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TRINITY GLEN ROSE GROUNDWATER CONSERVATION DISTRICT

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# 2022 ANNUAL REPORT

**Trinity Glen Rose Groundwater Conservation District  
2022 Annual Report**

Prepared by:

George Wissmann, Amanda Maloukis, Emily Green and John Boggess

14789 Old Bandera Road, Suite 105

Helotes, TX 78023

[www.TrinityGlenRose.com](http://www.TrinityGlenRose.com)



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# 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 (TGR or the 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. 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.

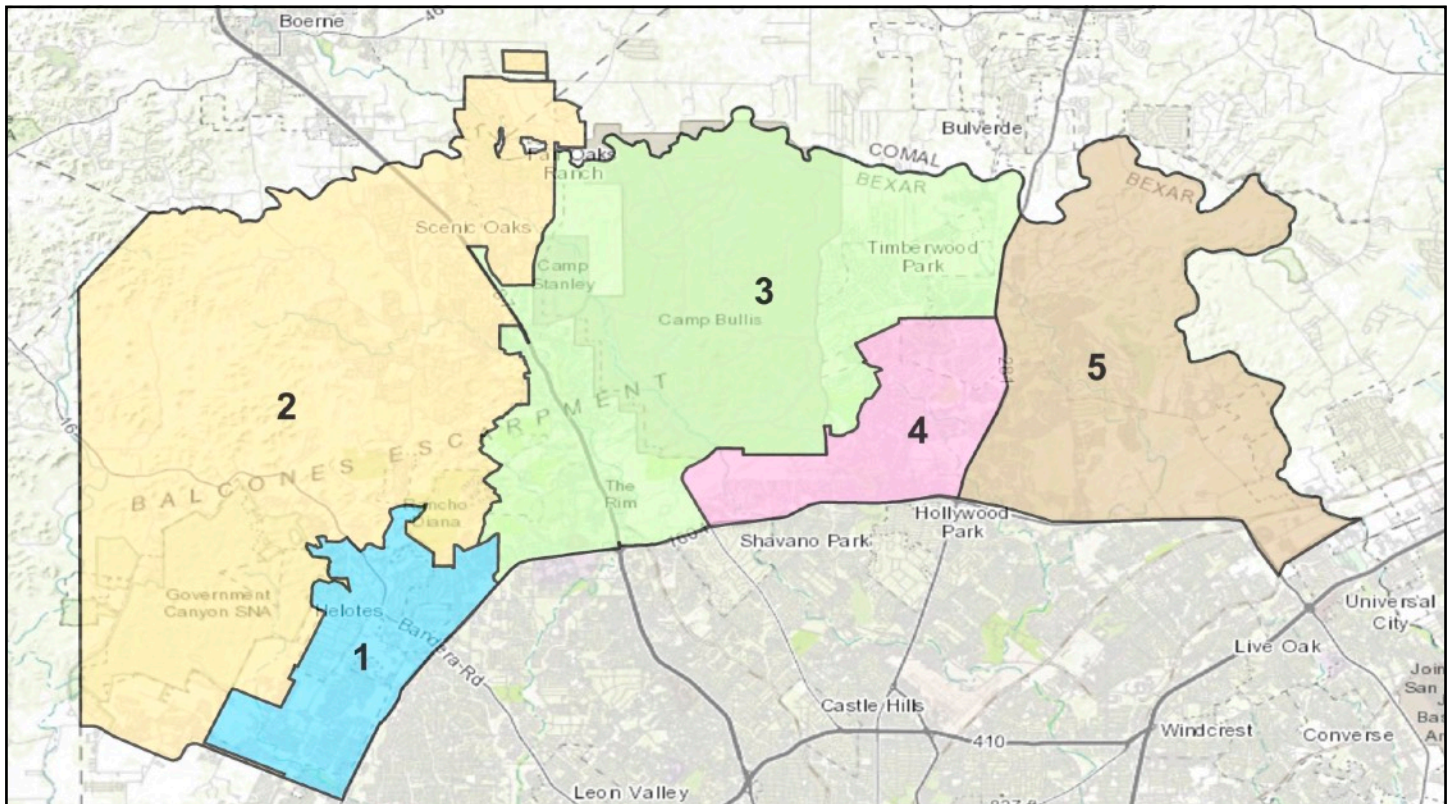
The District manages administrative and technical activities and programs to achieve its mission, including collecting and archiving water well and aquifer data, regulation of water well drilling and collection of production data from non-exempt wells, promotion of capping or plugging of abandoned wells, 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. The District fulfills its mission through revenues generated from the assessment of fees from larger groundwater producers.

TGR staff includes General Manager, George Wissmann. He has been with the District for more than 16 years. Prior to working for TGR, Mr. Wissmann spent 20 years with the San Antonio Water System. Amanda Maloukis serves as Assistant General Manager. She served as the General Manager for the Rusk County Groundwater Conservation District for six years and has prior service with the San Antonio Water System. Emily Green is the District's Administrative Program Manager and has been employed by TGR since 2012.

# BOARD OF DIRECTORS

**The Trinity Glen Rose Groundwater Conservation District (TGR)** is divided into 5 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 approved through the Department of Justice. Due to population shifts in the District, the board called for the election in January 2022, allowing interested citizens to post for board precinct seats. Each of the existing board members submitted their applications and were uncontested. In May 2022, after the unopposed candidates were declared elected, it was determined that each director would maintain the same term cycle they served prior to redistricting.

## TGR PRECINCT MAP



**Joe duMenil**  
President  
Precinct 2

**Stuart Birnbaum**  
Vice Chair  
Precinct 1

**Joe Silman**  
Treasurer  
Precinct 4

**Harris Dickey**  
Asst. Secretary/  
Treasurer  
Precinct 3

**Katrina Waring  
Castillo**  
Board Member  
Precinct 5

# TGR FINANCIALS 2022

TGR maintained a solid financial position throughout the fiscal year ending September 30, 2022. The District's net position decreased \$56,743 from the prior fiscal year ending for a total of \$1,876,542. 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 2022 is found below. A full audited financial report can be downloaded at [www.TrinityGlenRose.com/reports](http://www.TrinityGlenRose.com/reports).

Total operating and non-operating income for the year was \$348,296.

Total expenditures for the year were \$405,039.

Expenditures exceeded revenue by \$56,743. Expenditure exceeded revenue for FY 2022 due to mandated redistricting costs, downturn on investment income and other operational requirements. Though expenditures exceeded revenue, the District kept well within budgeted expenses. 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, 2022, 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, 2022 are as follows:**

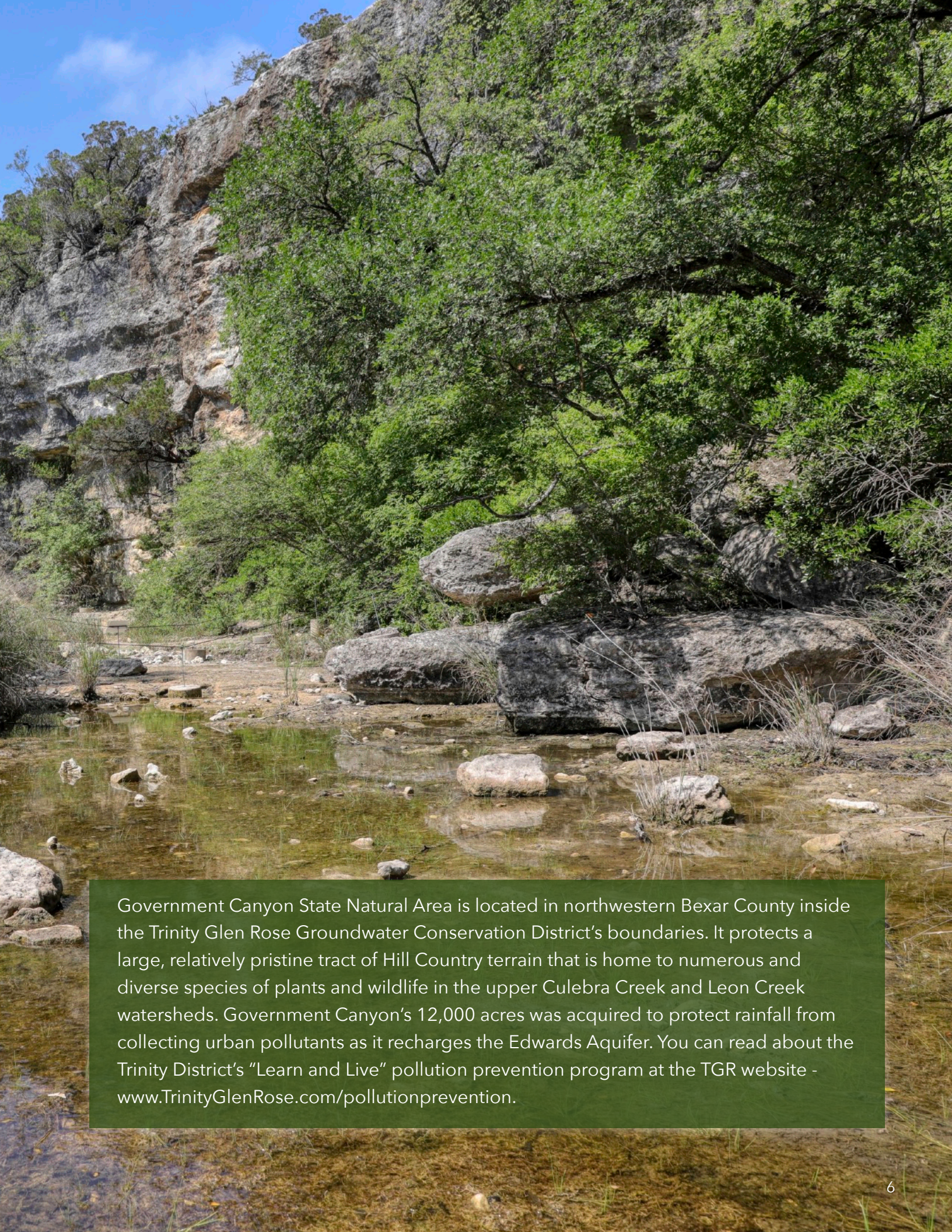
Election Reserve	\$ 40,000.00
Redistricting Reserve	\$ 60,000.00
Operating Expenses Reserve	\$600,000.00
Conservation Program Reserves	\$400,000.00
Aquifer Studies Reserves	\$300,000.00
Legal Reserves	\$300,000.00

**The Trinity Glen Rose Groundwater Conservation District**  
**Statement of Net Position**  
**September 30, 2022 and 2021**

<b>Assets</b>	2022	2021
<i>Current Assets</i>		
Cash and Cash Equivalents	\$ 115,135	\$ 237,907
Investments	1,701,706	1,596,320
Accounts Receivable	22,212	60,159
Prepaid Expenses	8,000	8,000
<b>TOTAL CURRENT ASSETS</b>	1,847,053	1,902,386
<i>Other Assets</i>		
Property and Equipment (net)	6,014	10,760
Net Pension Asset	10,789	-
Deferred Pension Related Outflows	35,041	30,904
Total Other Assets	51,844	41,664
<b>TOTAL ASSETS</b>	1,898,897	1,944,050
<b>Liabilities</b>		
Accounts Payable	6,582	4,970
Payroll Withholdings	3,349	2,713
Net Pension Liability	-	1,952
Deferred Pension Related Inflows	12,424	1,130
<b>TOTAL LIABILITIES</b>	22,355	10,765
<b>Net Position</b>	\$1,876,542	\$1,933,285



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Government Canyon State Natural Area is located in northwestern Bexar County inside the Trinity Glen Rose Groundwater Conservation District's boundaries. It protects a large, relatively pristine tract of Hill Country terrain that is home to numerous and diverse species of plants and wildlife in the upper Culebra Creek and Leon Creek watersheds. Government Canyon's 12,000 acres was acquired to protect rainfall from collecting urban pollutants as it recharges the Edwards Aquifer. You can read about the Trinity District's "Learn and Live" pollution prevention program at the TGR website - [www.TrinityGlenRose.com/pollutionprevention](http://www.TrinityGlenRose.com/pollutionprevention).



# TGR ANNUAL DATA COLLECTION

## **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 of the District's Management Plan. 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. Management goals and objectives are based on the calendar year.

## **2022 Drought Conditions and Precipitation - Objective(s); 6.1, 6.2**

During 2022, the District continued to experience moderate to extreme drought conditions throughout the year. Texas Mesonet weather/rain stations across the District measured annual precipitation totals well below 20" with some areas receiving less than 12" of rainfall in 2022. As a result, monitor well declines varied from 26' in Fair Oaks Ranch to 93' in the western portions of the District and 60' - 80' throughout the central portions of the District between January and December of 2022. The San Antonio region for 2022 turned out to be the second driest year on record behind the year 1917.

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, along with the TGR monitor well network to determine whether changes in drought stage declarations were necessary. As such, TGR shifted from "Year-round Conservation" to "Stage 2" water restrictions on May 2, 2022 through the end of the year. This information was presented to the Board of Directors 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](http://www.trinityglenrose.com/drought-information).

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

In 2022 the total number of wells registered was 69; 51 new wells, 18 plugging. Additionally, 8 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.

## **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

## GIS Data - Objective; 1.3 - Continued

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.



District Well Activity

Type of Well Activity	2022	2021	2020
New Well Registrations for Drilling	43	54	51
Existing Well Registrations	8	6	0
Plugged	18	14	21
Repaired	0	1	0
Total Activities	69	75	72

# WATER STUDIES AND PLANNING

## **District Rules Evaluation:**

In late 2021 the District began working with special counsel to assist TGR in review, development, and implementation of updated District Rules. TGR has reviewed multiple versions and has begun working with Advanced Groundwater Solutions to assist in its technical review. TGR will continue to work through 2023 on the development and implementation of new rules.

## **Sentinel Landscape Partnership - Objective 5.1**

In November 2020, the District and approximately a dozen other entities at the time, became partners on 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 with their land stewardship goals.

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.

## **Conjunctive Surface Water Management Issues - Objective; 4.1**

The District monitors activities regionally in relation to surface water management in conjunction with its local groundwater uses and needs by attending the Regional Water Planning Group L (RWPG L) meetings. This is one of 16 groups tasked with developing the State Water Plan. These plans strive to responsibly manage and develop water resources for the benefit of future generations. RWPG L submitted data was included and released in the 2022 State Water Plan where the District had a representative present virtually at two of the four quarterly meetings. The Board of Directors was briefed during a regularly scheduled Board Meeting.

## **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 2022, the district continued to meet and work with GMA-9 Joint

Planning Committee to advance into planning for the 2027 Desired Future Conditions (DFCs), while waiting for notification of administrative completeness from the Texas Water Development Board on the explanatory report for the 2021 Desired Future Conditions (DFCs) Planning. In November 2022, the Joint Planning committee received notice of administrative completeness of the explanatory report for the 2021 Desired Future Conditions. In February 2023, TGR adopted these DFCs for the Trinity group of aquifers within the District boundaries.

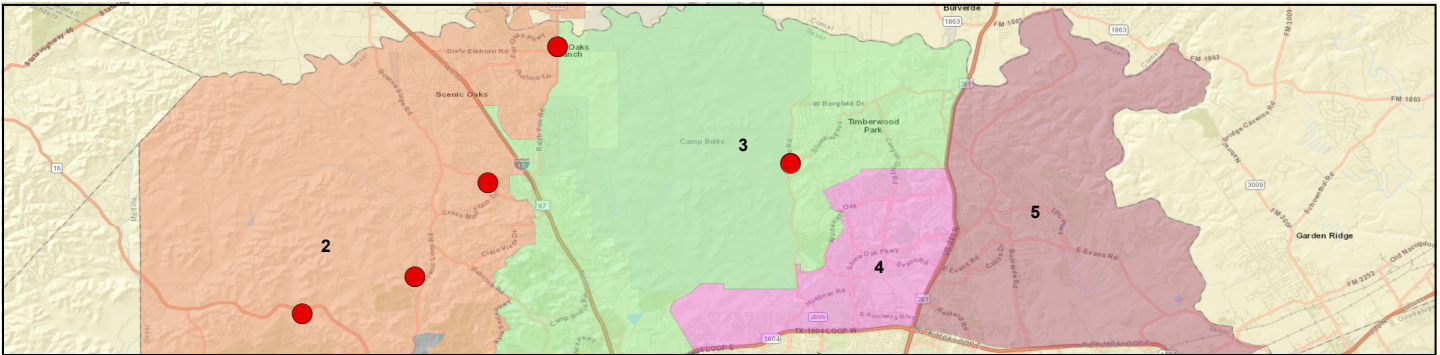
Desired future conditions are 50-year planning horizons determined by groundwater management areas which reflect a long-term outlook on aquifer conditions. Currently, the DFC for the GMA-9 region is set to achieve no more than an average 30-foot groundwater drawdown across the GMA-9 planning boundaries.

The Desired Future Conditions adopted are as follows:

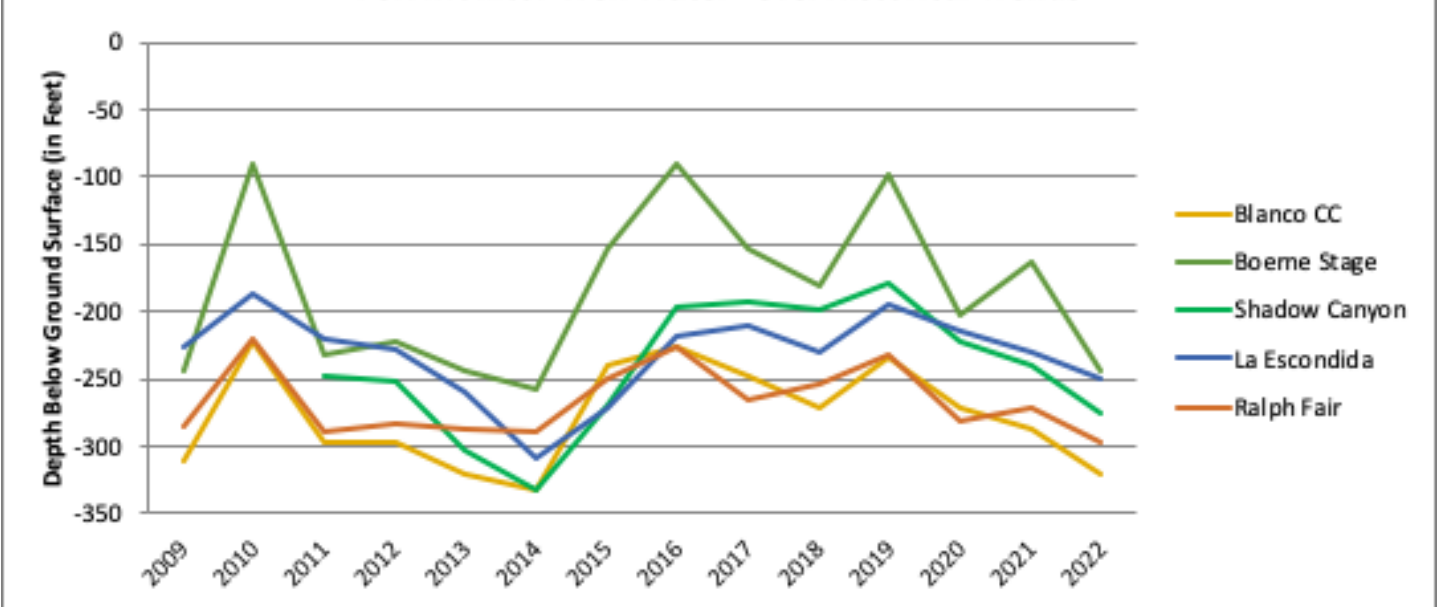
- Allow for an increase of no more than 30' average drawdown through 2060 of the Trinity Aquifer consistent with Scenario 6 in TWDB GAM Task 10-005.
- Allow for no net increase in average drawdown through the year 2080 for the Edwards Group of the Edwards-Trinity (Plateau) Aquifer in Kendall and Bandera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

# WATER WELL MONITORING 2022

## TGR DFC Monitor Well Locations



**TGR Monitor Well Water Level Historical Trends**



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. Tracking the District’s groundwater elevations to this 2008 baseline must be evaluated on an annual basis for DFC evaluation as guided by the District’s management plan, Chapter 36 of the Texas Water Code and best management practices of groundwater resources. The average drawdown of groundwater elevations below ground surface from 2008-2022 shows a decline of 7.29 feet within the District. The Shadow Canyon well is an exception as monitoring data is unavailable for 2008-2010.

**Water Level (WL) Below Ground Surface in feet**

Monitor Well	2015	2016	2017	2018	2019	2020	2021	2022	Avg Water Level (2009-2022)	Δ from 2008 in ft
Shadow Canyon	-269.59	-197.31	-193.5	-198.94	-179.21	-221.35	-240.58	-275.46	-242.48	4.76
Boerne Stage	-153.80	-89.95	-152.59	-181.06	-98.20	-203.08	-163.42	-243.79	-184.03	12.35
La Escondida	-270.92	-217.30	-211.36	-229.41	-195.03	-213.77	-230.34	-249.17	-231.88	-55.00
Ralph Fair	-249.90	-226.13	-266.27	-253.38	-231.31	-281.07	-272.06	-296.77	-266.38	11.29
Blanco CC	-240.17	-226.24	-247.49	-271.94	-233.54	-271.75	-287.79	-320.03	-277.09	-9.84

\*Shadow Canyon monitor well is averaged from years 2011-2022, due to no recordings from 2008-2010. Avg Drawdown -7.29

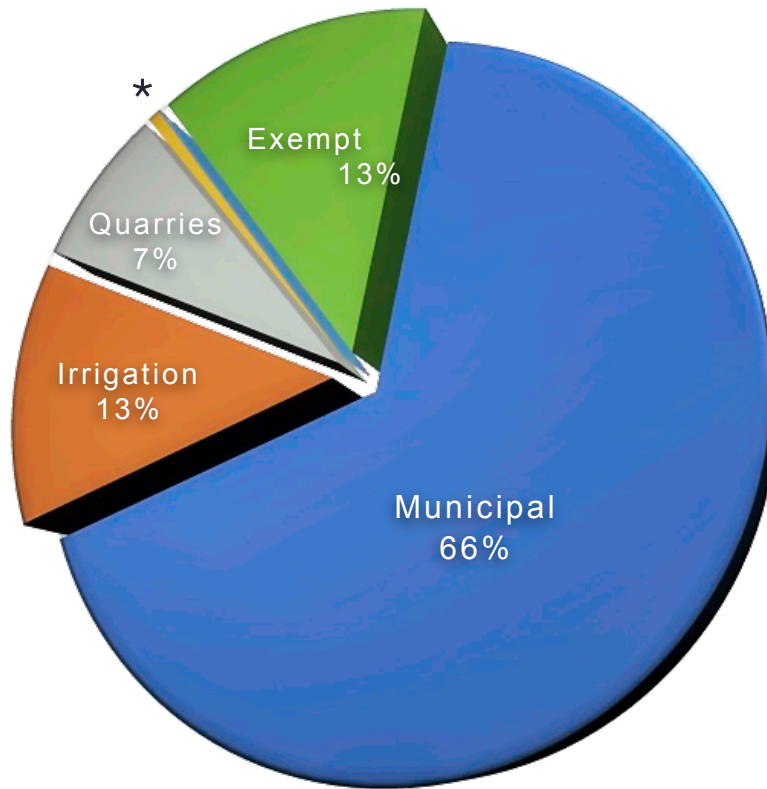
\*Average drawdown since 2008 without the Shadow Canyon well included is -10.30’.

## 2022 TGR Pumpage by Water User Group

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

In November 2021, the TGR, in conjunction with Groundwater Management Area 9, set the current DFCs for the planning group. The modeled available groundwater for the TGR is 25,511 acre feet annually.

The table below illustrates current and historical production of groundwater within TGR since 2012 based on monthly data collection and categorized by user group. In 2022, 12,149 acre-feet of water was produced from the Trinity Group of Aquifers; a decrease of 4,189 ac-ft from 2021. This decrease can largely be attributed to a decrease in municipal pumpage.



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

User Group	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Municipal PWS	8,096	6,584	5,878	11,799	19,127	14,569	10,212	18,356	8,209	12,496	8,005
Irrigation	1,745	1,969	1,374	1,917	1,878	2,255	1,991	2,091	1,847	1,425	1,532
Quarries	1,032	1,480	822	864	972	956	1,162	796	939	681	909
Agriculture	100	100	100	100	100	100	100	100	74	74	74
Sm. Business			60	61	45	25			6	6	7
Exempt	1,500	1,714	1,615	1,634	1,767	1,690	1,715	1,764	1,711	1,656	1,622
<b>Total</b>	<b>12,473</b>	<b>11,847</b>	<b>9,849</b>	<b>16,375</b>	<b>23,888</b>	<b>19,595</b>	<b>15,180</b>	<b>23,106</b>	<b>12,786</b>	<b>16,338</b>	<b>12,149</b>

# COMMUNITY OUTREACH

## **TGR Awareness, Water Conservation Programs, Partnerships - Objective(s); 2.3, 7.1, 7.3**

The past year the District worked with its water conservation partner Gardening Volunteers of South Texas (GVST) to produce a monthly, 30-minute video show called **Go Gardening** that focuses on the importance of saving water through best practice landscape maintenance and design. It is a unique effort in Bexar County. New episodes are published on the first Friday of the month and contain three segments that give homeowners important information about conserving water while creating aesthetically pleasing native plant landscapes. The team produced seven episodes in 2022 and will be increasing that to 10 episodes in 2023. TGR agreed to be a co-title sponsor with GVST. Additional sponsors include San Antonio Water System and San Antonio River Authority. The show generated about 1,000 views with promotion consisting mainly of email blasts to TGR and GVST subscribers.

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.



## **Additional Community Outreach, Continuing Education**

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.

Throughout 2022, the District published a monthly newsletter focusing on water-related activities throughout the District. The newsletter is published through the website platform, and over the year, the number of contacts in the TGR database increased from 1,376 in 2021 to 1,756 in 2022. General Manager, George Wissmann presented to the Cross Mountain HOA on the District.

- TGR developed the GMA 9 website and launched it in 2022. Information regarding the GMA 9 committee, planning, partner districts, and more is located on the website.
- March 2022, Amanda Maloukis TGR Assistant General Manager participated in an interview with the San Antonio Express News with other CBSL partners on the newly recognized program to advance conservation and military readiness as it relates to the District's Mission.
- 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.
- The District sponsored the Texas Alliance of Groundwater Districts annual Groundwater Summit where emerging new trends and new research is presented to groundwater professionals.
- The District sponsored the Texas 4-H Water Ambassadors Program that supports educating youth on water resources throughout the state.

## **Continuing Education**

- Cyber-Security - District staff and appropriate consultants completed the annual training through TAGD.
- August 2022 - District staff plus 2 board members attended the TAGD summit. One staff member attended the TAGD Field Trip to the Edwards Aquifer Outreach Center.
- August 2022 - Amanda Maloukis attended the TCEQ Public Drinking Water Conference virtually.
- September 2022 - Amanda Maloukis attended a virtual TWDB stakeholder meeting on Geophysical Logs.
- September 2022 - Amanda Maloukis participated in a TAGD Webinar on "Records Retention and Management"