

U.S. to auction state shale for drilling

ENVIRONMENT Auction to oil, gas firms raises fracking concerns

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A nearly 18,000-acre stretch of land extending from California's Central Coast to the San Joaquin Valley is the setting for a brewing debate over an oil-extraction method that has little governmentaloversight.

The land, which spans [Monterey](#), San Benito and Fresno counties, rests on a large chunk of the Monterey Shale, a formation of underground minerals long eyed by the energy industry for its potential to yield billions of barrels of oil.

That potential is expected to come closer to reality in December, when the federal government - which owns below-surface rights to the mostly private land - is scheduled to hold an auction to lease out parcels to oil and gas companies.

The lease sale, the second on the Monterey Shale in about a year, will occur in the midst of a growing battle among environmentalists, politicians and the energy industry over the drilling technique known as hydraulic fracturing, or "fracking." It injects a high-pressure mix of water, sand and chemicals into the ground to unlock oil and natural gas from shale rock layers deep within the earth - resources that cannot be tapped with conventional drilling techniques.

Fracking has been in use for half a century, but recent technological refinements have unlocked previously untouched deposits and resulted in a boom in oil and natural gas production.

That boom has stirred heated debate in New York, Pennsylvania and other states. Oil and gas operators say the process does not threaten the environment or the public's health, but critics say it could poison drinking water, pollute air and waste large volumes of water.

Unknown number

Now opposition is rising among environmentalists in California, the nation's fourth-largest oil-producing state. Operators have voluntarily disclosed more than 350 fracking wells throughout the state, from Northern California to Long Beach. But there is no way to know for sure how many exist, because California, unlike some states, does not require companies to reveal the number or location of the wells. The companies also are not required to disclose the chemicals they use - a fact that has angered some politicians and activists.

State and nationwide rules for fracking are taking shape, but watchdogs worry they will not be strict enough. Two bills in the state Legislature that would have regulated the procedure fell short last month after heavy lobbying by oil and gas groups.

The Monterey Shale drew the attention of activists this summer when the [U.S. Bureau of Land Management](#), which oversees the mineral rights, announced the auction of 79 parcels spanning 17,847 acres. In compliance with the National Environmental Policy Act, the bureau produced a draft analysis of the effects of oil and gas development on the environment and concluded it would have "no significant impact." Among the tools the agency analyzed was fracking.

The [Center for Biological Diversity](#), an environmental organization, accused the bureau of opening the door to fracking by minimizing its dangers.

"The (agency's) analysis is completely inadequate," said [Kassie Siegel](#), director of the group's Climate Law Institute. "If nothing is done, you could have large-scale fracking of the Monterey Shale without any adequate environmental review."

Lawsuit threat

The group said in August it intends to sue the agency for failing to show how the sale will affect endangered species, including California condors, San Joaquin kit foxes and steelheads.

Because the minerals beneath the shale's surface are federally owned, what the gas and oil companies are proposing is out of the hands of local officials who oversee the property above ground. But the possibility of fracking has caught the attention of Monterey County Supervisor [Simon Salinas](#), whose district includes some of the lease sites in southern Monterey County.

Salinas said he has not been provided enough details to understand how fracking would affect the environment, particularly the water that forms lakes and provides groundwater to the region.

"Maybe once we understand, we can say they can do it properly, do it right. This is an asset that can benefit the county, we certainly get some revenue from it - maybe it's OK," Salinas said. "But until we get the complete information, there's always going to be the concern: What's being hidden here that we need to know about?"

Fracking called safe

Tupper Hull, an industry spokesman for the [Western States Petroleum Association](#), downplayed the use of fracking in California, saying it has not taken off like it has in other parts of the country.

He also said the procedure is safe. In California, fracking "has never been identified or associated with any kind of environmental hazard or risk

that anyone has ever demonstrated," Hull said.

In parts of the Monterey Shale where the process has already begun - in Kern County and off the coast of Santa Barbara County - the Bureau of Land Management said it had found no evidence that fracking contaminated groundwater.

But studies elsewhere show a darker side to fracking. A 2011 congressional report found that oil and gas operators have fracked using known or possible human carcinogens, contaminants and hazardous air pollutants, such as benzene, toluene, xylene, ethylbenzene and methanol - plus, said the report, "fluids containing chemicals that they themselves cannot identify."

A Duke University study found high levels of methane in drinking-water wells near fracking sites. And Colorado School of Public Health researchers said this year that air pollution caused by fracking may lead to acute and chronic health problems in residents.

"When these oil and gas companies go into these areas and use new techniques," Siegel said, "we've seen all these problems in different parts of the country and that's what we're going to see in California."

For more than a century, the Monterey Shale has produced oil under conventional drilling methods. But companies are now trying to delve into the shale using fracking to unlock large amounts of petroleum in rocks too tight to drill the old-fashioned way.

The shale described

The Monterey Shale - which lies below the southern San Joaquin Valley and hills along the Central Coast - consists of rocks with silica, limestone, clay and mud deposited about 5 million to 20 million years ago. A recent federal study estimates it holds 15.4 billion barrels of oil, or 64 percent of the nation's shale oil resources. The United States uses about 19 million barrels of oil daily.

In September 2011, the federal government auctioned off a smaller section of the Monterey Shale - 2,600 acres - to oil and gas companies. Bids for acres went as high as \$900 each and generated a total of \$257,000. None of the buyers currently has a permit to drill.

But one of the companies, Venoco Inc., has shown strong interest in the shale. Having fracked in Santa Barbara County and the Sacramento Basin - an area stretching from the Klamath Mountains to the San Joaquin-Stanislaus County line - the company bought land in last year's auction and sought drilling permits, but withdrew its applications when the Ventana Conservation and Land Trust filed a legal appeal, calling for more rigorous environmental review. A Venoco spokesman did not return calls for comment on the upcoming sale.

Regulation sought

Gov. Jerry Brown has said his administration will develop fracking rules, and the state Division of Oil, Gas and Geothermal Resources held public workshops this year. Nationally, the U.S. Interior Department has proposed regulations that would for the first time force companies to disclose the chemicals used in fracking, but it is unclear when the rules will take effect.

Meanwhile, the two bills to give the state more oversight over fracking died in the Legislature last month.

One was a proposal by Assemblywoman Betsy Butler, D-Los Angeles, that would have banned new fracking until it could be regulated. The other would have required companies to provide information about fracking, including the location of the wells and the chemicals used.

That bill's author, Assemblyman Bob Wieckowski, D-Fremont, said it would have ensured a "basic level of public awareness."

"The public has a right to know," he said, "what's being pumped into the ground, what is the water being used, what's the source of the water, what happens with the disposition of the well that's fracked, what happens afterward."