**What about jobs?**

The Wisconsin Center for Investigative Journalism estimates that when all operations currently under development are running, the sand industry could employ up to 2,780 people, or 0.6% of the workforce in counties with sand mining (using data from the WI Dept. of Workforce Development). However, all mining economies are volatile, with rapid booms and busts that put miners out of work. Increasing mechanization in mining means fewer jobs created with greater production. Sand-hauling trucks also put stress on local roads paid for by taxpayers, often with little revenue returned to the community by the company. Mining displaces other economic activities, such as farming, impoverishing rural areas in the long run.

**What Can You Do?**

- Contact DNR Secretary Cathy Stepp (dnrsecretary@wisconsin.gov, (608) 266-2121) and Deputy Secretary Matt Moroney (matt.moroney@wisconsin.gov, (608) 264-6266). Tell them to list crystalline silica as a pollutant and monitor air quality around sand mining operations.
- Support local efforts to pass moratoriums and bans on frac sand mining. You can find out more about how to get involved from www.wisair.wordpress.com/frac-sand-sentinel.
- Call your state legislators and ask them to sponsor a statewide moratorium on frac sand mining.
- Visit www.wnpj.org or contact carl@wnpj.org for more information.

**Sources:**

Wisconsin DNR, 2012, *Silica Sand Mining in Wisconsin*
Wisconsin Center for Investigative Journalism
Milwaukee Journal-Sentinel
Fracktracker.org
Pro-Publica
2011, Petition by Citizens for Promulgation of Rules to Govern Respirable Crystalline Silica Emissions.
Wisconsin Department of Workforce Development
www.dangersoffracking.com
Defend Wisconsin’s Environment and Communities!

Wisconsin’s sand comes from ancient beaches that existed 500 million years ago, when a shallow sea covered much of North America. The former ocean left behind loosely-cemented sandstone with grains of hard silica (SiO₂), or quartz, sand. The uncommon purity, roundness, and strength of our sand makes it ideal for use in hydrofracking.

**What is Hydrofracking?**

Hydraulic fracturing, also called hydrofracking or fracking, is a process used to extract natural gas by injecting a high-pressure slurry of water, sand, and chemicals to open cracks in shale bedrock deep underground. It has caused earthquakes and poisoned drinking water with methane, highly toxic chemicals, and heavy metals. It is now used in over 90% of natural gas wells in the United States. Round, pure-quartz sand grains that won’t disintegrate under high pressure are needed to keep the cracks open so the gas can be pumped out. The process was invented by Halliburton in the 1940s, but recent innovations in drilling technology and the search for more domestic energy supply have created a recent explosion (sometimes literally) in gas drilling. In 2005, Congress made gas companies exempt from most EPA water and air quality regulations. What laws do apply to gas drillers are routinely ignored or violated. Drillers in Pennsylvania alone were cited 9,370 times between 2007 and 2010, an average of 2.5 violations per gas well.

Gas companies have used intellectual property laws to avoid disclosing what chemicals are being injected underground in their operations. The fracking fluid pumped into each well uses 3.5 million gallons of water and 80,000 pounds of chemicals, 70% of which remains in the ground. Chemicals found in groundwater around fracking sites include 2-butoxyethanol, isopropanol, diethylene and triethylene glycol, and benzene compounds. Nearby residents complain of their water turning brown, persistent headaches, nausea, and other ailments. Some residents’ wells are so full of methane that their tap water can be lit on fire.

**Public Health at Risk**

Sand mining is booming in western Wisconsin. In July 2011, there were 41 sand facilities operating or proposed; as of early 2014, the number has grown to over 135 permitted and proposed. Trempealeau County alone has 24 mines and another 10-15 on the drawing board. Each new mine ranges from dozens to over 1,800 acres in size. The EOG Resources (formerly Enron Oil & Gas) sand processing plant in Chippewa Falls, the largest in North America, uses 18,000 gallons of fresh water and ships out 50 train cars full of sand per day. The sand is washed with polyacrylamide, a neurotoxin powerful enough that the EPA considers any amount unsafe in drinking water. Silica dust from sand piles is picked up by the wind and blown into neighboring communities. Respirable crystalline silica is a known carcinogen and can cause silicosis, a chronic inflammation of the lungs. According to the Wisconsin DNR, the threat to those living near sand operations is inconclusive due to a lack of long-term monitoring studies. UW-Eau Claire researcher Dr. Crispin Pierce has undertaken monitoring studies using private funds because of a lack of state government support for monitoring, regulation, or enforcement of air standards.