



<h1>Texas Municipal Water Conservation</h1>	<b>Issue Paper</b>  <b>1</b>
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Ensuring that Texas is sustainable in the 21<sup>st</sup> century depends in large part on smart management of the state's water resources. The 2007 Texas State Water Plan projects that by 2060, *municipal* water-use will double from 3.77 million acre-feet (year 2000 usage) to almost 8.26 million acre-feet. **However, these numbers do not incorporate the full potential of advanced water conservation technologies.**

Conservation reduces the amount of water that must be supplied as well as minimizing capital required for construction and operation of water treatment facilities. An acre-foot of conserved water is often less expensive than new supply. **San Antonio reports that spending an average of \$1 per person on conservation programs saves \$4-7 per person in water utility expenditures.** Its \$4.4 million in conservation program expenditures in 2006 translated to approximately \$308 per acre-foot saved. Comparatively, the cost of new surface water rights ranges from \$500 - \$1,500 per acre-foot and the cost to purchase groundwater from the Edwards aquifer is significantly higher.

Texas leaders have increasingly recognized that municipal water conservation is an important part of water supply planning and now require cities and most retail water suppliers to regularly submit conservation plans to the Texas Commission on Environmental Quality (TCEQ). The next round of municipal conservation plans must be submitted by **May 1, 2009**. Water Conservation Implementation Reports must also be submitted by that date and are to include a description of implemented measures, the amount of water saved, whether or not targets were met, and an explanation of any unmet targets. Both types of plans are to be updated every five years thereafter.

Municipal conservation plans must include 5- and 10-year targets for water savings. The Texas Water Development Board (TWDB) Water Conservation Implementation Task Force recommended a minimum 1% reduction per year of current per capita usage with a statewide average goal of 140 gallons per capita per day (GPCD).

### **To meet their proposed goals, cities have several alternatives including price and non-price conservation programs**

Pricing programs involve rate structures that provide incentives to reduce water use. They are cost effective and relatively straightforward for a municipality to implement and can also stabilize or increase revenues for municipal water systems without increasing water use. An effective program should have an affordable base price for a reasonable minimum quantity of water and several subsequent blocks at rapidly increasing rates per unit of water. This will allow a city to protect small and efficient water users while providing obvious financial incentives to large users to improve their efficiency and/or reduce use. Water rate structures should have blocks *above* average household use.



Non-price measures include leak detection programs; plumbing fixture retrofits; audits of household and industrial water use; landscaping audit and incentive programs; and public education. Rebates for appliances with dual benefits can be shared between energy and water utilities to defray costs. In addition to residential programs, there is significant conservation potential in the industrial and commercial sectors.

Education is an important component to any municipal conservation plan. Bill inserts are an excellent tool for regular educational information about water conservation and available rebate programs. Bill format can also act as an educational tool to inform customers about their usage compared to the average user and previous months.

### What still needs to be done to maximize water conservation in Texas

- **At the State Level** The TCEQ and TWDB must have additional resources to aggressively and effectively implement water conservation plan requirements.
  - For new appropriations or for new uses of state water, applicants must be required to affirmatively demonstrate that all state water will be used efficiently. TCEQ rules must be amended to establish clear standards to be met.
  - For submissions of conservation plans not associated with applications, staff must conduct a substantive review of plans submitted, including the following: a critical evaluation of the supplier's 5- and 10-year GPCD targets; a review of the efficacy of water pricing ordinances contained in the plan; as well as whether the supplier has included a sufficient range of effective non-price measures.
  - Summaries of the water conservation plan elements and of progress demonstrated in implementation reports must be developed and made readily available for public review.
  
- **At the Municipal Level** Cities should adopt ambitious GPCD goals and not simply use the *minimum* state recommended reduction of 1 % per year, especially if a city's current use is far above 140 GPCD. The use of non-price incentive programs, particularly those that encourage the replacement of water-intensive lawns with drought-resistant plants, should be expanded. Municipal conservation plans should also have a strong educational component.

Reducing municipal water use saves taxpayer money. It also helps to extend our water supplies for future growth, while protecting the beautiful rivers and streams of this state for fish, wildlife and recreation.

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For more information, please contact

Amy Hardberger  
Environmental Defense Fund  
(512) 478-5161  
ahardberger@edf.org

Ken Kramer or Jennifer Walker  
Lone Star Chapter, Sierra Club  
(512) 477-1729  
lonestar.chapter@sierraclub.org