

Oil and Gas Legislation

HB 191 and SB 318 Fail to:

- **Immediately suspend and study all well stimulation techniques**
 - This legislation only addresses those techniques which fracture rock, excluding dissolving techniques and operations which “incidentally fracture the formation.”
 - We know operations are completed in Florida using chemical mixtures to dissolve rock as well as fracture it. In order to address risks associated with this chemical use, dissolving and fracturing operations must be captured.
 - The definition of well stimulation introduces a loophole by exempting operations that “incidentally fracture.” It is unlikely an operator would unintentionally fracture rock as this requires a great deal of fluid and high pressure. Even if this did occur, it would likely go unnoticed as fracturing occurs out of view thousands of feet below ground.
 - While a draft hydraulic fracturing study has been prepared by EPA, the study does not include examples of well stimulation in Florida. Consequently, a Florida specific study is needed to evaluate the risks of unconventional extraction.
- **Protect home rule of local governments**
 - Legislation removes the authority of municipalities to review drilling proposals and eliminates local zoning authority. Local communities must maintain authority to address land use compatibility issues (light, noise, traffic) related to drilling that are not accounted for in the state review process.
- **Prevent waste and depletion of potable freshwater supply sources**
 - The legislation fails to prohibit the use of potable water for well stimulation, thereby failing to prevent waste of freshwater resources. Well stimulation uses hundreds of thousands of gallons of freshwater. The toxic wastewater is injected back underground and is forever lost from the water cycle. This is unlike other water uses such as agricultural irrigation where water replenishes the aquifers.
- **Require higher bonds and liability insurance for all oil drilling operations**
 - Legislation does not require higher bonds for all well stimulation or require liability insurance for all drilling to ensure that the cost of site remediation if an accident occurs does not fall on taxpayers. Such insurance is required in other states.
- **Address improperly withheld trade secrets and guarantee disclosure to health workers**
 - Legislation introduced in 2015 included a pathway for the public to request trade secret information. This bill was not refiled in 2016 leaving this issue unaddressed.
 - Health professionals and first responders must have access to chemical information to handle spills and exposure. Trade secret laws hinder their ability to do so. Legislation fails to require disclosure to health professionals.
- **Address all pathways for potential groundwater contamination**
 - Improper well siting near old drilling holes provides a pathway for the migration of injected chemicals into water supplies. Legislation does not require buffers between new production wells and old drilling holes or those holes to be re-plugged to current standards. Consequently, the bills fail to address this contamination risk.

Risks of Well Stimulation

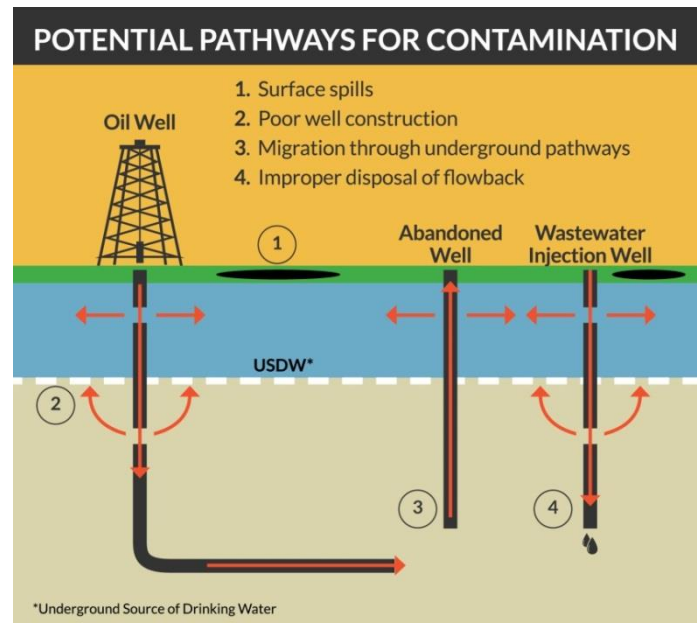
Potential Health Risks

- Well stimulation operations rely on numerous harmful chemicals including substances which may cause organ damage, birth defects, and cancer.

Multiple Pathways for Contamination

- Fluids spilled on the surface may seep down into groundwater.

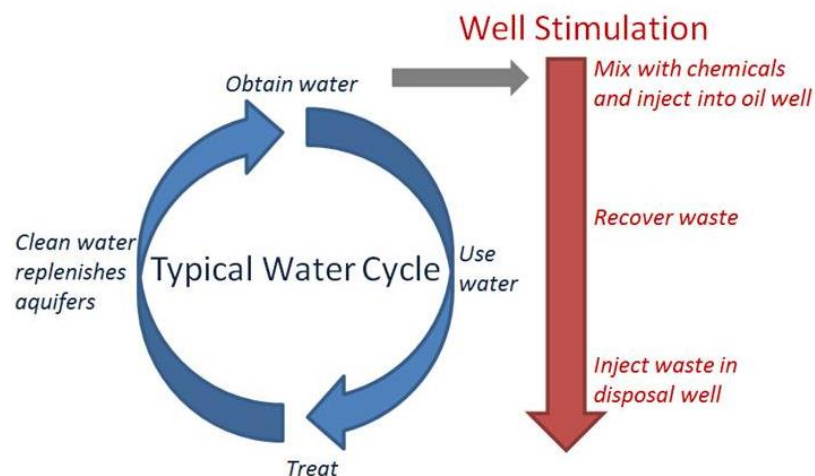
- Poor well construction can result in leaks from the well casing into water supplies or the movement of fluids upwards along the outside of improperly cemented casing. Florida's geology can make it challenging to install well casings. Typically, cement is poured around the outside of well casings to prevent fluids from migrating upwards between the outer wall of the casing and the rock formation. However, in Florida, wells are often drilled through naturally fractured rock. Consequently, the cement can be absorbed into natural formation fractures rather than filling the gap between the casing and the rock. This leaves a pathway for fluid movement between the casing and formation.



- Well stimulation fluids may migrate upwards through nearby drilling holes.
- Fluids may be discharged into water supplies during the waste disposal process. Well stimulation operations generate thousands of gallons of toxic waste water which is typically disposed of in an injection well. If the injection well is compromised or spills occur, waste may leak into drinking water supplies. Furthermore, if waste is not properly tracked, it can be incorrectly disposed of.

Emergency response crisis

- Well operators are currently able to withhold injection fluid information as trade secret. Without knowledge of the chemicals present, emergency responders are unable to properly handle accidents.



Water shortages

- A hydraulic fracturing operation in Collier County, FL used more than 662,000 gallons of fresh water over just three days. Just that one well was permitted to use 280 million gallons of freshwater per year from the community's prime potable freshwater supply source.
- The wastewater generated is toxic and must be permanently removed from water supplies resulting in an overall loss of drinking water.