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Fracking's total environmental impact is staggering, report finds



A new report details the sheer amount of fracking in the United States. CREDIT: AP PHOTO/BRENNAN LINSLEY, FILE

The body of evidence is growing that fracking is not only bad for the global climate, it is also dangerous for local communities.

And affected communities are growing in number. A new report, released Thursday, details the sheer amount of water contamination, air pollution, climate impacts, and chemical use in fracking in the United States.

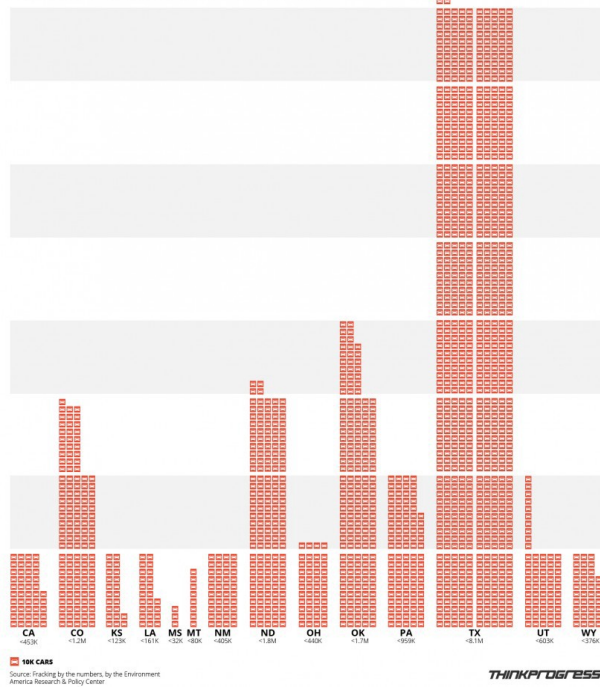
“For the past decade, fracking has been a nightmare for our drinking water, our open spaces, and our climate,” Rachel Richardson, a co-author of the paper from Environment America, told ThinkProgress. Fracking, a form of extraction that injects large volumes of chemical-laced water into shale, releasing pockets of oil and gas, has been on the rise in the United States for the past decade, and the sheer numbers are staggering. Environment America reports that at least 239 billion gallons of water—an average of three million gallons per well—has been used for fracking. In 2014 alone, fracking created 15 billion gallons of wastewater. This water generally cannot be reused, and is often toxic. Fracking operators reinject the water underground, where it can leach into drinking water sources. The chemicals can include formaldehyde, benzene, and hydrochloric acid.

Fracking is also bad news for the climate. Natural gas is 80 percent methane, which traps heat 86 times more effectively than CO₂ over a 20-year period. Newly fracked wells released 2.4 million metric tons of

methane in 2014—equivalent to the annual greenhouse gas emissions of 22 coal-fired power plants.

Methane Emissions from Wells Completed in 2014

Equivalent to emissions from this many cars



CREDIT: Dylan Petrohilos/ThinkProgress
“Whether you are already on the front lines of fracking or are simply worried about your children having a safe future, the numbers don’t lie,” Richardson said.

At this point, more than a thousand square miles of the country have been disturbed by fracking activity, the report says, with 137,000 fracking wells drilled or permitted across more than 20 states.

“I think the report paints a frightening picture of fracking’s

harms,” Richardson said. “A lot of these harms are things that people living on fracking’s front lines are experiencing first hand.”

It’s not just humans who are being impacted. In one area of Wyoming, the mule deer population has fallen by 40 percent in the past 15 years—coinciding, the report says, with a fracking boom in the Pinedale Mesa region.

The detrimental results of fracking are borne up by a slew of stories and lawsuits documenting the practice’s impact on local communities.

Two families in Pennsylvania were awarded more than \$4 million in March—ending a seven-year legal battle against a fracking company they said contaminated local water sources. Last summer, a Texas man was severely burned after methane, allegedly from nearby fracking, caused an explosion in his well shed. Meanwhile, in Oklahoma, earthquakes are on the rise, and at least one woman is suing a local oil and gas company for damages from injuries incurred during an allegedly fracking-related earthquake.

Last summer, scientists in Texas found elevated levels of cancer-causing chemicals in the drinking water in one of the state’s major fracking regions.

Moreover, fracking just one part of a growing phenomenon that is

putting Americans at risk: our entire natural gas system. Fracking is just



the first step. Natural gas transportation—largely through an extensive pipeline system—also poses serious risks and environmental degradation. In Pennsylvania, a group of farmers is fighting eminent domain claims that have allowed a pipeline construction company to come onto their property and cut down trees to run a liquified natural gas (LNG) pipeline that will ultimately connect with export terminals along the east

coast. Natural gas storage is an issue: The nation's largest-ever natural gas leak occurred this past winter, when a Southern California storage facility released more than 97,000 metric tons of methane—a potent greenhouse gas—into the atmosphere.

On the distribution side, there are dangers, too. In 2010, an LNG pipeline exploded in San Bruno, California, killing eight people, injuring dozens more, and destroying homes in the Bay Area suburb. The Environmental Defense Fund and Google teamed up on a series of studies of methane leaks and found that older cities, such as Boston, are riddled with leaky pipes.

President Obama recently announced that the EPA will begin a rule-making process for limiting methane from existing oil and gas facilities. Some states are also fighting back against fracking. New York State has banned fracking, while Maryland has put a moratorium on the practice, pending further investigation into its risks. On Wednesday, a Maryland county became the first in the state to ban fracking outright.

The report's authors are hoping that putting all this data together can help convince policymakers and communities to take the threat of fracking seriously—and to do something about it.

“The best way to protect our health from fracking is to ban this practice and keep these dirty fuels in the ground,” Richardson said.