



Trinity Glen Rose Groundwater Conservation District

ANNUAL REPORT

2020



TGR BACKGROUND

Mission Statement - The Trinity Glen Rose Groundwater Conservation District conserves and protects the Trinity Group of Aquifers in Northern Bexar County and City of Fair Oaks Ranch 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 (TGR or the District) was created under 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."

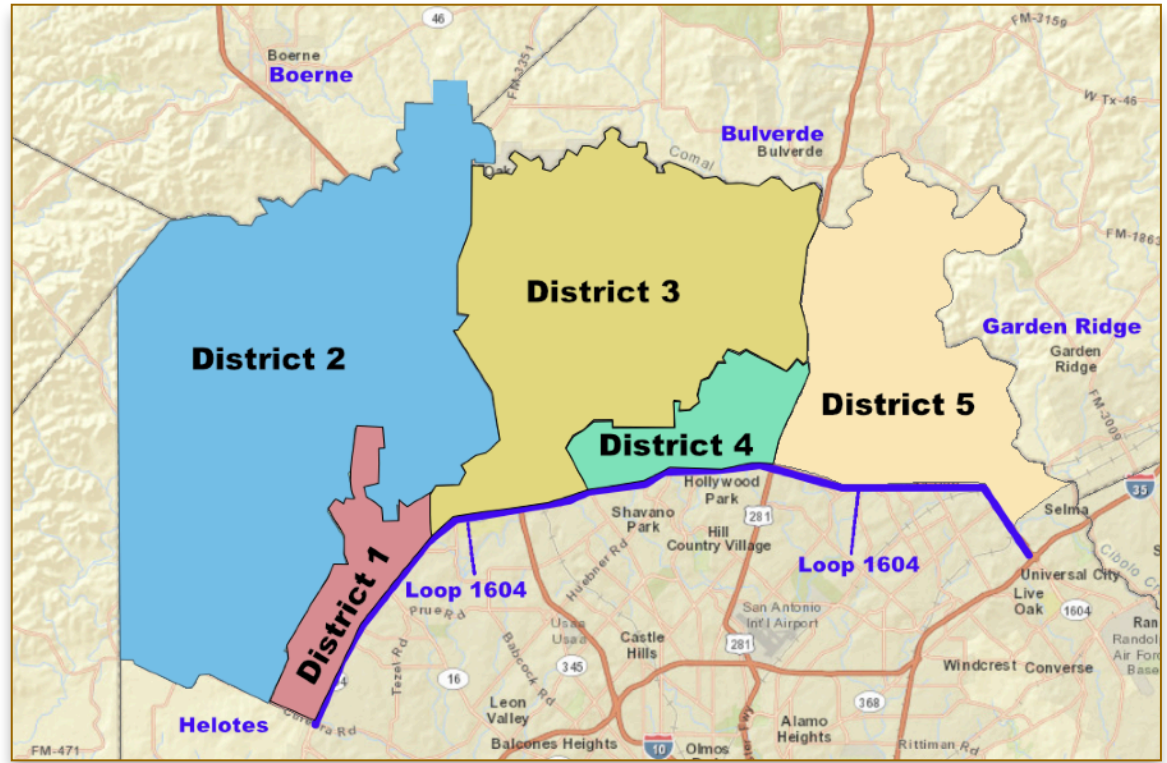
The District is the governing body of the portion of the Trinity Group of Aquifers located within Northern Bexar County and portions of Kendall and Comal Counties which have been annexed by the City of Fair Oaks

Ranch. 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 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.

BOARD OF DIRECTORS

The Trinity Glen Rose Groundwater Conservation District is divided into 5 sub-districts/precincts spanning northern Bexar County and portions of Kendall and Comal counties. As of February 2012, these districts have been re-delineated based on 2010 census data and approved through the Department of Justice. Once the current census is completed, the District anticipates undergoing a redistricting process. The duty of the Board of Directors is to determine policy as well as adopt and enforce rules regulating the withdrawal of groundwater in order to achieve the District's primary mission to conserve, preserve, recharge, protect and prevent waste of groundwater from the Trinity Group of Aquifers within the District.



Stuart Birnbaum - Member - District 1

Joe duMenil - President - District 2

Harris Dickey - Asst. Secretary/Treasurer - District 3

Joe Silman - Treasurer - District 4

Jorge Gonzalez - Vice-President - District 5



TGR DISTRICT STAFF

TGR staff includes a General Manager, George Wissmann. Mr. Wissmann has been with the District for over 14 years. Prior to working for TGR, Mr. 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.

In March of 2020, the District hired a full-time Assistant General Manager, Amanda Maloukis. Ms. Maloukis served as the General Manager for the Rusk County Groundwater Conservation District for 6 years and is familiar with the local area and issues due to her prior service with the San Antonio Water System along with other related background.

TGR OFFICE RE-LOCATION

In March of 2020, the TGR re-located its physical office to Old Town Helotes at 14789 Old Bandera Rd. #105, Helotes, TX 78023. With growth to staff the District found it necessary to re-locate its physical office to provide more office space and a more visible location.

2020 UNIQUE OPERATIONS

2020 was uniquely challenging due to the pandemic. Although business throughout Texas was greatly affected, the TGR continued to meet the obligations and requirements for the public's continued needs.



TGR FINANCIALS

TGR maintained a solid financial position throughout the fiscal year ending September 30, 2020. The District's net position increased \$19,091 from prior fiscal year ending September 30, 2019 for a total of \$2,002,322. The District complies with all accepted accounting principles and applies all relevant Government Accounting Standards Board (GASB) pronouncements. A summary of the District's finances for FY 2020 is found below. A full audited financial report can be downloaded at www.TrinityGlenRose.com.

- The assets of the District exceeded its liabilities at the close of the fiscal year ended September 30, 2020 by \$2,002,322. Of this amount, \$1,989,517 is unrestricted net position available to meet the District's ongoing obligations and designated reserves.
- Total operating and non-operating revenue for the year was \$388,021.
- Total expenditures were \$368,930.
- Revenue exceeded expenses by \$19,091 and is being used to build the net assets of the District to maintain an adequate capital structure and fulfill adopted board designated reserves.

BOARD DESIGNATED RESERVE FUND

The Board of Directors has designated funds for future growth and liquidity needs. As of December 31, 2020, this amount totaled \$1,800,000. 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, immediate liquidity needs, or for capital improvements and programs as outlined below.

Board designated reserves at December 31, 2020 are as follows:

Election Reserve	\$ 40,000.00
Redistricting Reserve	\$ 60,000.00
Operating Expenses Reserve	\$500,000.00
Conservation Program Reserves	\$300,000.00
Aquifer Studies Reserves	\$300,000.00
Legal Reserves	\$300,000.00
Capital Improvements Reserve	\$300,000.00

TGR FINANCIALS

TRINITY GLEN ROSE GROUNDWATER CONSERVATION DISTRICT
STATEMENTS OF NET POSITION
SEPTEMBER 30, 2020 AND 2019

	2020	2019
ASSETS		
<i>Current Assets:</i>		
Cash and Cash Equivalents	\$ 122,529	\$ 212,339
Investments	1,834,727	1,706,905
Accounts Receivable	21,677	58,244
Prepaid Expenses	8,000	5,084
<i>Total Current Assets</i>	<u>1,986,933</u>	<u>1,982,572</u>
<i>Other Assets:</i>		
Property and Equipment (net)	12,805	6,610
Net Pension Asset	2,037	305
<i>Total Other Assets</i>	<u>14,842</u>	<u>6,915</u>
TOTAL ASSETS	<u>2,001,775</u>	<u>1,989,487</u>
 DEFERRED OUTFLOWS OF RESOURCES		
Deferred Pension Related Outflows	<u>14,568</u>	<u>9,043</u>
 LIABILITIES		
Accounts Payable	7,465	12,276
Payroll Withholdings	5,086	1,672
TOTAL LIABILITIES	<u>12,551</u>	<u>13,948</u>
 DEFERRED INFLOWS OF RESOURCES		
Deferred Pension Related Inflows	<u>1,470</u>	<u>1,351</u>
 NET POSITION		
Net Investment in Capital Assets	12,805	6,610
Unrestricted	1,989,517	1,976,621
TOTAL NET POSITION	<u>\$ 2,002,322</u>	<u>\$ 1,983,231</u>



ANNUAL DATA COLLECTION, PERMITTING AND DISTRICT STUDIES

Methodology for Tracking District Progress in Achieving Management Goals:

An annual report will be prepared and presented to the Board of Directors on District performance with regard to achieving management goals and objectives and more. The Annual Report will be prepared in a format that will be reflective of the performance standards listed in the District Management Plan. The District will maintain the report on file for public inspection on the District website upon adoption.

2020 DROUGHT CONDITIONS AND PRECIPITATION

Objective(s); 6.1, 6.2, 6.4 - During 2020, the District experienced prolonged drought conditions throughout the year. Rainfall across the District averaged from 20" (inches) to 30". This reflects a departure from normal precipitation varying from -8" to -16" over the year.

The District continued to monitor forecasts generated by state and national drought indices, as well as, the TGR monitor well network to determine whether changes in drought stage declarations were necessary. As such, TGR moved into Stage 1 Water

Restrictions July 16, 2020 and remained in the stage throughout the remainder of the year. 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 necessitate. Drought oriented literature is available on the District's website.

WATER WELL ACTIVITY

Objective(s); 1.1 - Total number of well permits issued in 2020 was 72; 51 new wells and 21 plugging. 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 - 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); 6.3 - The District continues to maintain a monitor well program to better collect and analyze trends in groundwater levels within the District. As of 2020, the District continues to utilize six real-time groundwater monitoring stations and one groundwater monitoring station where data is reported on a monthly basis. 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 (TWDB) website as well as the District website - www.TrinityGlenRose.com.

DISTRICT STUDIES

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. In an effort to gain insight into the potential impacts of increased groundwater withdrawals, the District partnered with SAWS and WSP to refine the Texas Hill Country Groundwater Model including pump test data, historical groundwater production and other datasets. WSP refined parameters within the model to run predictive scenarios of isolated long-term pumping and produce long-term assessments





for the modeling area. At present, TGR and SAWS have utilized this refined model to analyze scenarios based on projected pumping. With this new tool finalized, TGR can work with public supply well owners to model aquifer conditions utilizing specific scenarios of more-informed projections of groundwater withdrawal from these wells. TGR has provided this model platform to the water purveyor who is looking to expand their production.

In September 2019, the District entered into a contract with WSP 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 TCEQ are exempt from regulatory authority of the District.

In an effort to manage the Trinity Aquifer, TGR sees it as extremely necessary to understand the impacts of potential pumping from these

exempt wells. The study should be completed by early 2021 for public viewing.

Sentinel Landscape Partnership

The District became a partner in November 2020 with approximately a dozen other entities and growing, of the Camp Bullis Sentinel Landscape initiative. The program, if successful, would contribute to the District's Missions to protect, preserve, and conserve the groundwater resources of the Trinity Aquifer while supporting Camp Bullis' mission.

The Sentinel Landscapes Partnership is a broad coalition of federal agencies, state and local governments, and nongovernmental organizations that works with private landowners to advance sustainable land management practices around military installations and ranges.

MANAGEMENT PLAN

The District throughout the year worked on revisions to its management plan in order to submit by the deadline for final approval by TWDB. The District received approval of its new plan January 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.

BRUSH CONTROL

Objective(s); 7.6 - During 2020 there were no policies adopted related to brush control practices by the District.

GMA-9 JOINT PLANNING COMMITTEE

TGR is a member of the Groundwater Management Area 9 (GMA-9) Joint Planning Committee. This group is tasked with long-term planning and management of groundwater resources for the Hill Country Priority Groundwater Management Area. During 2020 the District continued to meet and work with the GMA-9 Joint Planning Committee to prepare for the update and accompanying explanatory report for the 2021 Desired Future Conditions (DFCs) planning cycle.

As a result, GMA-9 entered into a contract with Blanton & Associates Inc. to work with GMA-9 to develop the aforementioned explanatory report and submittal of the DFCs. This process is open to the public and we encourage public involvement.

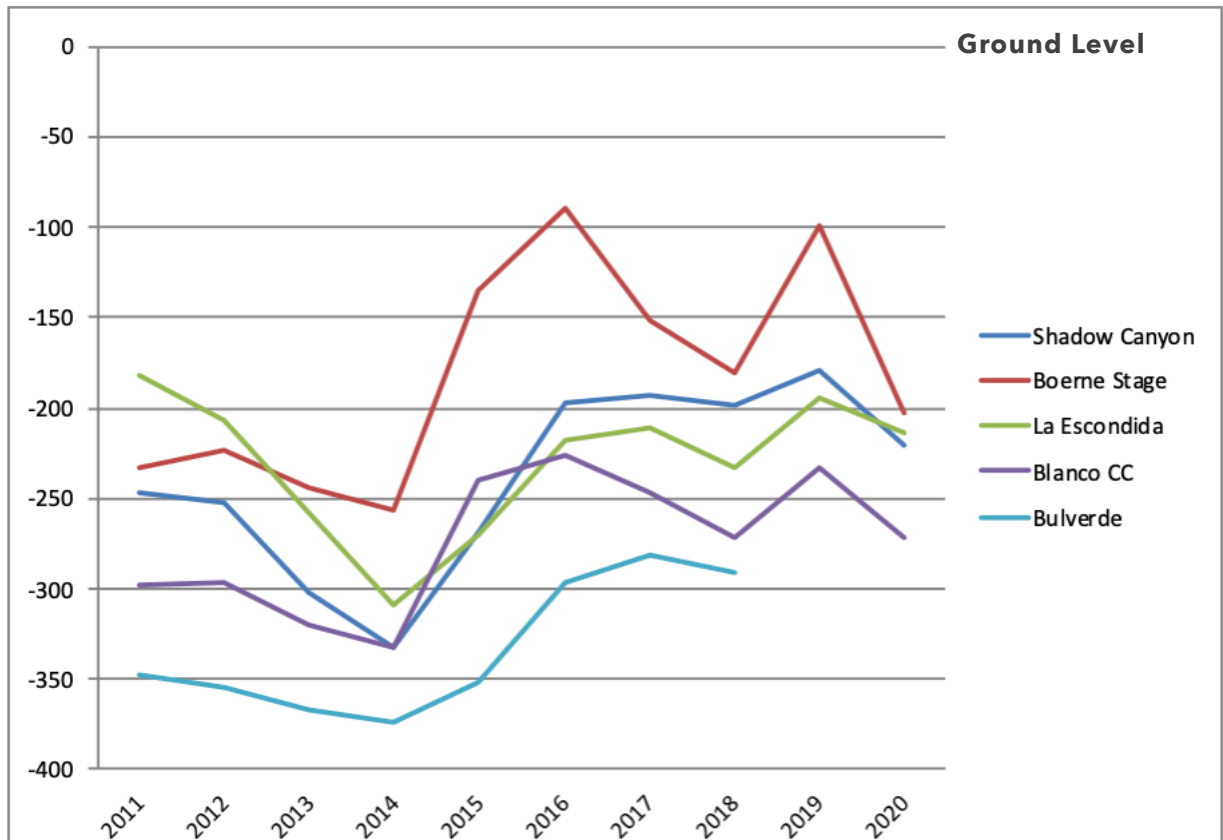
Desired future conditions are 50-year planning horizons determined by groundwater management areas which reflect a long-term outlook on aquifer conditions. Currently, the DFC for the GMA-9 region is set to achieve no more than an average 30-foot groundwater drawdown across the GMA-9 planning boundaries.

GMA-9 JOINT PLANNING COMMITTEE - CONTINUED

The chart below 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.

Water Level (WL) Below Ground Surface												
Monitor Well	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average WL (2009-2020)	Δ from 2008
Shadow Canyon	-247	-252	-302	-332	-270	-197	-194	-199	-179	-221	-239	n/a
Boerne Stage	-233	-224	-244	-257	-136	-90	-152	-181	-99	-203	-182	14
La Escondida	-181	-207	-258	-309	-271	-217	-211	-233	-195	-214	-230	-53
Blanco CC	-298	-297	-320	-333	-240	-226	-247	-272	-234	-272	-274	-7
Bulverde	-348	-355	-366	-373	-351	-297	-281	-292			-333	n/a
											Average Drawdown	-15

MONITOR WELL AVERAGE GROUNDWATER FLUCTUATIONS - 2011-2020



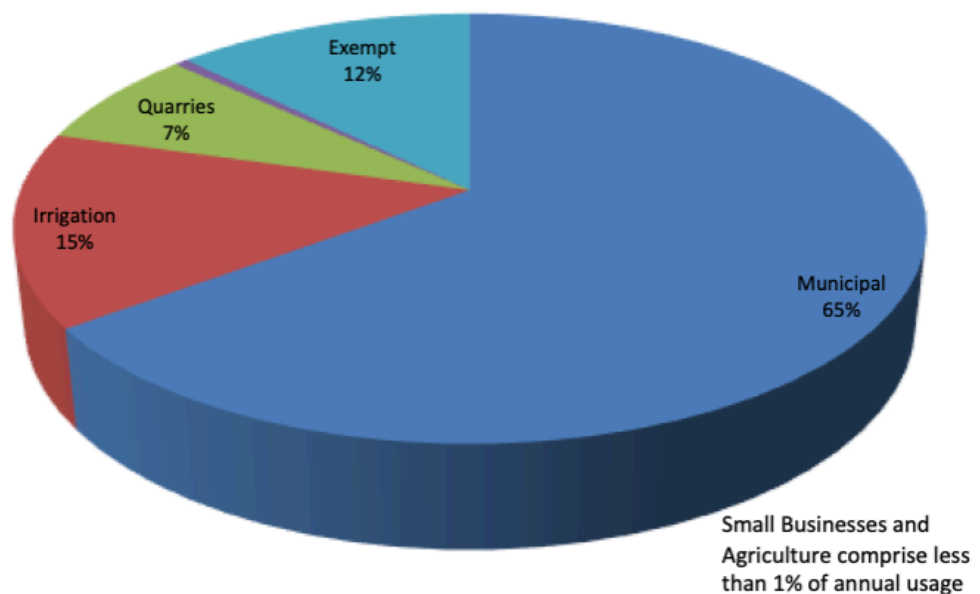
CURRENT AND HISTORICAL GROUNDWATER PRODUCTION

Objective(s); 8.0 - In May 2015, the TGR, in conjunction with the Groundwater Management Area 9, set the current DFCs for the planning group. As a result of the DFCs, the TWDB has issued Modeled Available Groundwater (MAG) numbers to each groundwater conservation district in order to achieve the DFCs. The MAG for the TGR is 25,511 acre feet annually.

The table 1 below illustrates historical use of groundwater, in acre-feet, within TGR since 2011 based on monthly data collection. In 2020, 12,661 ac-ft of water was produced from the Trinity Group of Aquifers; a decrease of 10,445 ac-ft from 2019. This decrease can largely be attributed to a combination of drought conditions and contractual agreements between a water purveyor and water utility.

User Group	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Municipal PWS	7,969	8,096	6,584	5,878	11,799	19,127	14,569	10,212	18,356	8,209
Irrigation	2,533	1,745	1,969	1,374	1,917	1,878	2,255	1,991	2,091	1,847
Quarries	1,155	1,032	1,480	822	864	972	956	1,162	796	939
Agriculture	100	100	100	100	100	100	100	100	100	74
Exempt	1,500	1,500	1,714	1,615	1,634	1,767	1,690	1,715	1,764	1,592
Total	13,257	12,473	11,847	9,849	16,375	23,888	19,595	15,180	23,106	12,661

2020 TGR Groundwater Pumpage by Category





COMMUNITY AWARENESS AND CONSERVATION INITIATIVES

Objective Sections; 2 and 7. *With the majority of 2020 being impacted by the pandemic, much of TGR's community outreach was accomplished online. Following is a brief summary of the communications work that continued with the organization's partners.*

WATER CONSERVATION

Early in the year, TGR strategized with partners San Antonio Water System and Gardening Volunteers of South Texas as to how to move two major community events, the Watersaver Landscape Tour and Landscape Design Schools, to a virtual platform. For the Landscape Tour, which typically entails residents visiting selected homes around the city to learn about designing watersaving landscapes, the team elected to conduct a live online broadcast using videos to showcase the homes. Interviews with the homeowners were also conducted for the broadcast. As a major event sponsor, TGR was able to assist in teaching best practices in outdoor water conservation, as well as increasing awareness about the District. In transitioning the Landscape Design Schools, TGR contributed to the video productions used for the virtual schools.

POLLUTION PREVENTION

To generate interest around the importance of pollution prevention and to drive District website traffic, TGR created a pollution prevention campaign highlighting the natural areas and parks within the District. A special pollution prevention page was created on the TGR website to inform visitors on the role they play in helping to keep pollutants out the Trinity Aquifer. Additionally, this page was the home for slideshows of creative photos taken at each of the parks. Information on the pollution prevention page included how setting aside parklands in aquifer recharge zone areas may filter rainwater runoff and aid in minimizing urban pollutant loads. TGR ran a feature story on each of the parks in its newsletter over the course of the campaign and also developed a Facebook campaign which included both paid and unpaid ads targeting the zip codes within the District.



The campaign created:

- 439,000 total impressions
- 78,400 individuals reached 5.6 times
- 17,660 clicks to the website
- 127,880 engagements (likes, shares, comments) with the ads

As an added community benefit, TGR created a photo galleries webpage to allow website visitors to view and download any of the photos published throughout the campaign.

During the campaign, an opportunity with the local PBS TV station came about as PBS was televising a three-part series on successful environmental projects around the world. TGR repurposed its pollution prevention materials into a 30-second ad for the series.

MEDIA PROGRAMMING

TGR continued placing water conservation and pollution prevention messaging with Texas Public Radio (TPR). 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 642,000 gross impressions (based on TPR's audience ratings) and each of the six banner ads created 30,000 website impressions which ran during six months selected by TGR.

ADDITIONAL PUBLIC OUTREACH

The District continued to seek outreach and continuing education 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.

Board Chairman Joe duMenil presented to the Fair Oaks Ranch City Council on the District's plans to update the rules governing TGR.

Throughout 2020, Boggess Communications continued to create and publish a monthly newsletter focused on water-related activities throughout the District. The number of subscribers increased from 1,220 in 2019 to 1,685 in 2020.

TGR continued to be a partner and advocate for the Witte Museum's planning to develop a world-class water exhibit for the museum.

The District continued to provide information to the Stone Oak POA and the City of Fair Oaks Ranch for inclusion in their newsletters.

The District continued 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.



CONTINUING EDUCATION

- August 2020 - District staff plus 3 board members attended the virtual TAGD summit.
- All staff and board members completed the TAGD Cyber-Security training.
- Assistant General Manager Amanda Maloukis maintained her Texas Groundwater and Onsite Sewage Facility Licensing.

TGR FUTURE GOALS

- Develop and implement new District rules to address existing and changing conditions with regards to groundwater issues in the District.
- 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 planning committee on updating Desired Future Conditions and the accompanying explanatory report.
- 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.
- Work with Communication Consultant to increase public awareness as outlined in the District Strategic Communications Plan and revisions to the District's website.
- Incorporate new management goals and adopt legislative changes as necessary.
- Provide new opportunities for continued education for staff and board members.



APPENDIX

GVST LANDSCAPE WORKSHOP HELD ON 3/07/2020

- Out-of-District event with 4 attendees residing within the District. Staff gave short presentation on the District, the Trinity Aquifer, and programs available.
- Handed out 23 TGR brochures.



All photos used in this report were taken as part of TGR's Learn and Live pollution prevention campaign.
You can download these images at www.TrinityGlenRose.com/photos.



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