

Environmental Protection Agency
[FR -9928-73-OA]

Report on:

Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources, (May, 2015 External Review Draft, EPA/600/R-15/047)

The Community Watersheds Clean Water Coalition, Inc. is submitting comments in regard to the EPA's recently-released study ("Assessment") of the possible impacts of hydrofracturing for oil and natural gas on the quality of U.S. drinking water resources. We represent over fifty environmental, religious, housing and community groups throughout New York City, Westchester and Putnam Counties. Although our activities were originally confined to the Croton Watershed, we have extended them to include watersheds throughout New York State, and to include other water quality issues, in particular those that could affect drinking water quality.

EPA's news release dated 06/04/2015, is headlined: "*Assessment shows hydraulic fracturing activities have not led to widespread, systemic impacts to drinking water resources and identifies important vulnerabilities to drinking water resources.*"

Unfortunately, the first segment of this headline was immediately heralded by the oil/gas industry as a justification of their contention that hydrofracturing (fracking) has a minimal negative impact on water quality. And, unfortunately, this misleading statement was quickly spread throughout the media.

We trust that the Science Advisory Board Hydraulic Fracturing Research Advisory Panel's opinion, resulting from the three teleconferences to be conducted in September and October 2015, and further public meetings in October, will result in a more balanced assessment.

CWCWC's Comments on the "Assessment"

The following statements from the "Assessment" raise doubts about any conclusions that could be drawn regarding the lack of drinking water pollution due to fracking.

1. The EPA states that thousands of wells are drilled and fractured every year in the United States, but "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..."
2. The EPA has based its estimates of water pollution on approximately 25,000 to 30,000 wells that were hydraulically fractured each year between January 1, 2001 and February 28, 2013. Here, the longest time-lapse (to 2015, the year of the report) during which gases (e.g. methane), or liquids (e.g. dissolved salts or 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 medium, or

for the inevitable deterioration over time of the well-bore casings and cement fillings of the drilled wells (see #7 below).

3. 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.” In other words, the EPA cannot draw any conclusions regarding whether or not on-site spills contaminate drinking water.

4. “Measured or estimated physiochemical properties were obtained for 453 chemicals of the total of 1,076 chemicals reported in hydraulic fracturing fluids.” In other words, fewer than half the chemicals could be identified if they were to contaminate drinking water supplies in the area.

5. “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 time-period covered by the EPA study is insufficient to account for these long-term impacts.

6. “Well operators claimed at least one chemical as confidential at more than 70% of the wells reported to FracFocus and analyzed by the EPA”. In such cases, if they were to occur, contamination of drinking water would go undetected.

7. There will be inevitable deterioration, over time, of the well casings and cement fillings. Since only a small fraction of the trapped shale gas is released and gathered over the first couple of years of fracking, the remainder will slowly migrate to the surface as the wells lose their integrity. This could have serious consequences if such wells would have been previously drilled through an aquifer. ⁱ Furthermore, slow migration of methane and other gases through the fractured shale should not be ruled out as a possibility.

The EPA is basing its conclusion regarding the apparent lack of “systemic” water contamination on fragmentary evidence. The EPA should issue a statement making it clear to the public that, based on the evidence so far, no conclusions can be drawn.

ⁱ **Cement Casing: The Weak Link of Fracking**

Posted on [November 28, 2011](#)

By [Bernhard Debatin](#)

History & Manufacture of Portland Cement

[Concrete Basics Home](#) - History & Manufacture of Portland Cement

The Lifespan Of Concrete

June 15, 2009

Deteriorating Oil and Gas Wells Threaten Drinking Water, Homes Across the Country

by [Nicholas Kusnetz](#)

ProPublica, April 4, 2011