EPA Report on Hydrologic Fracturing
External Review Draft

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http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651

Abstract

This assessment provides a review and synthesis of available scientific literature and data to assess the potential for hydraulic fracturing for oil and gas to impact the quality or quantity of drinking water resources, and identifies factors affecting the frequency or severity of any potential impacts. The scope of this assessment is defined by the hydraulic fracturing water cycle which includes five main activities:

1. Water acquisition – the withdrawal of ground or surface water needed for hydraulic fracturing fluids;
2. Chemical mixing – the mixing of water, chemicals, and proppant on the well pad to create the hydraulic fracturing fluid;
3. Well injection – the injection of hydraulic fracturing fluids into the well to fracture the geologic formation;
4. Flowback and Produced water – the return of injected fluid and water produced from the formation to the surface, and subsequent transport for reuse, treatment, or disposal; and
5. Wastewater treatment and waste disposal – the reuse, treatment and release, or disposal of wastewater generated at the well pad, including produced water.