

10 Years of Fracking: Its Impact on Our Water, Land and Climate

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In a single year, [fracking](#) wells across the country released at least 5.3 billion pounds of the potent greenhouse gas [methane](#), as much [global warming](#) pollution as 22 coal-fired power plants.

The statistic is one of many in a new [study](#) by Environment America Research & Policy Center that quantifies the environmental harm caused by more 137,000 fracking wells permitted since 2005.



Fracking wells across the country released at least 5.3 billion pounds of the potent greenhouse gas methane, as much global warming pollution as 22 coal-fired power plants. Photo credit: Environment America Research & Policy Center

“The numbers in this report don’t lie,” Rachel Richardson, director of Environment America’s Stop Drilling program and co-author of the report, said. “For the past decade, fracking has been a nightmare for our drinking water, our open lands and our climate.”

Today’s analysis, an update of a similar 2013 study, paints a frightening picture of fracking’s harms in addition to its global warming pollution—including toxic chemical use and destroyed land.

“In just the last two and a half years, the number of fracked oil and gas wells has increased by 55,000,” Elizabeth Ridlington, policy analyst with Frontier Group and co-author of the report, said. “That growth in fracked wells means more polluted water, more toxic chemicals and more communities at risk.”

The major findings of *Fracking by the Numbers: The Damage to Our Air, Water and Climate from a Decade of Dirty Drilling* include:

- During well completion alone, fracking released **5.3 billion pounds of methane in 2014**, a pollutant 86 times more powerful than carbon dioxide over the course of 20 years.
- Fracking wells produced **at least 14 billion gallons of wastewater in 2014**. Fracking wastewater has leaked from retention ponds, been dumped into streams and escaped from faulty disposal wells, putting drinking water at risk. Wastewater from fracked wells includes not only the toxic chemicals injected into the well but also can bring naturally occurring radioactive materials to the surface.
- Between 2005 and 2015, fracking used **at least 23 billion pounds of toxic chemicals**. Fracking uses of vast quantities of chemicals known to harm human health. People living or working nearby can be exposed to these chemicals if they enter drinking water after a spill or if they become airborne.
- At least **239 billion gallons of water have been used in fracking** since 2005, an average of 3 million gallons per well. Fracking requires huge volumes of water for each well—water that is often needed for other uses or to maintain healthy aquatic ecosystems.
- Infrastructure to support fracking has directly **damaged at least 675,000 acres of land since 2005**, an area only slightly smaller than Yosemite National Park. Well pads, new access roads, pipelines and other infrastructure built for

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fracking turn forests and rural landscapes into industrial zones.

Given the scale and severity of fracking's impacts, the report says fracking should be prohibited wherever possible and stricter regulations should be enacted to better protect communities already on the frontlines of drilling.

The report also gives lift to the effort to convince President Obama to end new fracking and drilling leases on public lands and in public waters, in order to keep upwards of 450 billion tons of global warming pollution out of the atmosphere.

“From contaminated water, to marred landscapes, to increased global warming pollution, fracking has been an environmental disaster,” said Richardson. “The best way to protect our health and climate from this dirty drilling is to ban it altogether and keep fossil fuels safely [in the ground](#).”