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Public Comment to
Environmental Protection Agency and Science Advisory Board on the
Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on
Drinking Water
Resources (External Review Draft)
SAB Hydraulic Fracturing Research Advisory Panel
Hearing Date 10.28.15, Washington, D.C.

Docket # EPA-HQ-OA-2015-0245

The League of Women Voters has a long history of conducting research, examining issues from various perspectives, and reaching positions based on consensus. Advocacy, based on these positions, is an important part of League activity. These comments are presented on behalf of the League of Women Voters of the United States and our state signatories.

As hydraulic fracturing has expanded throughout our country, communities have been forced to make decisions without access to reliable information about the potential risks to health, safety and the environment.

The research reported in this draft¹ is not the comprehensive and definitive study Congress funded in 2010. The League requests that the Hydraulic Fracturing Research Advisory Panel urge the SAB to restore integrity to the final report and to your legacies by taking the following actions:

1. Broaden the scope of the report to include impacts to surface and ground water – so that conclusions about “systemic” impacts on drinking water resources can reasonably be drawn.
2. The EPA, in consultation with the CDC and other federal public health agencies, should do all in its power to make information available to health professionals and the public about carcinogenic and otherwise highly toxic chemicals that are frequently used in or emitted by fracking related processes.
3. Conduct the two prospective studies comprising baseline and ongoing analyses of groundwater by independent certified laboratories for at least two years, as Congress and the public had anticipated.
4. Reopen the study sites in Dimock, Pennsylvania, Pavillion, Wyoming, and Parker County, Texas that were prematurely shut down in 2012, even though there were strong indications of extensive contamination of drinking water wells by fracking.^{2, 3, 4, 5}
5. Do not allow the scope of your research to be limited to voluntary disclosures compiled from the industry-supported FracFocus database.



6. Recommend lifting the exemption from the Safe Drinking Water Act and other federal laws so the public can know what is being injected into the ground.
7. Make available federal record keeping systems that will help states monitor:
 - a) Health outcomes for people, especially young children near fracking operations.
 - b) Spills, explosions, fires, and other accidents associated with fracking.
 - c) Waste production and disposal (solid waste, flowback and produced water)
 - d) Radioactivity of ground and surface water exposed to solid and liquid wastes
 - e) Earthquakes associated with deep waste injection wells and the damage they cause
 - f) Flooding of waste impoundments and leaking liners.
8. Utilize studies and reports done by USGS, NOAA and other federal agencies.
9. Assess the impact of directional drilling on groundwater contamination (ten or more wells are fracked in succession from a single bore hole with lines going in different directions and line intersections are possible).
10. Directly measure the levels of toxic fracturing chemicals in drinking water intakes in watersheds where there have been high concentrations of fracturing operations. Despite the limitations on disclosure allowed under the 2005 National Energy Act, chemicals identified as being used in fracturing formulations include some that have "...potential for carcinogenesis, immune system effects, changes in body weight, changes in blood chemistry, cardiotoxicity, neurotoxicity, liver and kidney toxicity, and reproductive and developmental toxicity." Public safety requires some understanding of the cumulative levels of these toxins.
11. Make regular measurements of bromate concentrations in treated water for all watersheds that have seen moderate to high levels of fracking. The studies listed in this report, as well as others, suggest that this can be a significant problem in public water supplies.

While we are pleased that the EPA has recently proposed to regulate methane leaks from new wells,⁷ well casings (and caps) of previously drilled wells are also subject to significant methane leaks that can potentially contaminate groundwater. Even when casings are initially sound and prevent leaks, the cement will shrink as the curing process continues and cracks will propagate during the following days-months.⁸ The cements used are unstable under use conditions and cracks will be further propagated in sealed and abandoned wells as decades pass, eventually causing failure and leakage. Therefore, all wellheads need to be properly recorded and their status tracked on a regular basis. EPA should require this safeguard.

The League appreciates your serious consideration of these recommendations

Sincerely,

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- ¹ Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources (External Review Draft)
- ² <http://www.desmogblog.com/2013/07/29/obama-epa-censored-fracking-water-contamination-study-dimock-pennsylvania>
- ³ http://www.pennlive.com/midstate/index.ssf/2011/12/does_fracking_cause_pollution.html
- ⁴ http://www.epa.gov/ocir/hearings/testimony/112_2011_2012/2012_0201_jm.pdf
- ⁵ <http://www.desmogblog.com/2014/04/08/eight-members-congress-call-epa-reopen-contaminated-water-studies-near-fracking-fields>
- ⁶ Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources (External Review Draft) 9-40
- ⁷ <http://www.post-gazette.com/opinion/editorials/2015/09/09/Rein-in-methane-The-EPA-rules-are-needed-to-cut-greenhouse-gases/stories/201509090090>
- ⁸ Society of Petroleum Engineers paper 64733, M.B Dusseault, M.N. Gray and P.A.Nawrocki. "Why Oilwells Leak: Cement Behavior and Long-Term Consequences. Presented in Beijing, China, Nov. 2000