

Fracking-related activity has turned this well pad in western Pennsylvania into an industrial site.

Fracking by the Numbers

The Damage to Our Water, Land and Climate from a Decade of Dirty Drilling



A producing well, with drilling equipment removed.

Since 2005, according to industry and state data, at least 137,000 fracking wells have been drilled or permitted in more than 20 states. Fracking has led to tremendous environmental harm and put the health and safety of communities across the country at risk.

Fracking's Rapid Growth

Fracking is the relatively new process of injecting water, chemicals and sand into horizontal wells under high pressure to crack rock and release oil and gas. It has enabled oil and gas companies to expand drilling operations to new regions, exposing more Americans to the environmental and public health threats of oil and gas production. The states with the most fracked oil and gas wells are Texas (55,000), Colorado (23,000) and Pennsylvania (9,000).

As the oil and gas industry expands its operations in Florida, **more than 80 cities and counties throughout the state have voiced opposition to fracking.**

Toxic Chemicals

Fracking uses vast quantities of chemicals known to harm human health. According to industry-reported data in the FracFocus database, oil and gas wells fracked across the U.S. between 2005 and 2015 used at least:

- 5 billion pounds of hydrochloric acid, a caustic acid;
- 1.2 billion pounds of petroleum distillates, which can irritate the throat, lungs and eyes; cause dizziness and nausea; and can include toxic and cancer-causing agents; and
- 445 million pounds of methanol, which is suspected of causing birth defects.

People living or working nearby can be exposed to these dangerous substances if chemicals enter drinking water after a spill or if volatile pollutants become airborne.



Fracking wells around Big Cypress and the Everglades could lead to destruction of Florida's wilderness.



Fracking wastewater pours into a pit in California.

Threatening Drinking Water

Across the country, fracking wastewater has leaked from retention ponds or escaped from faulty disposal wells, putting drinking water at risk. For example, Pennsylvania regulators have confirmed at least 260 instances of private well contamination from fracking operations since 2005, a number that is likely a severe underestimate.

Fracking wells produced at least 14 billion gallons of wastewater in 2014. Fracked oil and gas wells produced 8.6 billion gallons of wastewater in New Mexico, 3.1 billion gallons in Colorado, and 1.8 billion gallons in Pennsylvania. Data are not available for some states with extensive fracking, such as Texas and North Dakota.

Over 90 percent of Floridians rely on groundwater to drink; we can't risk our rivers, lakes and drinking water to a drilling practice that has polluted waterways across the country.

Triggering Earthquakes

The injection of this fracking wastewater into underground disposal wells has been linked to earthquakes in several states. Such induced quakes have happened in Arkansas, Colorado, Kansas, Ohio, Oklahoma and Texas. Oklahoma has been particularly hard hit, with seismic activity 40 times greater since 2008 than in previous years.

Adding to Global Warming

Methane from fracking operations adds global warming pollution to the atmosphere. Methane, a global warming pollutant 86 times more powerful than carbon dioxide over the course of 20 years, is released at multiple steps during fracking, including during hydraulic fracturing and well completion, and in the processing and transport of gas to end users.

Bringing new fracked wells into production in 2014 released at least 5.3 billion pounds of methane. That's equivalent to annual global warming emissions from 22 coal-fired power plants. This estimate counts only emissions that occur as a well is brought into production, not emissions from ongoing operation of wells, or the processing, transportation or storage of gas.



For more information and the full report, please visit
www.EnvironmentFlorida.org.

Land Damaged for Fracking, Selected States

State	Acres
Texas	257,272
Colorado	105,866
Pennsylvania	52,813
New Mexico	35,273
North Dakota	33,718
West Virginia	15,272

Fracking Damages Habitat

Well pads, new access roads, pipelines and other infrastructure built for fracking turn forests and rural landscapes into industrial zones.

- Infrastructure to support fracking in the U.S. has directly damaged at least 679,000 acres of land since 2005, an area nearly as big as Big Cypress National Preserve.
- Well operators are supposed to restore damaged landscapes after drilling operations are complete, but full restoration is nearly impossible, especially as oil and gas producers struggle financially and may lack the resources to fund land restoration.

Limiting Harm from Fracking

In order to avoid the worst impacts of global warming, we must keep the vast majority of fossil fuels in the ground. That means the extensive oil and gas reserves that could be reached with fracking should not be tapped.

- The federal government should stop issuing new leases for fracking on our public lands.
- State and local governments should ban fracking.

Where fracking is already happening, state and federal officials must take action to hold the oil and gas industry to the highest standards of environmental protection, transparency and accountability. Key steps include:

- Close the loopholes that exempt fracking from key provisions of federal environmental laws.
- End the use of open pits for holding wastewater.
- Slash methane leaks from all steps in the oil and gas production process.
- Ensure that the oil and gas industry – not taxpayers – pays the costs of damage caused by fracking.
- Provide consistent, complete and easy-to-analyze data on chemicals and water used in fracking.