The two years of drought in the central United States is placing strains on the water-intense oil and gas fracking industry, according to a new study Wednesday.

Nearly 50 percent of the wells drilled since 2011 using hydraulic fracturing, aimed at exploiting hard-to-tap oil and gas deposits, are in areas with "high or extremely high water stress," according to the study by Ceres, a non-profit group promoting sustainability in business.

That could put fracking operations in conflict with other users, or increasingly strained groundwater resources, including farmers and ranchers in the US midwest and west.

The deepest strains are in Texas, home to a boom in fracking over the past three years, where the recent drought has also been the most intense.

Also facing major problems are frackers in California, experiencing its worst drought in a century.

Fracking wells can use six times as much water on average than conventional drilling.

In addition, fracking for natural gas uses much more than oil-targeted wells, exacerbating the water stresses in areas like the Eagle Ford region in Texas.

The study warned that local officials will be tested to manage water resources which could hurt companies using fracking, and that the companies using the most water in the most drought-affected regions could face challenges.

Among those, it named Chesapeake Energy and EOG Resources as the largest users of water in fracking.

"Future water demand for hydraulic fracturing will only grow with tens of thousands of additional wells slated to be drilled," the study warned.

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