



**SIERRA
CLUB**

IOWA CHAPTER

Iowa Sand Used in Fracking

Hydraulic fracturing, also called fracking, is one of the methods used to extract natural gas and oil from rocks under the earth's surface. The process first involves drilling a hole into the shale formation, thousands of feet underground. Then the extractors inject silica sand, water and chemicals, under pressure, into the bored hole. The injected materials fracture the shale rocks, which frees the natural gas and oil. The sand functions to keep the fractures in the shale rock open.

Demand for the silica sand is huge. The coveted sand has a unique spherical shape that is fairly uniform in size. It is also tough and durable and can withstand the fracking process.

Silica sand is close to the surface in northeast Iowa, in Winneshiek, Allamakee and Clayton Counties. It is also prevalent in southeast Minnesota, southwest Wisconsin and northwest Illinois. The sandstone deposits are readily accessible in the Upper Midwest, in three formations called St Peter Sandstone, Jordan and Winewoc.



The Chapter supports local control over the siting of silica mines. Local officials know best where to site these mines, taking into account karst formations, productive fishing holes, trout streams, homes, businesses, tourist areas, current land use, scenic bluff lands and natural areas.

Silica sand mining has significant effects on the local community.

- The mined sand is shipped on barges, via rail, or in trucks, resulting in increased truck traffic in the areas near the mines and in major transportation corridors away from the mines. The mining and processing of the silica sand creates noise in the neighboring communities, as well as the noise created from transporting the sand away from the mine.
- Open pit mining creates irreparable scars on the landscape and destroys the scenic beauty. Mitigation attempts following the sands' extraction cannot reconstruct the scenic beauty that was destroyed by the mine.
- Open pit mining destroys farmland. Lands reconstructed after completion of the mining are not as fertile as they were prior to the mine's development.
- The sand leaks from the trucks hauling it. Because the sand is light-weight, it is picked up by the wind and blown across the landscape. Breathing silica sands causes health problems, mainly a chronic disease called silicosis. This is a public health issue for the workers as well as the mine's neighbors and in transportation corridors.