

## ***DNR: Do Your Job!***

In November, 2011, ten citizens facing the impacts of sand mining in their communities, with the support of 80 physicians and health professionals, petitioned the Wisconsin Department of Natural Resources to list respirable crystalline silica as a hazardous air contaminant, monitor air emissions from mining and processing operations, and enforce a standard of 3 micrograms per cubic meter, the regulation adopted by California. Jamie Gregar, one of the petitioners, lives next to a sand mine in Tunnel City with her husband and three children. The mine operator, Unimin, has refused to buy their house so they can afford to move, and nobody else wants it because of the mine. Another petitioner, Chippewa County Board Supervisor Ken Schmitt, who has four kids and lives next to a mine in Colfax, wrote, "My family and the families I represent are entitled to safe, clean air, and the peace of mind that comes from knowing that protections are adequate to ensure this.... We cannot afford to wait for a lung disease in 20 years to tell us that the air WAS NOT safe."

In April, 2014, citizens in 25 counties introduced resolutions demanding a silica standard at Wisconsin Conservation Congress hearings, which were approved by 69% of those voting. To date, the DNR still refuses to write rules for silica emissions because "more research is needed." The agency claims that existing air quality regulations are adequate to control silica dust, but little is being done by overstretched DNR staff to monitor and enforce compliance with these standards.

### Sources:

Wisconsin DNR, 2012, *Silica Sand Mining in Wisconsin*

Wisconsin Center for Investigative Journalism

Milwaukee Journal-Sentinel

FracTracker.org

Pro-Publica

Sandra Steingraber, "Sand County, the Sequel," *Orion Magazine*, May-June 2012.

2011, *Petition by Citizens for Promulgation of Rules to Govern Respirable Crystalline Silica Emissions.*

Wisconsin DNR, 2012, *Analysis of the Petition for Promulgation of Rules for Respirable Crystalline Silica.*

Wisconsin Department of Workforce Development

[www.dangersoffracking.com](http://www.dangersoffracking.com)

## ***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](mailto:dnrsecretary@wisconsin.gov), (608) 266-2121) and Deputy Secretary Matt Moroney ([matt.moroney@wisconsin.gov](mailto: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](http://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](http://www.wnpj.org) or contact [carl@wnpj.org](mailto:carl@wnpj.org) for more information.



**WNPJ**

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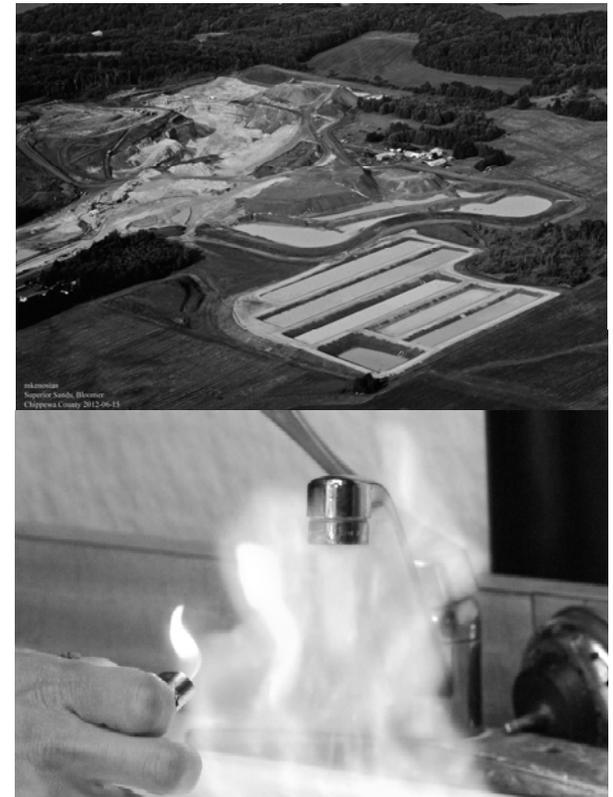
**[www.wnpj.org](http://www.wnpj.org)**

**608-250-9240**

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# **Wisconsin's Frac Sand Boom**

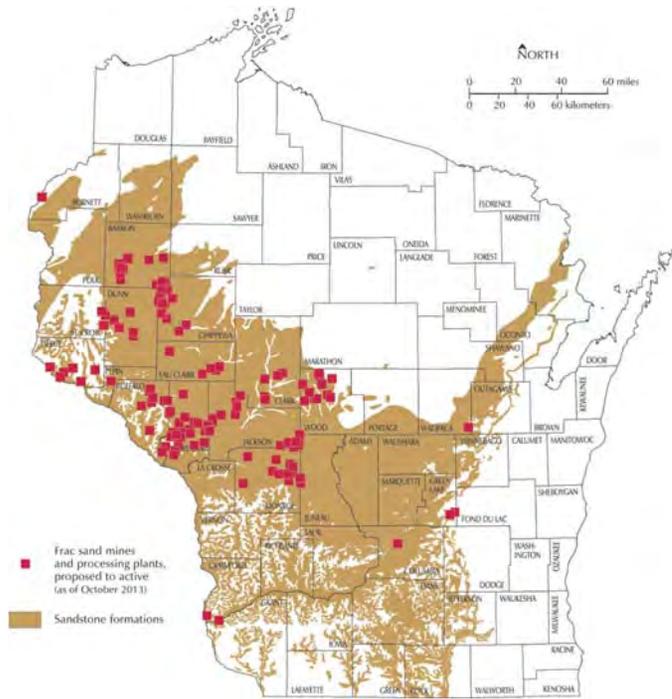
## **Stealing our hills**



**to poison our water**

[www.wnpj.org](http://www.wnpj.org)

# Defend Wisconsin's Environment and Communities!



Map from the Wisconsin Geologic and Natural History Survey and UW-Extension, February 2014

## What is Frac Sand?

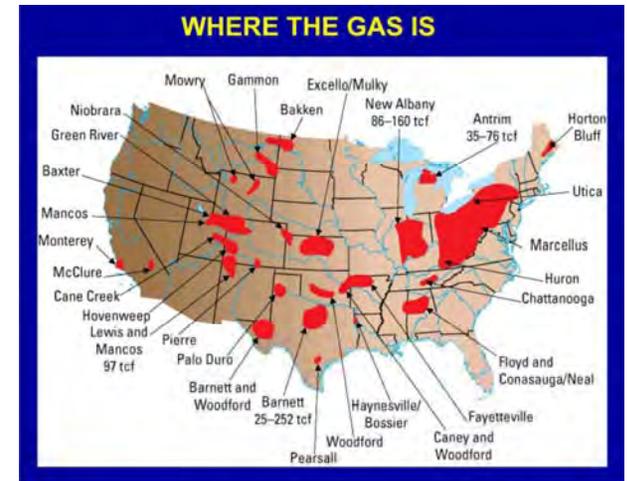
Aldo Leopold, the father of the modern conservation movement, wrote his book *A Sand County Almanac* about the beauty and wildlife abundance of Wisconsin's sand belt, a broad swath of the state stretching from the Illinois border north and west as far as Burnett County, and extending into southeastern Minnesota and northeastern Iowa. Known for its rolling hills and pastoral farm country, the sand country has recently drawn the interest of more than just farmers and sportsmen. It's now exploding with new sand mining operations, threatening the scenery, ecosystems, and public health, in Wisconsin as well as in other states hundreds of miles away.

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 ( $\text{SiO}_2$ ), 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.



Map from American Petroleum Institute and WI DNR

## 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.