Infrastructure:

Securing Texas' Water Future

January 2026

Top Line

1. **Texas' growing population and economy are increasing water demand beyond current supply.**

2. **Without urgent action, the supply and demand gap will threaten health, the Texas economy, and drought resilience.**

3. **The Texas Legislature took important actions in 2025 (SB7), but it is not nearly enough to address the growing water gap.**

4. **Texas must close the funding gap and take other actions to build a secure water future.**

Water is critical to our future growth and success. However, with current resources Texas faces a large and growing gap between supply and demand. We need to build on the initial steps taken in 2025 and invest to secure Texas' water future.

CPP Policy Research Analyst Nichole led the research and writing for this paper.

Backup

1. Texas' growing population and economy are increasing water demand beyond current supply.

a. Texas' population is projected to rise from just over 30 million today to about 51.5 million by 2070 (1).

- This growth will place significant pressure on water systems that are already strained (2).
- Most of this growth will occur in fast-growing cities such as Dallas–Fort Worth, Houston, Austin, and San Antonio (3).

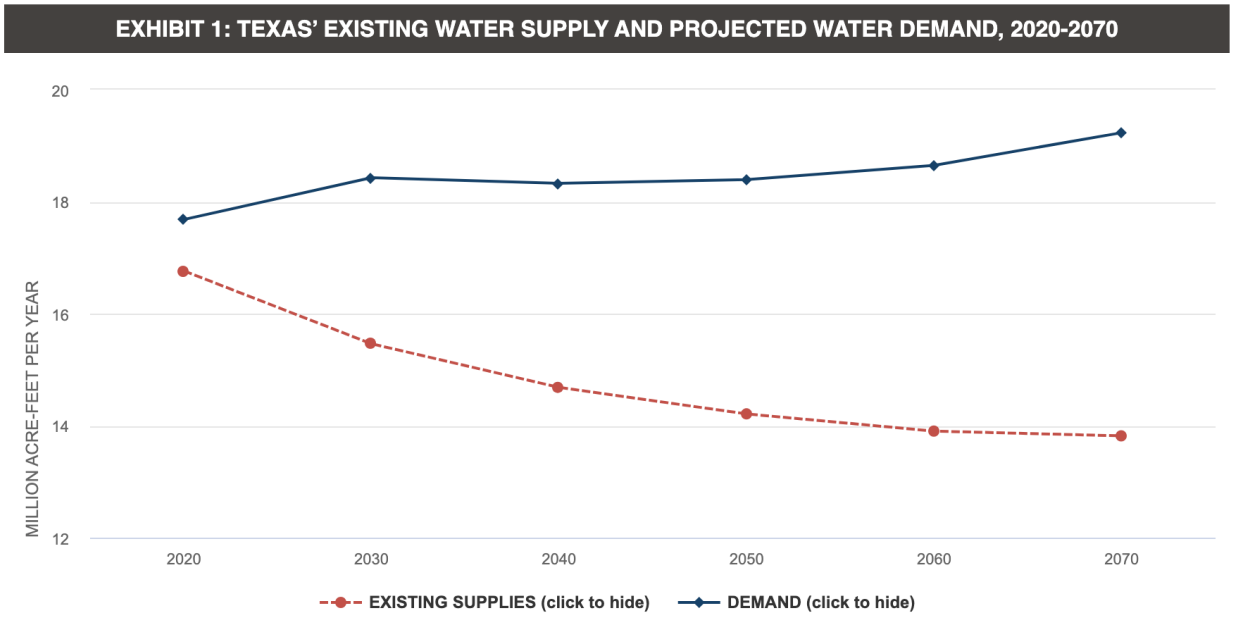
b. Water use is shifting from agriculture to cities and industry due to this rapid urban growth.

c. **Almost all of Texas's water supply comes from two main sources: surface water and groundwater.** (1)

- **Surface water, which includes rivers and reservoirs,** accounts for about 43 percent of the state's current supply and is expected to remain relatively steady through 2070.
- **Groundwater, drawn from underground aquifers,** provides about 53 percent of Texas's total supply. It is projected to decline by 32.4 percent by 2070 because it is being pumped out faster than aquifers can naturally recharge.

d. **Supply is declining, while demand rises, creating a widening gap.**

- Water is measured in **acre-feet**, the amount of water needed to fill an acre of space to a depth of one foot. An acre-foot of water is equal to 325,851 gallons or 43,560 cubic feet. A typical backyard pool holds about 20,000 gallons of water, so one acre-foot of water could fill about 16 backyard swimming pools.
- Total water supply from existing sources in Texas is projected to fall about 18 percent by 2070 (1), from about 16.7 million acre-feet in 2020 to 13.7 million in 2070 (1**).**



Sources: Texas Water Development Board; Texas Comptroller of Public Accounts

https://comptroller.texas.gov/economy/fiscal-notes/archive/2023/sep/water.php

- At the same time, demand is increasing – from about 17.7 million acre-feet in 2020 to 19.2 million by 2070, an increase of 8.5% (1).
- **The gap, or potential shortage, grows from 3.1 million acre feet in 2020 to 6.9 million in 2070** (1).
- This gap exists not only because demand is rising and supply is declining, but also because much of Texas's water is not always located where it is needed. (1)

Note: A map of the 16 Texas Water Planning Districts is in Appendix 1. Appendix 2 shows data by Planning Region, including projected population growth, current and projected water supply and demand, and the projected 2070 shortfall based on current resources. This is the shortfall that Texas needs to address.

The source that provides data by planning region can also be used to access **supply, demand and shortfall data at the county level** - Texas Water Development Board, Texas State Water Plan, 2022, https://2022.texasstatewaterplan.org/

2. Without urgent action, this growing supply and demand gap will threaten health, the economy, and drought resilience.

a. **Water shortages threaten the growth of our economy**, especially the fast-growing tech industries.

- AI data centers are increasing rapidly in Texas, and they are also emerging as major water users.
- Cooling their massive servers can require millions of gallons per day, adding new competition for limited water between homes, farms, and industry [8].
- Massive amounts of water are also used in the generation of the electricity used by data centers. (29) (This source provides a detailed discussion of how data centers affect water demand).

b. **Manufacturing is at risk**, as more than $55 billion in industrial projects and about 400,000 jobs depend on a stable water supply [5].

c. **Fracking adds to the water risk.** Fracking is an industrial technique used to extract oil and natural gas from deep underground rock formations, particularly shale. It involves injecting high-pressure mixtures of water, sand, and chemicals into rock layers to create fissures, allowing trapped resources to flow into a wellbore.

- Fracking produces massive amounts of contaminated water – up to five barrels for every barrel of oil. (28)
- Fracking companies have proposed treating this wastewater so that it can be used for agriculture or other purposes. However, the safety of the chemicals used in fracking is untested. (28)
- The fracking companies won't proceed unless they are given legal immunity from the Texas legislature, which would just shift the risk from the companies to people and communities. (28)
- The impact of fracking on our water supply and on the safety of the wastewater produced needs much further study.

d. **Our aging water infrastructure compounds this problem.**

- Water infrastructure which carries water to end users is deteriorating, leading to more frequent water system failures.

- Boil-water notices have doubled since 2019. [12]. Boil-water notices occur when low water pressure or leaks allow contaminants into the system. Residents must boil tap water before using it to ensure safety [10].
- In Toyah, a small West Texas town, residents lived under a boil-water notice for more than **six years** before the system was finally restored to safe drinking standards. [14]

e. **The 2025 ASCE (American Society of Civil Engineers) Report Card shows Texas's water infrastructure is deteriorating.** [15].
   - The ASCE Report Card is a national infrastructure grading system. Texas earned a D+ in drinking water and a D– in wastewater, signaling widespread deterioration in both systems.
   - The national grades are C– for drinking water and D+ for wastewater, meaning Texas scores below the national average in both categories.
   - The boil-water notices referenced above are a symptom of this deterioration. Boil-water notices doubled from 2020 to 2023, and 571 systems restricted water use in 2023. These actions affected 6.4 million Texans and point to growing statewide vulnerability.
   - Weak water and wastewater systems also threaten long-term urban growth. Phoenix faced similar challenges when groundwater shortages forced limits on new housing, (27) a scenario that Texas cities could experience if the water gap continues to widen.

3. The Texas Legislature took important actions in 2025 (SB 7), but it is not nearly enough to address the growing water gap.

a. **SB 7 expanded the Texas Water Development Board's (TWDB) authority to finance, coordinate, and set standards for water projects** [16].
   - Eligible projects include brackish-water desalination, wastewater reuse, stormwater capture, and interregional conveyance pipelines [17].
   - The law prioritizes rural and underserved communities with populations under 150,000. [17].
   - The state can now fund up to 90 percent of local project costs, an increase from the previous 70 percent cap [18].

b. The Legislature also passed House Joint Resolution 7, which establishes the Texas Water Fund.

- This measure appeared on the November 2025 ballot as Proposition 4, and was passed by Texas voters on November 5, 2025.
- The Texas Water Fund will allocate $1 billion annually from state sales-tax revenue through 2047, creating about $20 billion in total funding [19].

c. Texas is also investing in major new water infrastructure projects.

- The 2022 State Water Plan lists 23 new reservoirs, including Bois d'Arc Lake, Lake Ralph Hall, Marvin Nichols, Lake Ringgold, and Allens Creek Reservoir [1].

  See Appendix 3 for a map of existing and proposed reservoirs.

- These reservoirs are expected to provide hundreds of thousands of acre-feet of new water but will take decades to complete [21].

4. Texas must close the funding gap and take other actions to build a secure water future.

a. Increase funding to fully meet supply and infrastructure needs

- The Texas 2036 report estimates that the state needs nearly $154 billion by 2050 for water infrastructure, including $59 billion for water supply projects, $74 billion for leaky pipes and infrastructure maintenance, and $21 billion to fix broken wastewater systems.[2]
- The actions taken in 2025 fund only about $20 billion of this, or only about 13% of the total need, **leaving more than $130 billion unfunded.** (2)
- Equitable project funding must address disparities between urban and rural systems.
  - According to the *2025 Texas ASCE Infrastructure Report Card*, rural wastewater systems are described as "extremely vulnerable" because many lack adequate staffing, financial capacity, and regulatory compliance infrastructure.
- Texas must also invest in new supply sources, such as desalination and reuse.
  - Desalination refers to removing salt and minerals from seawater or brackish groundwater to create drinkable water.

- Water reuse means treating wastewater to a high standard so it can be used again for purposes like irrigation, industry, or even drinking supplies.

b. Maintain strong oversight and science-based planning (11)

- Project performance should be tracked using metrics such as cost per acre-foot and cost relative to the number of people served.
- Annual infrastructure report cards can help measure improvements and identify gaps.
- Make sure water requirements of proposed data centers are identified and planned for up front, and make sure data center developers are paying a fair amount for the development of additional water resources to meet their long-term requirements.

c. Expand water supply

- **Increase aquifer storage**
  - Expand Aquifer Storage and Recovery (ASR) projects that store excess surface water underground during wet years.
  - Use ASR to reduce evaporation losses compared to surface reservoirs.
  - Prioritize ASR in fast-growing regions and areas with declining groundwater supplies.
  - Treat ASR as a cost-effective way to increase drought resilience and long-term water reliability.
- **Build new reservoirs**
  - Accelerate development of the 23 new reservoirs identified in the 2022 State Water Plan.
  - Fund early land acquisition, engineering design, and environmental permitting.
  - Prioritize reservoirs serving high-growth metropolitan areas and regions with large projected shortages.
  - Recognize that delays increase both future water risk and total project costs.
- **Develop desalination capabilities**
  - Expand brackish-water desalination projects in West and South Texas.
  - Continue long-term planning for seawater desalination along the Gulf Coast.
  - Use desalination to create drought-resilient water supplies that are not dependent on rainfall.

- Provide grants and financing support to help communities manage high startup costs.

d. Invest in infrastructure to reduce leakage and waste [26]

- Statewide water audit data show that the average Texas county loses about 208 million gallons of treated water per year, or roughly 13–14% of system input.
- Nearly 80% of these losses are real losses, caused by leaking and broken pipes rather than billing or accounting errors.
- Replace aging and deteriorating water mains in high-loss systems.
- Install leak detection and pressure monitoring technology statewide.
- Statewide, Texas utilities lose about 35 billion gallons of treated water each year, equivalent to more than 107,000 acre-feet annually.
- Recovering just 25% of these losses would generate nearly 27,000 acre-feet per year, comparable to a medium-sized reservoir or a major Aquifer Storage and Recovery project.

e. Increase conservation

- Strengthen efficiency standards for residential, commercial, and industrial water use.
- Expand incentives for water-efficient appliances, irrigation systems, and landscaping.
- Require large industrial users, including data centers, to implement water recycling and efficiency plans.
- Treat conservation as a major water supply strategy that reduces the need for new infrastructure.

Water is critical to the future growth and success of Texas. However, with current resources Texas faces a large and growing gap between supply and demand. We need to build on the initial steps taken in 2025 and invest in capacity building, infrastructure, and conservation.

More Information

1. Texas Water Development Board - 2022 State Water Plan. Provides details on supply, demand, and water strategies. Plans are updated every 5 years, so as of 2026 this is the

most current plan - https://www.twdb.texas.gov/waterplanning/swp/2022/docs/SWP22-Water-For-Texas.pdf

2. Texas 2036, 9/13/2024. A deep dive into water infrastructure needs. https://texas2036.org/wp-content/uploads/2024/10/TxWater-Infrastructure-Assessment_Texas-2036_2024.pdf
3. Science & Environmental Health Network, "Data Centers and the Water Crisis", 8/18/25, https://www.sehn.org/sehn/2025/8/14/data-centers-and-the-water-crisis - provides a detailed discussion of how data centers affect water demand.

Sources

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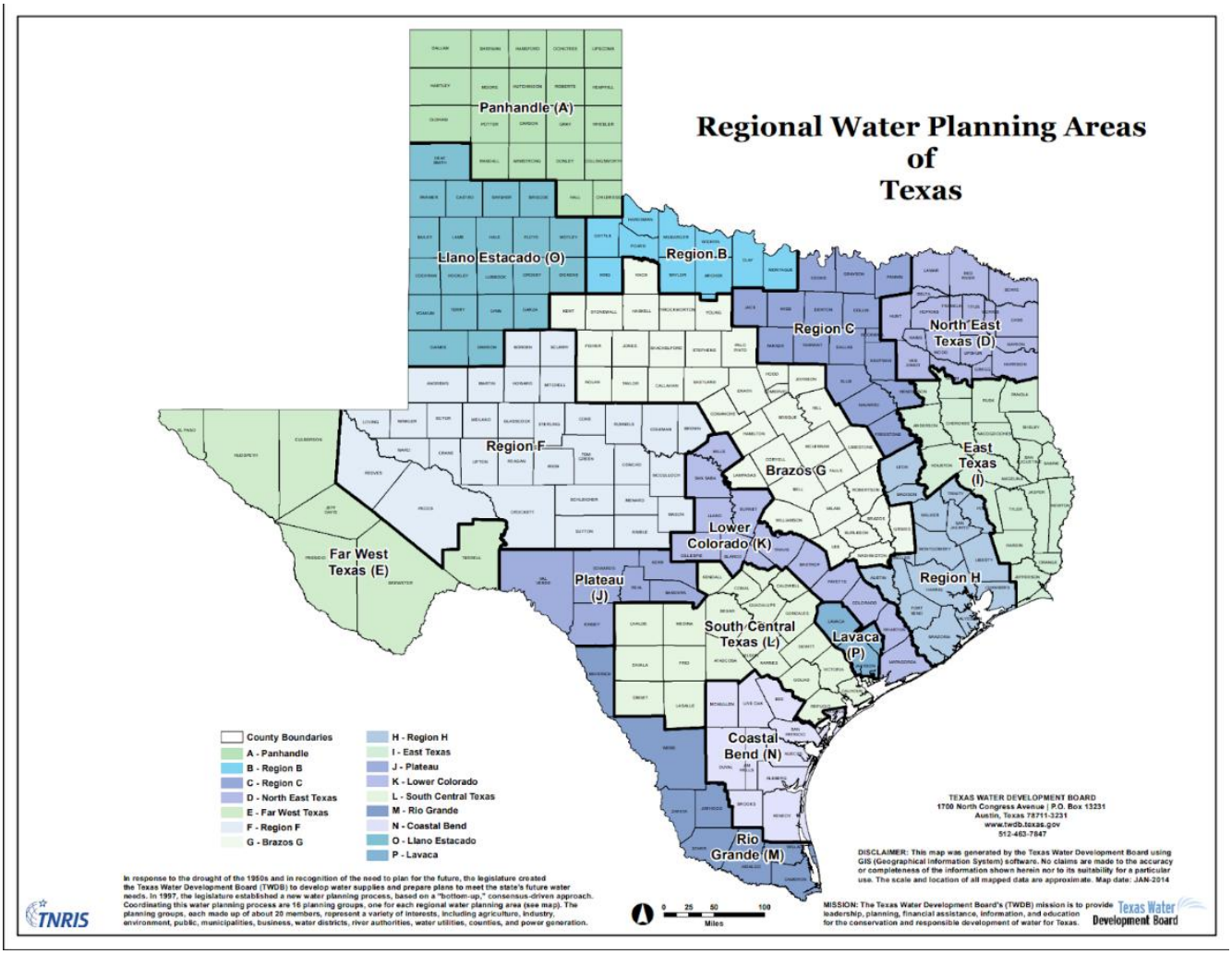
Appendix 1 – Map of the 16 Texas Water Planning Regions



Source: https://www.twdb.texas.gov/mapping/doc/maps/RWPAs_8x11.pdf

Appendix 2 – Water Projections by Water Planning Region

Regional Projections

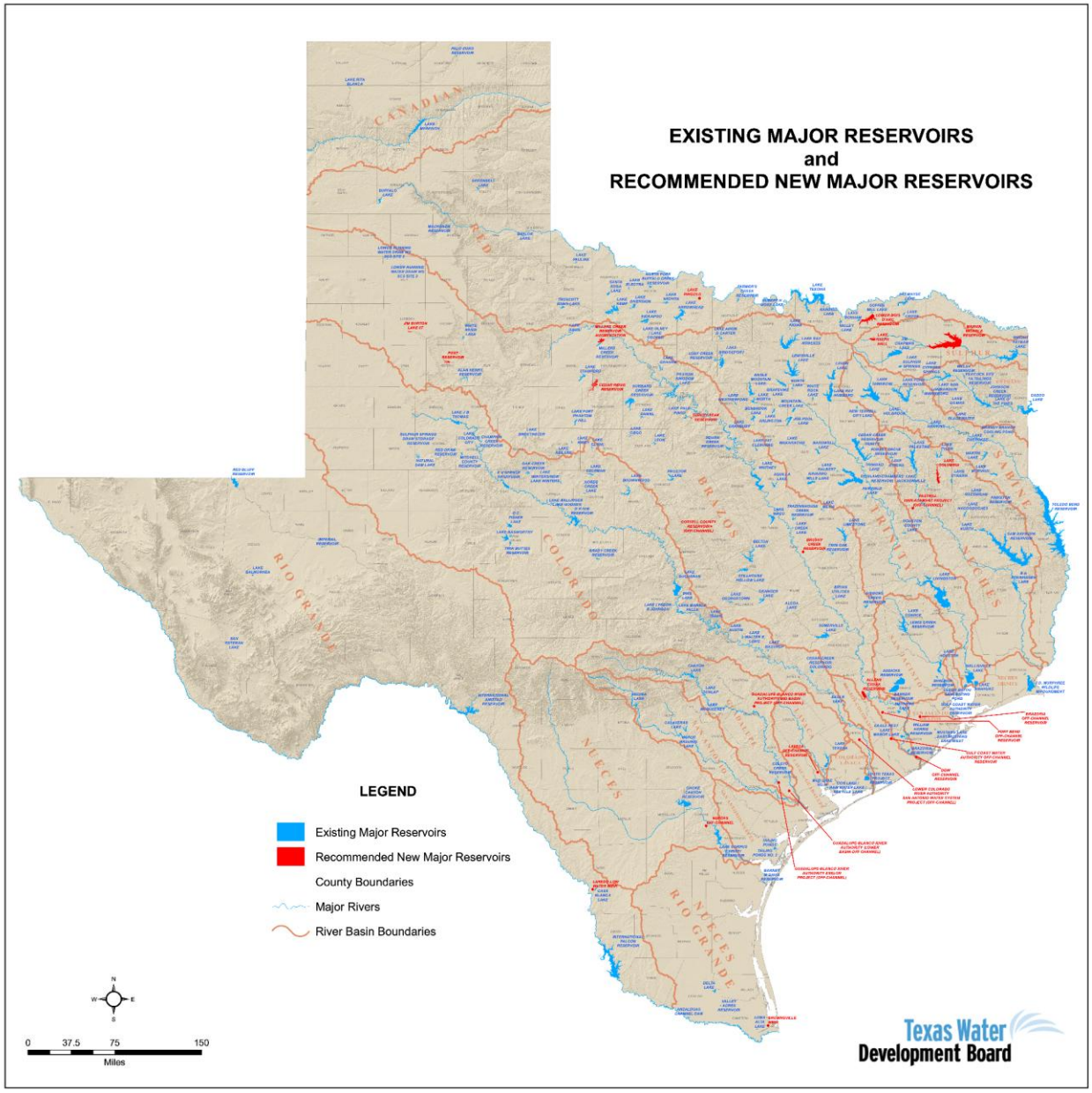
(Water data is acre-feet/year)

		Population			2020 Water Situation				2070 Projected Water Situation				
Water Planning Region	Name	2020	2070	% Change	Demands	Existing Supplies	Needs (Potential Shortages)	Strategy Supplies	Demands	Existing Supplies	Needs (Potential Shortages)	Strategy Supplies	Shortfall without Action (Needs/Supply)
A	Panhandle	418,345	637,412	52.4%	2,130,529	2,000,083	148,459	155,363	1,598,115	1,227,242	378,422	658,385	30.80%
B	Region B	206,307	228,973	11.0%	156,489	140,854	24,745	9,141	154,535	118,421	41,256	48,503	34.80%
C	Region C (Incl. DFW)	7,637,764	14,684,790	92.3%	1,733,893	1,699,454	65,952	129,296	2,898,540	1,648,819	1,278,426	1,335,546	77.50%
D	North East Texas	831,469	1,370,438	64.8%	401,419	677,524	80,588	83,220	479,321	692,647	117,022	220,948	16.90%
E	Far West Texas	954,035	1,551,438	62.6%	480,424	480,643	60,629	82,433	559,976	475,118	118,844	155,989	25.00%
F	Rg. F (Edwards Plateau)	715,773	1,039,502	45.2%	765,150	729,263	62,592	77,525	744,366	665,624	102,788	180,842	15.40%
G	Brazos	2,371,064	4,351,042	83.5%	1,121,088	1,102,576	210,689	118,557	1,421,583	1,092,161	477,639	501,007	43.70%
H	Region H (incl. Houston)	7,325,314	11,743,278	60.3%	2,336,763	2,685,048	145,122	251,441	3,076,799	2,494,904	941,556	2,009,600	37.70%
I	East Texas	1,151,556	1,553,652	34.9%	738,081	839,096	139,229	24,468	839,601	870,711	205,638	278,546	23.60%
J	Region J (South)	141,476	184,595	30.5%	37,337	61,578	5,735	12,939	43,155	61,578	9,249	26,367	15.00%
K	Lower Colorado	1,762,591	3,290,477	86.7%	1,116,839	1,042,135	282,514	250,682	1,307,643	1,049,975	318,785	564,814	30.40%
L	South-Central Texas	3,013,139	5,219,393	73.2%	1,050,964	1,001,760	203,707	198,517	1,320,128	1,013,911	401,027	736,777	39.60%
M	Rio Grande	1,960,738	4,029,338	105.5%	1,783,993	896,018	936,894	137,526	1,853,358	896,997	969,629	508,462	108.10%
N	Coastal Bend	614,790	744,544	21.1%	253,218	239,687	15,200	24,119	276,492	227,128	49,364	282,091	21.70%
O	Llano Estacado	540,495	801,719	48.3%	3,367,953	2,951,798	726,021	119,393	2,452,931	1,014,486	1,499,897	241,763	147.80%
P	Lavaca	50,489	55,522	10.0%	206,304	200,512	8,067	15,572	204,333	200,593	8,067	17,344	4.00%
	Texas Total	**29,695,345**	**51,486,113**	**73.4%**	**17,680,444**	**16,748,029**	**3,116,143**	**1,690,192**	**19,230,876**	**13,750,315**	**6,917,609**	**7,766,984**	**50.30%**

Source: Texas Water Development Board, Texas State Water Plan, 2022, https://2022.texasstatewaterplan.org/

Note: This data source also enables search by county, and shows current and projected demand, supply, needs and strategy supplies.

Appendix 3 - Existing and Proposed New Major Reservoirs



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