

How close is too close? Hydrofracking to access natural gas reservoirs poses risks to surface water

October 18 2011

Natural gas mining has drawn fire recently after claims that hydraulic fracturing, an increasingly popular technique for tapping hard-to-reach reservoirs, contaminates groundwater. Surface lakes, rivers and streams may also be at risk.

In an eView paper of *Frontiers in Ecology and the Environment*, researchers from the University of Central Arkansas, University of Arkansas and the [Environmental Protection Agency](#) estimate the average proximity of drill platforms to surface lakes and streams for two large shale basins underlying much of the eastern US. They review available information on potential threats to surface waters, and conclude that policy makers have woefully little data to guide accelerating natural gas development.

Hydrofracking wells expose nearby streams to loose sediments and hazardous fracturing fluids, and draw away large amounts of water. The technique forces high pressure fluid into dense rock, creating cracks through which trapped natural gas escapes and can be collected from the drill shaft. Developed in the 1940s, the technique gained wide application in the 1990s as gas prices rose and technology to drill horizontally away from a vertical well shaft made "unconventional" drilling profitable. Demand is up for natural gas because it burns cleaner than coal or petroleum, producing less [greenhouse gas](#) and smog.

But concerns about toxic components of fracking fluids, such as diesel, lead, [formaldehyde](#), and other [organic solvents](#), are undermining the green reputation of natural gas. "What will happen as fracking doubles, triples, over the next 25 years? How should we set policy to protect resources and ecosystems?" the authors ask. "We don't have the data to decide. We need to generate it."

More information: Read more at:

www.esajournals.org/doi/abs/10.1890/11005

Provided by Ecological Society of America

Citation: How close is too close? Hydrofracking to access natural gas reservoirs poses risks to surface water (2011, October 18) retrieved 23 June 2024 from

<https://phys.org/news/2011-10-hydrofracking-access-natural-gas-reservoirs.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--