

Answers to questions about oil waste in California aquifers

Ellen Knickmeyer, Associated Press, 2-5-15

BAKERSFIELD — California, the country's third-largest oil-producing state, has improperly given oil companies more than 2,500 permits to inject production fluids and oilfield waste into underground water supplies that are used for drinking water or irrigation, state records show.

Nearly half of those disposal wells were approved or first started injections in the last four years under Gov. Jerry Brown, an Associated Press analysis found. Here are some key things to know about the issue:

Question: What is being injected into the aquifers?

Answer: In many cases, oil companies say, the fluids they are injecting are purer than the aquifer's natural water. Other times, the wastewater and other fluids are much saltier. High levels of salt or other chemicals can make groundwater useless for drinking and irrigation. Injected water also can include man-made chemicals used in oil production, including hydraulic fracturing, or fracking.

Question: What is the risk to water supplies from the injections?

Answer: State officials say they've tested the water from nine of the more than 100 water wells believed to be at greatest risk of contamination and found none. But the U.S. Geological Survey says contaminants can take years to show up in drinking-water supplies.

Question: Why does it matter?

Answer: Gov. Brown declared a drought emergency in February 2014, and communities around the state adopted mandatory or voluntary water conservation as reservoirs, rivers and mountain snowpack declined. Aquifers normally provide about 40 percent of the water for the state's 28 million people, and that figure goes up to 60 percent in droughts, experts say. Clean groundwater is also important for irrigation. Some farmers fear oil-industry injections may make farmland unusable. With the state's population expected to hit 50 million in 2050, Californians will need more water sources in the future.

Question: What are the state and federal governments doing?

Answer: Since 2011, the EPA has been saying the state's oil and gas regulators were not doing enough to protect current and potential drinking-water sources from contamination. The state has shut down nine injection wells because of the threat to water supplies. The EPA has given the state until Friday to present a plan for assessing any contamination to the water aquifers and dealing with that threat. In addition, the EPA has given the state until 2017 to stop all oilfield injection into aquifers not specifically approved for oil-industry use. However, the state's petroleum industry expects the EPA to agree to formally authorize oil-field injection in aquifers that have been used by the oil industry for years.