Texas Public
POLICY FOUNDATION

FINANCING WATER PROJECTS: PAYING TO QUENCH THE THIRST OF TEXAS

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KEY POINTS

- It is estimated that over $80 billion will be needed to pay for projects to meet Texas' water needs.
- Most of the money will be needed in the next two decades, with much of it directed to the Dallas and Houston areas.
- State financing programs administered by the Texas Water Development Board will be the primary source of money for projects.
- The 89th Legislature will likely consider adding more money to existing water funding programs.

EXECUTIVE SUMMARY

Texas is facing a critical challenge: how to supply water to its people and industries and how to pay for it all. Water supply financing options, such as establishment of the State Water Implementation Fund for Texas (SWIFT), have been expanding and changing to address these challenges. The 2022 State Water Plan (SWP) documents the projected water supplies and demands for water and identifies projects and costs to address anticipated shortfalls over a 50-year planning period (Texas Water Development Board, 2021). About $80 billion will be needed to fund the more than 2,400 water management strategy projects identified in the SWP. Decision makers are faced with the question: "Where will that money come from?"

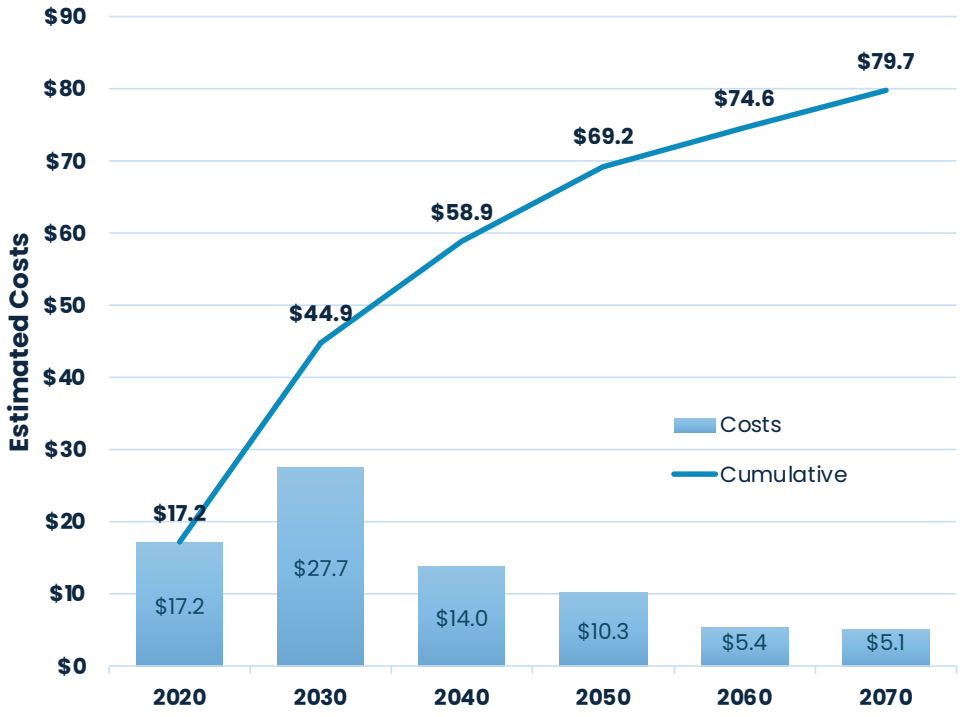
HOW ARE WATER SUPPLY PROJECTS FINANCED?

There are various methods to pay for water projects in Texas. Federal funding, in the form of grants and transfers to the state, as well as state funding through various programs and initiatives as described below constitute the bulk of financing available to construct water supply projects. Rural areas and economically disadvantaged areas have specific and defined incentives to gravitate toward the financial programs and resources offered by the state of Texas. However, not all water supply projects are identified in the regional plans or the SWP. Therefore, the SWP does not completely describe the scope and scale of water projects that will be undertaken. The costs for some of these projects may be funded through local bond initiatives or public-private partnerships such that the local taxpayers and ratepayers (rather than state taxpayers) foot the bill.

continued

Figure 1

Project Estimated Costs by Decade of Recommended Projects to Meet Water Management Strategies (in billions)



Note. Chart reproduced by the author from data in 16 regional water plans from *2021 Regional Water Plans*, by the Texas Water Development Board, n.d.-a (https://www.twdb.texas.gov/waterplanning/rwp/plans/2021/index.asp).

The SWP lays out both the costs of recommended projects to address water management strategies as well as the regions that will require the most investment dollars to complete those projects. Based on inspection of the projected costs (not adjusted for inflation) over the next 50 years, the 2020-2030 decades will see the greatest project costs—an estimated $45 billion to fund all proposed projects—with fewer projects identified in regional water plans over the following 30 years (**Figure 1**). This assumes that all projects would be funded and constructed—an assumption that is unlikely to be realized as new supply and demand projects in future regional plans will likely modify the existing plans.

It is also instructive to see where those projects—and costs—will occur. The estimated costs of water supply projects will be heavily tilted to two of the sixteen regional planning areas: Region C (Dallas area) and Region H (Houston area). Together, these two regions account for more than 50% of the estimated costs for water projects in the 2020-2040 planning period.

STATE WATER IMPLEMENTATION FUND FOR TEXAS (SWIFT)

The State Water Implementation Fund for Texas (SWIFT) and State Water Implementation Revenue Fund for Texas (SWIRFT) programs were established after voters approved Proposition 6 in 2013 to fund projects identified in the 2012 State Water Plan (SWP) (Texas Water Development Board, n.d.-c). The SWIFT does not directly fund water projects. Instead, it subsidizes loans that are made through the SWIRFT.

The SWIRFT issues revenue bonds to finance water projects. Since the SWIFT was implemented with $2 billion in initial funding from the state's Economic Stabilization Fund, nearly $14.5 billion has been loaned to support 66 projects that represent 68 water management strategies (Texas Water Development Board, n.d.-b). The projects have added more than 2.1 million acre-feet to the state's water supply. The Texas Water Development Board (TWDB) has indicated that the SWIFT will be primarily focused on funding large infrastructure projects whereas relatively smaller projects will be funded with other financial vehicles. The Texas Legislature required that at least 20% of its funding be directed to general water conservation and reuse and 10% of the funding directed to rural areas for agricultural water conservation (Texas Water Development Board, n.d.-d). Lawmakers should review if that approach—that is, funding primarily large, urban projects—or whether more direct investments in smaller projects is important to the state as a whole.

TEXAS WATER FUND AND NEW WATER SUPPLY FUND FOR TEXAS

In 2023, Texas voters approved another Proposition 6 by a wide margin, creating the Texas Water Fund with $1 billion that will be administered by the Texas Water Development Board. This money will be directed to existing TWDB financing programs in accordance with the implementation plan published in July 2024 (Texas Water Development Board, n.d.-e) and honoring the priorities established by the legislature. Twenty-five percent of that money ($250 million) will be directed to the New Water Supply Fund for Texas that will finance projects that generate "new water" for the state. Based on direction from the legislature, the goal is to generate seven million acre-feet of new water supply over the next 10 years. However, the New Water Supply Fund would not be for projects that move water from one region of the state to another (Perry, 2024). Nor would this fund be used to finance conservation programs of existing water sources. The specific intent of the legislation includes funding for brackish groundwater and marine desalination, produced water treatment, aquifer storage and recovery projects, and acquiring water through regional and nationwide partnerships with other states.

FEDERAL FINANCIAL ASSISTANCE PROGRAMS (THROUGH STATE REVOLVING FUNDS)

The federal government funds water projects both directly to projects and indirectly by providing designated funds to state governments. Many of the federal projects are funded through the Bureau of Reclamation's WaterSMART program (United States Bureau of Reclamation, n.d.). This program is for projects in the western United States, including Texas. The eligible project types include water recycling and desalination programs, environmental water resources projects, and water and energy efficiency grants, small-scale water efficiency projects, and water marketing strategy grants.

In addition, the federal government, through direct budget allotments as well as programs such as the 2021 Infrastructure Investment and Jobs Act (IIJA), provides funds to the state for the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF). The CWSRF is primarily for wastewater projects, and the DWSRF is used for systems to comply with federal drinking water standards. These programs are administered by the TWDB. Over a five-year period, Texas will receive about $2.5 billion—more money than was used to capitalize the SWIFT program in 2013.

In 2024, Jessica Pena of the TWDB testified that the DWSRF currently has $435 million available, including $95 million in principal forgiveness. The fund subsidizes interest rates and includes special allocations for disadvantaged communities, green projects, very small systems, and systems with "urgent needs" (Texas Senate Committee on Water, Agriculture, and Rural Affairs, 2024, Exhibit A-16). The DWSFR also includes programs for lead service line replacement funds (about $354 million in funding available) and emerging contaminants (about $58 million in funding is available). The CWSRF currently has $460 million

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STATE FINANCIAL ASSISTANCE PROGRAMS

Since 1957, more than $35.4 billion has been loaned or granted to political subdivisions to develop and deliver water supplies. The principal state financial assistance programs include the SWIFT, the Texas Water Development Board Fund (DFund), and the Economically Disadvantaged Assistance Program (EDAP). The TWDB uses federal funds, along with proceeds from bond sales, to provide low-interest rate loans and grants to water supply providers. This approach allows Texas to use loan repayments to build a permanent funding source. Federal funding allows the state revolving funds to offer discounted interest rates, which can save borrowers up to 75% in interest payments compared to municipal bonds. However, in the last three years Congress has diverted $3.75 billion from state revolving funds (Howe et al., 2024).

Other sources of funding include programs of the Texas Department of Agriculture (Community Development Fund, State Urgent Need Fund), Communities Unlimited, the North American Development Bank (Loan Program, Border Environment Infrastructure Fund, and Community Assistance Program), and the U.S. Department of Agriculture Rural Development (Texas Water Infrastructure Coordinating Council, n.d.).

PUBLIC-PRIVATE PARTNERSHIPS

Depending on the needs of a project, municipalities or water authorities may choose to issue bonds or employ other commercial financial mechanisms such as public-private partnerships. Perhaps the best known example is the City of San Antonio's Vista Ridge project (San Antonio Water System, n.d.). The $3.4 billion project delivers a maximum of 50,000 acre-feet of groundwater per year from a well field in Burleson County. All costs of construction and pipeline right-of-way acquisition were covered by privately raised debt and equity capital. The San Antonio Water System pays only for the water that is delivered and for some operating and maintenance costs. Capital markets were tapped for debt financing—totaling more than $852 million.

FUTURE FINANCING PROPOSALS

Even with the establishment of new state financing programs in the past 15 years, Texas water supply projects will need more money to meet the needs of a growing population, support the expanding industry and power facilities, and protect the critical agricultural sector. The 89th Texas Legislature is certain to consider proposals to do just that. Based on the interim report issued by the Senate Water Agriculture and Rural Affairs Committee, the Senate may consider a significant investment in the state's water fund(s) as well as a possible continuous revenue stream dedicated for future water projects (Texas Senate Committee on Water, Agriculture, and Rural Affairs, 2024).

The Texas Public Policy Foundation supports strategic, fiscally responsible investments in water infrastructure to ensure our supply grows in a manner that meets increasing demand. Specifically, the Foundation recommends the additional transfer of money (subject to availability and in balance with other state priorities) to bolster the Texas Water Development Board's financial programs. However, the

Foundation does not automatically endorse the establishment of a perpetual state taxpayer-funded revenue stream without a proposal detailing where the funding would originate and how it would be spent. In summary, the Foundation prefers the periodic and discrete transfers of money that are subject to rigorous and public notification and debate rather than a continuous stream of money that would not have the same level of transparency, scrutiny, and public inspection.

Of paramount importance, the Foundation supports the infusion of robust transparency and oversight measures at all appropriate levels with the allocation of both new funds and existing, earmarked funds for the purpose of repairing or building new water infrastructure. If done correctly, Texas will invariably save money over the long term by making up-front investments now versus reactively and sporadically down the road. ■

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