

Hydraulic Fracturing

The State of Public Policy in America

Presented by Adam R. Saslow
to the Air and Waste Management Association
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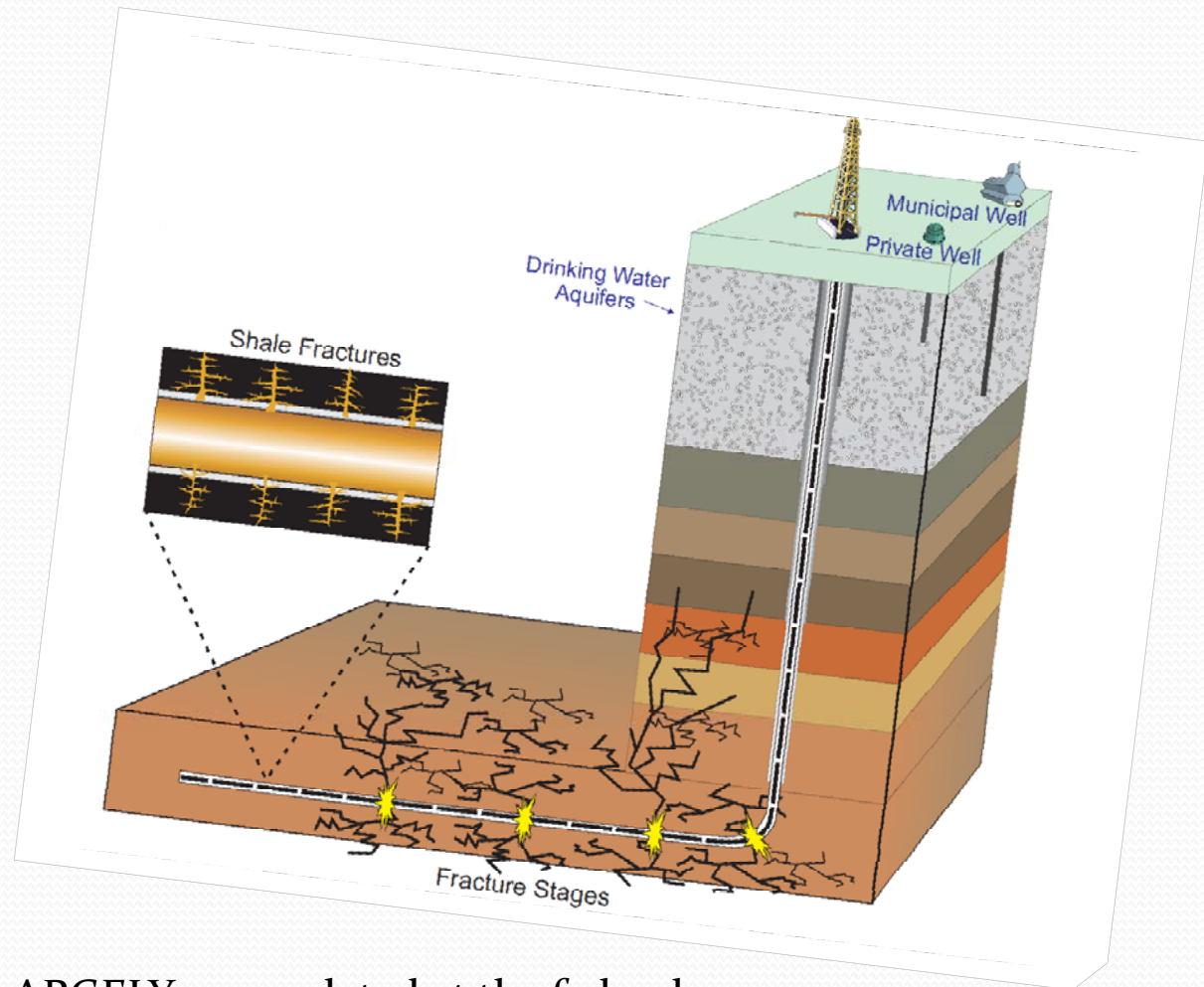
Today's Discussion

- What is “Fracking” and how is it regulated?
- Why is EPA studying hydraulic fracturing?
- What will the study include?
- How can stakeholders be involved?
- The crystal ball
- Next Steps

Fracking – The Graphic

The hydraulic fracturing process includes:

- the acquisition of source water,
- well construction,
- well stimulation,
- waste disposal.



Fracking is LARGELY unregulated at the federal level because of exclusions under SDWA at SDWA § 1421 (d)(1). State regs may apply (e.g., NYS).

Why is fracking in the news?

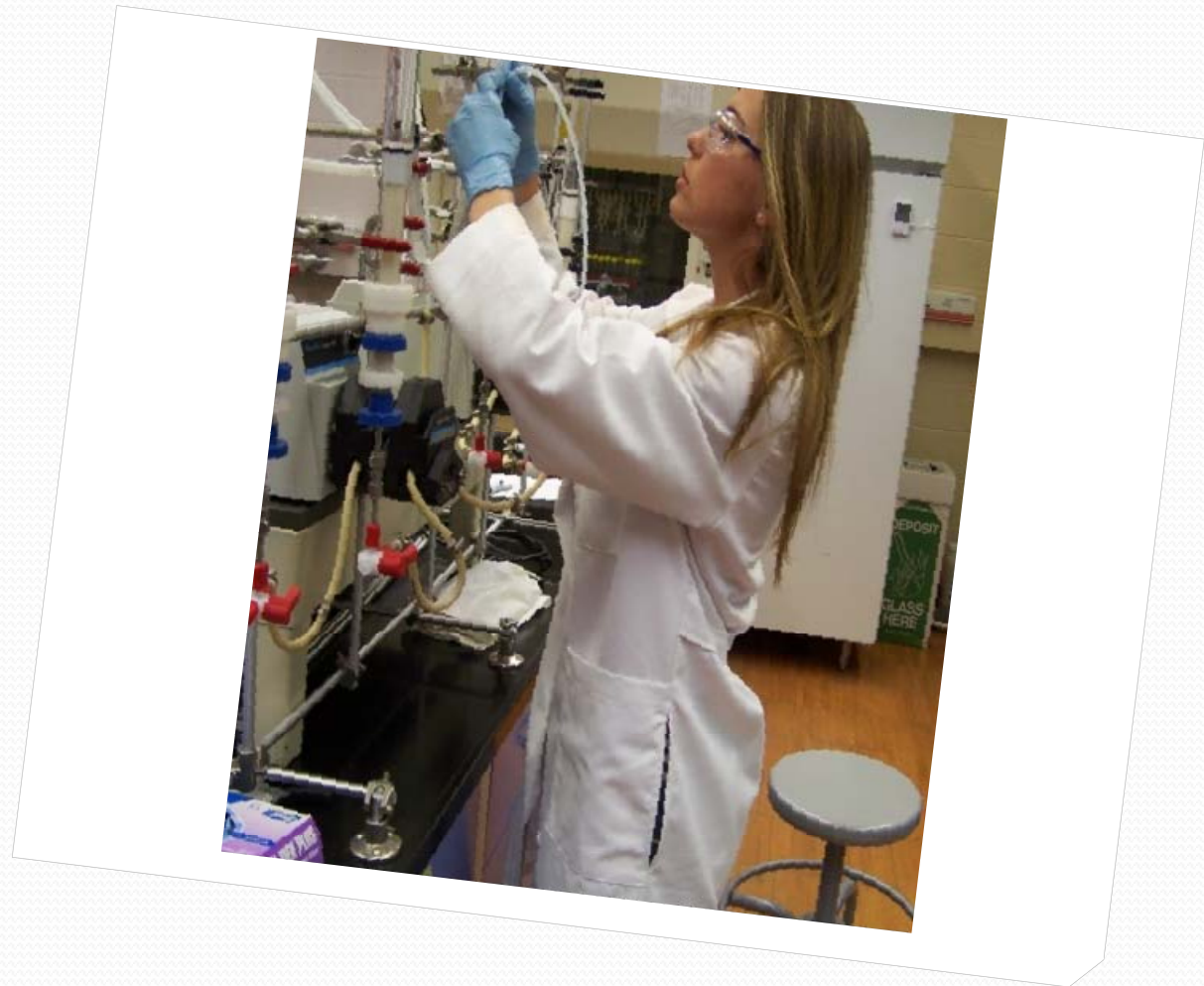
- Natural gas – the energy resource for energy independence?
 - Projections for shale gas to comprise 20% of the gas supply in ten years according to DOE's 2009 Annual Energy Outlook
- Gasland – the Movie
- The news
 - Fracking fluids are 99% water
 - 350,000 or more gallons may be needed to “frack” a single well
- The regulatory environment

The Federal Reaction

- A Study!
 - In its Fiscal Year 2010 budget report, the U.S. House of Representatives Appropriation Conference Committee identified the need for a focused study of this topic.
 - Natural gas is a key energy resource
 - Public has raised concerns about hydraulic fracturing and water
 - EPA wants to ensure that public health and the environment are protected

Study Approach

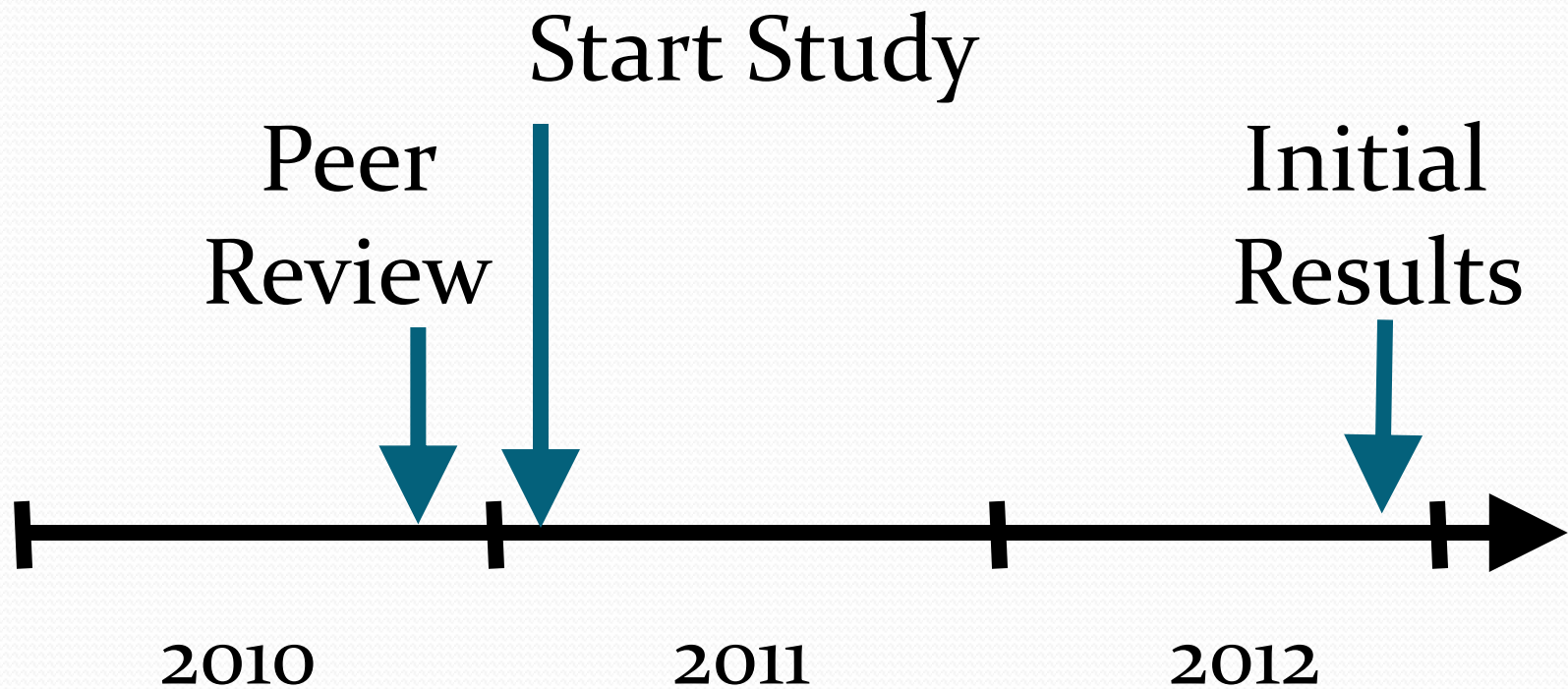
- Best available science
- Independent sources of information
- Transparent, peer-reviewed process
- Consultation with others



Study Plan Development

- Led by EPA scientists
- Initial recommendations by EPA's Science Advisory Board (April 2010):
 - Focus on water resources (quality and quantity)
 - Use case-study approach
 - Stakeholder process important

Study Timeline





What does EPA hope to learn from this study?

- What hydraulic fracturing scenarios might cause impacts on drinking water resources?
- What approaches are effective for protecting drinking water?

What are the major elements of the study?

- Data and information
- Chemical fate and transport
- Case studies

What types of data and information are being collected?

- Pre- and post-drilling site characteristics
- Chemical data
 - Hydraulic fracturing fluids
 - Water quality
- Water use (sources, amount)
- Well construction, well integrity
- Operation and management practices

Where will the data be obtained?

- Existing sources
 - Stakeholders
 - Published reports
- New sources
 - EPA study
 - Other ongoing studies



Fate and Transport

- Characterize fracturing fluids and their degradation products
- Determine the potential to mobilize chemicals from geologic formations
- Identify and refine methods for chemical analysis

Why is EPA Using Case Studies?

- Opportunity for focused field investigations
- Evaluate hydraulic fracturing in different parts of the U.S.
 - Geologic factors
 - Water resource management practices
 - Water quality and quantity

Potential Sites for Case Studies

- Where hydraulic fracturing:
 - is planned
 - is in progress
 - has occurred



Identification and Prioritization of Case Studies

- Stakeholder recommendations
- Vulnerable water resources
 - Proximity of other wells,
 - exposure pathways
 - Extent of activity
 - (wells/acre)
- Geologic conditions
- Geographic variations



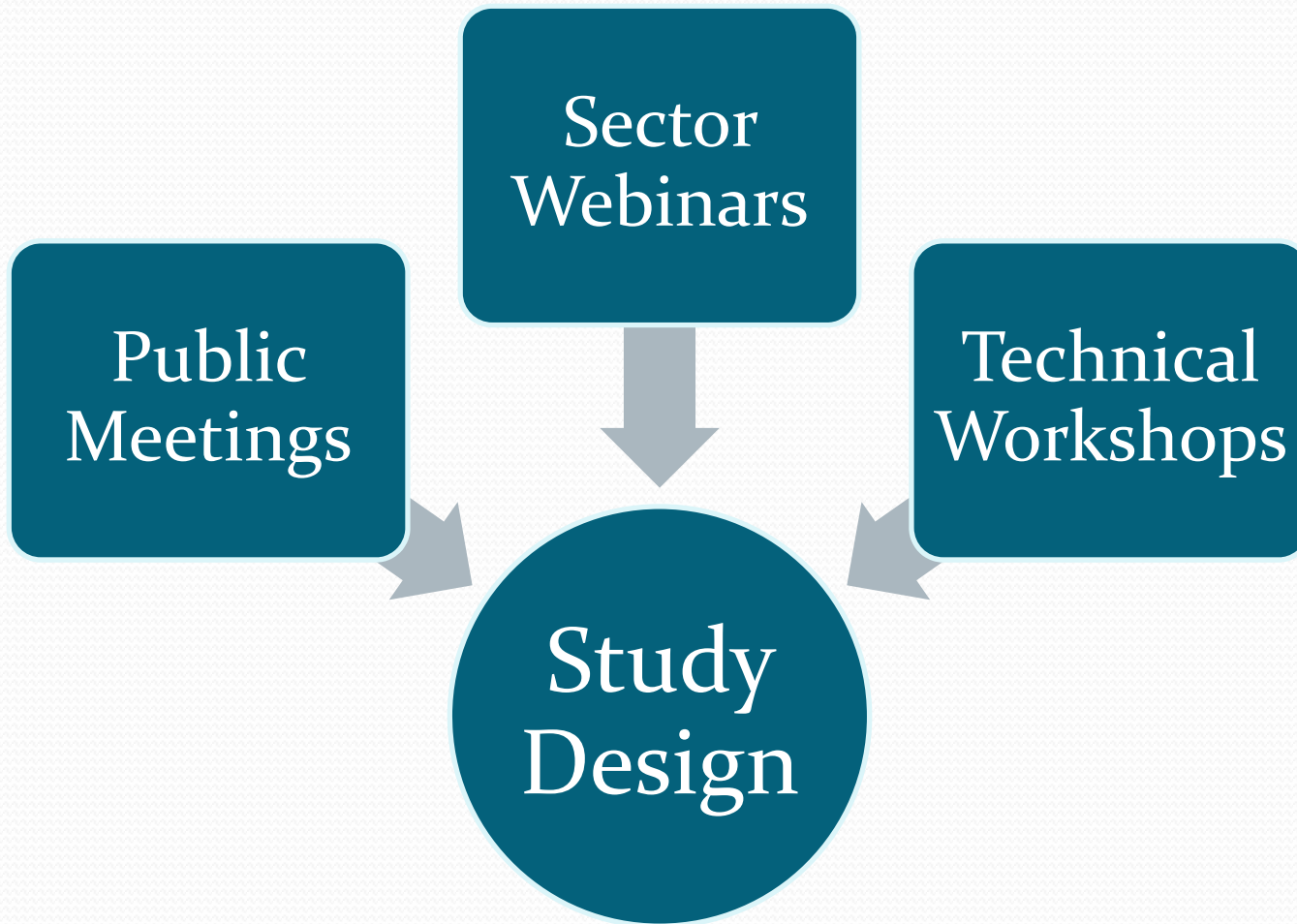


How Can Folks Get Involved in EPA's Study?

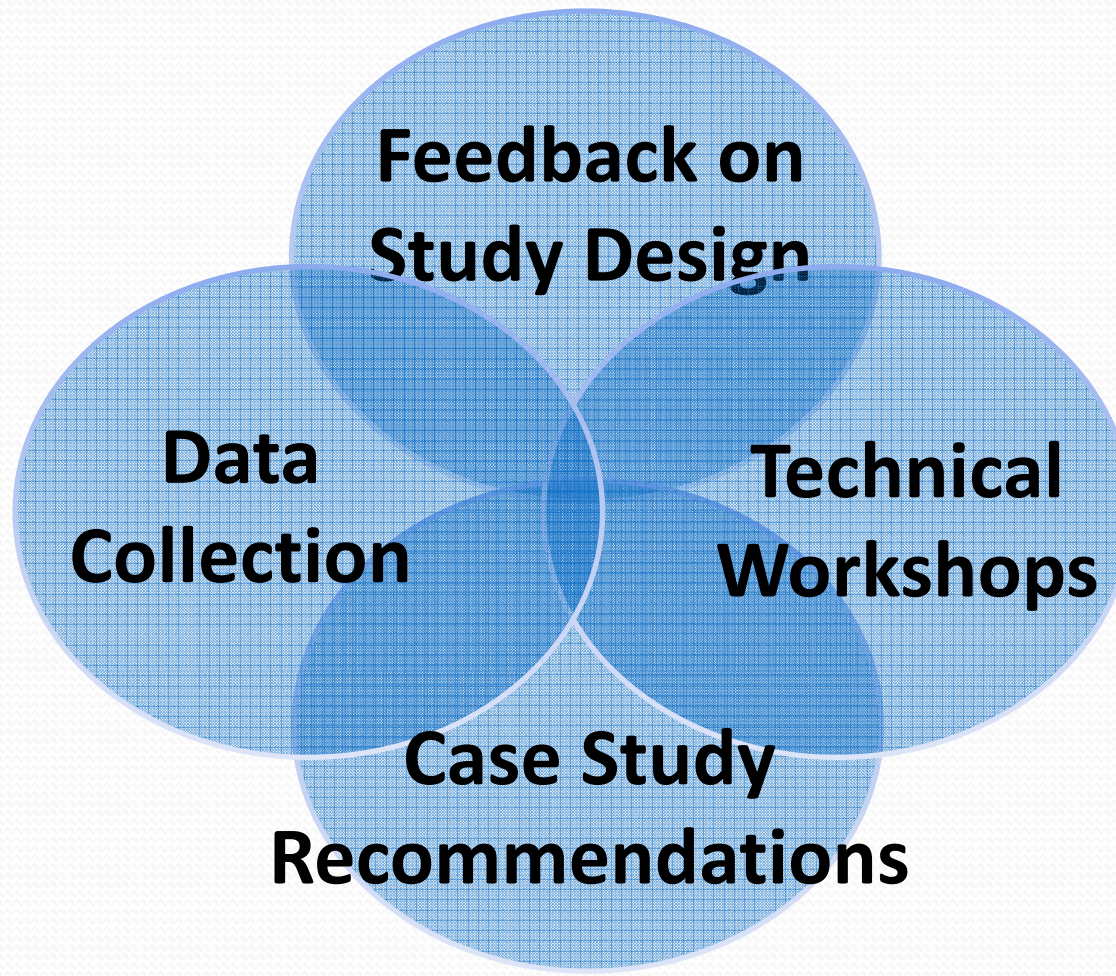
Key Questions

- What should be EPA's highest priorities?
- Where are the gaps in current knowledge?
- Are there data and information EPA should know about?
- Where should EPA conduct its case studies?

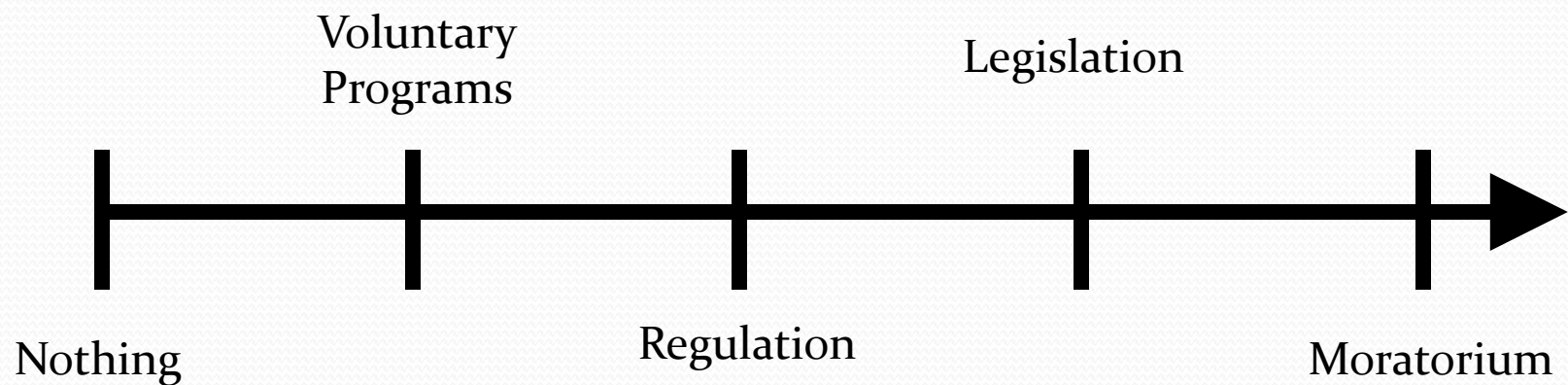
Stakeholder Events



Collaborate with US EPA



A Look Ahead





For More Information

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