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August 16, 2016

The Honorable Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460

Dear Administrator McCarthy:

This letter is being sent on behalf of the Independent Petroleum Association of America (IPAA). IPAA represents the thousands of independent oil and natural gas explorers and producers, as well as the service and supply industries that support their efforts, that will most directly be impacted by the U.S. Environmental Protection Agency (EPA) policy decisions to regulate methane directly from the oil and natural gas sector. Independent producers develop about 95 percent of American oil and natural gas wells, produce 54 percent of American oil, and produce 85 percent of American natural gas. Historically, independent producers have invested over 150 percent of their cash flow back into American oil and natural gas development to find and produce more American energy. IPAA is dedicated to ensuring a strong, viable American oil and natural gas industry, recognizing that an adequate and secure supply of energy is essential to the national economy.

Back in December, IPAA wrote to you regarding its concern that the Hydraulic Fracturing Panel of the Environmental Protection Agency's (EPA) Science Advisory Board (SAB) was preparing to pressure the agency into reversing its topline finding, namely that "hydraulic fracturing activities have not led to widespread, systemic impacts to drinking water resources."

The SAB has now released its final recommendations<sup>1</sup> on EPA's landmark groundwater study. Despite producing four drafts coming in at almost 200 pages each, not once has the SAB ever pointed to any evidence that contradicts EPA's finding that hydraulic fracturing has "not led to widespread, systemic impacts" on drinking water sources. Therefore, the SAB ultimately was not able to justify officially asking EPA to change or eliminate its topline finding in its final recommendations.

The SAB does, however, make a request that borders on the absurd: it asks EPA to *prove that there are not* widespread, systemic impacts to groundwater from hydraulic fracturing. The section of the recommendations that perhaps best illustrates this occurs when the SAB requests that EPA alter its finding that fracturing fluid spills have not impacted groundwater because "this major finding is supported only by an absence of evidence rather than by evidence of absence of impact."

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<sup>1</sup> SAB Review of the EPA's draft Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources:

[https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthBOARD/BB6910FEC10C01A18525800C00647104/\\$File/EPA-SAB-16-005+Unsigned.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthBOARD/BB6910FEC10C01A18525800C00647104/$File/EPA-SAB-16-005+Unsigned.pdf)

In other words, SAB is asking EPA to prove a negative. The fact that EPA spent five years gathering data and information and, in that time, could find nothing to support widespread or systemic impacts on underground sources of drinking water is indeed evidence of absence. Importantly, the SAB itself provided no evidence to contradict EPA's topline finding. If SAB has such evidence, it should release it for public review. Absent any such evidence, however, SAB's request is unsustainable.

To be clear, there is nothing ambiguous about EPA's finding. The terms "widespread" and "systemic" are clearly defined and unequivocal. EPA even offers more clarity, noting that while there were some instances of water impacts (not from the process of hydraulic fracturing itself but from related activities, such as well casing failures or fluid spills on the surface), the number of these instances "was small compared to the number of hydraulically fractured wells."

Hydraulic fracturing has been extensively studied since its first commercial application in the 1940s, not only in EPA's five year comprehensive study, but also in numerous studies by other prestigious institutions.<sup>2</sup> In fact, in 2004, EPA published a separate comprehensive assessment of potential groundwater impacts from hydraulic fracturing. Here is what the EPA concluded<sup>3</sup> in 2004:

Based on the information collected and reviewed, EPA has concluded that the injection of hydraulic fracturing fluids into CBM [coalbed methane] wells **poses**

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<sup>2</sup> Some of these studies include: Drollette et al., "Elevated levels of diesel range organic compounds in groundwater near Marcellus gas operations are derived from surface activities," *Proceedings of the National Academy of Sciences*, June 2015: <http://www.pnas.org/content/112/43/13184.abstract>; Jackson et al., "The Depths of Hydraulic Fracturing and Accompanying Water Use Across the United States," *Environmental Science and Technology*, July 21, 2015: <http://pubs.acs.org/doi/abs/10.1021/acs.est.5b01228?journalCode=esthag>; California Council on Science and Technology and Lawrence Berkeley National Laboratory, *An Independent Scientific Assessment of Well Stimulation in California, Volume II: Potential Environmental Impacts of Hydraulic Fracturing and Acid Stimulation*, July 2015: <http://ccst.us/publications/2015/2015SB4-v2.pdf>; Siegel et al., "Methane Concentrations in Water Wells Unrelated to Proximity to Existing Oil and Gas Wells in Northeastern Pennsylvania," *Environmental Science and Technology*, March 12, 2015: <http://pubs.acs.org/doi/abs/10.1021/es505775c>; U.S. Department of Energy's National Energy Technology Laboratory, "An Evaluation of Fracture Growth and Gas/Fluid Migration as Horizontal Marcellus Shale Gas Wells are Hydraulically Fractured in Greene County, Pennsylvania," September 15, 2014: [http://www.netl.doe.gov/File%20Library/Research/onsite%20research/publications/NETL-TRS-3-2014\\_Greene-County-Site\\_20140915\\_1\\_1.pdf](http://www.netl.doe.gov/File%20Library/Research/onsite%20research/publications/NETL-TRS-3-2014_Greene-County-Site_20140915_1_1.pdf); Kresse et al., "Shallow Groundwater Quality and Geochemistry in the Fayetteville Shale Gas-Production Area, North-Central Arkansas, 2011," U.S. Geological Survey (USGS) Scientific Investigations Report, January 10, 2013: <http://pubs.usgs.gov/sir/2012/5273/>; Flewelling et al., "Constraints on Upward Migration of Hydraulic Fracturing Fluid and Brine," *Groundwater*, July 29, 2013: <http://onlinelibrary.wiley.com/doi/10.1111/gwat.12095/full> and Flewelling et al., "Hydraulic fracture height limits and fault interactions in tight oil and gas formations," *Geophysical Research Letters*, July 26, 2013: <http://onlinelibrary.wiley.com/doi/10.1002/grl.50707/pdf>; Molofsky et al., "Evaluation of Methane Sources in Groundwater in Northeastern Pennsylvania," *Groundwater*, July 2013: <http://onlinelibrary.wiley.com/doi/10.1111/gwat.12056/pdf>; U.S. Government Accountability Office, "Information on Shale Resources, Development, and Environmental and Public Health Risks," September 2012: <http://www.gao.gov/assets/650/647791.pdf>; Cardo Entrix, "Hydraulic Fracturing Study PXP Inglewood Oil Field," October 10, 2012: <http://www.inglewoodoilfield.com/res/docs/102012study/Hydraulic%20Fracturing%20Study%20Inglewood%20Field10102012.pdf>; Massachusetts Institute of Technology Energy Initiative, *The Future of Natural Gas: An Interdisciplinary MIT Study*, 2010: [http://web.mit.edu/ceepr/www/publications/Natural\\_Gas\\_Study.pdf](http://web.mit.edu/ceepr/www/publications/Natural_Gas_Study.pdf);

<sup>3</sup> U.S. EPA, "Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs," June 2004: <http://nepis.epa.gov/Adobe/PDF/P100A99N.PDF>

**little or no threat to USDWs** and does not justify additional study at this time.  
(p. ES-1; emphasis added)

To avoid any doubt about what the EPA has concluded in its previous research, former EPA administrator Lisa Jackson acknowledged in May of 2011<sup>4</sup> that she was “not aware of any proven case where fracking itself has affected water.” One year later, Ms. Jackson told the press:

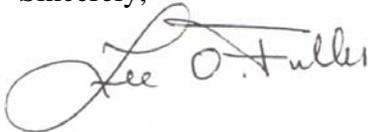
In no case have we made a definitive determination that the fracking process has caused chemicals to enter groundwater.<sup>5</sup>

There is no question that the conclusion of “no widespread, systemic impacts” appropriately describes EPA’s findings – findings showing that while oil and natural gas development (or indeed any kind of energy development) is certainly not risk free, the risk of water contamination is not pervasive. Indeed, EPA’s report counters the notion that hydraulic fracturing poses an inherent threat to underground sources of drinking water.

If there were anything to suggest widespread or systemic impacts to drinking water as a result of hydraulic fracturing, it would have been uncovered during the past decade of extensive study of the process and the SAB would be able to point to that evidence in its recommendations. The lack of such evidence means the EPA’s conclusion is scientifically sound.

According to EPA, a “key priority” for the Agency is to “base Agency actions on sound scientific data, analysis, and interpretations”. IPAA urges EPA to follow these guidelines and base its final groundwater study solely on the science and the facts.

Sincerely,

A handwritten signature in black ink that reads "Lee O. Fuller". The signature is written in a cursive style with a large, looping initial "L".

Lee O. Fuller  
Executive Vice President

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<sup>4</sup> “EPA Administrator Lisa Jackson Tells Congress ‘No Proven Cases Where Fracking Has Affected Water’,” May 24, 2011. Accessed via YouTube: <https://www.youtube.com/watch?v=L4RLzlc0x5c>

<sup>5</sup> “EPA’s Lisa Jackson on safe hydraulic fracturing,” April 30, 2012. Accessed via YouTube: [https://www.youtube.com/watch?v=tBUTHB\\_7Cs](https://www.youtube.com/watch?v=tBUTHB_7Cs)