

TGR RESOURCE

September-October 2026

Special 25th Anniversary Edition



TRINITY GLEN ROSE GROUNDWATER CONSERVATION DISTRICT

The Trinity Glen Rose Groundwater Conservation District is celebrating 25 years of conserving, preserving and protecting the Trinity Aquifer in Northern Bexar County.



www.TrinityGlenRose.com



Dear Trinity Aquifer Users,

In the coming year, the Trinity Glen Rose Groundwater Conservation District (TGR or the District) will celebrate 25 years as a groundwater conservation district in the State of Texas. As highlighted in our lead story, the District has remained committed to protecting, preserving, and conserving the Trinity Aquifer since voters confirmed its creation in 2002.

Past and present members of the elected Board of Directors have contributed extensive experience in engineering, geology, government relations, finance, and other fields. Today's Board members continue that tradition and dedicate many hours each year to advancing the District's mission and long-term success.

Throughout the District's history, the Board and staff have worked together to strengthen data management, deepen technical understanding of the Trinity Aquifer, enhance well-monitoring capabilities, and coordinate with other agencies on well permitting and inspections. Most importantly, the District has collaborated with neighboring groundwater districts to help plan for a secure water future for everyone who depends on the Trinity Aquifer.

Protecting our water resources is a shared responsibility. Government agencies play an essential role, but lasting success also depends on public participation. For well over a decade, the District has maintained an ever-evolving website, continually expanding its educational content each year. It has also partnered with organizations throughout Bexar County to provide residents with practical information about water conservation and pollution prevention. Through continued community outreach, the District is working to broaden awareness of the importance of using water resources wisely.

Congratulations to the Board members, staff, contractors, partner agencies, and members of the public whose contributions have shaped the District's success over the past 25 years. Together, we can build on that strong foundation and continue the District's steady pursuit of excellence in the years ahead.

Trinity Glen Rose Groundwater Conservation District Board of Directors





TRINITY GLEN ROSE GCD CELEBRATES 25 YEARS OF TRINITY AQUIFER CONSERVATION, PRESERVATION, AND PROTECTION

"When I became the general manager of the Trinity Glen Rose District (TGR) in 2006, I worked from home, had a filing cabinet, some pens, blank paper and my own computer," former TGR General Manager George Wissmann said with a reminiscent chuckle.

"We had a big task in front of us but very few resources which is why I always like to give credit to other agencies out there like San Antonio Water System (SAWS), Edwards Aquifer Authority (EAA) and various state agencies for helping us operate while we were getting organized."

Wissmann, who spent 22 years with SAWS before moving to the District, noted that SAWS agreed to do water well inspections and well permitting within the district boundaries. The EAA worked with the District on abandoned wells, some mapping and general groundwater consulting, and the San Antonio River Authority made a financial contribution to starting the District.

Those humble beginnings were important to work through because the State of Texas designated the portion of the Trinity Aquifer within Bexar County as a Priority Groundwater Management Area (PGMA). That designation meant that this water resource was considered very important to this part of the State as Bexar County was projected to experience heavy growth and critical groundwater issues from availability to water quality within the following 50 years.

So for the past 25 years, TGR has been the governing agency for the Trinity Aquifer located in Northern Bexar County and small portions of Comal and Kendall counties.

Wissmann recalled that the first general manager, Marshall Reeder, helped organize the first board of directors who were initially appointed by the Governor of Texas. After their first staggered terms expired, the District held elections for each of the five precincts the district directors represent.

Part of the District's responsibility is to work with other groundwater districts in the same region. In the beginning, the District was part of both Groundwater Management Area 9 (GMA-9) and GMA-10. Due to the limited area the District covered in GMA-10, the State ultimately redrew the GMA boundaries which left the TGR wholly within GMA-9, which covers much of the Hill Country north of Bexar County.

"The District is the most densely populated of the other groundwater districts in GMA-9, which also means that there is typically the heaviest withdrawals from the Trinity Aquifer here," Wissmann explained. "Consequently, it was extremely important for the District to consolidate as much information as possible into a central database regarding the water wells in this area. We also needed a series of monitoring wells to track fluctuations of Trinity Aquifer water levels, and engaged with some engineering companies to begin studying the Trinity Aquifer in our area. All of that early collaboration, research and district infrastructure building helped establish a solid base from which the District could grow and evolve."

The most recent transformation of the Trinity District has occurred under General Manager Amanda Maloukis.

Maloukis had extensive water industry experience including serving as General Manager of the Rusk County Groundwater Conservation District in Henderson, Texas. There she was responsible for the overall operation of the groundwater district as well as its water planning and policy development processes. Before leaving for Rusk County she was an environmental specialist using her technical expertise in well drilling, well plugging, water quality sampling.

"Over the past few years, the District has focused on operational and technical improvements, such as, database management, field inspections, well registrations and permitting, and a very comprehensive update of the District's regulatory rules," Maloukis explained. "We also recently received a Texas Water Development Board grant to help us enhance our monitoring wells network capabilities."

The District closed the past year with several areas of growth and new maintenance requirements in its operations. The collection and housing of well data within the water well management database started up and provided support for a multitude of administrative needs while improving efficiency of District resources. Opportunities to improve data collection and mapping were identified and expanded with board support.

As the District's new rules were implemented, staff guided well owners, producers, and drillers through new requirements with the rules and/or application submittals. Also, updates to the District's Groundwater Management Plan, which are required every five years, were approved toward the end of 2025. That plan identifies new goals and objectives for the protection, preservation, and conservation of the Trinity Aquifer.

"One of those Management Plan goals considers the District's role in abandoned well plugging," Maloukis said. "Toward that end, we coordinate much of that work with the Texas Department of Licensing and Regulation to identify and investigate reports of abandoned wells, and with the San Antonio Water System for oversight assistance of well pluggings. The District documents abandoned wells and promotes the plugging of abandoned and deteriorated wells by District Rules, well owner communications and distribution of educational materials as needed."



TGR General Manager Amanda Maloukis



TGR General Manager George Wissmann 2006-2024

While the business of operating a groundwater conservation district is a very technical endeavor, part of the responsibility of the District's is to work with the public in teaching them how they can play a part in protecting the Trinity Aquifer.

"One of the largest uses of water, still to this day, is landscape watering," Maloukis explained. "And with Northern San Antonio continuing to grow its housing market, under George's leadership, we partnered with the Gardening Volunteers of South Texas five years ago to produce a landscape design show called 'Go Gardening' focused on helping homeowners and business owners convert their water-thirsty, mostly turfgrass landscapes into water-saving gardens featuring drought tolerant, colorful Texas native plants.

"Year one was our proof of concept start as we produced seven, 30-minute shows which we broadcast on the GVST and TGR websites. With *Go Gardening* gaining momentum each year, we stepped up our production to 10 shows per year and promotion to include some paid social media

outreach. That has delivered solid community awareness about the show and thousands of views each year. We've also managed to bring on some other water agencies as sponsors for the show."

Long term water planning typically envisions the future 50 years out. Twenty-five years ago, the Trinity Aquifer was designated as a key water resource for the State of Texas. With the District making continual positive strides over the past two-and-half decades, the outlook for conserving, preserving, and protecting the Trinity Aquifer for future generations does look promising.



Conserving water through native plant landscape design is the mission of the Go Gardening Show.

GO GARDENING

Check out what's happening in the
February edition of your favorite
landscape show - **Go Gardening!**



We're getting toward the end of Season 5 of the Go Gardening Show. While we have been busy producing landscape design shows for five years now, we want to congratulate TGR on 25 years of managing the Trinity Aquifer for the homes and businesses in Northern Bexar County. The Trinity District stepped up to be the first presenting sponsor when we first got started and has continued to support our mission each year since. Thank you! We hope our partnership continues far into the future.

Now, on to the show! Fall is a great time to plant those beautiful Texas native plants you've been seeing pop up all over San Antonio. This time of year, the ground is still warm enough for roots to establish a good base for growth. As spring rolls around next year, your flowering, drought resistant plants will stand out in the crowd.

The last few Go Gardening shows for 2026 will focus on the essentials ingredients for converting your water-thirsty landscape to a low-water-use garden. You'll learn about compost, landscape design, beneficial pollinators to plan for and much more. So please make use of our pleasant fall weather to "get out there and garden and save some water!"

Go Gardening's mission is to help people conserve water in the Edwards and Trinity Aquifers by teaching homeowners how to convert turfgrass areas to low-to-no water use landscapes featuring native plants.

You can watch Go Gardening at: www.TrinityGlenRose.com/gogardening.



TGR'S DROUGHT TOLERANT PLANT PICKS

Having a water-saving garden doesn't mean you have to sacrifice color in your landscape. Here are two great suggestions to consider.



Photo credit: Lee Page, Lady Bird Johnson Wildflower Center

Zexmenia, *Wedelia acapulcensis* var. *hispida*, a well-behaved, hardy perennial produces bright blooms of deep yellow/orange. Often growing up to 2.5 ft in height, it will gradually increase in circumference and spread horizontally from year to year. Zexmenia handles our Texas summer well, often being one of the few flowers you will find along our Hill Country roadsides in the heat of July and August. Even better, its **rough** foliage is not particularly favored by deer. Water use is very low, once established, and is a larval host plant to our Bordered Patch butterflies.



Photo credit: Susan Schroeder, Lady Bird Johnson Wildflower Center

Evergreen sumac, *Rhus virens*, is a sizable shrub to small tree found throughout the Hill Country. Friedrich Wilderness Park in northern Bexar County has many lovely examples lining many of the trails. Not a true evergreen, evergreen sumac will retain its leaves through the winter, drop them, and quickly replace them behaving much like our live oaks, but at a much smaller scale. The female plant produces white clusters of flowers and later fuzzy red clusters of fruit that the birds will enjoy.

HISTORIC EL NIÑO COULD BRING HEAVY RAINS AND SNOW TO TEXAS THIS WINTER

A strengthening El Niño is now suppressing some of the typical Atlantic hurricane activity and could become one of the strongest El Niño weather patterns on record, according to the latest projections from the Climate Prediction Center (CPC). The agency states that there is an approximate 90% chance of a strong El Niño in the fall and a 50% chance of a very strong El Niño in December. And, that whole pattern could continue through early spring of 2027.

El Niño weather patterns are known for bringing more rain with them, but they also can drop winter temperatures much lower as well. This mixture of higher precipitation and lower temperatures can even lead to record snow events in the Lone Star State.

A currently strengthening El Niño is already reshaping weather around the globe, suppressing Atlantic hurricane activity and influencing storm tracks.

El Niño occurs when ocean temperatures near the equator in the eastern and central Pacific rise above the historical average for an extended period. Changes in the ocean and atmosphere can shift storm tracks around the globe, affecting tropical activity, temperatures and precipitation patterns. In July, global sea surface temperatures surpassed record levels set during the 2023 marine heat wave with 2.1 degrees Celsius (3.8 degrees Fahrenheit) above the long-term average.

El Niño years tend to lead to rainier years for Texas, but it isn't an absolute guarantee. Strong areas of high pressure can develop anytime of the year, leading to less rain chances and higher temperatures.

AccuWeather experts agree. "It really does not matter whether this is a record or Very Strong El Niño. It is about the impacts we experience during this time," said AccuWeather Lead Long-Range Meteorologist Paul



Pastelok. "Currently, we are seeing a strong impact in both the Atlantic and Pacific basins, with extreme wind shear limiting Atlantic storm development. Additionally, the Pacific remains quite active as we predicted back in the spring."

Given the severe drought South Texans have endured for the last several years, much more rain and potentially cooler weather would be welcomed. As for drought restrictions, most local agencies say they will be watching how things actually turn out before restrictions are dialed back to signal the end of that drought.

[Here is an interesting link that helps explain the ins and outs of an El Niño.](#)



CRUNCHING THE WATER NUMBERS ON DATA CENTER EXPANSION

Texas is a significant hub for data centers, hosting a variety of facilities that support cloud computing, cryptocurrency mining, and artificial intelligence (AI) infrastructure. The state has seen rapid growth in this sector, driven by increasing demand for digital services.

While data centers now consume a small portion of the Texas' total water supply, some researchers warn that with droughts and population growth, data centers have the potential to help push water supplies to near capacity...especially in drier areas in the state.

The Houston Advanced Research Center, an independent nonprofit research organization focusing on sustainability solutions, estimates that existing data centers in Texas used approximately 25 billion gallons of water, or 0.4% of the state's total water use in 2025. By 2030, this demand could increase up to 2.7% of the total annual water use in Texas. That's the equivalent water consumption of 1.3 million average U.S. households.

In preparation for the 2027 Texas Legislative Session, the Texas House State Affairs Committee members questioned data center developers, energy companies and state grid officials about the amount of water the large facilities use; how they impact noise levels and air

quality; and whether residents can expect higher costs when data centers come to their communities.

The meetings were held primarily to help lawmakers understand the complexities and issues surrounding the increasing demand for data management. Those who submitted public comments in person and online expressed strong opinions that transparency from data center operators and legislators alike will be key to earning public trust.

One citizen carefully summed it up this way, "We are paying attention, very close attention."

Major Data Center Locations

- Texas has several key regions known for data center activity:
- Dallas-Fort Worth: The primary hub, hosting numerous facilities.
- Austin: A growing center for tech and data services.
- Houston: Significant for its energy resources.
- San Antonio: Emerging as a notable location for data infrastructure.

[Here is a link to a website that shows data center locations in the San Antonio region.](#)

NEWS BRIEFS



TGR Recognized for Texas 4-H Ambassadors Support

The Trinity Glen Rose Groundwater Conservation District was recently recognized for its continued support of the Texas 4-H Water Ambassadors Program. The program debuted in 2017, and for the 2025-26 Leadership Academy tours, more than 100 students will be participating. Students travel throughout Texas to learn how water is collected, conveyed, treated, conserved and managed to meet Texan's needs.

Today, more than 40 groundwater districts sponsor Texas 4-H activities and training programs and have been a primary source of funding for the program since its inception now contributing nearly \$100,000 per year, which is approximately half of the program's total donations.

To reinforce knowledge gained during the program, water ambassadors pass on that information to others as they engage in various education and service activities throughout the year. This program also provides a platform for youth to connect with water industry professionals and educators who represent a wide range of water disciplines.

Thank You Katrina - Welcome David Timmermann



Katrina Waring-Castillo recently concluded her term on the TGR Board of Directors as Precinct 5 representative. Her extensive IT background played a central role in helping the District select a database contractor that would be the main repository for the District's large volume of information such as water well locations, well statistics, registrations and much more.

In her professional career, Castillo serves as the Chief Data Officer (CDO) and Data Privacy Officer (DPO) for The Institute of Electrical and Electronics Engineers (IEEE), where she leads the Enterprise Data & Analytics organization. Her responsibilities span Data Engineering, AI/ML Engineering, Data Architecture, Data Analytics and Governance teams.

David Timmermann will follow Castillo as the Precinct 5 Director and serve as the Assistant

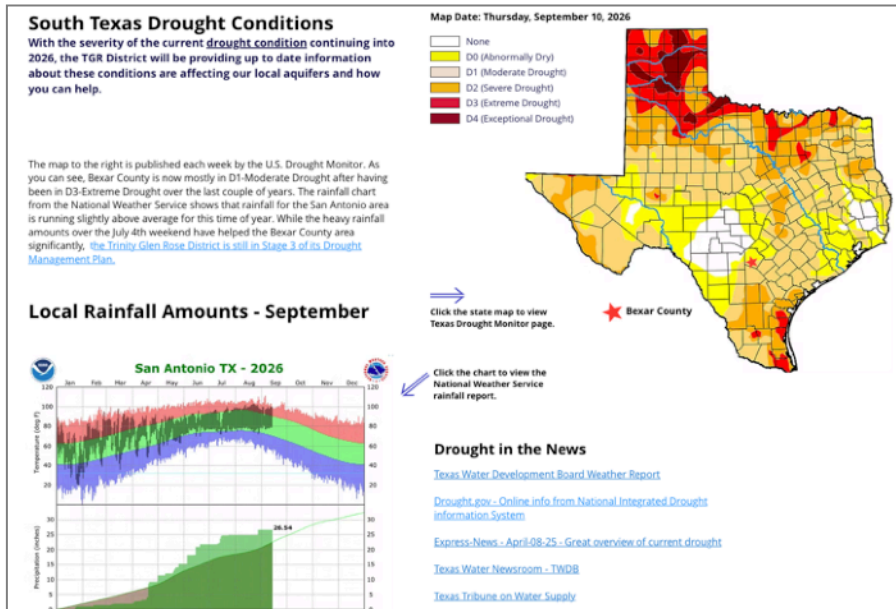
Secretary/Treasurer for the board. Timmermann is a native Texan with over 40 years of experience as a civil engineer, delivering large scale water supply and water treatment projects across Texas. He currently serves as the manager of Quality Assurance/Quality Control for Provenance Engineering. Timmermann is passionate about developing and using tools and models to understand aquifer systems, finding a balance with aquifer stressors, and educating the public about groundwater resources.

DROUGHT MONITOR

With drought conditions easing just a bit in early 2026, TGR is providing up to date information about these conditions affecting local aquifers and how you can help.

At the TGR Drought Dashboard on the District's website home page, you will find the current U.S. drought monitor map, the rainfall chart from the National Weather Service, current drought news articles and a link to some great water conservation recommendations at our Don't Waste the Wet Stuff page.

[Click here to go to the latest TGR Drought Dashboard.](#)



TGR DETAILS

Trinity Glen Rose Groundwater Conservation District

Board of Directors

Dr. Stuart Birnbaum - Precinct 1
Joe duMenil - Precinct 2 (Chairman)
Steven Peterson - Precinct 3
Joe Silman - Precinct 4
David Timmermann - Precinct 5

General Manager

Amanda Maloukis

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TGR Mission

The Trinity Glen Rose Groundwater Conservation District was created in 2001 to conserve, preserve, and protect the Trinity Aquifer within the District.



**TRINITY GLEN ROSE
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