

FACTSHEET

HB 2711: A Fix Without a Problem

Effective Regulations Protect Oregon Environment, Proven Safe by EPA. House Bill 2711 places a ten-year moratorium on hydraulic fracturing.

Hydraulic fracturing is fundamentally safe technology.

For over 65 years, hydraulic fracturing has been used to stimulate the production of oil and natural gas throughout the United States without adverse environmental consequences. The risks associated with the process have been mitigated by industry best practices and government regulations.

Hydraulic fracturing is effectively regulated in Oregon.

Oregon's Department of Geology and Mineral Industries, Department of Environmental Quality, and Water Resources Department regulate and issue permits for the drilling and operation of oil and gas wells, including wells drilled using hydraulic fracturing technology. These agencies work together to ensure safe and environmentally sound use of the simulation technique. That noted, hydraulic fracturing does not currently happen in Oregon.

Regulations are in place to ensure water supply is protected.

Extensive state, federal and local regulations related to the well-design and construction require equipment and procedures that ensure hydraulic fracturing does not impact drinking water supplies. While the most recent EPA study 1 identifies six activities occurring around hydraulic fracturing production that could impact water supply, there is no evidence to date that the technique has contaminated water supplies in the U.S. Proper construction and maintenance of well bores passed through aquifers is key to protecting groundwater -regardless of whether or not an oil or gas well is hydraulically fractured.

Hydraulic fracturing does not use excess amounts of water supply.

Hydraulic fracturing usually occurs only once and uses, on average, just 116,535 gallons of water. For context, the average amount of water used by a family of four for one year is 146,000 gallons.

66

In no case have we made a definitive determination that the fracking process has caused chemicals to enter groundwater."

Lisa Jackson Administrator of the U.S. EPA, 5/24/11

¹U.S. EPA. Hydraulic Fracturing for O1 and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-16/236F, 2016



HB 2711: A Fix Without a Problem

I think that there's a lot of misinformation about fracking. I think that it's part of the industry's job to make sure that the public understands what it is, how it's done, and why it's safe. It's our job as a regulator and public land manager to make sure that

Sally Jewel, Secretary of the U.S. Department of Interior, 11/8/13

Hydraulic fracturing is rarely used in Oregon.

To date, hydraulic fracturing in Oregon has only occurred in efforts to develop coalbed methane gas resources from five coalbed methane wells between 2005 and 2006.

Hydraulic fracturing is not the primary cause of induced earthquakes.

Recent induced earthquakes in the central United States were the result of wastewater disposal and not hydraulic fracturing.² In these cases, scientists have now determined the reasons for the uptick in seismic activity and it is being mitigated. Induced earthquakes have never occurred as a result of oil and gas production in California or Oregon.

Legislation to further regulate hydraulic fracturing in Oregon is wasteful and unnecessary.

Oregon has in place technically proven and standardized well-drilling practices. House Bill 2711 would place a moratorium on an effective energy production technique that, while not currently used in Oregon, is fundamentally safe with manageable risks. When it is scientifically and economically appropriate to employ, hydraulic fracturing helps increase the development of our domestic energy resources. This benefits our economy and increases our energy independence.

66

There's nothing inherently dangerous in fracking that sound engineering practices can't accomplish."

Gina McCarthy Administrator of the U.S. EPA, 11/4/13

²U.S. Geological Survey Earthquakes Hazard Program: Induced Earthquakes

DOGAMI Fact Sheet Hydraulic Fracturing in Oregon

Oregon Department of Geology and Mineral Industries lan P. Madin, Interim State Geologist 800 NE Oregon Street, Suite 965 Portland, OR 97232-2162 office (971) 673-1555 www.oregongeology.org Richard Riggs, Assistant Director
Mineral Land Regulation and Reclamation Program
29 Broadalbin St. SW
Albany, OR 97321
office (541) 967-2053
richard.riggs@mlrr.oregongeology.com

Bob Houston MLRR Energy Resources Geologist 229 Broadalbin St. SW Albany, OR 97321 office (541) 967-2080

Robert.A.Houston@mlrr.oregongeology.com

Oregon's Department of Geology and Mineral Industries, Department of Environmental Quality, and Water Resources Department regulate and issue permits for the drilling and operation of oil or gas wells, including wells drilled using hydraulic fracturing technology, commonly known as fracking.

What is Hydraulic Fracturing? Natural gas flows from fissures into well Services and the services of the ser

Image modified from US EPA

Hydraulic fracturing typically involves injecting water, sand, and chemicals under high pressure into a bedrock formation via a well. This process creates new fractures in the rock and increases the size and connectivity of existing fractures. Many rock formations have low permeability, which means that the gas, oil or hot water they contain will not flow economically through the rock into the well. The hydraulic fracturing technique is commonly used to increase the permeability of a rock formation, and increase flow into a well. In recent years, technological advances in horizontal drilling and hydraulic fracturing have resulted in dramatically increased oil and gas production in many parts of the US.

Regulating & Permitting of Hydraulic Fracturing

For drilling operations that propose hydraulic fracturing, DOGAMI, DEQ, and other natural resource agencies work together to ensure that resources are being developed in compliance with state law, that each agency's regulatory responsibilities are met, and that the environment is protected.

DOGAMI Regulatory Authority

- Down-hole activities
- · The well pad
- · Off-site impacts

DEQ Regulatory Authority

- EPA-delegated authority to regulate compliance with the Safe Drinking Water Act and Clean Water Act
- Reviews proposed fracturing fluid composition
- Regulates waste disposal of fracturing fluids
- May require an Underground Injection Control (UIC) Permit prior to injection of fluids

Once an application for a permit to drill an oil or gas well is received, the application is circulated to other natural resource agencies for comment. DOGAMI then issues a permit with conditions designed to address and mitigate concerns identified by other agencies. Depending on the proposed drilling process or site-specific issues, additional information may be required from the applicant.

The Energy Policy Act passed by Congress in 2005 amended the Safe Drinking Water Act to exclude hydraulic fracturing fluids (except diesel fuel) related to energy production from regulation under the UIC program. However, as allowed under federal UIC rules, DEQ's UIC program regulates injection of all types of hydraulic fracturing fluids.

Agency Coordination & Collaboration Efforts

In 2003, DOGAMI formed a coalbed methane coalition to strengthen and streamline agency permitting collaboration on gas wells drilled in Coos County. Each Agency provided technical and regulatory staff to develop a clear outline of the permitting process. Future drilling applications that might include hydraulic fracturing and involve multiple agencies' regulatory authority will follow a similar permit streamlining process.



| | | | | (* · · |
|--|--|--|--|--------|
| \.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\. | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| , | | | | |
| | | | | |
| | | | | |