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Texas faces significant threat of earthquake activity resulting from both natural processes, fracking

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AREAS IMPACTED BY SEISMIC ACTIVITY

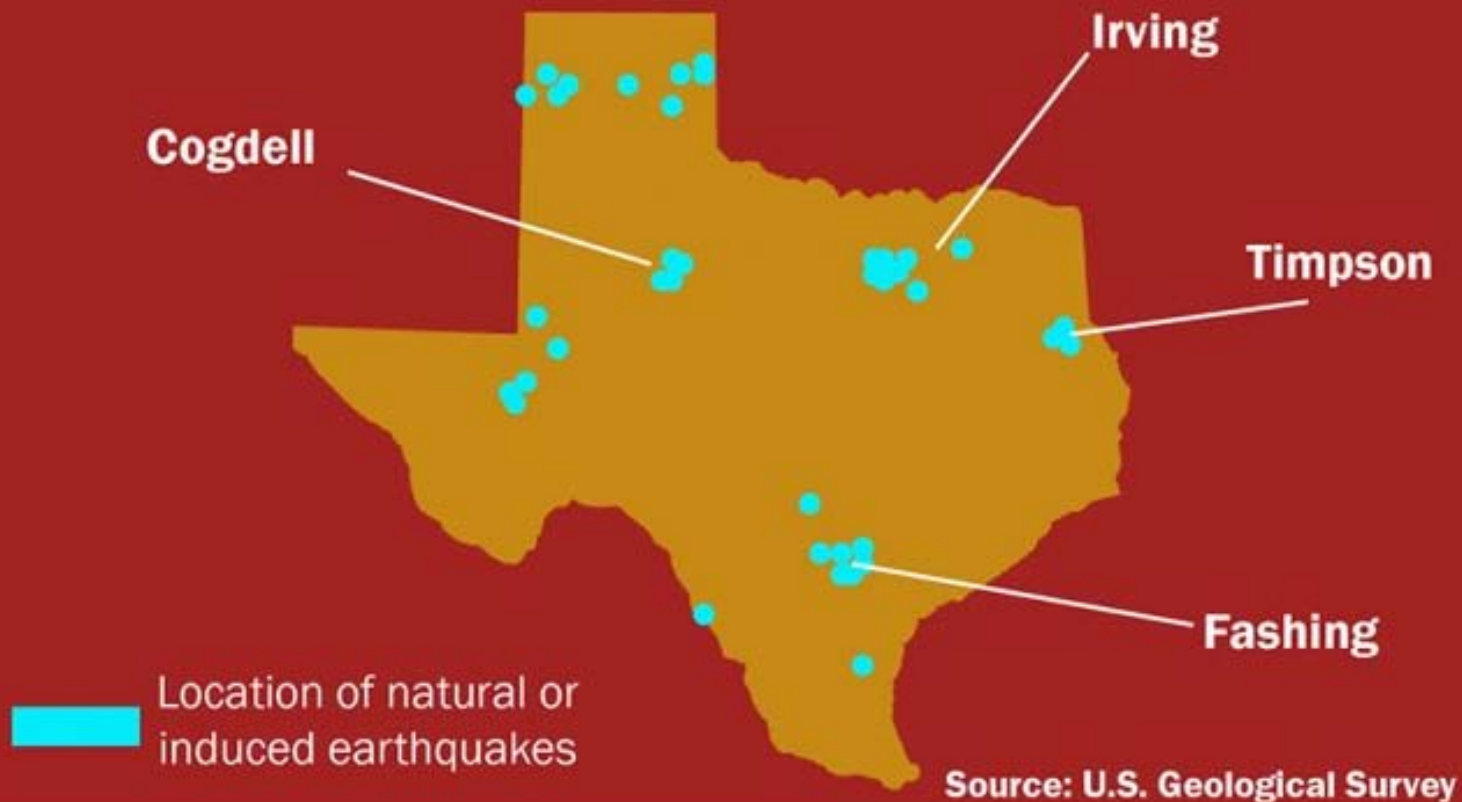


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BY [FORREST MILBURN](#)

Texas is one of six states facing the most significant threat from earthquakes as a result of both natural earth shaking and energy extraction processes, according to a recent report.

On March 28, the United States Geological Survey (USGS) released maps identifying areas around the country with heightened earthquake activity from both natural earthquakes and those resulting from human activity.

USGS seismologist George Choy said the maps are a one-year forecast on natural earthquakes and the effects of wastewater disposal from energy extraction, providing research and data to educate the public and to help governmental officials make more informed environmental and energy decisions.

“In the past few years, the increase in oil and gas extraction and the need to dispose of the wastewater has caused a tremendous amount of activity,” Choy said. “The problem is, this activity is short term and it could be controlled by external factors.”

Hydraulic fracturing, or fracking — an extraction technique that uses water and chemicals to retrieve natural gas from underground deposits — has been at the center of legislative and policy disputes over whether the process is one of the main human-induced causes to the uptick in earthquakes nationwide.

Fracking shoots water into typically shallow formations of resources in the ground, which can lead to small-scale earthquakes that typically go unnoticed, physics professor Michael Marder said.

“I’m not sure what the maximum magnitude has been, but none of them have yet to be a very large earthquake,” Marder said. “[The problem is] they have been occurring in areas where they’ve previously been unknown.”

Choy said that although fracking has received “a bad name” lately, it is not the extracting of oil and gas, but actually the disposal process of wastewater as a result, that leads to increased earthquake activity.

The wastewater disposal penetrates deeper into the ground than the actual fracking process and is absorbed into permeable sandstone, leading to slipping if there is a fault nearby, Marder said.

Peter Hennings, research scientist with the Bureau of Economic Geology at the University, is currently the principal investigator in UT’s Center for Integrated Seismicity Research, where his team is aiming to understand “false triggering mechanisms,” or how much new fluid is needed to cause an existing fault to move.

Hennings’s research team hopes to use its research to build a network of detectors that could predict human-induced earthquakes and help cities prepare ahead of time, which is expected to be operating towards the end of the year, Hennings said.

“With that research, those stakeholders will learn more about what’s going on in Texas and they will be able to formulate better ideas and it may inform future regulations as a product of that,” Hennings said.

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TXsharon · 23 days ago

Isn't it interesting that all the areas marked on the map are areas of intense oil and gas activity?

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DrangUndSturm > TXsharon · 23 days ago

Now now, don't be hasty.

I'm sure TX RRC's pet seismologist has an perfectly logical explanation that doesn't fly in the fact of science accepted everywhere except inside RRC headquarters.

Or maybe not.

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Smoky Joe · 23 days ago

Natural gas companies tell us that they would never hurt the environment - in the ground, above the ground, below the ground, in the atmosphere. They're rich and successful. Why shouldn't we trust

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