Frac Sand Mining

The people who live in these communities are not the people profiting.

The oil and gas industry got really lucky. They need a very particular kind of sand to make hydraulic fracturing, or "fracking," work. They have found it in abundance in western Wisconsin, and that sand is cheap and far easier to get than the oil and gas it helps liberate. For their part, the residents of western Wisconsin may not have struck it so lucky as they grapple with potential health and environmental threats and weak governance that's turning a blind eye to those threats.

Fracking is the process by which hard-to-get oil and gas can be extracted from rock deep in the earth by blasting sand and water into cracks in the rock. (There is no fracking going on in Wisconsin, only mining for the sand needed for fracking.)

The process to mine and refine fracking sand (the Wisconsin Department of Natural Resources prefers the euphemism "industrial sands") pollutes air and water; the regulatory processes to oversee it are, at best, weak and incomplete.

Before **After**

This aerial view shows the impact of a frac sand mine on the landscape.

Frac sand mining threatens water in western Wisconsin (its epicenter is Trempealeau, Barron and Chippewa counties) in three ways:

- The process to purify frac sand demands huge amounts of water drawn from underground aquifers which also feed nearby drinking water wells. Some residents are seeing their wells go dry, and farmers are missing water for irrigation.
- The frac sand process water, stored in massive above-ground pits, is full of sediment and is contaminated with chemicals (flocculants) known to cause human health problems.
- Dirty water runs off the mining and processing sites. One mine's storage pit broke in 2012 and sent thousands of gallons of dirty water that one resident described as "coffee with a lot of cream" spilling into the St. Croix River. (The two culprit companies paid an $80,000 fine to the state of Wisconsin for their mishap.)

Area residents have been documenting with cameras the phenomenon of dirty water flowing off these sites. The yellowish water flows down through ditches, especially after big rainstorms, and runs eventually to nearby streams.

Problems faced by local residents are only exacerbated by a passive regulatory response to frac sand mining. Some local governments, and certainly the state government, have incautiously granted sand mining operations carte blanche to mine sand, with little regulation and oversight. The mining companies curry favor with some local governments with "grants" or playgrounds, or foist their way onto the landscape through lawsuits.Another major health concern resulting from frac sand mining is fine-particle dust. There are nearly 150 sand mines, processing plants and rail sites in western Wisconsin (there were five in 2010), and hundreds of (mostly uncovered) dump trucks hauling the sand. Dust flies around freely from all these operations, endangering anyone nearby who breathes.

Citizens have recently launched a petition to compel the Wisconsin Department of Natural Resources to complete a "strategic analysis" of the environmental impacts of increasing frac sand mine activity. This is a tool that DNR can use to study complex and contentious natural resource issues and determine if existing regulations adequately protect people and the air and water they rely on.

There was an attempt in early 2014 by the Legislature to take away what little control local governments have over frac sand mining. A vociferous outcry by local government officials beat back that legislation, but Capitol observers expect to see that bill again in 2015. Unlike 23 other states that use severance taxes to recoup damages from resource extraction, Wisconsin has never even considered drawing some general economic benefit through fees or taxes on frac sand removal. The sand industry's main defense is job creation and local economic development. However, the industry has not revealed how many people it employs or the value of those jobs, and the real value of the sand is realized only after it leaves Wisconsin.

With the explosion of frac sand mines and the weak regulation of their cumulative impacts, Wisconsin residents risk bearing all the cost of dirty air and water and seeing little benefit in return.

Anita Adams

Anita Adams finds the hills and dales of Trempealeau County, where she gardens and rides horses and plays outside on the 49-acre farm she owns with her husband, to be one of the most spectacular landscapes she's ever seen. Now, she's seeing the woods, wetlands and prairies that her farm encompasses – not to mention all the surrounding communities and counties – being threatened by an explosion in frac sand mines. Why, Anita asks, would we risk the land and water resources and quality of life in western Wisconsin to the long-term detriment of so many and the short-term profit of a very few?

She can't go very far without coming across big open areas of sand, where the hills of this once wonderfully scenic area are now being stripped away and include huge piles of sand and mining equipment. Local roads are now heavily traveled with the sand trucks coming and going from the growing number of mining sites.Anita has always had a zest for improving and beautifying her surrounding environments. She's an avid hiker, kayaker and explorer, not to mention a frequent entertainer who has been known to play the washboard. But what has transpired recently in her community has sobered her.

Mostly, Anita worries about the many effects of sand mining on water. Mines use huge amounts of water in their processing, drawing down the aquifers that residents use for their drinking water. Contaminants from sand processing threaten to pollute those aquifers, and the runoff that results from mining and processing sites flows into and contaminates local lakes and streams.