

The Texas Water Plan

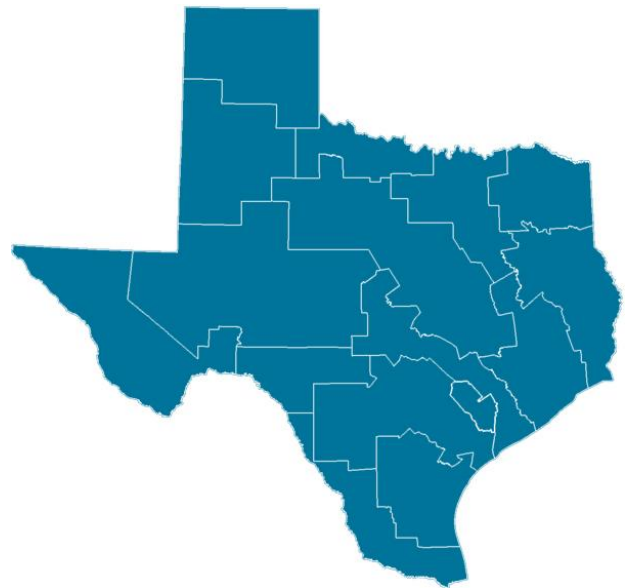
An 18 Year Old Perspective

By Justin Wolfe

Texas has grown steadily over the past decade; the population has increased by 20% in the past ten years. This means increased demand for our state's most valuable resource: water. Without water, the state's municipalities, industry and agriculture couldn't run, making water planning essential for sustaining our water resource and future growth. Unfortunately, the Texas State University Meadows Center reports that the state's water supplies are overdrawn and over-permitted. Because of this, Texas will find it difficult to meet its water needs for the future, especially considering the projection for our population to double in the next half century. The Meadows Center's Andrew Sansom reiterates the situation by saying that we "can't simply build our way out" of the problem. Instead, he says that the state must recognize a key flaw in its water plan before achieving water security.

First, let's go over the state's water plan. For some, it will come as a surprise to find that we even have one. The fact illustrates the state's commitment to water and gives a comprehensive overview of the water issue. The plan is written every five years by the Texas Water Development Board, commissioned in 1957 following Texas's drought of record.

Following droughts in the 1990s, the state legislature called for increased water planning by regions to meet several goals. The Board oversees sixteen regions in meeting water needs based upon drought of record conditions. They utilize a 50 year planning horizon, and renew their comprehensive plan every five years. Public input and support is solicited, giving the plan a unique perspective. The regional and public planning gives the benefits of education, development of partnerships and commitment to the plan, better data on water supplies and adaptation to ever changing needs.



With its 50 year planning horizon, the board projects the Texas population to reach 46.3 million by 2060, from 25.4 million in 2010. The projection confirms the Meadows Center population projection, and illustrates the growing demand for Texas' water. Demand is expected to go from about 18 million acre

feet per year to nearly 22 million acre feet per year. This demand increase isn't as large as a casual observer might expect, and shows that there is good news for our water situation. As municipal demand continues to rise, the Board projects agricultural demand to fall, providing extra supply for the growing population. Unfortunately, the 2010 report illustrates that water supplies will go down over the same period. To make up the difference, many are calling for investments from the state and increased efficiency from current water suppliers.

The TWDB's 2012 plan calls for a total investment of \$231 billion into the state's water resources. Water treatment and distribution weigh in at \$88 billion of that cost, and wastewater treatment weighs in second at \$81 billion. Additionally, \$60 billion is allocated to water management strategies and flood control. Analyzing these numbers, the Board sees new treatment and distribution costs being highest, most likely due to increased demand for these services with the increase in population. As demand outstrips supply, wastewater treatment is an obvious way to recycle and make up for the lack of water, proving its position as the second largest investment called for. Finally, water management and flood control costs make up the ways to develop "new" water resources. It includes building new reservoirs, irrigation conservation costs, and protecting recharge areas for surface and groundwater resources. All investments are important to secure our water future; yet, the board's plan represents a recommendation to the legislature, representing one of the larger problems in the water debate: lack of coherent action.

Fortunately, the legislature is listening to the recommendations. Representatives gathered at the Texas Tribune's "The Future of Water" symposium all agreed that the issue is a pressing one for the state. Additionally, legislators seem to be ready to make steps towards investment. With the drought of 2011 and the continuing drought this year, there is public support for action. And, with Texas ranking as the world's 14th largest economy, there are economic reasons as well. With industry growth and population growth, there is increased revenue associated with providing greater water supply. Raising fees or taxes isn't off the table for the representatives involved at the symposium; however, the legislature's biggest influence is in managing Texas's water resources more effectively. With the current issues in our water management, a paradigm shift in resource management is badly needed.

As mentioned earlier, the water resources of Texas are over-permitted. The Rio Grande and Nueces rivers represent the worst cases, with heavy apportionment drying the Rio Grande before reaching the Gulf Coast. The lack of environmental flows has concerned the legislature, and wastewater flows may

serve to maintain the flow of rivers during drought. These flows have value, not just for the environment, but for fisheries and other economic benefits in the Gulf region. Much of the usage of these rivers is for Agricultural use, validating the need for irrigation conservation and better techniques. But, agriculturalists are making changes slowly, and state loans to improve efficiency are under-utilized. Of course, these programs are underfunded, leading to lack of support for better conservation measures. With surface water regulated badly by the state, and groundwater virtually unregulated, the state desperately needs greater regulation.

Throughout the water symposium, a recurring theme was the state's differing treatments of water. Texas owns surface water; yet, private landowners own the groundwater and are able to pump as much as they please. Many presenters stated that groundwater and surface water are interconnected, with surface water dependent upon springs, and aquifer recharge dependent upon good surface conditions. With these connections, it seems as though the state should have the power to regulate groundwater usage, and the only thing stopping them is legal authority. Local water districts fear lawsuits if they regulate individually, yet the Texas court system has likened water rights to oil and gas rights, which are regulated. The state's next step ought to be to legislate groundwater as a public resource, so as to manage and regulate it effectively. Only by managing this resource can we ensure the longevity of our water system for generations to come.