



Comments of Partnership for Policy Integrity Before Science Advisory Board Hydraulic Fracturing Research Advisory Panel Public Meeting, October 28, 2015

Regarding Peer Review of EPA's Draft Report, *Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources*

Thank you for the opportunity to comment. My name is Dusty Horwitt. I am Senior Counsel with Partnership for Policy Integrity, a nonprofit organization that provides science and legal support so that citizen groups, environmental organizations, and policymakers can better understand energy development impacts. We have already submitted detailed written comments on EPA's draft and will be making brief remarks today. While the EPA's draft study contains valuable information about hydraulic fracturing and risks to drinking water, the study falls short in at least two significant ways.

First, the EPA's widely quoted conclusion in the executive summary about how the agency did not find evidence of "widespread, systemic impacts on drinking water resources" is highly misleading. The statement implies that while evidence might come to light pointing to a different conclusion, the available data allowed EPA to make this judgment. The agency's news release went even further, omitting the word "evidence" and stating that "hydraulic fracturing activities have not led to widespread, systemic impacts to drinking water resources" as if the issue were settled. However, the body of the report highlights so many data gaps, no reasonable scientist could have drawn a conclusion about how widespread or systemic the impacts were.

For example, the agency writes on page 6-57 in the chapter on well injection that:

"The limited amount of information hinders our ability to evaluate whether—or how frequently—drinking water impacts are occurring (or the potential for these impacts to occur) or to tie possible impacts to specific well construction, operation, or maintenance practices. This also significantly limits our ability to evaluate the aggregate potential for hydraulic fracturing operations to affect drinking water resources or to identify the potential cause of drinking water contamination or suspected contamination in areas where hydraulic fracturing occurs."

On page 9-35, in the chapter on chemicals used in the hydraulic fracturing cycle, the EPA writes:

"Major knowledge gaps exist regarding the toxicity of most chemicals used in hydraulic fracturing fluids or detected in flowback/produced water, impeding the assessment of human health risks associated with drinking water resources affected by hydraulic fracturing."

We have included many other examples in our previously submitted written comments.

When EPA issues conclusions in a news release and executive summary that the agency knows will be widely read and then includes a contradictory set of findings in the body of the 1,000-page report that the agency knows will be subject to far less scrutiny, it makes it look as if the agency is intentionally misrepresenting its research. In its final report, the EPA should state simply that there is not enough evidence to evaluate how widespread or systemic impacts to drinking water are, if, indeed, the data continue to support that conclusion.

Second, while we commend the agency for taking a broad view of hydraulic fracturing from acquisition of water resources to disposal of wastewater, a close reading of the report reveals that this approach is much less than advertised. The agency finds that underground injection of often toxic fracking wastewater “predominates in most regions” as a disposal method¹ and that such injections likely comprise billions of gallons per year.² In a 1987 report to Congress, EPA provided several examples of groundwater contamination from injection disposal wells and explained how such contamination might occur.³ Other government agencies and news outlets have also found serious contamination from such injections.⁴ Yet EPA explicitly and without explanation omitted study of the risks to drinking water from this predominant disposal method⁵ while analyzing risks from other waste disposal practices.⁶ This decision appears arbitrary and will tend to leave the public uninformed about a serious risk to drinking water. Risks to drinking water from underground injections should be included in the final report.

Similarly, in its assessment of leaks and spills, EPA reported that it winnowed a data set of 36,000 such incidents, apparently in oil and gas operations generally, to just 457 spills “occurring on or near the well pad before or during the injection of hydraulic fracturing fluids or during the post-injection recovery of fluids.”⁷ This methodology excludes spills inherently related to hydraulic fracturing including those that occur during the transport of chemicals or wastewater to and from well sites even if they happen one foot off the well pad, spills of fluids required to drill a well prior to fracking, and spills on or off the well pad of diesel fuel that is required to operate machinery for hydraulic fracturing. Such spills and leaks should be included in the final report. EPA also omits analysis of whether chemicals used in the drilling process might migrate into underground aquifers. Drilling a well must precede hydraulic fracturing and is an inherent part of the process. Therefore, risks of underground migration of drilling fluids should be included, especially because, as EPA implies, drilling can pass through groundwater before any casing or cement can be installed that would seal off groundwater from chemicals.⁸

In general, in determining the study’s scope, the EPA should ask: if a decision is made to use hydraulic fracturing, what risks to drinking water will occur? The agency should be more rather than less inclusive in its answer so that citizens and policymakers can have as clear an understanding as possible about the risks.

¹ U.S. Environmental Protection Agency, *Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources* (June 2015) at 8-13, http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651#_ga=1.153195832.1217573734.1428522095.

² Id. at 8-5, 8-7, 8-8, 8-73.

³ U.S. Environmental Protection Agency, Report to Congress: Management of Wastes from the Exploration, Development and Production of Crude Oil, Natural Gas, and Geothermal Energy (December 1987) at III-39; III-47, 48; IV-40; IV-46; IV-53, 54; IV 65, 66.

⁴ Texas Department of Agriculture, *Agricultural Land and Water Contamination from Injection Wells, Disposal Pits, and Abandoned Wells Used in Oil and Gas Production* (1985) at 10-15. General Accounting Office, *Safeguards Are Not Preventing Contamination From Injected Oil and Gas Wastes* (1989), <http://www.gao.gov/products/RCED-89-97>. Abrahm Lustgarten, *Injection Wells: The Poison Beneath Us*, ProPublica (June 21, 2012), <http://www.propublica.org/article/injection-wells-the-poison-beneath-us>.

⁵ Id. at 8-20.

⁶ Id. at 8-23 through 8-27 (centralized waste treatment facilities), 8-27 through 8-28 (reuse), 8-32 (evaporation), 8-34 (publicly owned treatment works), 8-35 through 8-36 (land application), 8-58 through 8-73.

⁷ Supra note 1, at 5-42, 5-43.

⁸ Supra note 1, at 2-10, 2-11.