

Lake Alan Henry and Other Water Supply Projects

Developing Water Supply Alternatives for Lubbock

Financing water supply projects is like buying a car or a home. As a major purchase, the City must carefully evaluate several alternatives, select the best one, and then find the best available terms for financing the purchase. After careful evaluation of alternatives, the City decided to pursue three water supply projects that were either the least costly, or that maximized the use of existing water sources.

These projects are already underway:

1 Canadian River Municipal Water Authority (CRMWA) Roberts County Well Field Expansion (about \$36 million for Lubbock's portion) – This project provides a sustainable supply from CRMWA groundwater even if Lake Meredith water levels are low. The expansion adds new wells, pipeline and increases the water rights from 42,000 acres to almost 300,000 acres.

2 Bailey County Well Field Development (\$3 million) – This project allows the City of Lubbock to maintain an existing water supply by rehabilitating a few existing wells and installing some new wells. This project will enable the Well Field to continue meeting peak day water supply demand in the summer months.

3 Park Irrigation Conversion to Groundwater (\$5 million) – The City has installed water wells in 18 parks so far, and has plans to install water wells at another 16 parks. Using local groundwater for park irrigation adds to the City's total water supply and helps meet peak day system demand during summer months.

In addition to the above projects, the City of Lubbock determined in 2005 that it would need to develop a new water supply by 2012. The new supply will be necessary for three reasons: (1) area drought continues to impact Lake Meredith; (2) the life of the Bailey County Well Field is limited to about 30 to 40 years due to continued declines in Ogallala Aquifer groundwater levels; and (3) continued population growth.

After detailed evaluation of several water supply alternatives, it was determined that the most sustainable and cost effective



▲ CRMWA installing Ogallala Aquifer well field pipeline in Roberts County.

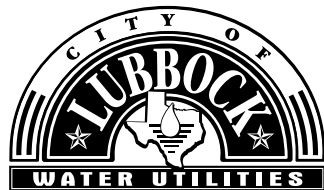
water supply would be Lake Alan Henry. Although the cost of constructing a 50-mile raw water pipeline, a water treatment plant, three pump stations and a treated water distribution line is estimated at \$240,000,000 (including engineering and land acquisition fees); it is still the most cost effective water supply alternative. The other most viable alternative consisted of a CRMWA project to further develop groundwater supplies by expanding well fields located north of Roberts County. The cost of this water supply alternative was estimated to be between \$500 and \$600 million.

The Lake Alan Henry pipeline project is the largest infrastructure project that the City of Lubbock has ever initiated. In order to pay for the project, financing for at least a 20 year period is necessary. In March 2008, all water user rates increased by 16%. Similar increases are likely over the next three years to fund the Lake Alan Henry pipeline project and other necessary water system improvements.

The City is working to reduce the project costs by seeking federal and state grant and loan programs. A relatively new loan program known as the Texas Water Development Board (TWDB) Water Infrastructure Fund (WIF) reduces the interest on a normal loan by as much

as 2%. The City was successful during March 2008 in securing the first \$22 million for the Lake Alan Henry project from this low interest loan program. The City will continue to pursue additional TWDB assistance opportunities, but future success will depend in part on the conservation efforts of customers because this factor is used to score individual projects during the competition for State assistance.

Lubbock must have sustainable water supplies. Wise use and conservation of available water while new water supplies are developed will help ensure that Lubbock has an adequate water supply at the most reasonable cost possible.



For more information contact the Water Conservation and Education Department at 775-2595 or visit us online at <http://water.ci.lubbock.tx.us>