Battle brews over use of salty water

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Jerry Needham Express-News

Everywhere the San Antonio Water System turns to look for new freshwater resources, it's rebuffed by locals insisting there's not enough to share. So when state and local water planners steered them to untapped salty groundwater, utility officials thought they'd found an uncontroversial source. But they're learning differently.

When an exploratory drilling rig went up in Atascosa County in May, so did the ire of residents in the rural county south of San Antonio.

Dozens of residents are expected to pack an Atascosa County Commissioners Court meeting Monday where commissioners may consider a resolution addressing the growing controversy in the county of 40,000 people.

Studies by regional water planners determined the county has enough freshwater resources to meet projected needs beyond 2060 without tapping into brackish water.

But that doesn't matter to county residents such as Arthur Troell, a geologist and professor at San Antonio College.

"I think we should keep it for ourselves," he said. "Its value is going to go up. Why should San Antonio move in and rob us of our resources?"

SAWS officials say the proposed project, which hasn't yet settled on Atascosa County for pumping, would take only a small amount of the region's massive store of deep salty water and have no impact on the overlying freshwater resources.

"The trick is to get the time and get past the emotions so that we can explain the science very proudly," Calvin Finch, SAWS director of water resources, told the board's water resources committee on July 30.

But most Atascosa County residents, Troell said, feel there was something sneaky going on because they didn't learn about the project until they saw the drilling rig.

Then they learned that the Evergreen Underground Water Conservation District had signed an agreement with SAWS more than a year earlier with special terms for developing brackish groundwater, terms many feel are unfavorable for the county.

But Mike Mahoney, general manager of the Evergreen district, which regulates groundwater withdrawals in Atascosa, Frio, Karnes and Wilson counties, said any water that SAWS takes would be governed by permits still to be issued.

"They would have to apply for production permits," Mahoney said. "They would have to have water rights to support those production permits and then based upon the tests that are done, that would determine whether they would get those permits and how much they would get."

SAWS contractors have zeroed in on four sites in the Wilcox Aquifer for their brackish water potential -- two in Bexar County, one in Wilson County and one in Atascosa County.

The most promising, after testing the Bexar sites showed less-than-ideal results, appears to be the Atascosa site with its thick water-bearing sands, officials said.

They won't be ready to issue design/build contracts for a desalination plant in South Bexar County until early next year with construction to start a year later and opening in July 2011.

The plant would produce 20 million gallons a day. During last year's drought, the utility's usage averaged about 178 million gallons a day.

Treating salty water is more expensive than drawing from Edwards supplies, so SAWS President David Chardavoyne said Friday the facility would be used for drought needs.

"You can essentially break the back of Stage II and Stage III Edwards restrictions by turning on a facility like this," he said.

The Texas Water Development Board estimates there are 135 trillion gallons of brackish groundwater in the 21-county planning region around San Antonio, with 388 billion gallons of it reasonably retrievable.

Charles Kreitler, a SAWS consultant and hydrogeologist with LBG-Guyton Associates, told the board's water resources committee that the brackish water in the lower part of the Wilcox formation is separated from the freshwater of the Carrizo Aquifer by deposits of muddy shale that are 250 feet to 500 feet thick.

All-out pump tests of the brackish water for 48 hours at the two Bexar County sites showed no impact on the freshwater zone, Kreitler said, adding that such tests soon will be conducted at the Atascosa site.

But many in Atascosa County feel SAWS shouldn't be taking their water despite any scientific evidence.

"We in Atascosa County see it as a pearl that hasn't been polished,"
Atascosa County resident Rebecca Treviño says of the brackish groundwater.

"SAWS is powerful and we are weak," she told regional water planners in their quarterly meeting last week.

"We're afraid we're going to have earthquakes if they draw, draw, draw with nothing to stop them," she said, adding that earth tremors are not unheard of in the county.

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