

PUBLICATION

Study Concludes Fracking Not a Major Threat to Groundwater

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June 15, 2018

A peer-reviewed study from Penn State University's Earth and Environmental Systems Institute has found that the heavy drilling in the Marcellus Shale in Bradford County, Pennsylvania has not negatively impacted groundwater.

Bradford County has 1,400 new gas wells. The study analyzed groundwater samples collected near 1,385 of those wells and compared them to samples collected by the Pennsylvania Department of Environmental Protection before the Marcellus development in the 1990s.

The data led the researchers to the overall conclusion that the groundwater had either improved or experienced no change. They did find, however, slightly elevated methane levels in some of the samples – near seven out of the 1,385 wells tested. The majority of the elevated methane samples were near mapped faults and anticlines (ridge-shaped folds of stratified rock in which the strata slope downward from the crest). According to the researchers, this indicates natural methane migration, as opposed to methane contamination from biogenic or thermogenic sources.

The report credits any improvement in groundwater to the Clean Air Act, decreases in coal mining and steel manufacturing in the region, and the conversion of power plants from coal to natural gas.