Woodbury sinks new well and hits trouble from new aquifer rules

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Woodbury's new $2 million water well is perfect in every way, except for one little problem.

It can't pump water.

The well was completed two years ago and has passed every test, according to city engineer Klay Eckles. But new rules have made the well run dry, becoming -- so far -- a waste of money.

"This is really frustrating for us," Eckles said.

The Minnesota Department of Natural Resources has not given permission for Woodbury to use the well, citing new regulations passed by the state Legislature.

Other cities have been hit with the same bureaucratic sluggishness -- leading to expensive delays. The start-to-finish time for a new well in Blaine now exceeds four years, according to city engineer Jean Keely.

The cause of the well-digging slowdown is many miles away -- White Bear Lake. When the lake's water levels plummeted several years ago, state officials became sensitive to levels of underground aquifers and the impact of water pumping.

The Legislature passed new laws, mandating that cities prove their wells won't damage aquifers, lakes and rivers. It's a dramatic shift that has left many city engineers scratching their heads.

"Before, you would just dig the well," said DNR hydrologist Molly Shodeen. When a well was done, a city would simply get a permit from the DNR to pump water -- usually automatically.

Not anymore.

Woodbury engineer Eckles said the city started work on well No. 18, at Valley Creek Road and Settler's Ridge Parkway, several years ago.

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He said the city kept the DNR informed every step of the way.

"We got the permit to drill a well, with the presumption that we would get a permit to use it,"
Eckles said.

Then Woodbury was hit with the tougher rules.

"This happened midstride for us," Eckles said. "We found out we have to go through a much more rigorous testing process."

From May to September, Woodbury followed the new guidelines. For certain test periods, the new well and two others nearby ran full blast.

The city used special monitoring wells to measure the impact on the underground water levels. On nearby Valley Creek, which is a designated trout stream, other water-level monitors checked for any drop.

"We collected and monitored data all summer long," Eckles said.

"The good news is that we did all the testing, at water usage rates more than we would ever use," he said.

The bad news? The city still doesn't have permission to pump a single gallon out of the well.

BAD YEAR FOR TESTING

DNR hydrologist Shodeen said that when Woodbury started work on the well, the DNR wrote a letter of approval.

That document does not promise that a city can pump any certain volume of water.

"It says you are drilling at your own risk," Shodeen said. "We never say, 'Go right ahead.' "

"Before Woodbury drilled, we gave them a volume amount we thought we could approve. They are asking for many times that amount," Shodeen said.

Shodeen acknowledged that Woodbury tested the creek and aquifer, as required. But it might not have been a good year for the tests.

The summer was abnormally wet. That means that the trout stream might not show the same effects from the new pumping that it would in a more normal year. That also meant that homeowners were using less water on their lawns, so the aquifer could have been higher than expected.

"We were thrown for a loop this year, because of the wet spring," Shodeen said. "I don't know if we got a great test."

It's not known, she said, if the city will have to do another test next summer. But the DNR is legally charged, she said, with making sure that the trout creek and aquifer suffer no permanent
damage from the well.

Blaine also has been planning a new well for three years, said city engineer Keely, and it will be more than another year before it will draw water.

The process has become so difficult that the city has hired a consultant to navigate the regulations. Keely said the cost of the consultant has been $162,000, so far.

Another new expense? The $253,000 to install monitoring wells around the new well.

"They had us do a pumping test -- pumping full blast for a week, to make sure there were no surface-water impacts," Keely said.

The delays are a sore point for Woodbury's Eckles.

He said Woodbury has done an excellent job of conserving water. The city set a goal of keeping water usage level over the next 20 years, despite adding about 20,000 new residents. It developed an aggressive pricing system that forces the biggest water users to pay more per gallon. It has won awards for recycling water on golf courses.

"We are trying to be good stewards here," Eckles said. "But unfortunately, we feel like our efforts are not appreciated."