

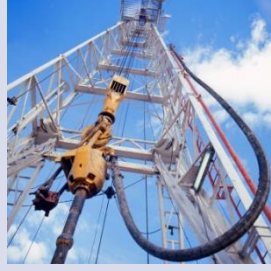


# Interstate Oil & Gas Compact Commission

Collectively Representing  
the States



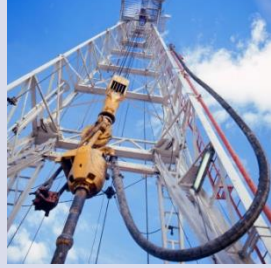
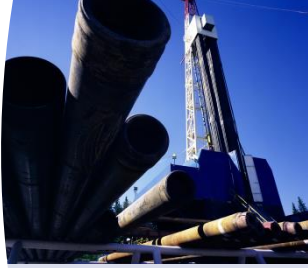
Carl Michael Smith  
Executive Director



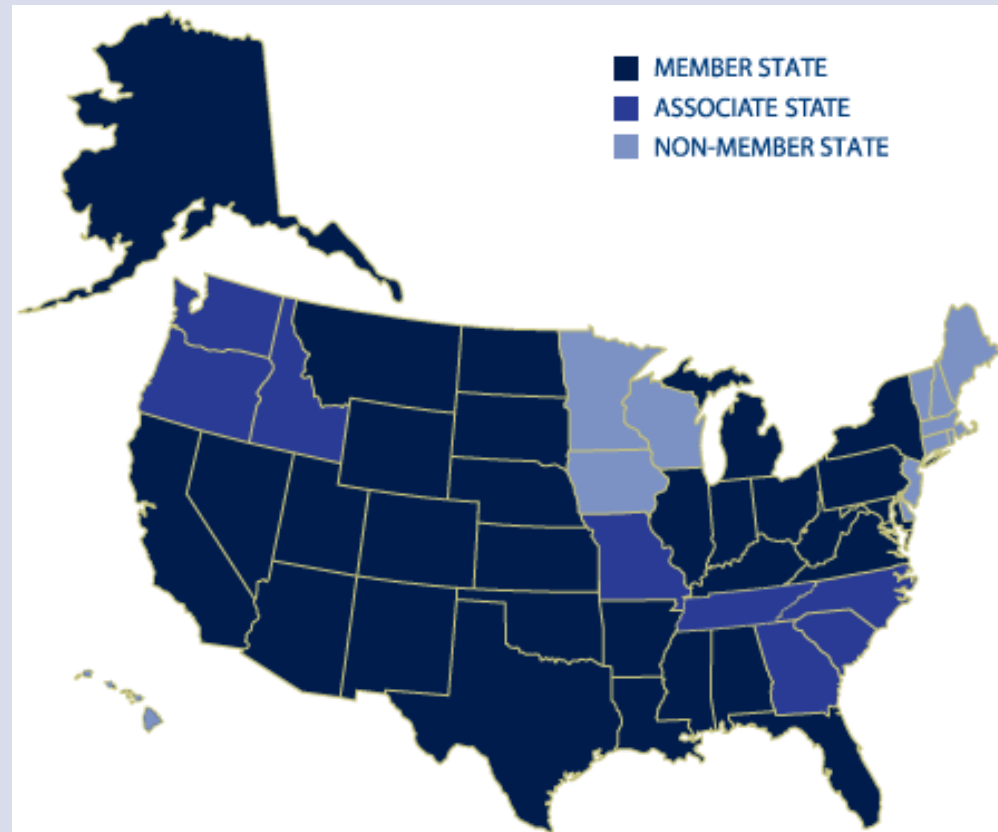
## IOGCC Mission

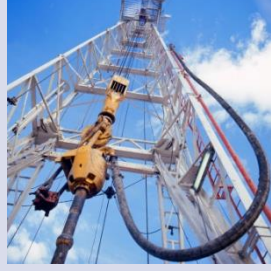
The Interstate Oil and Gas Compact Commission is a multi-state government agency that promotes the conservation and efficient recovery of domestic oil and natural gas resources while protecting health, safety and the environment.





## 30 Member States & 8 Associate States



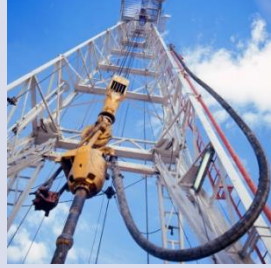


## View of the Oil and Gas Regulatory Sphere *from the State Perspective*

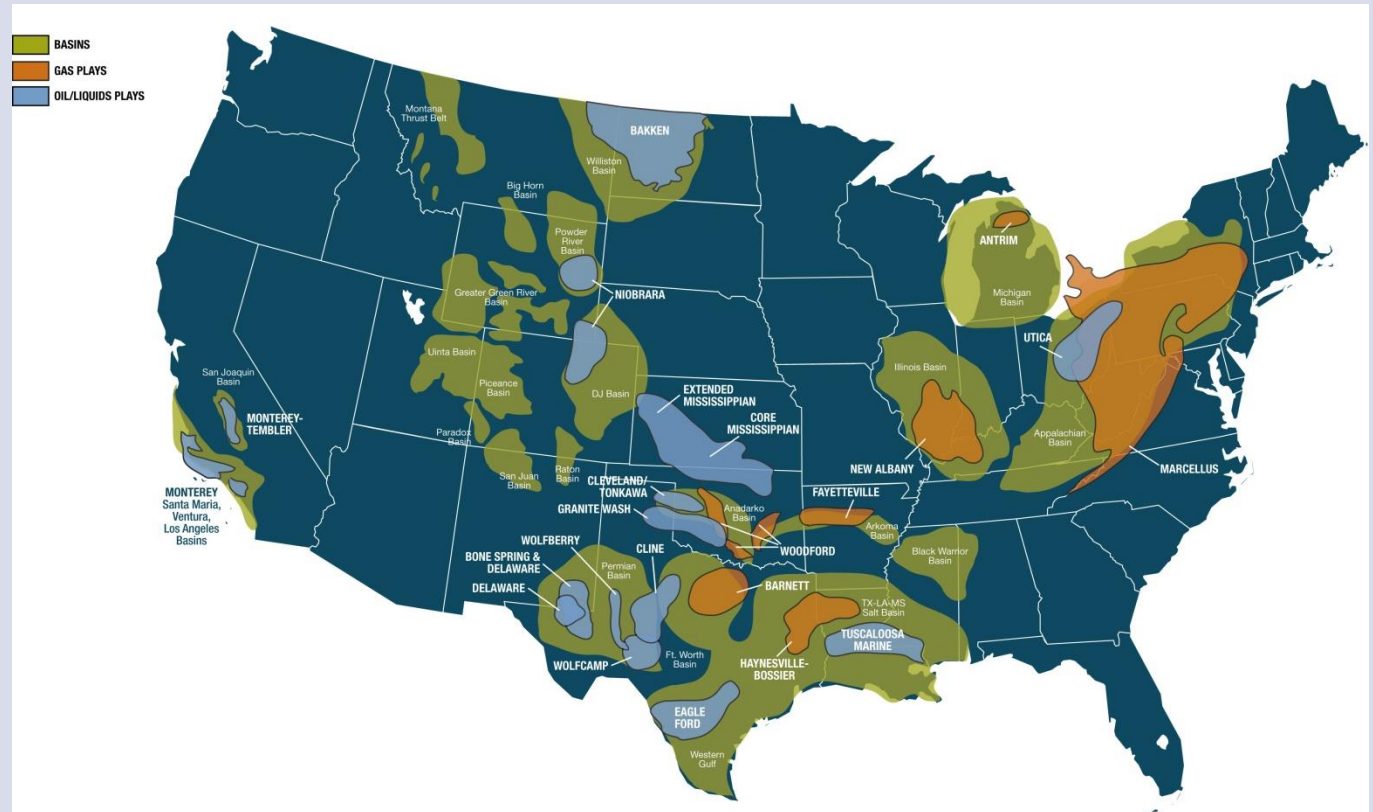
There is not a one-size-fits-all approach because each state is unique.

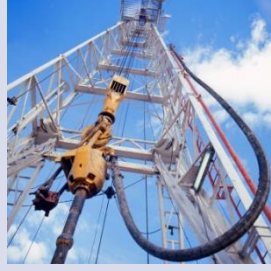
- Geology
- Geography
- Topography
- Hydrology
- Climate
- Social Fabric





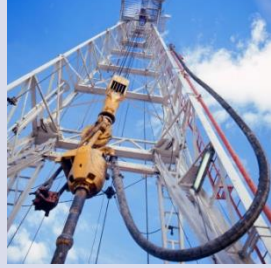
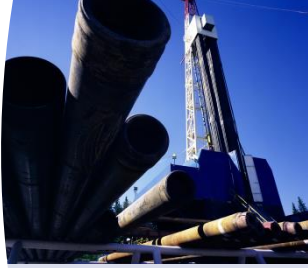
# U.S. Shale Plays



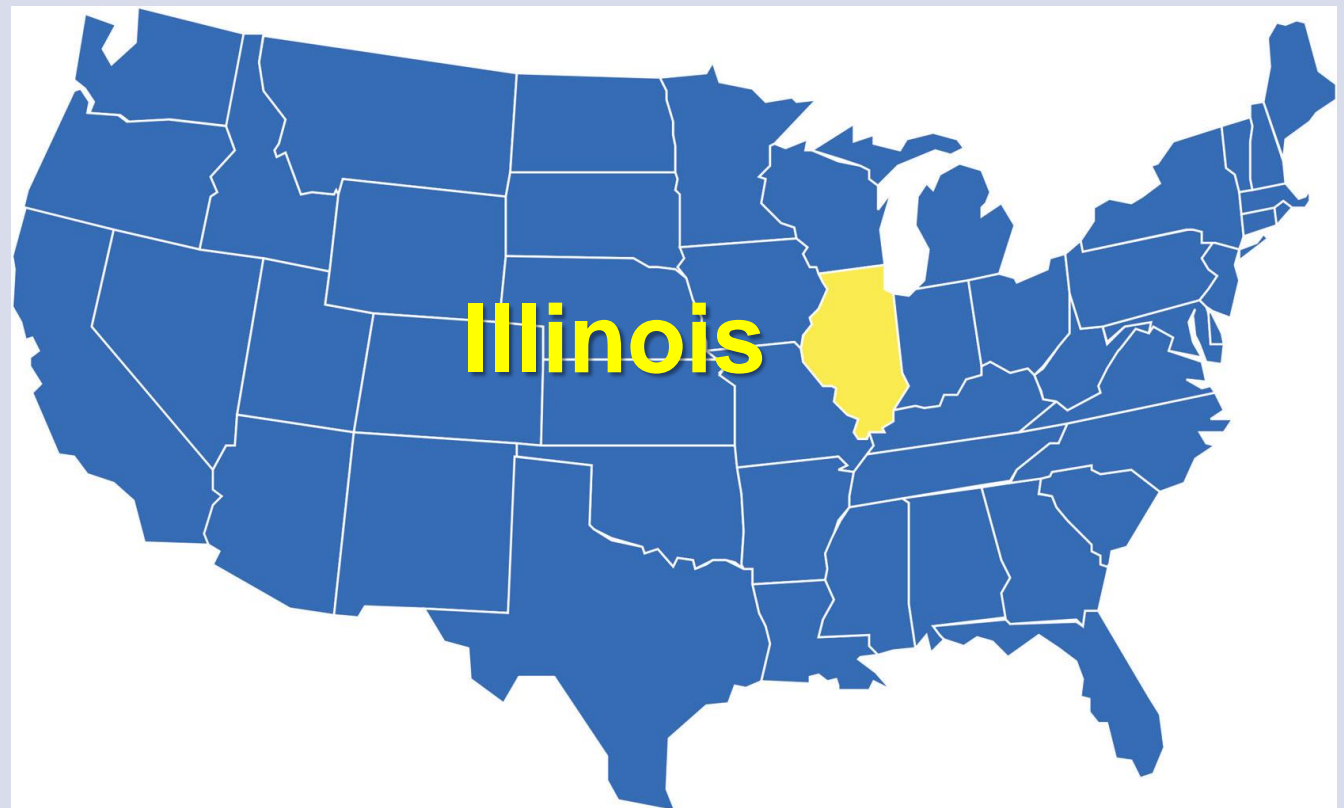


## Ground Water Protection Regulations

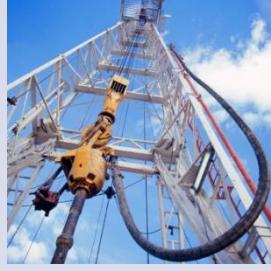
- Ground water protection standards and definitions vary from state-to-state
- Cementing and Casing fluctuate on protection depths because of state-specific needs such as geology
- Well integrity is primary tool used to protect ground water



## Ground Water Protection Regulation





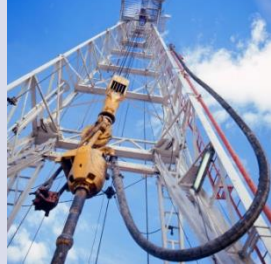


# Ground Water Protection Regulation

## Illinois

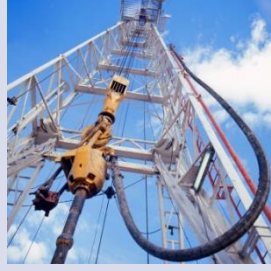
- Ground Water Protection Policy
- Formal Ground Water Classification
- Ground Water Standards
- Ground Water Discharge Permitting
- Corrective Action Standards





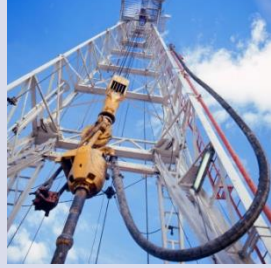
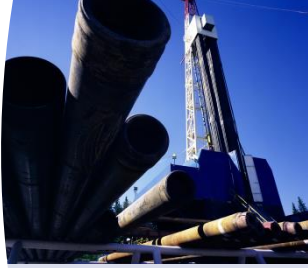
## Methane Emissions





## Methane Emissions

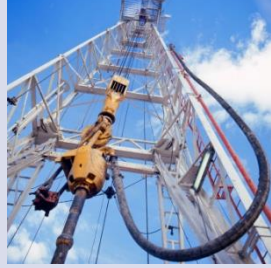
In early 2014, Colorado was the first state to address methane emissions from oil and gas development.



## Methane Emissions

### Key elements of the adopted rule:

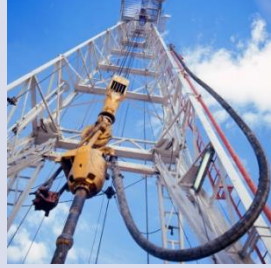
- Most comprehensive leak detection and repair program for oil and gas facilities. Many operators will use infrared cameras for detection.
- The state estimates implementation of the rules will:
  - Reduce more than 92,000 tons per year of VOCs
  - Reduce more than 60,000 tons per year of methane emissions
- The rule also includes expanded control and inspection requirements for storage tanks, including a standard to ensure emissions from tanks are captured and routed to the required control devices.



## Induced Seismicity

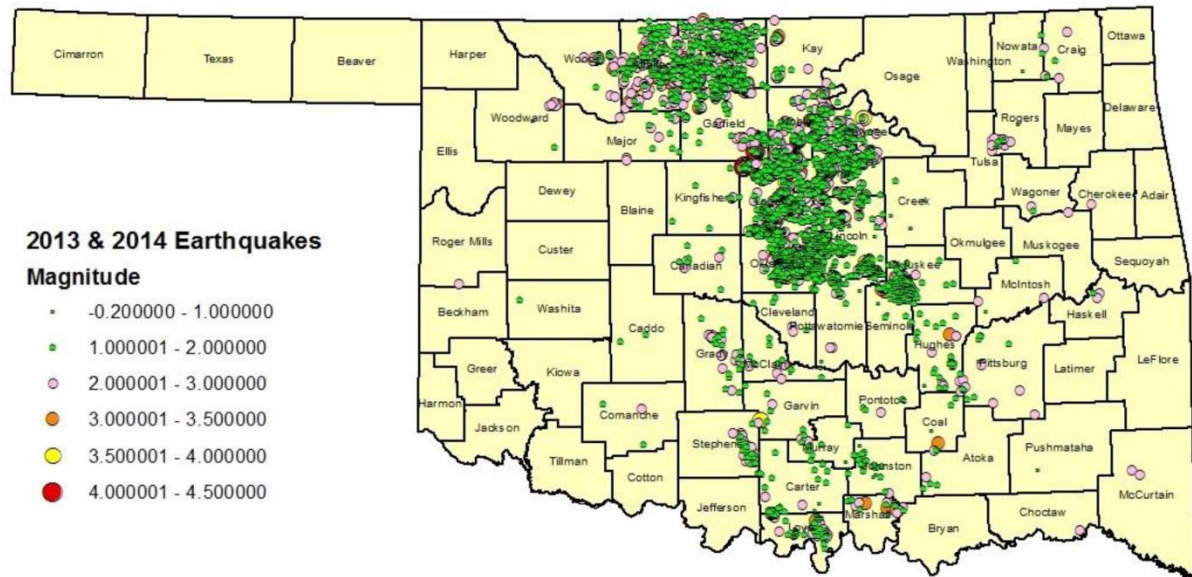


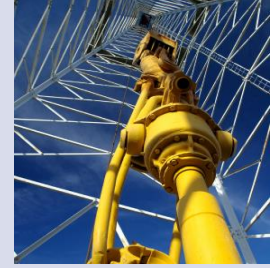
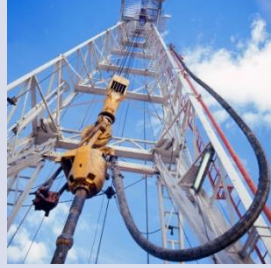




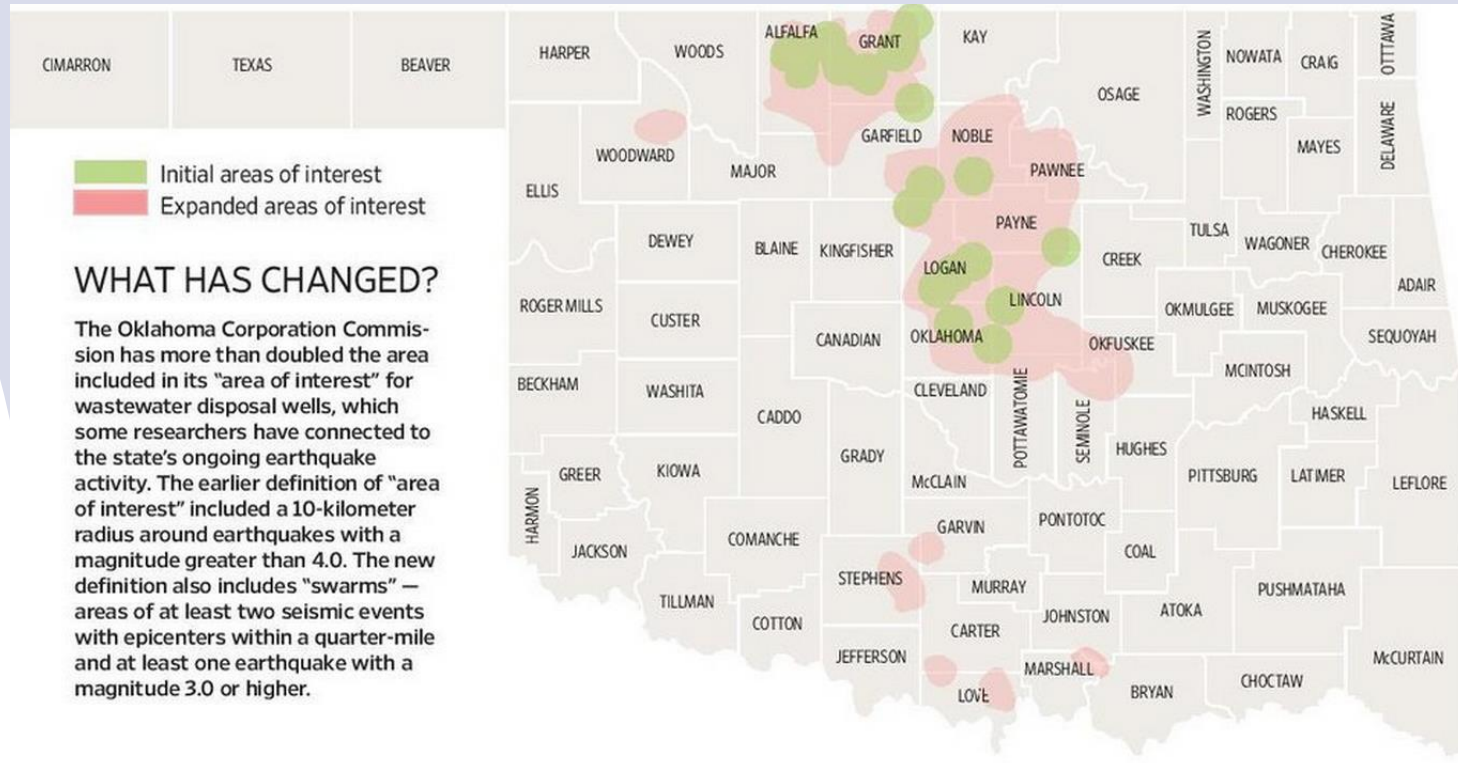
## Induced Seismicity

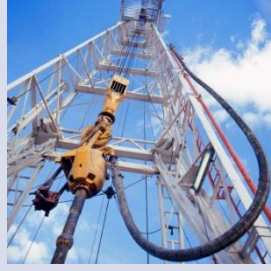
### Oklahoma Earthquakes for 2013 & 2014





# Induced Seismicity



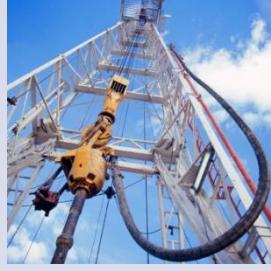


## Induced Seismicity

### Oklahoma Corporation Commission Protocol

1. Check location of proposed well with permitting map.
2. If well location is within 3 miles of stress fault or within an area of concern ask operator for a technical meeting.
3. Ask operator to demonstrate level of risk of induced seismicity.(technical data)
4. Require application to go to hearing.
5. Staff will take neutral position.



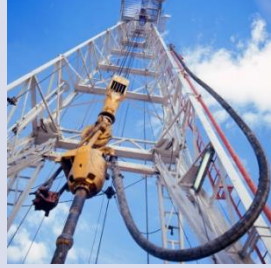


## Induced Seismicity

Induced Seismicity Work Group with 11 states

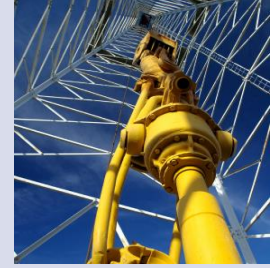
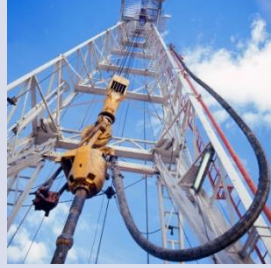
- Ohio
- Oklahoma
- Kansas
- Texas
- West Virginia
- Pennsylvania
- Colorado
- California
- Illinois
- Indiana
- Wyoming



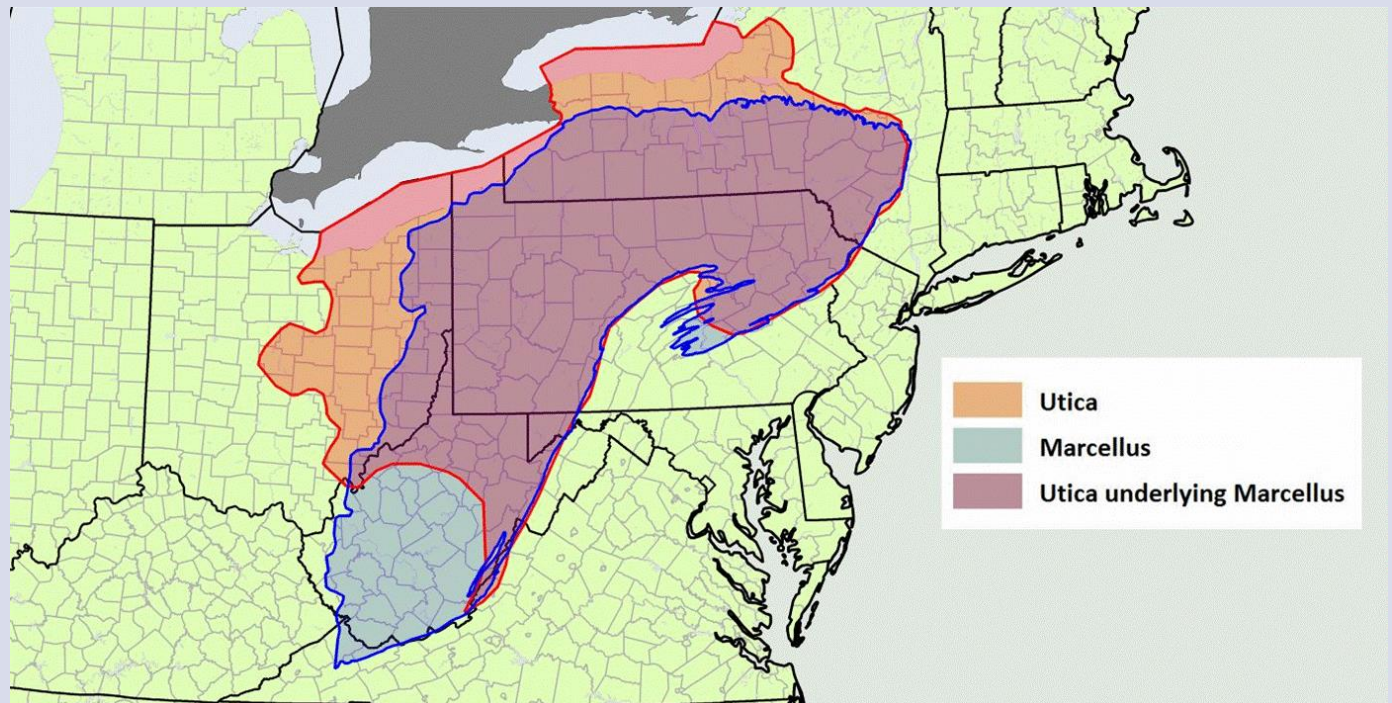


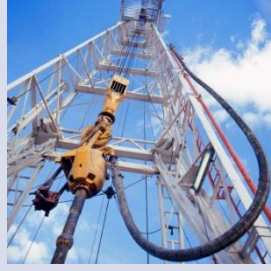
## Community Impacts





## Community Impacts





## Community Impacts

Since 2008, Pennsylvania has been increasing its oversight of oil and gas drilling.

- Required mandatory chemical disclosure
- Doubled inspectors
- Opened new offices
- Treated produced water to the safe drinking water standards
- Strengthened well design and construction regulations
- Required emergency information at every well site
- Increased setbacks
- Authorized impact fees to provide for environmental and community projects