



**Testimony before the Texas House Natural Resources Committee Public Hearing to
“Examine the State’s Groundwater Management Policy and Regulatory Framework.”**

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Chairman King and Members of this Committee,

My name is Vanessa Puig-Williams. I am the director of the Texas Water program at Environmental Defense Fund, where I focus on advancing sustainable groundwater management in Texas. I appreciate very much the opportunity to testify before you today. My testimony will focus on how and why we must improve groundwater management and planning in Texas.

When I originally wrote this testimony this past weekend, drought conditions plagued the majority of the state. Groundwater wells were trending downward. Reservoirs were at record lows. Stretches of rivers that had never gone dry before looked like caliche ranch roads. Texans everywhere were praying for rain. And now, within just a few days, even though drought conditions persist, parts of Texas have experienced devastating flooding. Dallas just received an entire summer's worth of rain in two days.

Texas weather has always been unpredictable and extreme, but as we know from recent experience, it is getting more extreme. In the future, it could regularly be even hotter and drier than it has been this past year, and this will impact our water supplies. The solution cannot be the next big storm. We need durable solutions and science-based planning to prepare Texas for a resilient future.

Groundwater is arguably the most important water supply in Texas, providing over 60% of the state's overall water supply and an average of 30% of the water flowing in our rivers. In some parts of Texas, like the Hill Country, where the majority of the state's rivers begin as headwater springs, 100% of the water flowing in most rivers and streams originates as groundwater.

Accurate data and modeling are critical for groundwater conservation districts to develop local strategies to protect property rights, drinking water and our beloved springs, streams and rivers, particularly when groundwater is the only source of water available. Data and modeling are also integral to robust water planning in Texas. The state funds both the regional water planning process and the flood planning process – but NOT groundwater planning, even though groundwater availability, through the adoption of desired future conditions, is integral to state water planning. For Texas' state water planning to be meaningful, it must be informed by robust groundwater planning.

Texas prides itself on a water plan that ensures the state is prepared for drought – by identifying water strategies that will meet demand during a drought of record conditions. But many of these strategies are developed without an understanding of whether the water supply is sustainable in the future during periods of prolonged drought. In fact, groundwater strategies in the state water plan are premised on unsustainable planning goals that allow aquifers to decline over time. And because the state water plan does not consider how declining aquifer levels diminish surface water in reservoirs and rivers, even surface water supply strategies are not as reliable as we might think.

Aquifers are infrastructure. We often think of dams, reservoirs, and pipelines as water infrastructure. But in rural areas, where groundwater is the only source of water, aquifers are the water infrastructure for landowners, communities, and agriculture. Texas has poured hundreds of millions of dollars into funding water infrastructure projects across the state - to pump, divert, treat and deliver water to people's homes, to hospitals and schools. But we spend very little in comparison on ensuring that the water that runs through these pipes will be there in the future.

To ensure that Texas continues to thrive, it is imperative that we manage groundwater and plan for its use in a balanced, proactive, and sustainable way.

This starts with the state investing in the science that informs groundwater management and planning. The state has created a good framework for managing groundwater, premised on bottom-up planning, local regulation, and, perhaps, most importantly – the best available science. But the state is not adequately investing in this science. There is very little state funding available to collect data that helps inform local management and planning decisions. There is no funding available for groundwater conservation districts to develop local models that help them understand how to better manage groundwater in their specific jurisdictions. Although the Water Development Board provides groundwater conservation districts with regional groundwater availability models, these models are not useful for making decisions about local impacts. Such as impacts related to how a desired future condition, or a large permit request will affect specific wells, landowners' property rights, or spring flow.

The Board's budget was substantially reduced in 2011, and its groundwater modeling program suffered. The Board's entire 2022 budget for the Technical Assistance and Modeling Program (which includes both surface water and groundwater modeling) totals only approximately \$2.6 million.

Our recommendation for this upcoming legislative session is for the state to increase financial investment in groundwater science to a level that reflects just how important groundwater is to the state of Texas. This means significant increases in appropriations and FTEs to the water development board so that they can develop groundwater data and state of the art groundwater models at a pace in keeping with the demands and threats that our groundwater resources face. This means providing funding to groundwater conservation districts to collect



their own data and develop their own local models to inform decision-making. Finally, this means funding to support groundwater planning and the development of desired future conditions, similar to how the state funds regional and flood planning.

In closing, while we can always pray for rain, we need to plan for a future with less of it. The sustainability of our groundwater resources should be a critical component of this planning.

On behalf of the Environmental Defense Fund, thank you for your attention today.