

**EPA – Assessment of the Potential Impacts of Hydraulic Fracturing for
Oil and Gas on Drinking Water Resources**

June 2015

The Oil/Gas Industry’s Self-Serving Conclusion

This recently-released 998-page EPA document states, on its cover page, that “This document is an external review draft, for review purposes only. It has not been formally disseminated by EPA and *should not be construed to represent any Agency determination or policy (emphasis added).*”

Indeed, in the EPA’s own words, “the rarity of effects on drinking water resources may be due to insufficient pre- and post-fracturing data on the quality of drinking water resources, the paucity of long-term systems studies...”

Yet, the oil/gas industry has chosen to ignore these caveats and has extracted one sentence that places it in a favorable light, namely, that the mechanisms used by the industry to extract oil and gas and to dispose of the by-products of extraction have not produced “evidence that these mechanisms have led to widespread systemic impacts on drinking water resources in the United States.”

That raises the question: do we have to wait until the impacts are “widespread” before curtailing or prohibiting these “mechanisms”, otherwise known as “fracking”? Isn’t water an irreplaceable resource that is essential to life? Some of our main aquifers, notably in California, and coastal areas in the southeast, are already experiencing unprecedented stress.

The EPA states that thousands of wells are drilled and fractured every year in the United States. However, there is no database on how many of these wells are horizontal, deviated or vertical although, in all likelihood, the number of vertical wells will have declined. Page 2-25 of the Assessment states: “There is no complete database or registry of wells that are hydraulically fractured in the United States. Another source of uncertainty is the rate at which relatively new hydraulic fracturing wells are re-fractured or the rate at which operators use older, existing wells for hydraulic fracturing...” The number of wells reported to the FracFocus registry provides a low estimate of the number of hydraulically fractured wells.

The EPA, in this 2015 report, has based its estimates of water pollution on approximately 25,000 to 30,000 wells that were hydraulically fractured each year between January 1, 2011 and February 28, 2013. Here, the longest time-lapse during which gases (e.g. methane) or dissolved solids (salts, radionuclides) could migrate from their origin to a drinking water source would be a bare maximum of four years - not sufficient time for a significant migration through the still nearly-impervious fracked medium, or for the inevitable deterioration over time of the well-bore casings and cement fillings of the drill wells.

In sum, the short time period over which EPA is studying possible pollution to water resources is insufficient to include these relatively slow but important processes that are likely to cause pollution.

Further caveats include:

1. The EPA states that “The frequency of on-site spills from hydraulic fracturing could be estimated for two states but not for operations nationally or for other areas...It is unknown whether these spill estimates are representative of national occurrences.” (page ES-11). The two states are Colorado and Pennsylvania.
2. “Measured or estimated physiochemical properties were obtained for 453 chemicals of the total of 1,076 chemicals reported in hydraulic fracturing fluids”, i.e. less than one half! (page ES-12)
3. “The majority of the 453 chemicals associate strongly with soils and organic materials, *suggesting the potential for these chemicals to persist in the environment as long-term contaminants (emphasis added)*”. The relatively short period covered by the EPA study is insufficient to register these long-term impacts. (page ES-12)
4. “Well operators claimed at least one chemical as confidential at more than 70% of the wells reported to FracFocus and analyzed by the EPA”. (page ES-22)

For the oil/gas industry to draw conclusions regarding the relative lack of water contamination, based on such insufficient data, is premature, unscientific, and self-serving.

More scientific evidence is needed, both over time and nation-wide, prior to the industry or the Agency being able to reach a firm conclusion of insignificant water contamination.

For information regarding teleconferences and public meetings on the above issue, starting at the end of September and throughout October, 2015, and also on written comments accepted until August 28, 2015, please consult the EPA notice in the 06/05/2015 issue of the Federal Register