



**Testimony to the House Energy and Environment  
Committee  
on House Bill 3415  
April 7, 2015**

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Founded in 1968, the Oregon Environmental Council (OEC) is a nonprofit, nonpartisan, membership-based organization. We advance innovative, collaborative solutions to Oregon's environmental challenges for today and future generations.

Oregon Environmental Council supports HB 3415 to extend the moratorium for at least ten years on hydraulic fracturing in Oregon in order to safeguard water resources.

### **Fracking and water use**

Hydraulic fracturing, or “fracking” takes an enormous amount of water. According to the US Geological Survey, fracking on average, uses over 2 million gallons of water per well for oil and over 4 million gallons of water per well for natural gas extraction. Those are averages—some wells use even more.

Although some fracked water is recycled (the quantity recycled is unknown because companies are not required to report that information), most water is too tainted for other productive uses. Up to 600 chemicals may be used in fracking operations, including known carcinogens and toxics such as formaldehyde, lead and mercury. In total, around 40,000 gallons of chemicals are used per fracturing.<sup>1</sup> Wastewater is either reinjected into the ground or held in containment pools. There are some worries that both fracking and injected wastewater can migrate and taint drinking water resources—illustrated by videos of people lighting their tap water on fire. According to ProPublica, there have been over 1,000 documented cases by courts and state and local governments, of contamination next to areas of gas drilling.<sup>2</sup>

### **Fracking and earthquakes**

Scientists have linked earthquakes to fracking in Ohio and recommend that fracking should not occur near fault zones. Earthquakes may be triggered either by the fracking itself, or experts increasingly believe that injected wastewater can migrate along inactive fault lines, reactivating them.<sup>3</sup> In Ohio, state officials have required earthquake monitors before drilling within three miles of a known fault line, or in any area that has ever experienced an earthquake greater than a 2.0 magnitude. If those monitors detect a quake of 1.0 or more, the company has to halt its operations, and regulators must investigate whether drilling was the cause.

Given Oregon's geography, a thorough analysis of earthquake risks should be undertaken before fracking is ever considered.

### **Fracking and climate pollution**

<sup>1</sup> <http://www.dangersoffracking.org>

<sup>2</sup> <http://www.propublica.org/article/buried-secrets-is-natural-gas-drilling-endangering-us-water-supplies-1113>

<sup>3</sup> <http://billmoyers.com/2015/01/09/first-time-scientists-prove-fracking-caused-earthquake-strong-enough-felt-humans/>

Hydraulic fracking requires that wells are drilled, rock is broken up, and natural gas is collected, piped and potentially cleaned up on site. During this process, studies have found that “fugitive” or uncaptured methane escapes from this process. In fact, studies have identified 40 types of equipment that could be sources of escaped methane.<sup>4</sup> Methane is a potent greenhouse gas—over 70 times more powerful in a 20-year timeframe than carbon dioxide, the most abundant greenhouse gas. Methane leaks have sullied natural gas’ reputation, causing some analysts to raise concerns that natural gas is as bad, or worse, than coal when it comes to climate destabilization.<sup>5</sup>

Methane leaks have garnered significant concern over the last few years, especially as the fracking boom has mounted. The White House has convened meetings to reduce methane emissions and individual states are taking actions. In fact, Colorado, a major producer of oil and gas, became the first state to [impose regulations](#) requiring producers to find and fix methane and volatile organic compound (VOC)<sup>6</sup> leaks. Producers have applauded Colorado’s regulations and the certainty they provide.<sup>7</sup>

Before Oregon considers lifting a moratorium on fracking, the state should put in place strong regulations on methane and VOC leaks, such as those adopted in Colorado.

**OEC urges a strong YES vote for HB 3415 to protect Oregon’s water, health, and safety.**

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<sup>4</sup>[http://e360.yale.edu/feature/on\\_fracking\\_front\\_a\\_push\\_to\\_reduce\\_leaks\\_of\\_methane/2754/](http://e360.yale.edu/feature/on_fracking_front_a_push_to_reduce_leaks_of_methane/2754/)

<sup>5</sup> <http://onlinelibrary.wiley.com/doi/10.1002/ese3.35/epdf>

<sup>6</sup> VOCs contribute to smog and air quality issues.

<sup>7</sup> <http://www.scientificamerican.com/article/colorado-first-state-to-limit-methane-pollution-from-oil-and-gas-wells/>