

# THE EPA, H<sub>2</sub>O AND FRACKING<sup>2</sup>

An EPA study of drinking water and hydraulic fracturing could have far-reaching implications for litigation.

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As many who work in the oil and gas industry are aware, the U.S. Environmental Protection Agency is pressing forward with a multiyear *Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources*. On January 28, 2014, the EPA hosted a webinar to provide an update on its progress.

The well-attended program drew nearly 300 participants and included a discussion of the timeline for release of the Draft Assessment Report of the study findings later in 2014. The EPA study's findings may have far-reaching impacts on litigation surrounding hydraulic fracturing.

By way of background, the EPA Study is in response to a 2009 request by the U.S. House of Representatives that the EPA conduct scientific research to examine the relationship between hydraulic fracturing and drinking water resources. According to the EPA, the purpose of the study is "to assess the potential impacts of hydraulic fracturing on drinking water resources, if any, and to identify the driving factors that may affect the severity and frequency of such impacts."

The study is examining hydraulic fracturing in a variety of geological formations. Its primary research questions focus on the following five stages of the "hydraulic fracturing water cycle" to evaluate potential impacts on the quality and quantity of drinking water:

*Water acquisition:* What are the possible impacts of large volume water withdrawals from ground and surface waters?

*Chemical mixing:* What are the possible impacts of hydraulic fracturing fluid surface spills on or near well pads?

*Well injection:* What are the possible impacts of the injection and fracturing process?

*Flowback and produced water:* What are the

possible impacts of flowback and produced water (collectively referred to as "hydraulic fracturing wastewater") surface spills on or near well pads?

*Wastewater treatment and waste disposal:* What are the possible impacts of inadequate treatment of hydraulic fracturing wastewater?

The EPA issued a Progress Report in December 2012, and hosted five Technical Workshops in 2013. The recent webinar summarized the outcomes of these Technical Workshops, and confirmed the plan and timetable for release of the Draft Assessment Report. The speakers included Jeffrey Frithsen, senior scientist for the EPA.

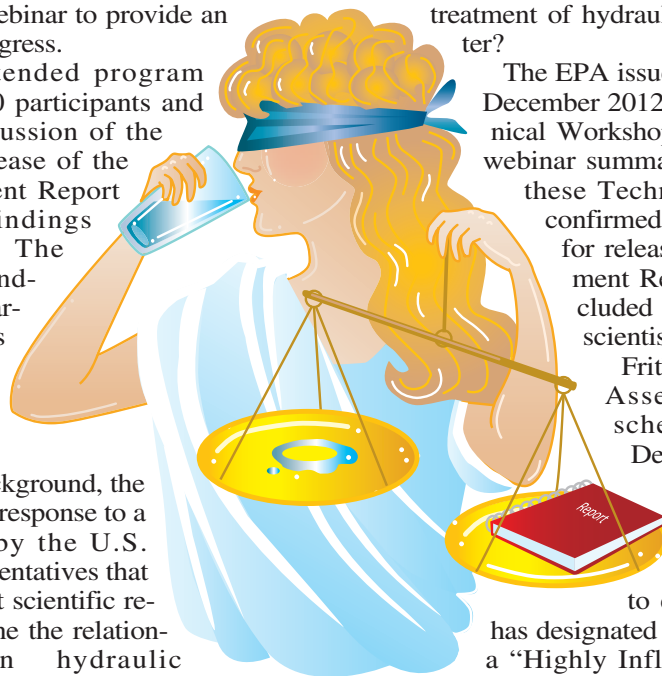
Frithsen said that the Draft Assessment Report is scheduled for release in December 2014 for a period of public comment and peer review that will last for a minimum of six to eight weeks. The EPA has designated the upcoming report as a "Highly Influential Scientific Assessment," which will undergo peer review by the EPA's Science Advisory Board.

According to Frithsen, the EPA Draft Assessment Report is intended to be a "state of the science" report that will examine potential impacts of hydraulic fracturing on drinking water related to normal operations reflecting modern typical practices; potential and actual accidents or unintended events; and potential immediate, short-term and long-term impacts.

The report will examine these potential impacts at multiple scales: single wells, clusters of wells, watershed and shale plays. (A recording of the webinar presentation can be accessed at <http://www2.epa.gov/hfstudy/2013-technical-roundtable-webinar-presentation>.)

## New evidence?

The EPA has identified four "potential uses" of the Draft Assessment Report once it is released in late 2014: to contribute to understand-



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ing of potential impacts of hydraulic fracturing on drinking water resources; identify pathways of greatest concern; inform and promote dialogue among federal, tribal, state, and local government entities, industry, NGOs and other stakeholders; and identify knowledge gaps and information needs.

However, the report may well be used for other purposes, including the possibility of being used as ammunition for the federal government to impose new regulations on hydraulic fracturing, and as potentially significant new evidence in the already increasing numbers and types of litigation concerning hydraulic fracturing.

On the regulatory front, some believe that the results of the EPA study may be used to justify new federal regulations concerning hydraulic fracturing. Currently, hydraulic fracturing is regulated primarily by state governments or by local zoning laws or ordinances.

U.S. Chamber of Commerce president Thomas Donohue recently was quoted in the media expressing his concern that the EPA study could be used to justify new federal regulations restricting drilling technologies. "This could short-circuit America's absolute explosion in energy opportunity that is creating millions of jobs," Donohue was quoted as telling a meeting of business executives in December 2013.

Shortly after that meeting, the Associated Press published data in January 2014 related to drilling-related complaints in four states: Pennsylvania, Ohio, West Virginia and Texas. The AP reported that its review confirmed more than 100 cases of water-well contamination in Pennsylvania since 2005, six cases in Ohio (none of which was related to hydraulic fracturing), and four cases in West Virginia in which the evidence was strong enough that the driller agreed to take corrective action. The AP also reported that Texas regulators had not confirmed a single case of water-well contamination from hydraulic fracturing in the past 10 years.

On Feb. 5, 2014, the EPA's Office of Inspector General announced that it was starting preliminary research on the EPA's and the states' ability to manage potential threats to water resources related to hydraulic fracturing. The OIG's stated objective is "to evaluate how the EPA and states have used their existing authorities to regulate hydraulic fracturing impacts to water resources." That means the stage may be set for the results of the Draft Assessment Report to be used to justify new federal regulations on hydraulic fracturing.

The release of the Draft Assessment Report later this year also has the potential to provide significant new evidence in the increasing numbers of lawsuits now being filed over hydraulic fracturing. This litigation includes numerous lawsuits around the country in which landowners have sued producers claiming that hydraulic

fracturing has contaminated a drinking water well or other nearby water source, in addition to litigation between producers and municipalities or local organizations over zoning or ordinances prohibiting hydraulic fracturing. At the center of most of this litigation is the express or implied assertion that hydraulic fracturing has impacted, or has the potential to impact, drinking water supplies. This presumption exists even though there has been little evidence to support such claims, notwithstanding the recent AP report noted above.

Past studies have attempted to link hydraulic fracturing with threats to drinking water supplies. For example, a 2013 study prepared by researchers at the Colorado School of Public Health and Brown University claimed to have identified an increased risk of birth defects among families living near oil and gas wells in rural Colorado.

In another instance, a chemical engineer at Duke University conducted a study of methane in shallow, residential drinking water wells in Pennsylvania. He claims to have found that the methane concentration in homes less than one mile from a fracked well was six times higher than the concentration in homes farther away. However, none of these studies will have the same legitimacy and impact that will accompany the results of the EPA Study once it is published.

Scientific evidence to support the claim that hydraulic fracturing has caused contamination of drinking water resources has been sparse in litigation to date. For this reason, many of the lawsuits by landowners have been dismissed following the entry of case management orders, which have required the plaintiffs to present scientific studies to support their claims at the beginning of case development.

If the EPA Draft Assessment Report concludes later this year that hydraulic fracturing has impacted drinking water resources, it will provide significant new scientific evidence to support private litigants who are claiming that a water resource has been, or could be, contaminated by hydraulic fracturing. However, the study also could provide support for local municipalities and groups that oppose hydraulic fracturing, many of which have used local zoning laws and ordinances, or even litigation, against producers to prohibit hydraulic fracturing in their areas.

The current schedule for the release of the Draft Assessment Report is one month after the midterm elections. In the meantime, expect to see more attention directed toward the EPA Study by the public and the oil and gas industry alike. Depending on the findings, the EPA's effort may spell more litigation for both groups. □

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