

Overview of the Hydraulic Fracturing Drinking Water Assessment Report

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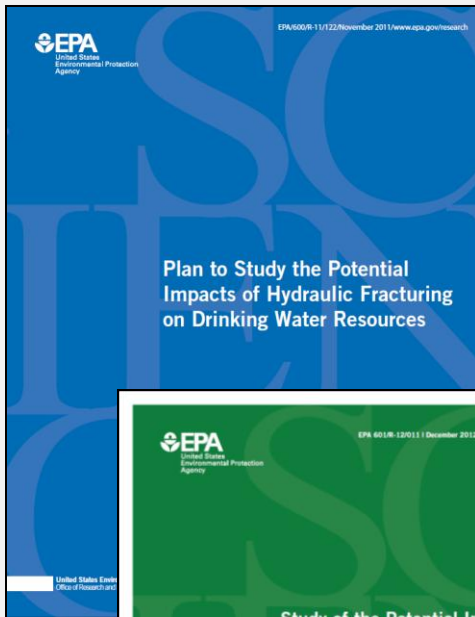
Objectives of Assessment

- Identify and assess the potential for hydraulic fracturing activities to impact the quality or quantity of drinking water resources
- Identify factors that may affect the severity and frequency of potential impacts

Sources of Information

- Peer-reviewed literature and reports
- Government reports and technical papers
- Results from the agency's ongoing research activities
- Information submitted by stakeholders
 - Technical roundtables and workshops
 - EPA docket
 - Comments submitted to the Science Advisory Board

Scope of Assessment



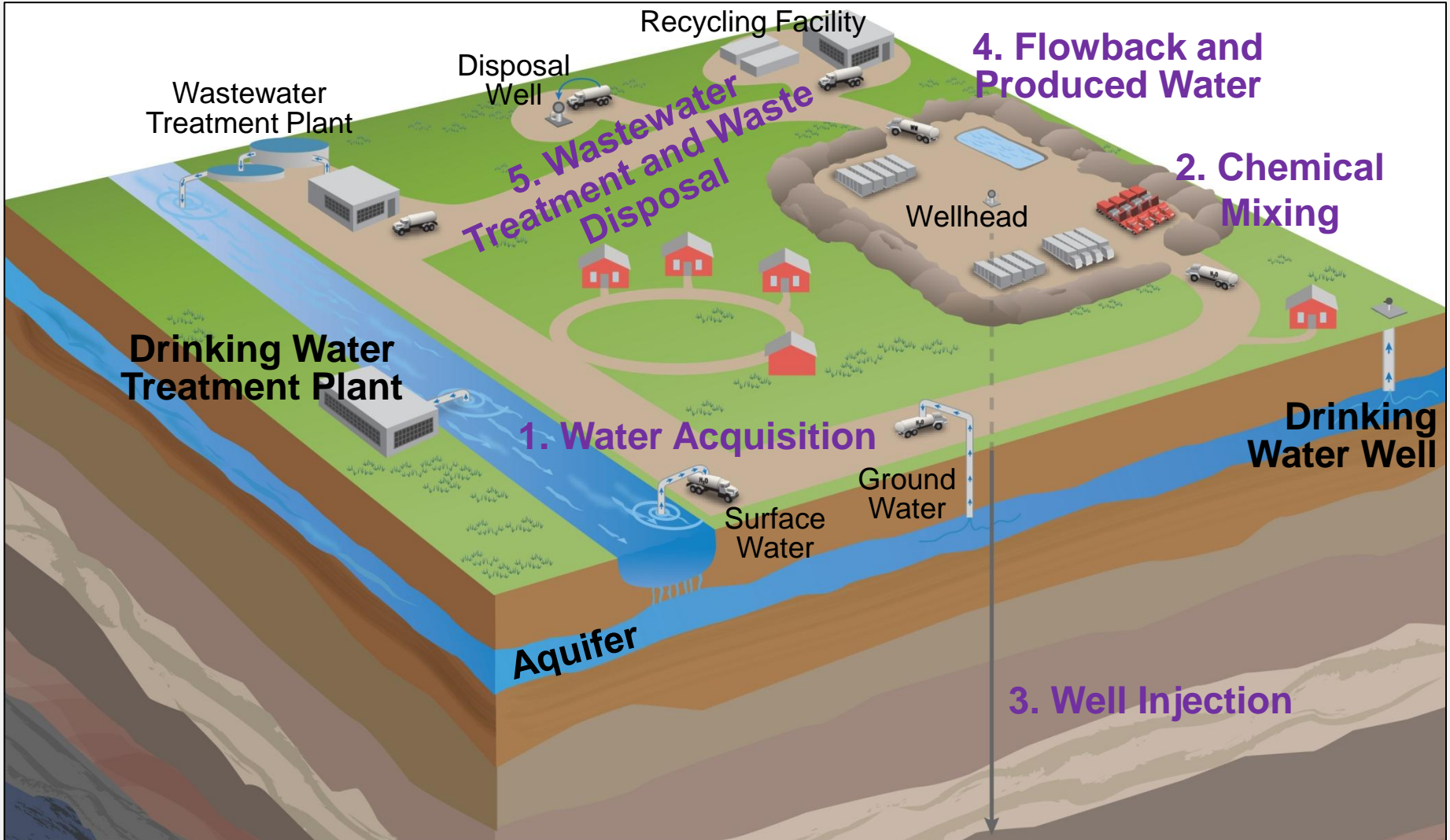
Scope of assessment consistent with:

- 2011 Study Plan
- 2012 Progress Report

Scope of Assessment

- Using the hydraulic fracturing water cycle to evaluate potential impacts on quality and quantity of drinking water
 - Water Acquisition
 - Chemical Mixing
 - Well Injection
 - Flowback and Produced Water
 - Wastewater Treatment and Waste Disposal

Hydraulic Fracturing Water Cycle



Impacts Evaluated

- Impacts related to normal operations reflecting modern typical practices
- Potential and actual accidents or unintended events
- Potential immediate, short-term, and long-term impacts

Assessment Spatial Scope

- National: Evaluating available information for multiple regions
- Evaluating potential impacts at multiple scales:
 - Single well
 - Cluster of wells
 - Watershed
 - Shale plays

Intended Use of Assessment

- Contribute to understanding of potential impacts of hydraulic fracturing on drinking water resources
- Identify pathways of greatest concern
- Inform and promote dialogue among federal, tribal, state, and local government entities, industry, NGOs and other stakeholders
- Identify knowledge gaps and information needs

Next Steps

- Internal review prior to release
- Interagency review
- Review by the independent agency Science Advisory Board (SAB), including public review and comment
- Final assessment will reflect agency consideration of both public and SAB comments

Study Timeline

US Congress urges the EPA to conduct a study

