



01/2025



2022 State Water Plan

Reliable water supply is essential to supporting Texas' robust economy, its agricultural and natural resources, and one of the fastest growing populations in the country. Planning is necessary to responsibly manage and develop the state's water resources for the benefit of future generations—so water experts, government agencies, and members of the public collaborate in a comprehensive regional water planning process. This cyclical, five-year process culminates in a state water plan.

What does the plan tell us?

The 2022 State Water Plan marks a quarter-century of Texas' widely recognized regional water planning process and is the fifth state water plan. Every state water plan is the culmination of the work of hundreds of water planning stakeholders and a planning process founded on extensive data and science. This process is guided by a robust state framework that requires all 16 regional water planning groups to address the full scope of their water supply needs openly and genuinely.

The resulting plan sets forth thousands of specific, actionable strategies and projects—costs and sponsors included—that clearly demonstrate how Texas can withstand future droughts. The Texas Water Development Board works diligently to continuously improve data collection, water science, and other tools in support of better planning, which ultimately results in water projects with tangible benefits for the state.

What are the projected water needs for the state?

The state water plan projects total water demand to increase 9 percent, from 17.7 million acre-feet in 2020 to 19.2 million acre-feet in 2070. The potential total water shortage in a repeat of a drought of record is 6.9 million acre-feet in 2070. This is the maximum shortage that could be expected if nothing is done over the next 50 years to increase water supplies.

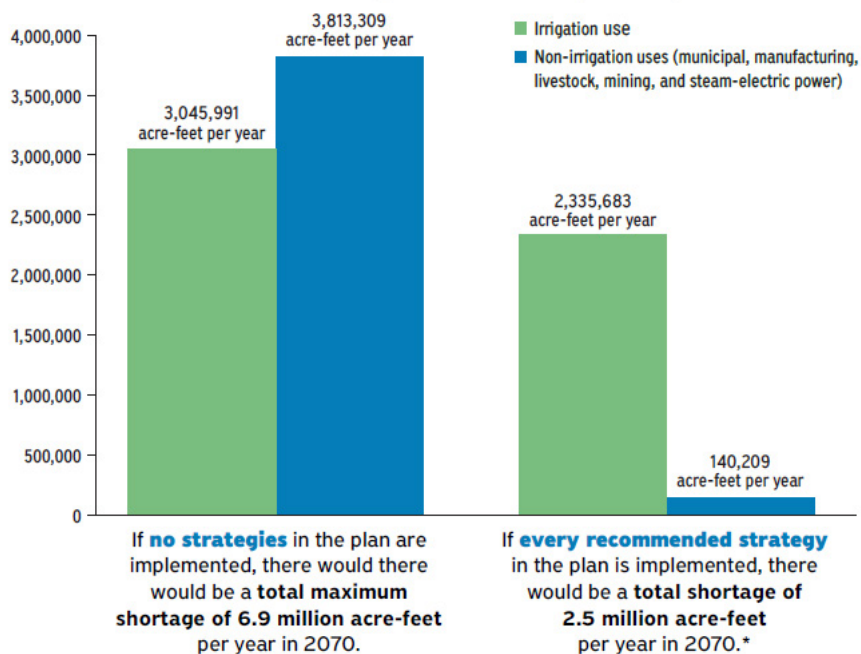
What can we do to get more water?

When projected demand for water exceeds existing supply, planning groups recommend water management strategies—specific plans and associated projects—to address the gap by providing additional water supply or reducing water demand. Water management strategies include reducing water use through conservation or adding water supply from new reservoirs, groundwater wells, water reuse, seawater and groundwater desalination plants, and more.

In the 2022 State Water Plan, planning groups recommended approximately 5,800 water management strategies and more than 2,400 specific water management strategy projects to increase water supply. Strategies may or may not require developing new water infrastructure (referred to as water management strategy projects). If implemented, these strategies would provide 7.7 million acre-feet per year in additional water supply by 2070.

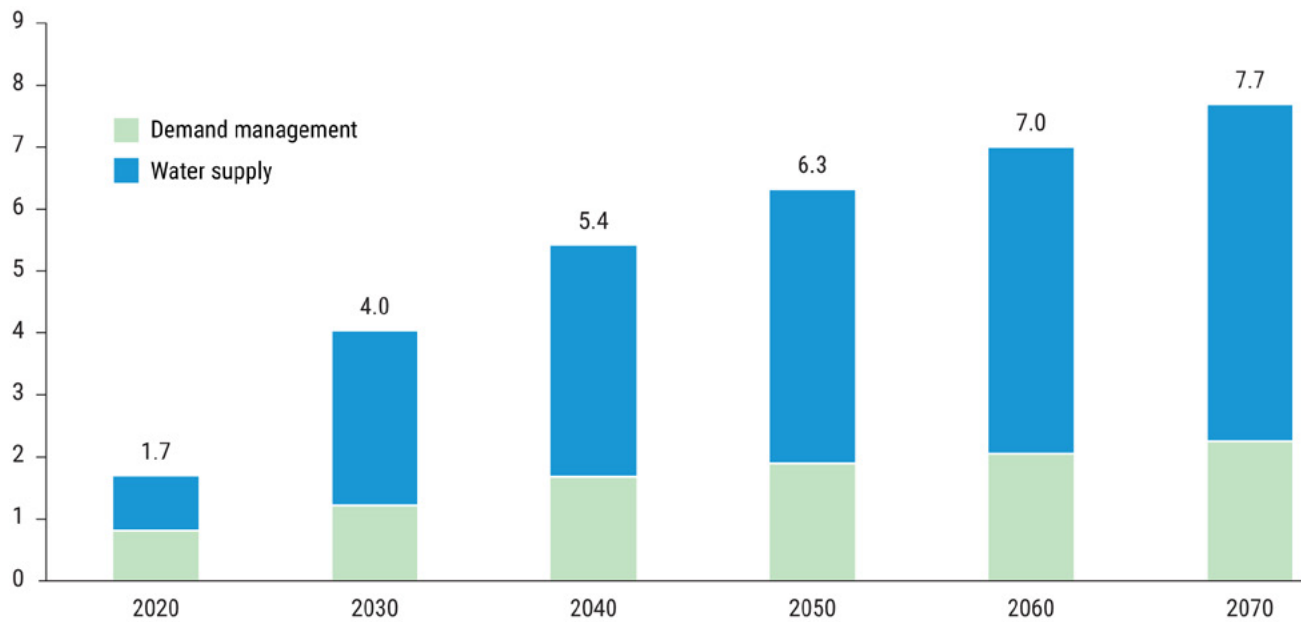
The full capacity of all recommended projects and strategies in the approved regional water plans—including any associated capacities or volumes of water that may not be immediately assigned to a specific water user group—is also considered to be part of the state water plan.

Potential water shortages in 2070 during a drought of record



*The unmet irrigation need is partly due to managed depletion of the Ogallala Aquifer and the economic infeasibility of providing replacement water for irrigation under drought of record conditions.

Annual volume of recommended water management strategies (millions of acre-feet)



How much will the plan cost?

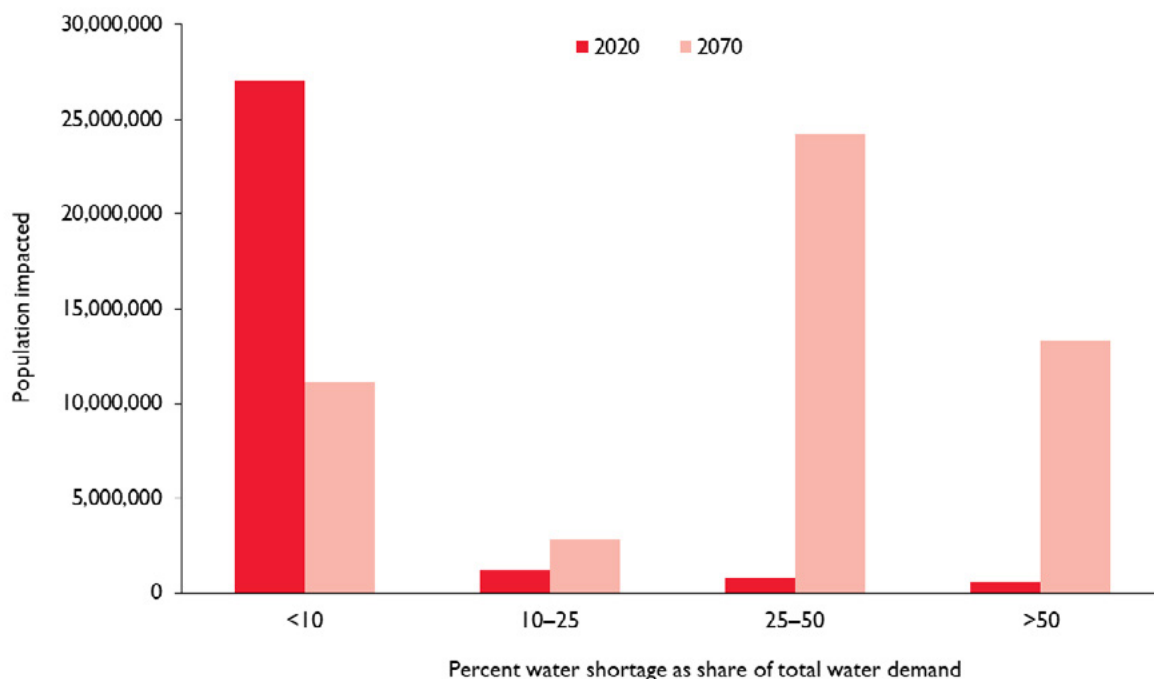
The estimated capital cost to permit and design projects, acquire water rights and land, and construct and implement the approximately 2,400 water management strategy projects by 2070 is \$81 billion, including more than \$7 billion in costs associated with conservation projects. These costs are in 2018 dollars without accounting for future inflation, and water providers anticipated needing \$47 billion in state financial assistance to implement these projects.

What if we do nothing?

If the recommended water management strategies are not implemented and another drought of record (or worse) occurs, the estimated annual economic losses resulting from water shortages range from approximately \$110 billion in 2020 to \$153 billion in 2070. Job loss estimates range from 615,000 in 2020 up to 1.4 million in 2070.

If we do nothing, approximately four out of five Texans will face at least a 10 percent water shortage in their cities and residences by 2070, and approximately a quarter of all Texas' municipal water users will have less than half of the water supplies that they require to live and work by 2070.

Projected statewide population impacted by municipal water needs in 2020 and 2070



An interactive plan

Strategies and projects included in the 2022 State Water Plan are presented in a printed publication and online as an interactive state water plan website (texasstatewaterplan.org). This web application enables users to take an in-depth look at the 2022 State Water Plan data, projects, and strategies to see how water needs change over time, with filter options that allow viewing at different geographic levels—from statewide details down to the water user level.

In addition to the interactive state water plan, other data visualization tools have been developed to 1) compare the reported historical water use to the projected demand included in the state water plan (www.twdb.texas.gov/waterplanning/data/dashboard/index.asp) and 2) review the socioeconomic impact analysis if the identified water needs in the 2022 State Water Plan are not met and drought should recur (www.twdb.texas.gov/waterplanning/data/analysis/index.asp). Additionally, county-level summaries of this planning information can be found at www.twdb.texas.gov/waterplanning/rwp/outreach/index.asp

For additional information on the 2022 State Water Plan, please visit our website at www.twdb.texas.gov/waterplanning/swp/2022/index.asp.