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LCRA's Water Supply Resource Plan is a road map for meeting the lower Colorado River basin's firm water needs to the year 2100.

LCRA's current water supplies

LCRA has ample water to meet its customers' needs for decades into the future through a repeat of the Drought of Record, the worst drought in recorded history. LCRA's current water supplies consist of the Highland Lakes and downstream run-of-river water rights. They will provide adequate supplies to meet municipal and industrial water demands for 50 years or more based on the Drought of Record. However, future droughts may be more severe than the Drought of Record and could reduce LCRA's available supplies. Firm water is the amount of water that can be supplied from the Highland Lakes and lower Colorado River during a repeat of the Drought of Record. Cities and industries require firm water to meet their demands. It is important to plan now for future needs because developing additional water supplies can take a long time.

Planning for the needs of a growing region

LCRA estimates that demand for LCRA water in 2100 could be about 670,000 acre-feet per year, or more than four times the current usage.

Water supply options

The good news is that the lower Colorado River basin has numerous water supply options available for future needs. The Water Supply Resource Plan explores more than 20 options and sets out three water supply strategies:

- **Strategy I** maximizes the benefits of LCRA's existing water rights. At a cost of about \$3 million to \$5 million, this is the least expensive option and would meet projected firm water demands for 50 years or more. However, this strategy alone does not meet firm demands to 2100.
- **Strategy II** builds on maximizing the benefits of existing water rights and adds significant conservation and wastewater reuse efforts. The estimated costs range from \$225 million to \$525 million over a 40-year implementation period, depending on the identified approaches. This strategy would meet projected firm water demands to 2100.

- **Strategy III** relies on the existing water rights, the current conservation program and one or more new supply projects such as an off-channel reservoir, desalination, aquifer storage and recovery or groundwater importation. Estimated costs for these options range from \$721 million to \$1.6 billion. This strategy would meet projected firm water demands to 2100.

Margin of safety

The plan establishes a margin of safety to ensure that the LCRA Board has sufficient time to consider if and when to pursue development of any specific water supply options. The trigger for the margin of safety is reached when LCRA's contractual commitments for firm supply reach a level that leaves LCRA with enough water to make additional commitments for about 20 years.

Planning process

LCRA began the WSRP planning process in mid-2008 by collecting input from the public on water supply options and planning priorities. Based on this input and technical analysis, LCRA staff prepared a draft plan and collected public input on the draft plan in the spring of 2010. The input was shared with the LCRA Board and considered in its review process. The Board approved the plan in October 2010.

LCRA also shared data it collected during the process with the Lower Colorado Regional Water Planning Group (Region K) to assist in the preparation of the regional water plan, which was approved by the Texas Water Development Board in the fall of 2010. This will become part of the updated State Water Plan that is anticipated to be released in 2012.

LCRA relied on population data and projections from federal, state and local sources to estimate population growth to the year 2100. LCRA computed water demands based on Texas Water Development Board water use data and added industrial and power plant needs.

Guiding principles

Based on input at the 2008 public meetings, LCRA developed guiding principles to evaluate the use of various water supply options. Some of the principles are to:

- Use all water supplies owned and controlled by LCRA,
- Provide a margin of safety of at least 10 to 20 years ahead of when supplies will be needed,
- Develop a diversified water portfolio,
- Manage and protect existing supplies through watershed management and conservation, and
- Develop partnerships and regional cooperation to enhance water supplies.

For more information or to read the full report, go to www.lcra.org/water/watersupply

Staff is now preparing a plan to identify potential water strategies to help meet projected shortages in the downstream irrigation operations over the next 50 years. This plan will be complete in the summer of 2011.