

## Service

## Environmental

## EPA Releases Final Report on Fracking Impacts to Drinking Water

On December 13, 2016, the U.S. Environmental Protection Agency (EPA) issued its widely anticipated final report on the impacts to drinking water sources from hydraulic fracturing, or “fracking.” In its final report, the EPA backed away from its earlier conclusion that fracking has not caused “widespread, systemic” impacts to drinking water, instead concluding that fracking activities can impact drinking water resources under some circumstances.

In 2011, the EPA initiated the study at the direction of Congress over concerns that chemicals used in fracking were impacting drinking water sources. EPA evaluated the activities in the fracking water cycle and their potential to impact drinking water resources, including (1) acquiring water to be used for fracking, (2) mixing the water with chemical additives to make frack fluids, (3) injecting frack fluids into the production well to create and grow fractures in the targeted production zone, (4) collecting the wastewater that returns through the well after injection, and (5) managing the wastewater through disposal or reuse.

### Potential Vulnerabilities in the Cycle

The final report identifies conditions under which impacts from hydraulic fracturing activities can be more frequent or severe, including:

Water withdrawals for fracking activities in times or areas of low water availability, particularly in areas with limited or declining groundwater resources.

Spills of frack fluids, chemicals or produced water that result in large volumes or high concentrations of chemicals reaching groundwater resources.

Injection of frack fluids into wells with inadequate mechanical integrity, allowing gases or liquids to move to groundwater resources.

Injection of frack fluids directly into groundwater resources.

Discharge of inadequately treated fracking wastewater to surface water resources.

Disposal or storage of fracking wastewater in unlined pits, resulting in contamination of groundwater resources.

However, the report also acknowledges that significant uncertainties and data gaps limited EPA's ability to fully assess impacts to drinking water resources, both locally and nationally. According to the report, comprehensive information on the location of activities in the hydraulic fracturing water cycle is lacking, either because it is not collected, not publicly available or prohibitively difficult to aggregate. In places where EPA is aware that activities in the fracking water cycle have occurred, data that could be used to characterize fracking-related chemicals in the environment before, during and after fracking were scarce.

EPA's conclusions in the final report differ from the conclusions reached in June 2015, when EPA released an interim report. In that draft, the EPA said that while there are ways that fracking activities could affect drinking water resources, it found no evidence "that these mechanisms have led to widespread, systemic impacts on drinking water resources." That finding was criticized by EPA's Science Advisory Board, which sought to revise EPA's summary statements to more clearly reflect the scientific conclusions in the report. In the final report, the EPA concluded that it did not have sufficient information about potential water contamination to support the broad assertion in the draft of the report.

### **What This Means to You**

The final report is meant to summarize the current science regarding fracking's impact on drinking water sources and to inform state, federal, tribal and local decision-making regarding fracking. While the report may provide some support for those seeking to impose additional regulations on fracking operations, it is unclear whether the report will be of much use in this regard. In a press release, EPA acknowledged the limitations on the report's conclusions, noting that because of data gaps and uncertainties, "it was not possible to fully characterize the severity of impacts, nor was it possible to calculate or estimate the national frequency of impacts on drinking water resources from activities in the hydraulic fracturing water cycle."

For now, it's not clear what effect the final report will have on federal, state, tribal and local policies governing fracking, which have evolved considerably since Congress first ordered the study. Since

EPA initiated the assessment, many states have imposed additional requirements on fracking activities, including requirements to report the chemicals used in fracking operations and to monitor drinking water sources near fracking operations. In the end, the report's usefulness in crafting regulations addressing fracking may simply be in the eye of the beholder.

### **Contact Us**

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