

EMERGING SCIENCE

Nebraska Water Science Center

Proposed Fracking Wastewater Injection, Sioux County

Terex Energy Corporation has applied to inject fracking wastewater into an existing oil well in Sioux County. Fracking wastewater would be trucked to the site in approximately 80 trucks per day. The site initially would process 10,000 barrels of wastewater per day. The injection well will be drilled to a depth of 7,296 feet. Initial injections would be into the Spearfish sandstone at a depth of about 6,100 feet. Additional injections could be into the Sundance sandstone (about 5,800 ft) if the pressure in the Spearfish sandstone reaches unacceptable levels.

Citizens, private groups, and Federal, State, and local agencies have expressed concern over the injection well. Concerns include injection-related earthquakes, effects on drinking water and water supplies, potential impacts on Scotts Bluff National Monument, increase in truck traffic and related impacts on highways and roads, and contamination from wastewater spills.

The National Park Service (NPS) is concerned with impacts to the Agate Fossil Beds National Monument, Scotts Bluff National Monument, Chimney Rock National Historic Site, and Fort Laramie National Historic Site as well as visitor and employee safety due to increased truck traffic. Additionally, NPS has expressed concern regarding surface-water and groundwater resources, not only at the injection site, but in all areas that could be affected by potential spills. NPS has suggested that water-quality monitoring be required in the vicinity of the well. Injection-induced seismic vibrations also have the potential to damage the fragile tunnel system at Scotts Bluff, rock formations at Scotts Bluff and Chimney Rock and quarry sites at Agate Fossil Beds.

NEWSC will provide science support to the National Park Service and the city of Scotts Bluff including assistance with placement of a seismograph near Scotts Bluff National Monument.

