

# To Frack or Not to Frack

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By Genevieve Stothers

Signal Hill Petroleum, a large oil company that conducts various drilling operations throughout Los Angeles, is now seeking permits to conduct additional drilling in several cities across Orange County. However, the company plans to implement a *new* form of drilling at these sites known as “hydraulic fracturing” or perhaps more commonly known as fracking. Drilling for oil is not a new phenomenon to Orange County—Huntington Beach has been the home of many drilling sites for several decades. However, according to [voiceofoc.org](http://voiceofoc.org), Orange County cities currently obtaining fracking permits include “Santa Ana, Anaheim, Westminster, Garden Grove, Stanton, Cypress and Buena Park.” Additionally, data acquired by the state water regulators suggests that officials have already implemented these new fracking sites in the middle of Yorba Linda residential neighborhoods.

Fracking is the process by which trapped oil is extracted by drilling approximately a mile below the earth’s surface before gradually turning horizontal. According to [whatisfracking.com](http://whatisfracking.com), “[a] mixture of water (90%), sand (9.5%), and additives (0.5%) is pumped at high pressure to create micro-fractures in the rock that are held open by the grains of sand.” Additives are especially needed to reduce friction and prevent pipe corrosion, which in turn protects the environment and boosts efficiency. However, these additives also include various chemicals that pose potential environmental and health risk.

The OC Register reports that “fracking is happening directly over a freshwater aquifer that supplies drinking water to 2.4 million citizens of Orange County.” Residents of these cities are concerned that the chemical additives, as well as the improperly extracted oil, will contaminate the groundwater that supplies their drinking water. Additionally, citizens fear an increase in earthquakes, carcinogens, and air pollutants. As a result, approximately 2,500 signatures have been collected for a petition against fracking in Orange County ([voiceofoc.org](http://voiceofoc.org)).

Major safety concerns surrounding the effects of fracking are also debated in the professional realm. Dave Slater, the Signal Hill Petroleum Chief Operating Officer and Executive Vice President, claimed that fracking does not pose risks to groundwater if the drill is properly designed and the plan is executed accurately. Focusing on the positives, Slater argued that even though there have been no issues of groundwater contamination due to oil extractions in California, the state still

implements strict water monitoring regulations to protect the county's water supply. Slater also commented that fracking appears to be a "compelling technology for unlocking oil and gas reserves across the country" (voiceofoc.org).

Moreover, California Governor Jerry Brown described the state's oil resources as extraordinary when introduced to the Monterey-Santos shale oil play. This 1,750 mile-wide rock formation under the San Joaquin and Los Angeles basins "is estimated to have one of the largest shale oil deposits in the world—more than 15 billion barrels" (voiceofoc.org). Creating a way to access this American oil could save the United States excessive amounts of money in international trade while also boosting the economy and providing jobs in the field.

On the other hand, Andrew Grinberg, the program organizer at Clean Water Action California, believes that fracking poses significant risks to ground water (voiceofoc.org). Grinberg argued that when an oilrig drills through an aquifer, there is potential for natural gas to travel into the water because there is no casing around the well below the aquifer. "There's a whole litany of things that [could] go wrong," Grinberg stated. Additionally, water activists and a UCI geologist reported that contamination always remains a possibility regardless of what oil companies may say (voiceofoc.org).

Despite the publicized facts and voiced concerns, the safety issues surrounding hydraulic fracturing or fracking, will most likely continue to be debated for an extended period of time. Today, the possibility of the chemical-laced fracking water resurfacing due to inadequate containment of waste is the biggest risk to groundwater. However, the Western States Petroleum Association believes that California "should be given an opportunity to fully research fracking" (voiceofoc.org).