October 30, 2012 Encana used a mind-boggling **21,122,194 gallons of water to frack one well**. Mixed with a blend of toxic chemicals, this large-scale water withdrawal from ground water aquifers can never be returned to the hydrologic cycle. **Two other wells fracked on the same pad brought the total water usage to over 42 million gallons.**

How much water is 21 million gallons? The DEQ website explains that 5 million gallons, the amount used in a "typical" frack job, is equivalent to the amount needed to irrigate 8-10 acres of corn for an entire growing season. 21 million gallons would therefore irrigate 40 acres of corn for an entire season. Of course, most of the water used for irrigation returns to the hydrologic cycle, whereas frack fluid is so toxic it must be disposed of, and cannot return to the water cycle. In many parts of the country, extreme water use for fracking is heavily impacting the ability of farmers to grow food or raise animals.

Put another way, look at Tahquamenon Falls, the largest waterfall in our state. Roughly 5,000 gallons flows over the falls every second (US Forest Service estimates). **Watch the water cascading over the Falls for one hour and 10 minutes. That represents the 21 million gallons of water used to frack just one well.** (See video of Tahquamenon Falls on DontFrackMichigan.org.) Now picture our state with hundreds or thousands of wells, each sucking up and contaminating millions of gallons of water that should be replenishing our rivers and streams, and the Great Lakes. This is water that could be used for growing crops. This is the water that defines our State and is the bedrock of our tourism economy.

What happens to this contaminated water (called flowback) after a well is fracked? Documents obtained from the DEQ through a FOIA request by Ban Michigan Fracking indicated that at least 40,000 gallons were sprayed on our roads as dust control. This occurred during a 30-day period last summer in Cheboygan and Kalkaska counties. Areas sprayed include the Mackinaw Mill Creek Campground located 3 miles from the Mackinaw Bridge and on a mile of Lake Huron shoreline, and public roads in Kalkaska County. The DEQ permit to spray the roads was issued to Team Services, subcontracted by Encana Corp. This is the least expensive method of flowback disposal and has been perfectly legal under Michigan's antiquated rules. Brine (concentrated salts) is a waste product of gas and oil drilling and has been sprayed on roads in Michigan for years as ice and dust control. Michigan gas and oil rules classify all flowback fluid as brine, and although the DEQ issues permits for this use, rules regulating its use have not been updated to take into consideration the new chemicals and high volume of frack fluid from horizontal hydraulic fracking operations. According to Rick Henderson, Acting Director of the Office of Oil, Gas and Minerals, "The court ruling which set the standards for approving brines for dust and ice control did not anticipate large scale hydraulic fracturing." The potential damage to plants, animals, groundwater, streams and lakes, and homeowner wells has not been studied in Michigan.

We do know, however, that of the hundreds of known chemicals generally used in deep shale fracking: 25% cause cancer, 37% affect hormones, 40-50% affect the kidneys and nervous, immune and cardiovascular systems, and 75% affect sensory organs, respiratory and gastrointestinal systems (from studies by the Endocrine Disruption Exchange).

We do know that in other states accidental spills and exposure to flowback fluid have killed livestock, wildlife

and pets, poisoned water wells and caused a host of illnesses in people.

Public outrage forced the DEQ to temporarily suspend this method of disposal from hydraulically fracked wells for one year.

The “approved” method of flowback disposal is shooting it underground into injection wells. This method hasn’t worked out so well, either. Ohio, Arkansas, Oklahoma, Texas, Colorado, West Virginia and even England have experienced dramatic spikes in earthquake activity linked to underground injection of drilling wastes. According to Rick Henderson (OOGM), “in Michigan, the chances of earthquakes are very small.” However, two fault lines run through northern Michigan where most of the injection wells are being located. Earthquakes, even very small ones, fracture rock which can allow for the upward migration of toxins.

ProPublica, an on-line investigative news service, reviewed records from 220,000 well inspections nationwide from late 2007 to late 2010. Well integrity violations were cited in one out of six wells. “Records show wells are frequently operated in violation of safety regulations and under conditions that greatly increase the risk of fluid leakage and the threat of water contamination.” (ProPublica “Injection Wells: The Poison Beneath Us” 10/26/12). Also quoted in this article was Mario Salazar who worked for 25 years as an engineer and technical expert in the EPA underground injection program in Washington. He said, “In 10 to 100 years we are going to find out that most of our groundwater is polluted. A lot of people are going to get sick, and a lot of people may die.” DEQ officials claim that Michigan has strong regulations to protect the environment. However, injection wells are only required to be inspected once every 5 years. And according to Michigan Oil and Gas News, abandoned wells are omitted from reporting requirements after one year.

Fracking and injection wells are unsafe. How long can we poke holes in the ground, explode containment rock layers and inject dangerous chemicals and not expect to see negative repercussions? ***We need to end federal and state environmental exemptions to gas and oil companies. End federal and state subsidies, including leasing of state land at rock-bottom prices and the permitting of large-scale water withdrawals. Multinational corporations should not be allowed to hijack our state land and confiscate our water.*** State land belongs to all the people of our state. According to Michigan Oil and Gas News, drilling is expected to increase in Michigan this year. We must keep working for a ban. And we must demand that our government officials look to the future. According to the Department of Energy, Michigan has one of the highest potentials for wind energy production in the country. With our manufacturing capabilities, we should be putting subsidies into building solar panels and geothermal units. Alternatives to fossil fuels exist, and by utilizing and developing them we can save our environment, our health and our economy.

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