

# California using hydraulic fracturing in up to half of new wells, state study says

**Jeremy B. White, Sacramento Bee, 1-15-15**

Hydraulic fracturing unlocked oil at around one-half of the new wells launched in California over the last decade, and the practice will likely expand in a chunk of the San Joaquin Valley, according to a new study required by the 2013 law to regulate the practice.

Few topics have galvanized environmentalists in California like the increasing use of hydraulic fracturing, or fracking, an extraction process that involves blasting a mix of chemicals and water underground. Two years ago, California enacted broad regulations of the practice with a law that, while falling short of the outright moratorium sought by many environmentalists, requires a series of independent scientific studies.

The first of three studies, authored by a quartet of scientists, was released Wednesday. It presented a broad overview of hydraulic fracturing in California, while steering clear of the public health and environmental implications that recently led New York Gov. Andrew Cuomo to prohibit fracking in his state. That analysis will be part of a subsequent report.

Of the 300-or-so new wells being bored each month over the last decade, Wednesday's study found, between 125 and 175 of them were stimulated using hydraulic fracturing. Well operators have used the practice in 96 of California's 500 oil fields. But fracking has produced only about one-fifth of the oil streaming out of California because it tends to be less efficient than other extraction methods.

Nearly all of the fracked wells in California sit in the southern San Joaquin Valley, the study found, largely in four Kern County oil fields. A smaller amount of oil and gas flowed out of fracked wells in Los Angeles and Ventura counties.

Fracking will likely proceed in Kern County as energy companies continue trying to tap large stores of oil, the study predicted. While the cost of using the technology does not make it cost-effective in all parts of California, some San Joaquin County fields "would likely go out of production if operators could not use hydraulic fracturing," according to the analysis.

"The most likely scenario for future oil recovery using hydraulic fracturing is expanded production in and near existing oil fields in the San Joaquin Basin in a manner similar to the production practices of today," the study found, adding that "a significant amount of oil remains in these reservoirs."

Yet California's complex geology will likely prevent the type of large-scale energy boom that has transformed North Dakota and parts of the mid-Atlantic United States, the study concluded. It cast doubt on the size and accessibility of reserves in California's Monterey Shale, where production has remained "fairly constant" amid soaring oil production in other shale formations.

"The data doesn't really exist right now to understand the potential of the Monterey formation," study co-lead Dr. Jane Long of the California Council on Science & Technology said in a conference call detailing the report's findings. "It could be zero, it could be 15 billion barrels, it could be more than 15 billion barrels."

Many advocates have urged California to follow New York in halting fracking. But given the state's unique physical features, "a lot of the conclusions that people have drawn about the nature of hydraulic

fracturing are not true in California,” Long said.

“People have become concerned about hydraulic fracturing based on high-volume fracturing from horizontal wells, and we don’t do that,” Long said. “If California decided to ban what new York banned, it would make practically no difference in California.”

The report also details a small amount of offshore fracking, largely on man-made islands near the coastline bordering Los Angeles.

“If expansion of oil production offshore is allowed in the future, production could occur without well stimulation technology,” the report notes. “Billions of barrels of potential oil reserves exist off the California coast, but both federal and state laws and policies restrict expansion of production into new areas.”

Many environmentalists remain deeply skeptical of hydraulic fracturing, arguing that the the risks of contaminated water and other public health hazards are poorly understood. The group Californians Against Fracking issued a release arguing that California should await the results of the additional scientific studies before proceeding with regulations.

"Unleashing increased fracking in California before its hazards are fully understood is irresponsible and unethical," Davis Baltz of the Alliance of Nurses for Healthy Environments said in a statement released by the anti-fracking group.