

In Their Words

Draft Assessment on Potential Impacts from Hydraulic Fracturing for Oil and Gas on Drinking Water Resources



*Top scientists on the Science Advisory Board Panel reviewed the draft Assessment chapter-by-chapter and agreed that the lead messaging in the Executive Summary is not supported by the underlying data in the body of the report. Comments from the experts concluded:**

“EPA should state what is specifically meant by ‘widespread, systemic,’ and to what extent the methodology used in the assessment was capable of detection of such impacts had they occurred.” – *Dr. Joseph DeGeorge [p. 157]*

“I do not think that the document’s authors have gone far enough to emphasize how preliminary these key conclusions are and how limited the factual bases are for their judgments.” – *Dr. James Bruckner [p. 156]*

“However, I was looking for additional synthesis to support EPA’s major finding: “We did not find evidence that these mechanisms have led to widespread, systemic impacts on drinking water resources in the United States.” EPA does qualify this statement in the next paragraph by stating that this finding could reflect a rarity of effects or be due to a number of limiting factors.” – *Dr. Abby Li [p. 161]*

“The report reads: “The number of cases is small compared to the number of hydraulically fractured wells.” The descriptor “small” is vague (and subjective). Can this be quantified (based on the available data) or a more precise description provided?” – *Dr. James Saiers [p. 164]*

“Put another way, there are about 700 pages (24,000 lines) presenting the potential impacts of hydraulic fracturing on water resources and human health but only 2 lines concluding that it is not a universal problem. Talk about a surprise ending!” – *Dr. Scott Blair [p. 151]*

“The primary limitation of the study is appropriately identified as lack of data altogether, or lack of databases that allow analysis of the relationship between HF well injection and DW.” – *Dr. Daniel J. Goode [p. 85]*

“Although thousands of wells are established for hydraulic fracturing each year, there is limited data specific to these types of operations.” – *Dr. Bruce D. Honeyman [p. 86]*

“The key point here is available information, which is lacking from what is desirable. In general monitoring information of conditions before, during, and after fracking is not available. Well construction details and operational data is not available. An important aspect for potential contaminant risk is old and abandoned wells, which exist in large numbers, are not located, and in many cases have not been adequately plugged.” – *Dr. Cass T. Miller [p. 87]*

“Significant gaps in knowledge exist. The report would be strengthened by outlining steps that could be taken in the spirit of the precautionary principle to prevent contaminant risks from fracking and yield the sorts of data currently missing from the record to allow a more mature understanding of risks to drinking water resources.”

– Dr. Cass T. Miller [p. 88]

“However, since the literature and data available are still coming in and the reporting are from limited observations from a small subset of spatial locations and temporal conditions, I don’t think we can make any broad reaching conclusions at this time.”

– Dr. Joel Ducoite [p. 103]

“It is unfortunate that so many constituents are proprietary, and that companies are allowed to freely utilize unknown chemicals of unknown hazard potential in large quantities. It does not appear there is an accurate characterization of the identity or concentrations of chemicals in flowback or produced water, due to the meager amount of information available.”

– Dr. James V. Bruckner [p. 132]

“There is a major gap in knowledge of CBI [Confidential Business Information] chemicals. The absence of disclosure to the public and exclusion from the assessment report of any aggregate information on the potential hazard posed by these chemicals is a significant information gap.”

– Dr. Joseph J. DeGeorge [p. 137]

“Based on public comments, EPA may not have adequately supported the major findings.”

– Dr. Abby A. Li [p. 162]

“This reviewer felt that in many places the impacts that were found in the chapters were “downplayed” or covered in a context of uncertainty.”

– Dr. Elaine M. Faustman [p. 159]

“However it is the opinion of this reviewer that the document does not adequately address the factors affecting the frequency or severity of any potential health impacts.”

– Dr. Elaine M. Faustman [p. 138]

“The EPA’s conclusion that the EPA did not find evidence of widespread, systemic impacts on drinking water resources has been widely quoted and interpreted in many different ways. The executive summary and press materials should be carefully reworded, to be clearer on their meaning and interpretation.”

– Dr. Elizabeth W. Boyer [p. 155]

“Estimates of the frequency of on-site spills were based upon information from just two states.”

– Dr. James V. Bruckner [p. 156]

“EPA should state what is specifically meant by “widespread, systemic,” and to what extent the methodology used in the assessment was capable of detection of such impacts had they occurred.”

– Dr. Joseph J. DeGeorge [p. 157]

“The major finding is that the potential impact is site-specific (local) depending on all of the factors/mechanisms identified in the various steps of the water cycle for hydraulic fracturing. This is a different concept than not being systemic.”

– Dr. Laura J. Pyrak-Nolte [p. 163]

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