HOUSE RESEARCH ORGANIZATION

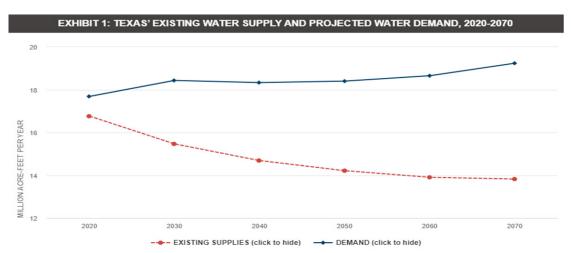
Interim News Briefs

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Natural Resources, Infrastructure

Lawmakers consider proposals to address Texas' water system reliability



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

Dec 20, 2024— Though Texas has struggled with drought conditions and water shortages throughout its history, recent population and industrial growth alongside deteriorating water infrastructure have prompted the Legislature to consider policies addressing water shortages and quality issues in the state. Texas' water systems are currently facing problems such as poor water quality due to broken water treatment and filtration systems, increased evaporation of surface water, and water loss from broken pipes.

As the state's population grows, many have called on the Legislature to better fund water infrastructure and the creation of new water supplies to prevent water shortages. The 88th Legislature passed <u>SB 28</u> by Perry, the enabling legislation for constitutional amendment <u>SJR 75</u>, which was approved by voters in November 2023. SB 28 and SJR 75 established the Texas Water Fund, which may be used to transfer money to several water-related financial assistance funds administered

by the Texas Water Development Board (TWDB). <u>SB 30</u> by Huffman, the supplemental budget for fiscal 2023, appropriated \$1 billion from the general revenue fund to the Texas Water Fund upon SJR 75's approval by voters.

Lawmakers could consider new measures aimed at improving Texas water systems in future legislative sessions. Many have argued that SB 28's one billion dollar allocation is insufficient to address the state's water shortages given that TWDB estimates that Texas' population will increase by 73 percent between 2020 and 2070, which, combined with the continuous growth of industry in the state, will place a significant burden on water systems. TWDB's 2022 State Water Plan projects that existing water supplies will decrease by 18 percent while demand will increase by 9 percent in that same time frame. A 2023 report by the Texas Comptroller of Public Accounts suggests, however, that strategies including water reuse, conservation, groundwater wells, desalination, and new reservoirs could help make up for the gap in supply and demand.

As TWDB implements SB 28 and continues to plan for Texas' water future, the lieutenant governor charged the Senate Water, Agriculture, and Rural Affairs Committee with evaluating water systems in Texas and identifying opportunities to better equip those systems to serve the public. During the interim, the committee heard invited testimony from state agencies and industry stakeholders on water supply challenges and potential solutions. Witnesses discussed strategies for creating new water sources through desalination of seawater and produced water, or water brought to the surface during oil and gas production, as funded under SB 28. Some are concerned that these new water sources could be unsafe or environmentally detrimental, while others assert that they could be essential in solving the state's water problems and would still be subject to existing water quality standards.

In addition, the committee considered testimony on the need to balance agricultural water conservation with sufficient food production, as data presented in the hearing revealed that the highest volume of water demand in the state comes from irrigated agriculture. Legislators and stakeholders also discussed investigating water reuse strategies and the possibility of

consolidating small water systems into a water "grid" to improve reliability.

TWDB testified at the Senate Water, Agriculture, and Rural Affairs hearing in September that it had already made several allocations from the Texas Water Fund, including to a fund for providing grants and loans to disadvantaged communities for water loss and conservation projects. The committee <u>released</u> an interim report summarizing these hearings and providing recommendations to the Legislature on December 1.

The 88th Legislature passed several other bills addressing Texas' water systems and increased funding for TWDB and several water programs in the state's biennial budget. HB 4256 by Murr established a grant program to plug leaking water wells. Additionally, SB 1047 by Perry directed the Texas Produced Water Consortium, created by the 87th Legislature, to implement a pilot project and submit a report to the Legislature on the beneficial use of produced water.

— Kiera Eriksen-McAuliffe

Energy, Economic Development

Advanced Nuclear Reactor Working Group makes recommendations to the Legislature

Jan 3, 2025— As the state's population grows and energy demand increases, Texas officials are seeking ways to utilize new nuclear technologies to meet demand and enhance grid reliability. On November 18, the Advanced Nuclear Reactor Working Group, established by the Public Utility Commission of Texas (PUC) under a directive from Gov. Greg Abbott, released a final report on "Deploying a World-Renowned Advanced Nuclear Industry in Texas." The working group is comprised of industry experts and stakeholders convened by PUC commissioner Jimmy Glotfelty to study issues related to Advanced Nuclear Reactors (ANRs) and make recommendations to the Legislature.

ANRs are a category of nuclear reactors that tend to be safer, simpler in design, and more interoperable with other generation resources than traditional nuclear reactors. ANRs can be large reactors, which can provide 400-1,400 megawatt electrical (MWe) of power; small modular reactors, which can provide 50-400 MWe; and microreactors, which provide less

than 50 MWe. Conventional reactors provide approximately 1,000 MWe.

The report identifies Texas as an ideal location for advanced nuclear development for several reasons, including the ability of the Electric Reliability Council of Texas (ERCOT), the independent organization that operates the grid, to interconnect new generation resources. The report also highlighted the state's projected energy demand growth, the deregulated electric market structure, the friendly regulatory environment, and existing nuclear power plants as reasons the state could be promising for advanced nuclear development. Aside from introducing additional energy to the grid, other benefits of ANRs, as outlined by the report, include potential for economic development, minimal land use, increased safety compared to traditional nuclear reactors, and clean, carbon-free power.

The report also states that ANR development would

require an investor-friendly environment and an appropriate regulatory framework. The Working Group made seven legislative recommendations to bring development to the state and incentivize construction. It recommends that Texas:

- 1. Establish the Texas Advanced Nuclear Energy Authority, a non-regulatory entity to coordinate Texas' nuclear vision, implement policy recommendations, and manage funds and provide oversight for nuclear programs;
- 2. Establish the position of Texas Nuclear Permitting Officer as a single point of contact for ANR developers and associated businesses to navigate permitting;
- 3. Create a workforce development program for community colleges and universities to support a nuclear workforce in Texas capable of meeting ANR industry and Texas energy demand;
- 4. Establish a Texas Advanced Manufacturing Institute to develop and foster a nuclear network in Texas;
- 5. Develop a Texas Nuclear Public Outreach Program to educate Texans on the benefits of advanced nuclear power and reactor development;
- 6. Create a Texas Nuclear Energy and Supply Chain Fund to incentivize early development and siting and support supply chain and manufacturing capacity readiness; and
- 7. Establish a Texas Nuclear Energy Fund to provide grants and loans for advanced nuclear development.

The Working Group also suggests that the Legislature consider certain other items as Texas continues to develop its nuclear capabilities, including nuclear interconnection costs, nuclear energy credits, a Military Advanced Nuclear Incentive Program, and demonstration projects.

— Kiera Eriksen-McAuliffe