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Water planners looking down

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Lubbock's thirst for water will grow with its population in the dec ades to come, and the city must formulate a strategy to guarantee supplies for the early, mid and late stages of the 21st century, many experts believe.

The plan may include distant reservoirs, rights to deep well fields, conservation and perhaps an enormous supply of water right under our noses — literally.

It's the huge reservoir beneath Lubbock that has caught the attention of the city's new water commission.

In truth, the amount of water under the city is not known; however, a recent study estimated it could be at least 336,000 acre feet. That's roughly one-third the amount in the city's well fields in Bailey County.

An acre foot — 43,560 cubic feet — is the amount of water it takes to fill an acre-size enclosure one foot high.

The good thing about the underground water supply is that it replenishes itself, said Lynn Sherman, president of the water consulting firm Wat erTexas. Because the wat er is not accessed by heavy agricultural use, it likely will not be depleted.

In a Water Advisory Com mission meeting last week, chairman H.P. Brown said the city should investigate tapping Lubbock's underground water supply.

The City Council recently created the nine-member commission to give advice on water issues.

Lubbock is paying Water Texas about $95,000 to study the city's long-term water outlook, said Terry Ellerbrook, city director of water utilities.

"What you have here is a home-grown, rechargeable wat er supply," Brown said. The underground "dome" of water is fed by scores of playa lakes.

Sherman said tapping that dome is his firm's top recommendation.

"Our indication is that Lub bock will need an additional water supply, although water conservation can help extend the life of the current supply," he said.

Texas Tech has experienced groundwater-related flooding at Jones SBC Stadium and at other buildings, Sherman said. The university takes advantage of the underground water for its irrigation systems.

Ellerbrook said the idea of using water beneath Lubbock is nothing new. The city's original water supply came from its own wells.

"Over the years, we've abandoned those wells mainly be cause of (water) quality problems," he said. The groundwater contains significant levels of chlorides and other salt-forming agents.

Some water also could be contaminated by petrochemicals from leaking underground tanks or from industrial and residential waste, he said.

Because of its quality, the groundwater would have to undergo advanced treatment, Ellerbrook said.

Still, such treatment could be a bargain when one considers alternatives.

"The cost of doing that is going to be far less than a $100 million pipeline" from Lake Alan Henry, Ellerbrook ex plained.

Sherman said that building a delivery system from Lake Alan Henry, which is at a lower altitude than Lubbock, would cost about $116 million.

Other estimates have gone as high as $250 million, de pending on the start date for the project.

The original purpose of the lake, the development of which is funded by Lubbock water charges, was to support the city's long-term water needs, and the lake may still fill that role.

Today the lake exists primarily for recreation, and businessmen are developing property at the site for get-away and year-round living.

Nevertheless, Lake Alan Henry remains a viable water supply in Lubbock's future, Sherman said. Cities such as Dallas have several future wat er supplies already in place.

"Lake Alan Henry will be there for a long, long time. It is good to have the lake in Lubbock's inventory for long-term needs," Sherman said.

Putting Lubbock's own groundwater in that inventory also could pay big dividends. It could be used to water city parks and supply other water-intensive landscaping needs.

However, the city needs to enhance its current system for drawing from local wells.

The city already has some pipelines and pumping stations in place, Ellerbrook said. The station near Memphis Av enue and 82nd Street, originally built to help prevent floods, theoretically could pump wat er to the city's reservoirs through existing pipelines.

The commission probably will recommend that the city hire experts to determine how much groundwater is under Lubbock, Ellerbrook said.

This study could cost be tween $50,000 and $100,000, according to commission members.

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