

COMPARING STRATEGIES

State funding of capital projects versus water conservation

The Texas Legislature seems intent on helping local water purveyors finance a portion of the water supply projects described in the 2012 state water plan (*Water for Texas 2012*). The plan says that \$26.9 billion is needed from the state to meet our water needs in the future. The plan also says that failure to provide the funds will cost \$116 billion in lost income and will result in more than 1 million lost jobs by 2060 if we are subjected to a drought of record before adequate water supplies are in place.

Twenty-seven billion dollars is a lot of money, but it is only half of the funds needed for an adequate water supply. The timing of the money's availability is important. The most important issues involve the actual commitment of the funds, what form they are in and when they will be available. Nearly as important, however, is how projects will be prioritized.

One of the most significant factors in prioritization is the issue of selecting between high-cost capital projects, such as reservoirs and recycling systems, versus conservation projects, such as high-efficiency toilet distribution, industrial water-saving technology, elimination of water loss due to poor infrastructure and incentives for conversion to low water-use landscapes.


It is not a simple choice.

Capital project advocates say conservation projects do not really create new water as a reservoir does. However, that argument does not seem to “hold water” to me. In the simplest definition, “creating new water” means having water available for new jobs and new residential populations. The water saved by replacing an old, inefficient toilet with a new, efficient toilet is just as available as water from a new reservoir. The “new water” is also just as permanent as a reservoir because the old, inefficient plumbing is no longer available.

Unless familiar with the billions of gallons of water produced by San Antonio's or El Paso's water conservation efforts, one might believe the volumes of water available from conservation are not large enough to make a difference. That is just not true. Conservation has largely met new water needs for economic and population growth for many decades in San Antonio and El Paso.

Some say the new water supplies created by toilet replacement, industrial technology change and landscape conversion is too dependent on individual behaviors and proper maintenance of technologies. It is true that this philosophy is relying on thousands of mini-projects versus a few large projects, but even reservoirs fill in with silt and require regular maintenance. The analysis of which water supply option is more reliable would be an interesting study. How does the accumulation of silt and sedimentation in drought-sensitive reservoirs compare to the performance of the conversion of household or industrial water-use technology in terms of long-term reliability of the new water supplies?

An analysis of the cost per unit of water produced and the time required to have the first water available would need to be included in any analysis.

The purpose of this discussion is not to dismiss the capital projects; it is to suggest that both types of projects must be included in the mix. Purveyors funding new water resources for Texas need to recognize the importance of including water conservation projects to contribute inexpensive, new water supplies that can be online quickly. 

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