



## Water Supply



### The Issue

Providing an adequate supply of water is an increasingly urgent challenge for Texas. The 2012 State Water Plan issued by the Texas Water Development Board estimates that our state will need an additional 8.3 million acre-feet of water per year by 2060 to meet the demands of a population projected to increase from 25.4 million in 2010 to 46.3 million. Increasing growth in the economy and the population as well as acute, persistent drought in much of Texas increases the urgency of expanding the water supply available in Texas.

Nearly two decades have passed since enactment of SB 1 in 1997. This landmark water legislation has led to nationally-acclaimed regional and state water supply plans. However, regulatory and financial constraints stymie timely implementation of projects to increase water supply.

As required by SB 1, Texas has completed detailed water plans measuring available water supply, future demand, and identifying strategies to increase supply. The 16 Regional Water Planning Groups have developed comprehensive plans which the Texas Water Development Board (TWDB) compiled into the official State Water Plan. TWDB issued its first State Water Plan in 2002, with revised versions published in 2007 and 2012. In addition, Regional Water Plans identify hundreds of strategies to augment available supply by 9 million acre-feet of water by 2060.

According to an assessment in the 2012 State Water Plan, only 28% of the nearly 500 planned projects had reported some form of progress, and only 13% were fully operational. The prolonged delay in completing significant water supply projects increases, year by year, the challenge of meeting demands even in the near term. By law, Texas plans for enough water to meet demand during a drought of record, and that model may need revising. The drought of record refers to hydrologic conditions averaged over the decade of the 1950s. Droughts of the last few years, particularly the drought of 2011, had worse hydrological conditions than most years in the 1950s.

Although the Regional Water Planning Group members, water purveyors, and local governments have worked effectively, project implementation has been delayed, in large measure, by state regulatory issues and funding. Indeed, following passage of SB 1 in 1997 the Legislature has, perhaps inadvertently, passed legislation which complicates—rather than facilitates—new water supply projects. SB 2 in 2001 and HB 1763 in 2005 enlarged the authority of Groundwater Conservation Districts which is now often exercised to limit or block private development of groundwater. In 2007, SB 3 established a multi-layered process leading to the Texas Commission of Environmental Quality (TCEQ) adoption of Environmental Flow Standards. Water supply projects based on development of groundwater and new surface water right permits are delayed by these new groundwater and environmental flow statutes.

Other regulatory issues complicate the completion of water supply projects. The “junior rights” provisions required for inter-basin water transfers remain an impasse for some, and unresolved issues about water rights amendments and indirect reuse of water delay many others.

The landmark legislation known as SB 1 stipulated that “voluntary redistribution” of existing water supply would create much of the water needed for growing demand. Such redistribution assumes a well-functioning water market which facilitates change of use (e.g. from irrigation to municipal use) and water transfers. Markets depend upon defined property rights and predictable regulatory decisions. Except in a few areas, water marketing in Texas is far more limited than anticipated.

## The Facts

- The 2012 State Water Plan estimates Texas will need an additional 8.3 million acre-feet of water a year until 2060 to meet demand under drought conditions.
- Implementation of the water supply strategies in the 16 Regional Water Plans has an estimated capital cost of \$53 billion.
- Voluntary redistribution of existing water supply through water marketing is constrained by state and local district regulations.
- Water conservation strategies could generate nearly 2.2 million acre-feet of additional supply per year by 2060, according to the State Water Plan.
- Surface water strategies in the State Water Plan are estimated to produce about 3 million acre-feet of additional supply per year by 2060. The State Water Plan recommends construction of 26 new reservoirs, which would add 1.5 million acre-feet of new supply annually.

## Recommendations

- Remove legal barriers to private investment in water supply projects.
- Amend Texas law to simplify TCEQ approval of water right amendments.
- Simplify requirements for bed and banks authorization for indirect reuse of water and reform the “junior rights” restrictions on inter-basin water transfers.
- Amend SB 3 to clarify that the policy objectives for Environmental Flow Standards are critical flows during a drought of record.
- Clarify whether the TWDB’s statutory authority in Regional Groundwater Management Areas to establish desired future conditions is consistent with the landowner’s right to groundwater in place, as recognized by the Texas Supreme Court in *Edwards Aquifer Authority v. McDaniel*, and the Texas Legislature in SB 332.

## Resources

*Texas Water Policy Options* by Josiah Neeley, Texas Public Policy Foundation (Mar. 2013).

*2012 State Water Plan*, Texas Water Development Board (Jan. 2012).

*Liquid Assets: The State of Texas’ Water Resources*, Texas Comptroller (Feb. 2009).

*Science Advisory Committee Report on Water for Environmental Flows*, prepared for Study Commission on Water for Environmental Flows (26 Oct. 2004).

*Solving the Texas Water Puzzle: Market Based Allocation of Water* by Ronald A. Kaiser, Texas Public Policy Foundation (Mar. 2005).

