DEPARTMENT OF CONSERVATION

Managing California's Working Lands

Public Affairs Office

801 K STREET • MS-24-07 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 323-1886 • **FAX** 916 / 323-1887 • **TDD** 916 / 324-2555 • **WEB SITE** conservation.ca.gov

Hydraulic Fracturing

Overview - The practice of hydraulic fracturing or "fracking" is commonly associated with the recovery of natural gas from shale, an unconventional resource, primarily in the eastern United States. In California, fracking is used for a brief period to stimulate production of oil and gas wells.

The California Division of Oil, Gas, and Geothermal Resources (Division) has statutory authority to regulate hydraulic fracturing under Section 3106 of the Public Resources Code, but does not have regulations requiring reporting or requirements to permit or track the different methods of hydraulic fracturing or fluids injected. The practice is largely exempted from the U.S. Safe Drinking Water Act, except when diesel fuel is used as the fracking agent. (42 U.S.C.S § 300h(d).). The United States Environmental Protection Agency (U.S. EPA) is undertaking a multi-year study of hydraulic fracturing and its potential impacts. More information can be found at the U.S. EPA web link: http://www.epa.gov/hfstudy/HF_Study__Plan_110211_FINAL_508.pdf

What is hydraulic fracturing? Hydraulic fracturing is a process that involves injecting fluids into a well bore at pressures that exceed the strength of the formation (rock), thereby resulting in the formation cracking or fracturing. Typically, a propping agent, such as sand, is also injected into the well to ensure the fractures in the formation remain open. This process increases the permeability of the formation and, therefore, increases the production of the resource.

Is fracking used in California? The Division only has limited information about the use of the practice. Although some companies have voluntarily announced that they are fracking, the Division doesn't believe the practice is nearly as widespread as it is in the eastern U.S. for shale gas production. More than 90 percent of California's non-associated gas production – that is, gas not associated with oil production -- occurs north of Stockton and is from sands rather than shale. These geologic formations do not require hydraulic fracturing for production. Non-associated natural gas production has been on the decline in California since 2006. While the Division is aware of industry interest in the potential to increase this type of production in the state through hydraulic fracturing, the associated costs of production may remain too high to be beneficial at present natural gas prices.

Fracking has been used for many decades as a production stimulation technique for oil and gas wells in the state. Again, since this short-term stimulation activity does not require a Division permit, the Division lacks fracking data.

What specific statutory and regulatory authority does the Division have? Per Public Resources Code Section 3106, the State Oil and Gas Supervisor permits the owners or operators of wells to, "utilize all methods and practices known to the oil industry for the purpose of increasing the ultimate recovery of underground hydrocarbons . . . [and to] do what a prudent operator using reasonable

diligence would do . . . including, but not limited to, the injection of air, gas, water, or other fluids into the productive strata, the
application of pressure heat or other means for the reduction of viscosity of the hydrocarbons, the supplying of additional motive force, or the creating of enlarged or new channels for the underground movement of hydrocarbons into production wells."

Are more fracking regulations forthcoming? Due to the ongoing natural gas drilling boom in the eastern U.S., some members of Congress are calling for more regulation of hydraulic fracturing. During the summer of 2010, the U.S. EPA conducted a "listening tour" to receive public comments about how to structure a forthcoming $1.9 million study of fracking. The "Draft Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources" can be found at the link provided below to the U.S. EPA website.

LINKS
U.S. EPA
Groundwater Protection Council
STRONGER
California Office of Environmental Health Hazard Assessment

February 16, 2012