

Act Now Comal  
Alamo, Austin, and Lone Star chapters of  
the Sierra Club  
Bexar Audubon Society  
Bexar and Travis-Austin Green Parties  
Bexar Grotto  
Boerne Together  
Bulverde Neighborhood Alliance  
Bulverde Neighborhoods for Clean Water  
Cibolo Center for Conservation  
Citizens for the Protection of Cibolo  
Creek  
Comal Conservation  
Congregation of Divine Providence  
Environment Texas  
First Universalist Unitarian Church of SA  
Fitzhugh Neighbors  
Friends of Canyon Lake  
Friends of Castroville Regional Park  
Friends of Dry Comal Creek  
Friends of Government Canyon  
Fuerza Unida  
Green Society of UTSA  
Guadalupe Riverkeepers  
Guadalupe River Road Alliance  
Guardians of Lick Creek  
Hays Residents for Land & Water  
Protection  
Headwaters at Incarnate Word  
Helotes Heritage Association  
Hill Country Alliance  
Kendall County Well Owners Association  
Las Moras Springs Association  
Leon Springs Business Association  
Llano River Watershed Alliance  
Native Plant Society of Texas -- NB  
Native Plant Society of Texas -- SA  
Northwest Interstate Coalition of  
Neighborhoods  
Pedernales River Alliance – Gillespie Co.  
Preserve Castroville  
Preserve Lake Dunlop Association  
Preserve Our Hill Country Environment  
River Aid San Antonio  
San Antonio Audubon Society  
San Antonio Conservation Society  
San Marcos Greenbelt Alliance  
San Marcos River Foundation  
Save Barton Creek Association  
Save Our Springs Alliance  
Scenic Loop/Boerne Stage Alliance  
Securing a Future Environment (SAFE)  
SEED Coalition  
Signal Hill Area Alliance  
Sisters of the Divine Providence  
Solar San Antonio  
Texans for Environmental Awareness  
Texas Cave Management Association  
Trinity Edwards Spring Protection Assoc.  
Water Aid – Texas State University  
Watershed Association  
Wildlife Rescue & Rehabilitation

September 24, 2025

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Rep. Glenn Rogers  
Rep. Erin Zwiener

**Re: Water Reuse Expansion: Examine opportunities to expand the reuse of waters in Texas as an additional water supply and identify funding deficiencies for water reuse projects and regulatory impediments that make expansion of water reuse difficult in Texas**

Dear Chairman King and Members of the House Committee on Natural Resources,

We submit these comments on behalf of the sixty-one member groups of the Greater Edwards Aquifer Alliance (GEAA), a nonprofit dedicated to effective broad-based advocacy across a 21-county region in Central and South Texas for the protection and preservation of the Edwards and Trinity aquifers, their springs, watersheds, and the Hill Country that sustains them.

Last fall, in anticipation of the interim session, GEAA released a report, since published in the Texas Water Journal, entitled *Water Reuse in the Hill Country: Lessons from Existing Reuse Facilities in Texas and Opportunities to Advance Reuse in Comal County*.<sup>1</sup> Water reuse – using reclaimed and treated wastewater for beneficial purposes – is integral to protecting water supplies and ensuring Texas can adequately protect the health, safety, and quality of life of current and future residents. Water reuse is a vastly underutilized tool in the effort to manage water supplies in the Hill Country and across the state.

Texans across the state continue to face frequent droughts, heavy floods, and rapid population growth, and these pressures are growing more pressing by the day. In 2023, Texas was 306,000 homes short of what is needed to house the state’s large and ever-increasing population<sup>2</sup> – roughly equivalent to the entire housing stock of the 110 smallest counties in Texas combined or the entire housing stock of Fort Bend County.<sup>3</sup> Population increases are placing significant pressure on more than just housing in the state; Texas could be facing a water supply shortfall of roughly 10 to 12 million acre-feet per year,<sup>4</sup> and Agriculture Commissioner Sid Miller has called on city and state officials to embrace wastewater reuse, saying, “We gotta recycle our water.”<sup>5</sup>

<sup>1</sup> <https://twj-ojs-tdl.tdl.org/twj/article/view/7170>

<sup>2</sup> <https://comptroller.texas.gov/about/media-center/news/20240827-texas-comptroller-glenn-hegar-releases-study-on-states-housing-affordability-challenge-1724699586337>

<sup>3</sup> <https://www.census.gov/data/tables/time-series/demo/popest/2020s-total-housing-units.html>

<sup>4</sup> <https://thehill.com/policy/energy-environment/4869866-texas-water-crisis-rio-grande/>

<sup>5</sup> <https://www.statesman.com/story/news/state/2024/09/10/texas-running-out-of-water-ag-commissioner-sid-miller/75146530007/>

With these dueling pressures, combined with the over-reliance on groundwater in the state, it is worth examining how the state can stop using drinking water for non-drinking water purposes at the largest scale and on the most efficient timeline. Wide-scale implementation of wastewater reuse systems, especially in fast-growing areas of Texas, provides just such an opportunity. It is past time to stop using drinking quality water on our lawns and green spaces, at factories and power plants, and at industrial, oil/gas, and mining sites.

Water reuse is not a new or novel idea. As early as 1990, the Texas Water Development Board recommended the adoption of conservation and reuse programs “to provide for more limited pumping of groundwater and the protection of area spring flows” for the Southern Edwards Aquifer Region.<sup>6</sup> Thirty years later, TWDB estimated that annual reuse supplies in the state will need to make up about 15 percent of the state’s total water supply by 2070 to meet its future demands.

In very few instances in Texas does water reuse even come close to approaching 15 percent. In El Paso, water reuse makes up between 5.5 and 9 percent of its water supplies. In Boerne it is 10 percent and in San Antonio, roughly 17 percent. In many other localities, reuse water makes up just a sliver of the water supply. For example, in Comal County, reuse accounted for just 1.4 percent of the county’s total water use in 2021.

There is an existing framework that could be copied to help spur the adoption of comprehensive water reuse systems in Texas and it’s what helped San Antonio become the leader in water reuse in the state: the legislatively mandated creation of a water reuse district.

In 1989, the 71<sup>st</sup> Texas Legislature, at the request of the City of San Antonio, enacted Senate Bill 1677. This bill formed the Alamo Water Conservation and Reuse District (AWCRD), which became the first special district in the state charged with controlling, conserving, protecting, preserving, distributing, and reusing wastewater. The legislation gave AWCRD the flexibility to operate in addition to and between different jurisdictions. It was created pursuant to Article 16, Section 59 of the Texas Constitution and was deemed essential to accomplishing the purposes of this section of the constitution.

AWCRD had the power to:

1. Contract for the acquisition of wastewater from various parties, including individuals, private corporations, municipalities, and political subdivisions;
2. Accept wastewater from within and without the district boundaries;
3. Process and treat wastewater;
4. Sell treated wastewater as non-potable water to any individual, municipality, political subdivision, and private corporation within and without the district boundaries;
5. Construct, buy, own, lease, sell, and operate facilities to transport, store, and treat wastewater; and
6. Use banks and beds of any surface stream in the state to convey wastewater owned or controlled by the district.

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<sup>6</sup> Much of this testimony is pulled from GEAA’s report, which contains the relevant sources and citations: <https://twj-ojs-tdl.tdl.org/twj/article/view/7170>

The legislation did not give the new district the power to prevent other parties from reusing wastewater within the district's boundaries, the authority to deal in potable water in any manner, or the authority to levy or collect taxes. End users – large industrial and manufacturing, energy, and landscaping users – would pay for the now recycled wastewater the district bought from wastewater producers and then treated. Though San Antonio merged all its water related utilities into one utility a few years later, forming the San Antonio Water System (SAWS), AWCRD still set the stage for San Antonio's water reuse success.

SAWS' recycled water system operates on much of the blueprint set by AWCRD. Similar to the plan set for the district, SAWS delivers treated recycled water to customers who use water for landscaping, golf course irrigation, electrical generation, cooling towers, dust suppression, manufacturing, and augmenting downtown River Walk flows. Having these customers use recycled water reduces demand for potable supplies which offsets the need to identify new water supply sources that are costly to produce and transport into the service area.

As Texas grows, there are many common-sense opportunities to expand water reuse in order to protect the state's water supplies. Recycled water can and should be used to replace potable water used for non-potable uses such as aggregate production operations, municipal and commercial irrigation, industrial and manufacturing operations, and energy generation.

Recycled water is a supply that can be provided even in the midst of a drought. This scenario could provide a three-fold benefit. During periods of drought, when other supplies may be restricted, a reuse district can supply reuse water for non-potable purposes, which could result in revenue that without this supply would otherwise not exist. If the reuse operator then can provide that recycled water at a lower cost than the potable water supply, the operator can incentivize its use instead, meaning customers can avoid using potable water for non-potable purposes while also saving money. Meanwhile, scarce ground and surface water supplies can be conserved.

Implementing water reuse on a large scale, alone or in conjunction with other One Water strategies, has a host of benefits. In Central and South Texas, water reuse can help protect aquifer levels, spring and stream flows, water quality, and water supply sustainability.

Water reuse allows for the twice-over protection of water quality in the Hill Country. When groundwater is drawn down, spring flows are reduced or can even cease entirely. When wastewater effluent is then applied to dry or semi-dry stream beds, there is often a buildup of excess nutrients and a subsequent decline in water quality, to sometimes harmful levels. The beneficial reuse of wastewater, rather than its direct discharge into streams, can help protect the quality of water sources by reducing the drawdown of groundwater supplies – thereby increasing spring flows – and by keeping wastewater effluent and any of its associated negative impacts out of stream beds.<sup>7</sup>

In reducing the drawdown of groundwater, spring flows may increase, contributing to expanded instream flows. With this cycle – beneficial reuse of wastewater, reduced aquifer drawdown, increased spring flow, increased stream flow – the direct discharge of wastewater may not be as necessary to the maintenance of expected instream flows.

The legislature should authorize the creation of water reuse districts, especially within the Texas Hill Country and other high growth areas where new residential development is occurring, using a bill similar to SB 1667

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<sup>7</sup> This is of particular importance in the Edwards and Trinity karst aquifer systems where wastewater not treated to drinking water standards could recharge potable groundwater supplies through fractured streambeds without the benefit of filtration.

in 1989. Doing so would allow the new district the authority to buy or collect wastewater, treat it, and then distribute it for reuse through a purple pipe network, selling it to any private corporation, city, town, municipal corporation, or political subdivision inside or outside the district's boundaries. This would not prevent other corporations or political subdivisions from implementing a reuse system within the same boundaries of the district, but would allow the district to operate independently of and coordinate with other utility districts or political subdivisions.

A similar authorizing legislation to that which created AWCRD would allow the new water reuse districts to construct their own facilities for the transportation, storage, and treatment of wastewater or allow them to lease or buy such facilities. The district could construct, and later operate, purple pipe networks in the fast-growing areas of the state before those areas are built up. The district could also locate its reuse infrastructure near large water-demand industries, such as aggregate production operations. These scenarios would allow for the more responsible utilization of water sources to respond to and manage current and future growth.

Following the elegant AWCRD blueprint, the district would be empowered to plan for and implement the infrastructure needed to facilitate optimal reuse. The district would be able to establish and collect necessary rates, charges, and fees for the sale of wastewater. The fees collected for contracting for the reuse water with large users will help pay for the infrastructure the district would then build, removing this burden from utilities or end users.

New residential developments could benefit from the implementation of reuse districts, as the implementation will involve the construction and operation of new infrastructure rather than the replacement or retrofitting of old infrastructure. New developments would be able to contribute their wastewater to either the district itself or to whichever entity from which the district buys the wastewater. The developer would receive treated wastewater for irrigation from the district through infrastructure built by the district using the fees collected from contracted end users.

This scenario provides two benefits to developers – they do not need to invest in purple pipe infrastructure and will often pay lower rates for reuse water than for treated drinking water. Commercial or industrial users who contract with the district would also not need to invest in extensive purple pipe infrastructure and could pay lower rates for reuse water than from other sources.

There is no doubt that implementing treated wastewater reuse on a wide scale will be expensive. However, water scarcity or large declines in water quality across swaths of the state will be prohibitively more expensive for the state and its residents and, regardless, many cities will likely still need to eventually turn to water reuse; implementing it sooner on a comprehensive scale will allow for the water supply to be on hand when it is needed and will likely be less expensive than the future costs of implementation.

It is also worth considering some of the potential costs of not implementing wide-scale water reuse. Texas is a major agricultural state; its main crops and livestock require large amounts of water, and in parts of the state, production is down significantly.<sup>8</sup> This situation will exert pressure on the market, driving up food and commodity prices for Texans. Cities and utilities will need to invest significantly in new water supplies or water treatments, increasing rates for Texan ratepayers. If water shortages or impacts to water quality continue or increase, property values could decrease, negatively impacting state tax revenues. Economic

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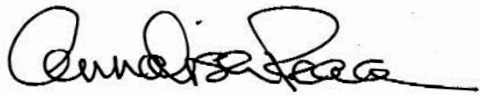
<sup>8</sup> <https://www.statesman.com/story/news/state/2024/09/10/texas-running-out-of-water-ag-commissioner-sid-miller/75146530007/>

growth would likely decrease, as businesses, developers, and other economic drivers, such as the tourism industry, look to other states to meet their needs.

Legislation for a regional water reuse district has passed before. Though the district was ultimately short lived, its foundation was strong and was the impetus for San Antonio's nationally-recognized successful water recycling system. To respond to the multitude of pressures facing Texas and Texans, the Legislature should consider adopting legislation forming water reuse districts in fast-growing areas of the state, with a special focus on Central and South Texas.

We look forward to working with you on this issue.

Thank you,



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