

Reservoir could coexist with wells, but at high cost

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Oil and gas wells can coexist safely with a reservoir — but the job calls for a lot of cash and cement.

News that Northern Water's proposed Galeton Reservoir site east of Ault [sits on two dozen Noble Energy oil and gas wells](#) raised questions over the safety and cost of building new water storage at the site. Northern Water is now considering a nearby spot free of active wells for the 46,000 acre-foot reservoir, the smaller storage component of the controversial Northern Integrated Supply Project (NISP).

To mitigate contamination risk, wells on the proposed reservoir site would need to be plugged according to state regulations, said Ken Carlson, an environmental engineering professor at Colorado State University.

"As long as they do what (the Colorado Oil and Gas Conservation Commission) says, there's not a risk," Carlson said. "There's over a million wells drilled in this country. This is not a new situation."

The plugging process is highly regulated and basically involves inserting huge plugs — at least 100 feet long and usually made of cement — into the drilled hole of the well. The top of the well is then sealed and covered with dirt. Carlson said the process cancels out any risk of contamination, although some research suggests that abandoned wells emit small amounts of methane.

However, plugging a well can cost hundreds of thousands of dollars. The 15 communities and water districts signed on to use the additional water stored by NISP would probably have to foot the bill, and the costs wouldn't stop there.

If the wells haven't reached the end of their useful lives by the time construction of the reservoir begins, Noble could reasonably demand additional reimbursement for plugging them, Carlson said. Noble Energy representatives didn't immediately respond to a request for comment.

The wells were built in 2010 or later, Northern Water spokesman Brian Werner said. The average lifespan of an oil and gas well in the Weld County area is about 11 years, according to [data analysis](#) by Colorado Public Radio. So although the construction timeline for Galeton is several years away — assuming NISP gets federal approval and wins the court battle that would almost assuredly come after — construction could prompt closure of the wells before they're done producing.

Werner said the decision to move the proposed reservoir location remains up to the project participants.

Either location is feasible, but "it makes more sense if we can find a location that doesn't have any wells in the footprint," he said.

He added that a location move won't extend the timeline of the project. The cost of the land is likely to be similar, too — the current proposed site is 1,700 acres; the potential replacement is 1,600 acres.

But Northern Water probably won't buy the land until NISP receives a federal permit, Werner said. That could take years, so the potential new site would remain available to potential future oil and gas development.

About Galeton Reservoir

- Galeton Reservoir would take water from the South Platte River, while Glade Reservoir, the larger NISP reservoir, would take water from the Poudre River. The Poudre flows to join the South Platte near Greeley.
- Galeton Reservoir could hold up to 45,600 acre-feet of water, roughly one-fourth of Glade Reservoir's projected capacity of 170,000 acre-feet.
- For reference, one acre-foot is enough water to meet the needs of two to three households a year, and Horsetooth Reservoir holds 157,000 acre feet.
- The current proposed location for Galeton Reservoir is just east of Ault on the southeast side of Colorado Highway 14. The potential new location is northwest across Highway 14, just west of Pawnee National Grasslands.
- "Galeton" is pronounced "gale-tin." (Pronounce "gale" as in "rail.")