



TRINITY GLEN ROSE
GROUNDWATER
CONSERVATION
DISTRICT

ANNUAL REPORT 2021





**Trinity Glen Rose Groundwater Conservation District
2021 Annual Report**

Prepared by:

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Helotes, TX 78023

www.TrinityGlenRose.com

BOARD OF DIRECTORS

The Trinity Glen Rose Groundwater Conservation District (TGR) is divided into five precincts spanning northern Bexar County and portions of Kendall and Comal counties. As of December 2021, these districts have been re-delineated based on 2020 census data and adopted by the TGR Board of Directors. The duty of the Board of Directors is to ensure the District complies with state and local statutes, in addition to meeting the District's primary mission to conserve, preserve, recharge, protect and prevent waste of groundwater from the Trinity Group of Aquifers in the District.

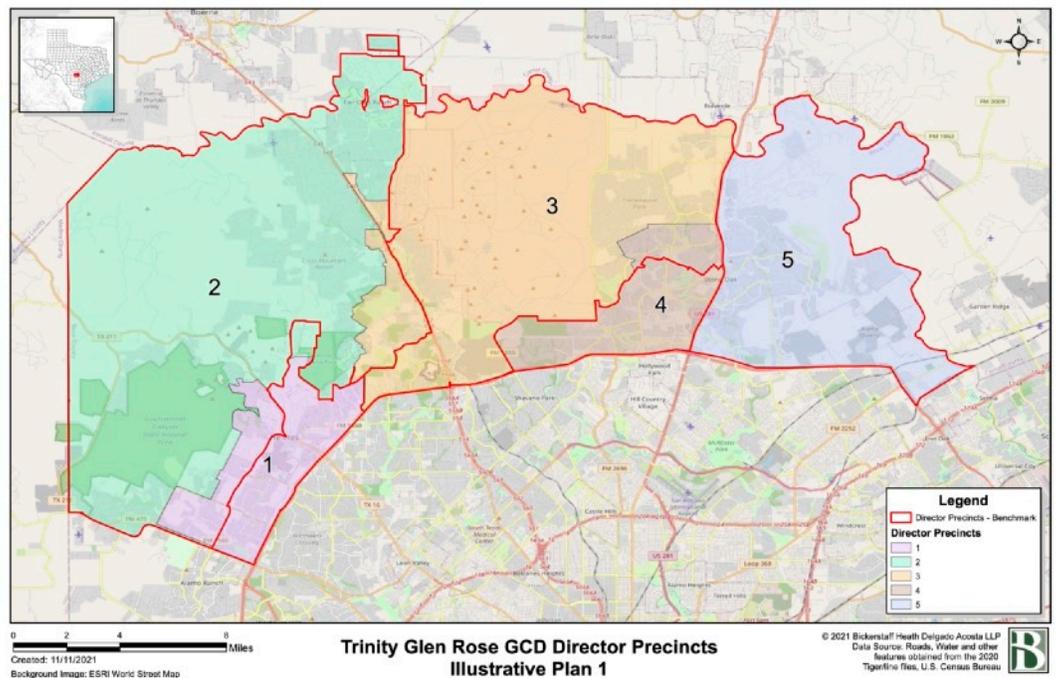
Joe duMenil
President
Precinct 2

Stuart Birnbaum
Vice Chair
Precinct 1

Joe Silman
Treasurer
Precinct 4

Harris Dickey
Asst. Secretary/Treasurer
Precinct 3

Jerry Forster
Board Member
Precinct 5



Redistricting

Redistricting is part of the election process in the United States. Due to the fact the Trinity Glen Rose Groundwater Conservation District's board members are elected, the district recently reviewed its population changes over the past 10-year period and found it needed to adjust its boundaries due to population shifts in the precincts. The objective is to balance the per capita representation for each precinct in order to give all district constituents an equal say via their elected representatives regarding district policies and future directions. After a thorough planning process and public comment period, the TGR Board officially changed its boundaries in December to reflect a more consistent population base in each precinct.

TRINITY GLEN ROSE OVERVIEW

Mission Statement - The Trinity Glen Rose Groundwater Conservation District conserves and protects the Trinity Group of Aquifers within its boundaries using sound science, best management practices, community involvement and peer partnerships to preserve the resource for future generations.

The Trinity Glen Rose Groundwater Conservation District was created by HB 2005 (2001) for the purpose of conserving, preserving, recharging, protecting and preventing waste of groundwater from the Trinity Group of Aquifers within the District. The District was created in response to the Texas Natural Resources Conservation Commission's (currently the Texas Commission of Environmental Quality, or TCEQ) January 2001 designation of the Trinity Group of Aquifers within Bexar County as a Priority Groundwater Management Area (PGMA). A PGMA designation is given to an area "that is experiencing, or is expected to experience, critical groundwater problems."

The District is the governing body of the portion of the Trinity Group of Aquifers located within northern Bexar County and portions of Kendall and Comal Counties which have been annexed by the City of Fair Oaks Ranch that fall within the District boundaries with a process in place to determine whether these annexed lands will fall under TGR jurisdiction. The Trinity Group of Aquifers is considered important to the State of Texas and subject to provisions in the Texas Water Code §36. The State Legislature created TGR to ensure appropriate groundwater management techniques and strategies could be implemented at the local level to address groundwater issues within the District.

The District manages administrative and technical activities and programs to achieve its mission, including collecting and archiving water well and aquifer data, regulation of water well drilling and collection of production data from non-exempt wells, promotion of capping or plugging of abandoned wells, providing information and educational material to local property owners, collaborating with other governmental entities and organizations, and other groundwater-related activities necessary to achieve our mission.

TGR staff includes General Manager, George Wissmann. Wissmann has been with the District for over 15 years. Prior to working for TGR, Wissmann spent over 20 years with the San Antonio Water System. The District also employs an Administrative Program Manager, Emily Green, who has served since October 2012, as well as an Assistant General Manager, Amanda Maloukis, who has served the District since March 2020.

TGR 2021 FINANCIALS

TGR maintained a solid financial position throughout the fiscal year ending September 30, 2021. The District's net position decreased \$69,037 from the prior fiscal year ending for a total of \$1,933,285. The District complied with all accepted accounting principles and applies all relevant Government Accounting Standards Board (GASB) pronouncements. A summary of the District's finances for FY 2021 is found below. A full audited financial report can be downloaded at: www.trinityglenrose.com/reports.

- 💧 The assets of the District exceeded its liabilities at the close of the fiscal year ended September 30, 2021 by \$1,933,285. Of this amount \$1,922,525 is unrestricted net position available to meet the District's ongoing obligations and designated reserves.
- 💧 Total operating and non-operating income for the year was \$328,530.
- 💧 Total expenditures for the year were \$397,567
- 💧 Expenditures exceeded revenue by \$69,037 due to mandated redistricting costs, downturn on investment income and other operational requirements. Despite the small loss for the year the District remains in a solid financial position.

Board Designated Reserve Fund

The Board of Directors has designated funds for future growth and liquidity needs. As of December 31, 2021, this amount was \$1,700,000. These are governing board non-restrictive designated reserves with the objective of setting funds aside to be drawn upon in the event of financial distress, liquidity needs or for capital improvements and programs as outlined below.

Board designated reserves at December 31, 2021 are as follows:

Election Reserve	\$ 40,000.00
Redistricting Reserve	\$ 60,000.00
Operating Expenses Reserve	\$600,000.00
Conservation Program Reserves	\$400,000.00
Aquifer Studies Reserves	\$300,000.00
Legal Reserves	\$300,000.00

TRINITY GLEN ROSE GROUNDWATER CONSERVATION DISTRICT
 STATEMENTS OF NET POSITION
 SEPTEMBER 30, 2021 AND 2020

	2021	2020
ASSETS		
<i>Current Assets:</i>		
Cash and Cash Equivalents	\$ 237,907	\$ 122,529
Investments	1,596,320	1,834,727
Accounts Receivable	60,159	21,677
Prepaid Expenses	8,000	8,000
<i>Total Current Assets</i>	1,902,386	1,986,933
<i>Other Assets:</i>		
Property and Equipment (net)	10,760	12,805
Net Pension Asset	-	2,037
<i>Total Other Assets</i>	10,760	14,842
TOTAL ASSETS	1,913,146	2,001,775
 DEFERRED OUTFLOWS OF RESOURCES		
Deferred Pension Related Outflows	30,904	14,568
 LIABILITIES		
Accounts Payable	4,970	7,465
Payroll Withholdings	2,713	5,086
Net Pension Liability	1,952	-
TOTAL LIABILITIES	9,635	12,551
 DEFERRED INFLOWS OF RESOURCES		
Deferred Pension Related Inflows	1,130	1,470
 NET POSITION		
Net Investment in Capital Assets	10,760	12,805
Unrestricted	1,922,525	1,989,517
TOTAL NET POSITION	\$ 1,933,285	\$ 2,002,322

ANNUAL DATA COLLECTION

An annual report will be prepared and presented to the Board of Directors on District performance with regard to achieving management goals and objectives. The presentation of this report will occur within the first or second quarter of the following calendar year. The District will maintain the reports on file for public inspection at the District's office upon adoption.

2021 Drought Conditions and Precipitation **Objective(s); 6.1, 6.2**

During 2021, the District experienced abnormally dry conditions for the first several months of the year. Beginning in April, precipitation totals began to increase with July and October each recording in excess of 6-10" across the District. For the year, the District saw observed totals ranging from 35" to 50" resulting in a departure from normal ranging from 4" to 20" as recorded by the National Weather Service. It should be noted that the majority of this rainfall occurred during April, May, July, and October reflecting long moderately dry periods punctuated by heavier rain events

The District evaluated throughout the year any need to implement its drought contingency plan. Forecasts generated by state and national drought indices were monitored on a monthly basis, including, the TGR monitor well network to determine whether changes in drought stage declarations were necessary. As such, TGR stayed in "Year-round Conservation". This information was presented to the Board of Directors during regularly scheduled Board meetings throughout the year and the District continued to provide the public with conservation and education resources as drought conditions necessitated. Drought oriented literature including the TWDB's Texas Drought Monitor are made available to the public on the District's website: www.trinityglenrose.com/drought-information.

Water Well Activity **Objective(s); 1.1, 1.2, 1.3, 5.2**

In 2021 the total number of wells permitted and registered was 75; 54 new wells, 14 plugging, and 1 repair. Additionally, 6 registrations of already existing wells were received. All registered and permitted wells were entered into the District's database and the number of wells presented at regular board meetings. The District continues to operate under an inter-local agreement with the San Antonio Water System (SAWS) to conduct well application processing and well inspections for newly constructed, plugged, and modified wells. At this time, TGR has not implemented a system for assigning production amounts or limits to non-exempt wells located within the District.

**GIS Data
Objective; 1.3**

TGR strives to maintain an accurate and up-to-date Geographic Information Systems (GIS) database. GIS data produced or modified by TGR staff includes well drilling locations, well plugging locations, parcel property lines, and District boundary adjustments. This spatially referenced data can be leveraged to perform spatial and location analysis, and in groundwater studies or long-term planning.

**Monitor Well Activities
Objective(s); 8.1**

The District continues to maintain a monitor well program to better collect and analyze trends in groundwater levels within the District. As of 2021, the District continues to utilize five real-time groundwater monitoring stations. This information is reported to the Board of Directors during the regularly scheduled Board meetings throughout the year. In addition to these monitoring devices, the District receives groundwater data from several public supply purveyors located throughout the District. Links to data from the monitoring well network are available to the public through both the Texas Water Development Board website as well as the District website.



TGR uses five, real-time well monitoring stations to analyze well level fluctuations throughout the year.





Stone Oak Park is one of six major parks in the Trinity Glen Rose District. As you can see, even though the park is a beautiful natural setting, the growth around the parks is always easy to spot. That growth is one of the many components that Trinity Glen Rose District must monitor in order to maintain its pumping goals from the Trinity Aquifer set out by the State of Texas.

WATER STUDIES & PLANNING

GROUNDWATER MANAGEMENT PLAN

The District throughout 2020 worked on revisions to its management plan in order to submit by the deadline for final approval by the TWDB. The district received approval of its new plan January 20, 2021. In the plan the district identified its limitations created by its enabling act, updated projected and historical numbers, and altered the order of the plan to reflect the TWDB requirements. This updated version of the groundwater management plan with regard to recording achievements of management goals and objectives are identified in this version of the annual report.

Exempt Well Study Objective; 5.1

Under the District's enabling legislation, a conservative estimate of approximately 80% of groundwater produced by public water systems (PWS) from the Trinity Group of Aquifers within TGR boundaries is exempted from regulation. Bearing this in mind, TGR was notified in 2017 of the impending activation of a significant number of dormant wells in the northeastern segment of the District by a water purveyor.

September 2019, the District entered into a contract with WSP USA, an engineering consultant company, for analysis of legislatively exempt pumping within TGR. Under the District's Enabling Legislation, HB 2005 all public water supply wells drilled prior to 2002 and approved by Texas Commission on Environmental Quality (TCEQ) are exempt from regulatory authority of the District.

In 2021, TGR working with WSP completed the analysis on Exempt Well Estimates for the District. The TGR was extremely interested in pumping estimates from the group of wells that are statutorily exempt from regulation and how that might impact the overall water availability from the Trinity Group of Aquifers in the District for planning purposes and long term projections.

Sentinel Landscape Partnership

The District became a partner in November 2020 with approximately a dozen other entities at the time, of the Camp Bullis Sentinel Landscape initiative. The official designation for the Camp Bullis Sentinel Landscape was announced in February 2022. The recognition provides multiple years of funding for a full-time partnership coordinator, priority ranking when applying for funds from the USDA, DOD, and DOI, and in certain circumstances, unique flexibility with federal dollars towards collaborative goals. This allows bringing multiple resources together to assist private landowners continue their land stewardship. The Sentinel Landscape Partnership is a broad coalition of federal agencies, state and local governments, and nongovernmental organizations that work with private landowners to advance and preserve sustainable land management practices around Camp Bullis to preserve its several missions.

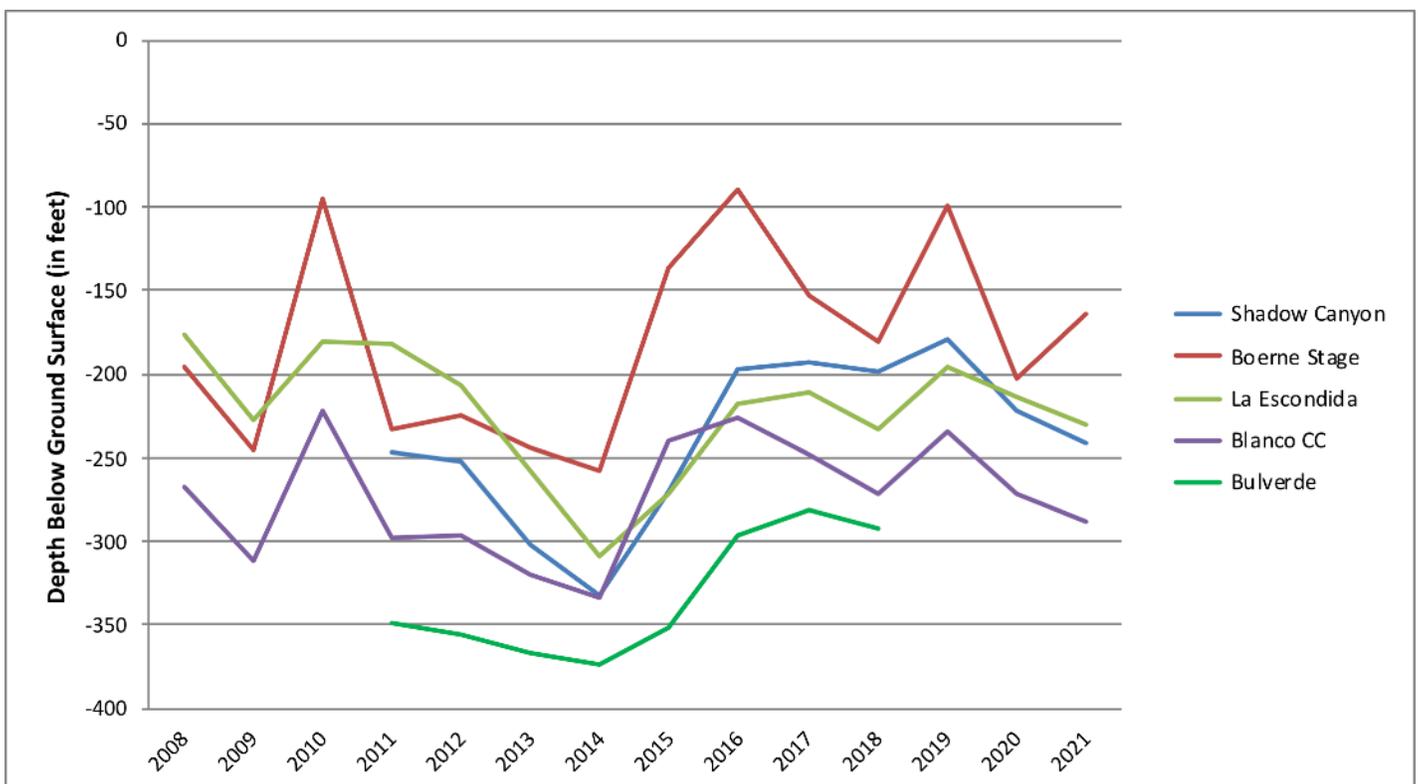


**GMA-9 Joint Planning Committee
Objective; 8.0, 8.1**

TGR is a member of Groundwater Management area 9 (GMA-9) Joint Planning Group. This group is tasked with long-term planning and management of groundwater resources for the Hill Country Priority Groundwater Management Area. During 2021 the district continued to meet and work with GMA-9 Joint Planning Committee to finalize the submission and explanatory report for the 2021 Desired Future Conditions (DFCs) Planning.

In November 2021 the Joint Planning committee by resolution adopted the proposed classification of locally managed aquifers as non-relevant for joint planning purposes and the Desired Future Conditions for Relevant Major and Minor Aquifers in GMA-9 and authorized the GMA-9 Chairman to formally submit them and all other required information to the Texas Water Development Board (TWDB).

Desired future conditions are 50-year planning horizons determined by groundwater management areas which reflect a long-term outlook on aquifer conditions. Currently, the DFC for the GMA-9 region is set to achieve no more than an average 30-foot groundwater drawdown across the GMA-9 planning boundaries.



Water Level (WL) Below Ground Surface													
Monitor Well	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Ave Well Level (2011-2021)	Δ from 2008
Shadow Canyon	-247	-252	-302	-332	-270	-197	-194	-199	-179	-221	-241	-239	n/a
Boerne Stage	-233	-224	-244	-257	-136	-90	-152	-181	-99	-203	-163	-180	17.60
La Escondida	-181	-207	-258	-309	-271	-217	-211	-233	-195	-214	-230	-230	-48.84
Blanco CC	-298	-297	-320	-333	-240	-226	-247	-272	-234	-272	-288	-275	-6.54
												Average	-12.59

Current and Historical Groundwater Production - Objective(s); 1.3, 8.2

The TGR in conjunction with the Groundwater Management Area 9 in May of 2015 set the current Desired Future Conditions (DFCs) for the planning group. As a result of the DFCs, the Texas Water Development Board has issued Modeled Available Groundwater (MAG) numbers to each groundwater district in order to achieve the DFCs. The MAG for the TGR is 25,511 acre feet annually.

Table 1 below illustrates current and historical use of groundwater within TGR since 2011 based on monthly data collection. In 2021, 16,345 acre-ft of water was produced from the Trinity Group of Aquifers; an increase of 3,559 ac-ft from 2020. This increase can largely be attributed to an increase in municipal pumpage.

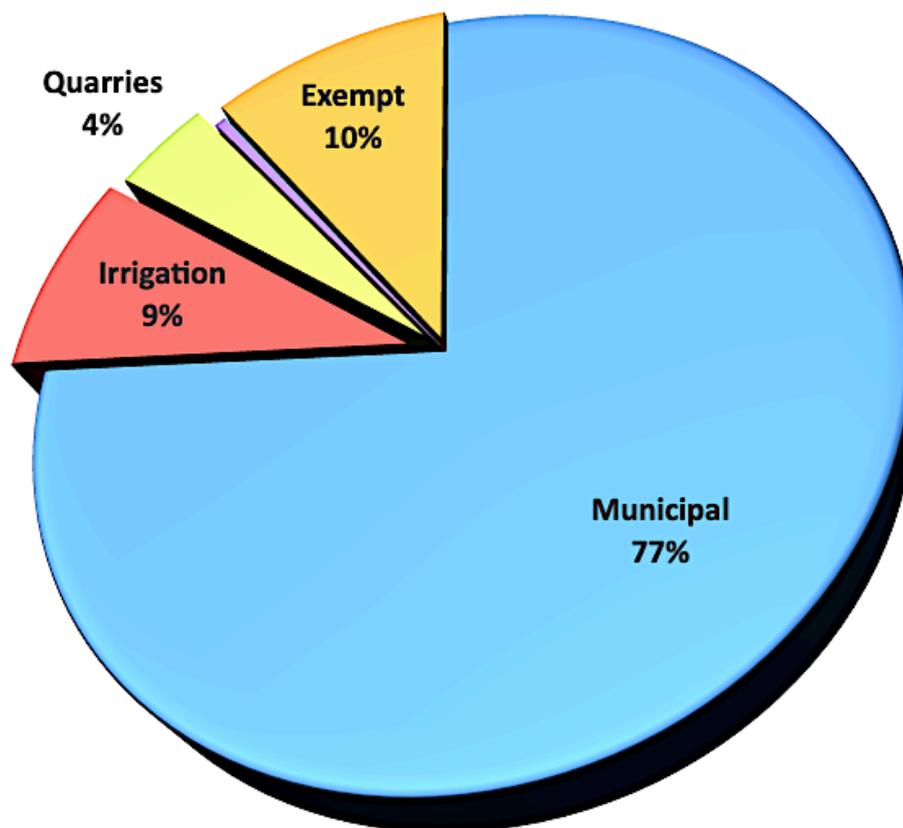


Table 1 - 2021 TGR Pumpage by Water User Group

User Group	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Municipal PWS	7,969	8,096	6,584	5,878	11,799	19,127	14,569	10,212	18,356	8,209	12,509
Irrigation	2,533	1,745	1,969	1,374	1,917	1,878	2,255	1,991	2,091	1,847	1,419
Quarries	1,155	1,032	1,480	822	864	972	956	1,162	796	939	681
Agriculture	100	100	100	100	100	100	100	100	100	74	74
Sm. Business				60	61	45	25			6	6
Exempt	1,500	1,500	1,714	1,615	1,634	1,767	1,690	1,715	1,764	1,711	1,656
Total	13,257	12,473	11,847	9,849	16,375	23,888	19,595	15,180	23,106	12,786	16,345

**Small Business and Agriculture comprise less than 1% of annual usage.*

The Desired Future Conditions adopted are as follows:

- Allow for an increase of no more than 30' average drawdown through 2060 of the Trinity Aquifer consistent with Scenario 6 in TWDB GAM Task 10-005.
- Allow for no net increase in average drawdown through the year 2080 for the Edwards Group of the Edwards-Trinity (Plateau) Aquifer in Kendall and Bandera Counties.
- Allow for an increase of average drawdown through the year 2080 of no more than 7' for the portions of the Ellenberger-San Saba Aquifer located in Kendall County.
- Classify the Hickory Aquifer located in Blanco, Hays, Kerr, and Travis Counties as non-relevant for the purposes of Joint Planning.
- Classify the Marble Falls Aquifer located in in Blanco county as non-relevant for the purposes of Joint Planning.
- Classify the Edwards Aquifer located in Bexar, Comal, Hays, and Travis counties as non-relevant for the purposes of Joint Planning.

On December 7, 2021 GMA-9 submitted to the Texas Water Development Board the Desired Future Conditions along with the Explanatory report and is awaiting review of the submission. Once the TWDB reviews the submitted documents and notifies GMA-9 each District will adopt the Final DFCs by resolution.

The chart on page 11 reflects the yearly average water level within the District's monitor wells. GMA-9 districts use the 2008 water level as a baseline to which to compare groundwater level trends over time. This assists in monitoring desired future condition compliance.

Conjunctive Surface Water Management Issues Objective; 4.1

The District monitors activities regionally regarding surface water management in conjunction with its local groundwater uses and needs by attending the Regional Water Planning Group L (RWPG L) meetings that develop our local State Water Plan. These plans put together are necessary to responsibly manage and develop the state's water resources for the benefit of future generations. Understanding potential growth, needs, demands, existing supplies and strategy supplies, benefits the district. RWPG L this past year finalized data to be included and released in the 2022 State Water Plan where the District had a representative present at three of the four quarterly meetings.



TGR partners with the San Antonio Water System in permitting the drilling and plugging of wells in the Trinity Aquifer.

COMMUNITY OUTREACH

With the majority of 2021 being impacted by a pandemic, much of TGR's community outreach was accomplished online. Here is a brief summary of the communications work that continued with the organization's partners.

TGR Awareness and Water Conservation Programs and Partnerships Objective(s); 2.3, 7.1, 7.3

Water Conservation

Due to the success of the online WaterSaver Landscape Tour from the previous year, TGR again partnered with San Antonio Water System and Gardening Volunteers of South Texas on producing a WaterSaver Landscape Tour broadcast. However, the number of homes and homeowners featured were doubled. The project included 10 videos of great-looking, water-saving landscapes from around the city and a live Q&A portion of the broadcast was produced at the end of the video section. More than 300 people signed up for the live broadcast. Additionally, the videos were then posted to YouTube for the community to view.

TGR continued its sponsorship and participation in GVST's Landscape Design Schools. The schools are half-day classes which inform attendees about the basics of creating and maintaining a beautiful and water-saving landscape. The use of native plants and reduction of turf grass areas is emphasized in an effort to help homeowners use less water.

Pollution Prevention

In 2020, TGR created a pollution prevention campaign highlighting the natural areas and parks in the district as a means of creating interest about the pollution prevention message and traffic to the District's website. To continue the pollution prevention campaign from the previous year, TGR produced a special gallery section on its website to highlight the photos taken at the natural areas and parks. All of the photos used in the slide shows over the course of a year were reconfigured to allow the general public to download any of the photos. TGR produced a story in its monthly newsletter and created some Facebook posts to let the public know about that opportunity.

Media Programming

TGR continued placing water conservation and pollution prevention messaging with Texas Public Radio. The campaign, created primarily to raise awareness of the District, consists of radio public service announcements and TPR website banner ads presented over 10 months of the year.

The radio component of the program created 656,000 gross impressions (based on TPR's audience ratings) and each of the six banner ads created 32,000 website impressions which ran in six months selected by TGR.

Website Update

While many communications efforts were being conducted online, TGR took the opportunity to completely overhaul its website. The website received a new design and functionality, and each page's content was reviewed and updated. To enhance the board of director's access to board documents, a password protected page was created to give board members the ability to download that information as needed. " The District's Website hosts several different educational pieces readily available to the public. Specific topics by section on the website regarding waste prevention and conservation are as follows: Water Well Monitoring, Aquifer Science, Groundwater Well Education, Water Conservation, and Rainwater Harvesting.

Continuing Education

- Cyber-Security – District staff, Directors, and appropriate consultants completed the annual training through TAGD.
- July 2021 – District staff attended a Sentinel Landscape Joint Base San Antonio-Camp Bullis Immersion Tour.
- August 2021 - District staff plus 1 board members attended the TAGD summit.
- October 2021 – District staff observed the TWDB Mining Water Use Study
- Assistant General Manager Amanda Maloukis managed to maintain her Texas Groundwater and Onsite Sewage Facility Licensing. Website Update

Additional Public Outreach

The District continued to seek community outreach opportunities throughout the year in an effort to meet groundwater management goals and increase awareness of the District and its mission. Information regarding specific events can be found in the Appendix.

- Throughout 2021, the District published a monthly newsletter focusing on water-related activities throughout the District. The monthly newsletter was distributed through email to 1,376 subscribers and is published on the District's website.
- General Manager George Wissmann presented information on the District to the Boerne Water Committee and San Antonio District 9 Neighborhood Alliance.
- Assistant General Manager, Amanda Maloukis, presented TGR information to the Camp Bullis Sentinel Landscape partnership. Also, she assisted during the TAGD Groundwater Summit for the Environmental Defense Fund in administering a Groundwater Game.
- The District continues to maintain drought and water conservation-related materials, including rainwater harvesting, available to the public both in the District office as well as through the District webpage.

TGR FUTURE GOALS

- In 2021 the District began working with special counsel to assist TGR in review, development, and implementation of updated District Rules. TGR will continue to work through 2022 on the development and implementation of new rules.
- Consolidate TGR data into a single database specific to the district's needs.
- Adhere to performance goals and measures laid out in the TGR District five-year management plan as mandated by the Texas Water Development Board.
- Work with GMA-9 joint planning committee on the fourth cycle processes for Desired Future Conditions.
- Research and develop wells for inclusion and expansion of the monitoring wells network.
- Continue to build hydro-geologic data to gain a more comprehensive understanding of the Trinity Group of Aquifers in northern Bexar County and Hill Country.
- Manage the groundwater resource to remain on track with established Desired Future Conditions determined by the District and the GMA – 9 Joint Planning Committee.
- Continue to increase public awareness of the District through workshops, community events, conservation audits, and collaboration with peer partnerships.
- Incorporate new management goals and adopt legislative changes as necessary.
- Provide new opportunities for continued education for staff and board members.

ANNUAL REPORT APPENDIX

TGR Events for 2021

GVST Landscape Workshop held on 5/2021

- District brochures and pens provided to 39 attendees.

GVST Landscape Workshop held on 9/2021

- District brochures and pens provided to 16 attendees.

GVST Landscape Workshop held on 11/2021

- District brochures and pens provided to 18 attendees.

