



SIERRA CLUB

TEHIPITE CHAPTER

Fracking is Poisoning Our Air and Water Supplies: Impacts From San Joaquin Valley Shale Oil Production

by Gary Lasky, Sierra Club Tehipite Chapter

Hydraulic fracturing — fracking — is the extraction of oil and gas from deep shale rock formations by the injection of pressurized fluids. The risks and harms of fracking for public health and the climate are “real and growing.” Dangers of fracking to human health and the environment have been detailed in published peer-reviewed studies, including toxic air pollution (over 100), the depletion or contamination of water resources (over 200), and a dozen other harms. In California, fracking is primarily conducted in Kern County. Approximately 40% of global warming is attributable to methane (natural gas) emissions from all stages of oil and gas production: at the wellhead, storage tanks and pipelines, and residential gas stoves.

Produced water lies underground in close proximity to oil and gas and is frequently contaminated with toxics such as benzene, toluene and xylene. As documented in more than 120 studies, public health harms linked with drilling, fracking, and associated infrastructure include cancers, asthma, respiratory diseases, skin rashes, heart problems, and mental health problems. More than 17.6 million U.S. residents live within one mile of at least one active oil and gas well, resulting in a public health crisis. Brought up in voluminous quantities in oil production these chemicals need to be disposed of. The preferred method of wastewater disposal is with injection wells.

Fracking consumes *one to ten million* gallons per job. This figure actually understates the problem because wells need to be fracked every 2-3 years due to a sharp dropoff in oil production after the first year. Significantly, fracking and secondary oil recovery with water or steam *destroys* water supplies. Unlike water wasted by farms, fresh water used in oil production is injected deep into the earth and lost from the hydrologic cycle.

Frequently, methane leakage is caused by the failure of well cement jobs., Even capped wells may continue to contaminate drinking water supplies. Data from the State of Pennsylvania Department of Environmental Protection reveals that 50% of wells constructed more than 30 years ago leak methane. An enormous methane plume over the Four Corners region of New Mexico is attributed to leaks from oil and gas wells and coalbed methane. Before it breaks down into carbon dioxide, methane is 86 times as effective as CO2 at trapping heat in the atmosphere in the first 20 years following its release.

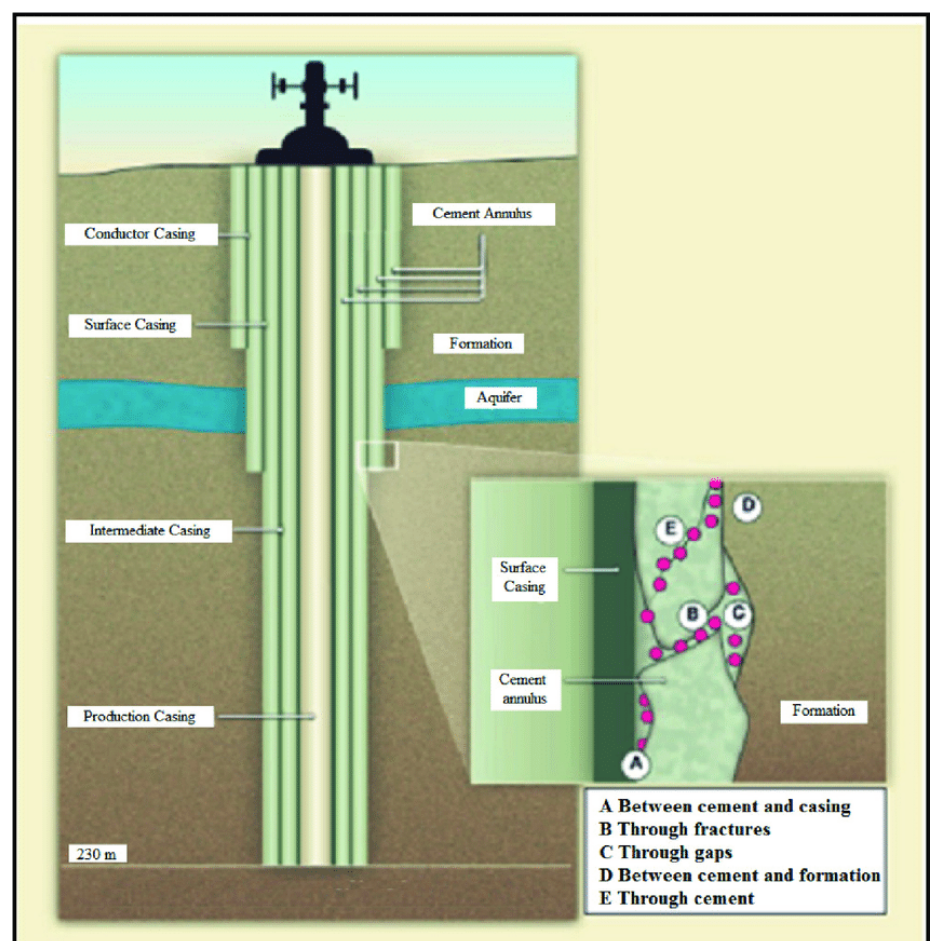
Controversy involving oil drilling on federal Bureau of Land Management (BLM) lands arose in 2014 when an oil and gas lease sale was proposed for more than a dozen BLM parcels. In Monterey and Fresno counties A lawsuit challenging the lease sale was filed by the Center for Biological Diversity and the Sierra Club, with our Tehipite chapter in a lead role. Plaintiffs argued

that the Environmental Impact Statement failed to evaluate the known environmental impacts of fracking. In a settlement, the BLM agreed to suspend all California lease sales until a comprehensive analysis of these impacts had been completed.

Except for oil and gas production on federal lands, California production is regulated by the Geologic Energy Management Division (CalGEM). However, chronic underfunding of regulators has led to a situation in which the oil and gas industry regulates itself — contributing to the State’s history of accidents and coverups. In 2011, an engineer at an oil field near Bakersfield was swallowed up by a sinkhole and scalded to death in an area of steam injection. Two state regulators immediately placed a hold on new secondary recovery permits — and they were promptly fired; the oil companies had complained to the governor. Chevron was fined just \$350 for failing to notify workers of the hazard.

A 2022 law, SB 1137, banned new oil wells within 3,200 feet of homes, schools, businesses and other residential areas. The law was challenged by oil industry groups, which filed signatures for a referendum on the November 2024 ballot. However, this past June 27, the California Independent Petroleum Association abruptly dropped its \$20 million campaign and the law went into effect. The Los Angeles Times reported this as “a victory for public health, the environment and Californians, more than 2 million of whom live near drilling operations and are exposed to cancer-causing air pollutants and suffer related health ailments.”

How you can get involved: call or text Gary at the Sierra Club Tehipite Chapter in Fresno, at 559-790-3495.



From: Lerner, Michael. (2014). Opportunity, Risk, and Public Acceptability: The Question of Shale Gas Exploitation in Québec. 10.13140/RG.2.1.2878.0967.