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City to take up $83 million water supply proposal

By Paul A. Anthony

Given such names as Hickory, Whitehorse and Clear Fork, the potential sources in San Angelo's elusive search for a long-term water supply have come and gone like the fickle West Texas rain.

Thirty-six years after buying the water rights to the Hickory Sand aquifer, the San Angelo City Council now finds itself right where it started - considering today a recommendation from its Water Advisory Board that it begin studying options for developing the massive Hill Country underground water formation.

"We have concluded that the desalination at this point is not going to be cost effective," said Stephen Brown, a member of the advisory board and former city manager.

Tests from the Clear Fork aquifer south of Knickerbocker - the second of two salt-water formations closer to San Angelo than Hickory Sand - found levels of radiation were too high to treat effectively, said Water Utilities Director Will Wilde.

That finding, following an inability to extract enough usable water from wells driven into the Whitehorse aquifer in Irion County, dashed any hope of finding a cost-effective way to supplement the city's water supply with desalinated water from nearby aquifers, Brown said.

Instead, the council must decide today whether to move forward with plans to develop the fresh-water aquifer with which the city has the longest - and rockiest - relationship.

"There's going to be a lot of questions about it that come up," said Mayor J.W. Lown.

The city in 1972 bought the water rights under nearly 60 sections of land - more than 37,000 acres, mostly in McCulloch County. It spent nearly $2 million to develop a well field, then spent much of the 1980s and 1990s fighting the creation of an underground water conservation district in the area and suing that district over the permitting regulations it put in place.

About 1 million acre-feet of water is believed to lie under that land - roughly half of it usable for the city's water supply, Wilde said. However, in 1995, the city received a permit allowing it to pump no more than 5,000 acre-feet annually from the aquifer until 2025.

San Angelo residents use on average about 15,000 acre-feet of water per year. An acre-foot is roughly 325,000 gallons - the amount of water it takes to cover one acre of land one foot deep.

The water encased in the Hickory formation is comparable in taste and sulfides to bottled water, Brown said, but radium levels remain too high. Assuming council approval today, engineering studies costing roughly $100,000 would determine the cost and feasibility of various pipeline and treatment options and locations.

Developing the aquifer could cost as much as $82 million in the first phase alone, Wilde said in a background memo to the council.

"That's not a lot of water for an $82 million price tag," Lown said.

Brown disagreed, noting that building O.H. Ivie Reservoir and its pipeline in 1990 cost $180 million.

For 40 years, the future of San Angelo's water supply has been one of city government's pressing concerns. Droughts in the 1970s led to fires on the O.C. Fisher lake bed, and as recently as 2004, a drought had reduced the city's resources to no more than an 18-month supply.

Efforts to supplement the city's supply have resurfaced in recent years as the city's growth has pushed its resources to the limit, Wilde said. Plans for Hickory were shelved initially to try less costly desalination options.

"The Hickory has always been a viable alternative for the city," he said.

According to the 1995 permit, San Angelo can draw as much as 12,000 acre-feet per year from the aquifer beginning in 2036.

That supply likely would make up the difference between the water used now and what would be needed as the city grows over the next 28 years, Wilde said.

"It would contribute to a significant percentage of our annual needs," he said. "Our existing sources are about at their limits."

If you go

- What: Regular meeting of the San Angelo City Council.
- When: 10 a.m. today.
- Where: San Angelo City Auditorium, 72 W. College Ave.

- On the agenda: Consideration of new Convention Center rates, discussion of attempts to resolve problems created by high water pressure in certain neighborhoods, and further discussion of late fees for overdue water bills.

Hickory Sand timeline

- July 27, 1972 - San Angelo purchases the water rights to the Hickory Sand aquifer underneath 58 sections, or about 60 square miles, of land in McCulloch, Concho and Menard counties for $194,465.52.
- Aug. 16, 1982 - Residents of McCulloch, Concho, Menard, Mason, Kimble and San Saba counties overwhelmingly approve the creation of the Hickory Underground Water Conservation District No. 1.
- July 5, 1983 - Water in the aquifer is found to contain levels of radium as much as 13 times greater than the limits allowed by the Environmental Protection Agency.
- Oct. 21, 1986 - The city sues the Hickory water district, alleging the district's rules for water usage exceeded its authority and discriminated against San Angelo.
- Jan. 9, 1991 - A senior district court judge rules in favor of the city in what officials said was "the main complaint" they had with the new rules.
- 1995 - The city receives a permit from the district allowing it to pump 5,000 acre-feet per year until 2025, 10,000 acre-feet per year from 2026 to 2035 and 12,000 acre-feet per year after 2035.

- Today - The City Council will consider a recommendation from its Water Advisory Board that it commission a study to determine the most cost-effective way to possibly extract and ship water from the aquifer.