



Texas Public Policy Foundation  
**LEGISLATOR'S GUIDE  
TO THE ISSUES  
2021-2022**

## Water Supply

### The Issue

Growth in the economy and population, as well as cyclical droughts throughout much of Texas, increases the urgency of providing an adequate supply of water in Texas. As required by the landmark water legislation SB 1, passed in 1997, Texas has completed detailed State Water Plans (SWPs), measuring available water supply, future demand, and identifying strategies to increase supply. The most recent 2017 SWP issued by the Texas Water Development Board (TWDB) estimates that our state will need an additional 8.9 million acre-feet of water per year by 2070 to meet the demands of a population projected to increase from 29.5 million in 2020 to 51 million.

According to the 2017 SWP draft, only 14% of the nearly 3,100 strategies recommended by the 2012 SWP have reported some form of progress. Delays increase the challenge of meeting demands even in the near term. The 85th Legislature saw the passage of SB 1511, which will require the SWP to provide information on implementation of high priority projects and lead regional water planning groups to exclude infeasible water management strategies.

By law, Texas plans for enough water to meet demand during a drought of record, which refers to hydrologic conditions averaged over the decade of the 1950s. But that model may need revising, as droughts of the last few years, particularly the drought of 2011, had worse hydrological conditions than the drought of record.

Project implementation has been delayed, in large measure, by state regulatory issues and funding. Following passage of SB 1, legislation was passed that complicates 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's (TCEQ) adoption of Environmental Flow Standards. Water supply projects, based on development of groundwater and new surface water rights permits, are delayed by these new groundwater and environmental flow statutes.

The 84th Legislature saw the passage of HB 200, which established a process for judicial appeal of desired future conditions made by Groundwater Conservation Districts. This is a needed step toward undoing previously legislated water policy, which obstructed beneficial use of privately owned groundwater in Texas.

Other regulatory issues complicate water supply projects. The junior rights provision strips water rights of their seniority when surface water is transferred for use in a water basin different from the basin in which the water rights originated. This discourages interbasin transfers, a key strategy to meet future water demand.

HB 1153, introduced during the 84th Legislature, called for a repeal of the junior rights provision, a much-needed reform.

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.

### The Facts

- The 2017 SWP estimates Texas will need an additional 8.9 million acre-feet of water a year until 2070 to meet demand under drought conditions.
- Implementation of the water supply strategies in the 16 Regional Water Plans has an estimated capital cost of \$63 billion.
- Voluntary redistribution of existing water supply through water marketing is constrained by state and local district regulations.
- Surface water strategies in the SWP are estimated to produce 3.8 million acre-feet of additional supply per year, approximately 45% of the total recommended strategy supplies in 2070.
- The 2017 SWP recommends construction of 26 new reservoirs, which would add 1.1 million acre-feet of new supply annually by 2070.

### Recommendations

- Remove legal barriers to private investment in water supply projects.
- Amend Texas law to simplify TCEQ approval of water rights amendments.
- Simplify requirements for bed and banks authorization for indirect reuse of water and repeal the junior rights restrictions on interbasin 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 2011 in SB 332.

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## **Resources**

[2017 State Water Plan](#), Texas Water Development Board (May 2016).

[Texas Water Policy Options](#) by Josiah Neeley, Texas Public Policy Foundation (March 2013).

[Liquid Assets: The State of Texas' Water Resources](#), Texas Comptroller of Public Accounts (Feb. 2009).

“[Texas Water: Planning for More](#)” by Spencer Grubbs, Shannon Halbbrook, Jessica Donald, and Bruce Wright, *Fiscal Notes* (April 2019).

[Solving the Texas Water Puzzle: Market Based Allocation of Water](#) by Ronald A. Kaiser, Texas Public Policy Foundation (March 2005).

[The Case for a Texas Water Market](#) by Kathleen Hartnett White, Carlos Rubinstein, Herman Settemeyer, and Megan Ingram, Texas Public Policy Foundation (May 2017).

