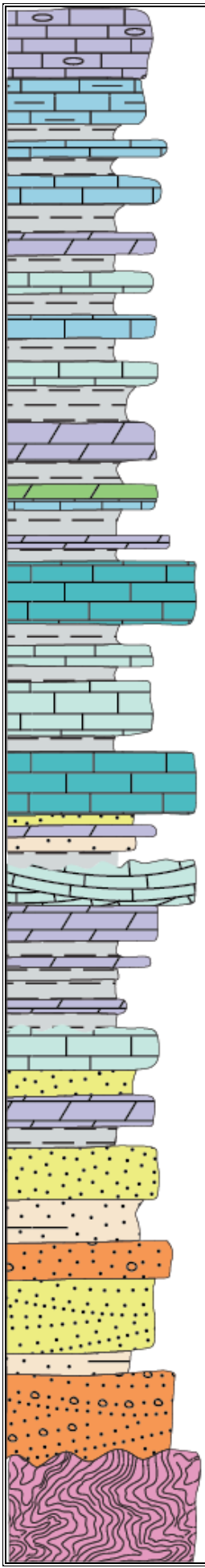


2025 Annual Report

Hays Trinity Groundwater Conservation District

2025 Board of Directors

President: Bruce Moulton, District 2

Vice Pres.: Linda Kaye Rogers, District 4

Secretary/Treasurer: Marcus Gary, Dist. 5

Director Carlos Torres-Verdin, District 3

Director Keith Miller, District 1 Oct.-Present

Sec/Treas. David Smith, District 1, Jan.– Oct.

2025 Staff Members

Laura Thomas, Oct.- Present., General Manager

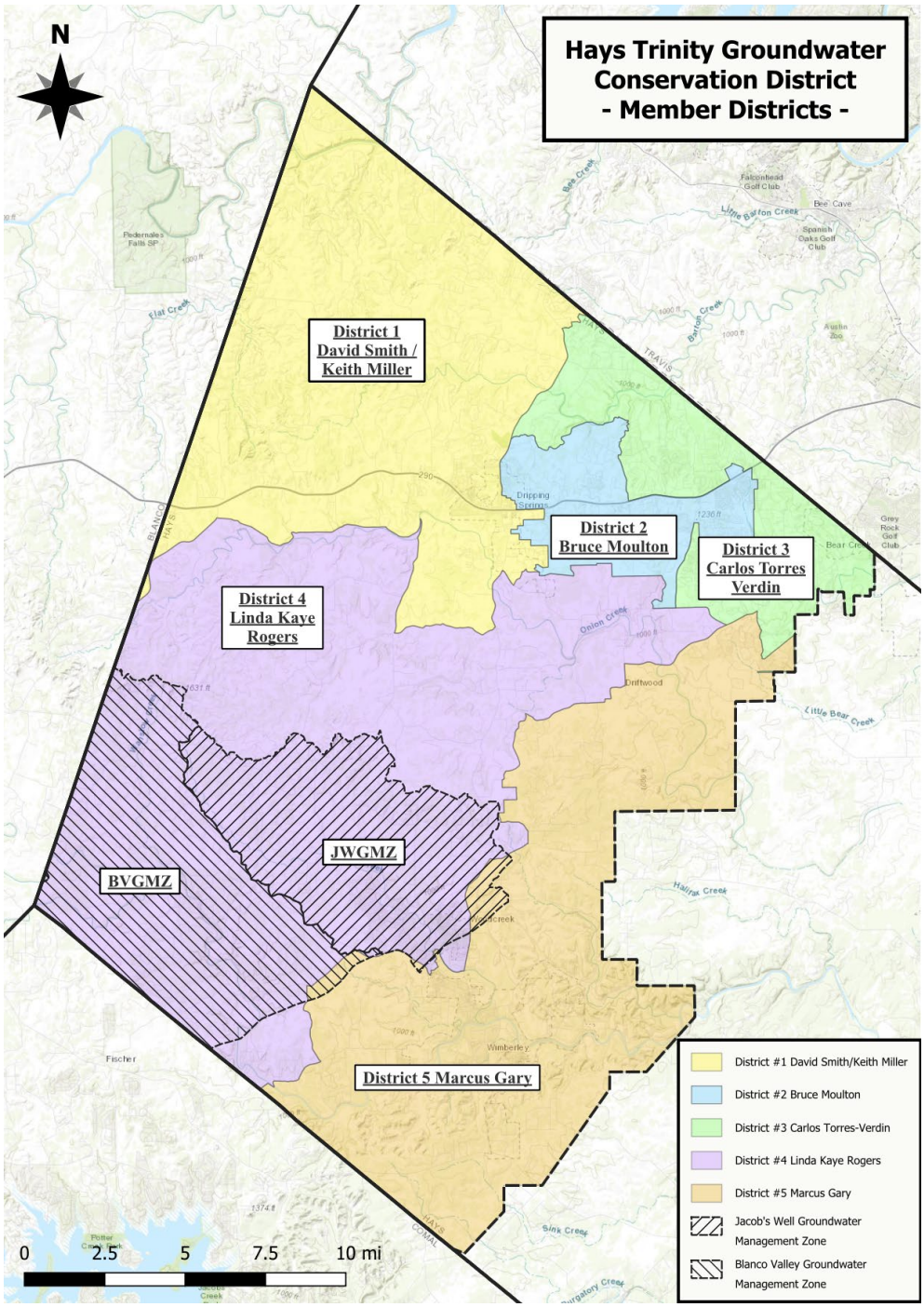
Charlie Flatten, Jan.-Sept., General Manager

Laura Thomas, Jan.-Sept., Asst. GM

Radu Boghici, P.G., Hydrogeologist

Keaton Hoelscher, Geo-Technician

Allison Nicoletti, Office Manager



Researched and compiled in 2026 by:
Laura Thomas, General Manager
Radu Boghici, P.G., Hydrogeologist
Keaton Hoelscher, Geoscience Technician
Allison Nicoletti, Office Manager

2025 Board of Directors:
District 1: David Smith, Jan – October
Keith Miller, Oct – December
District 2: Bruce Moulton
District 3: Carlos Torres-Verdin
District 4: Linda Kaye Rogers
District 5: Marcus Gary

2025 ANNUAL REPORT

HAYS TRINITY GROUNDWATER CONSERVATION DISTRICT
MANAGEMENT GOALS, OBJECTIVES, & PERFORMANCE STANDARDS

Executive Summary

The Hays Trinity Groundwater Conservation District is functioning as designed in its programmatic requirements and legislative mandates. District Staff have fulfilled all Chapter 36 mandated requirements and reports. All Board directives were delivered or implemented on time.

The District made a significant investment towards fixing its enabling legislation in 2025 during the 89th Legislative Session, with a bill filed by the Chairman of Senate Water, Agriculture, and Rural Affairs passing both chambers. Despite the District having widespread community support, the legislation was opposed by a small group of industry lobbyists and ultimately suffered a last hour veto by the Governor. The bill would have secured a predictable and reliable funding mechanism for the District for the first time in its history and further protected property rights, and its defeat was a blow to the District's long term sustainability.

2025 ended with a financial deficit. As of December 31, 2025, revenues were below expectations with expenses above projections. New well registrations and Public Water Supply (PWS) connections were far below 2025 budgetary projections. The District was hit with a triple negative of lower than projected revenues due to slower than anticipated housing starts (resulting in less revenue from well construction and water connection fees), the ongoing drought (no non-exempt well construction or production permit connection fees), and the ballooning legal costs of the AQUA Texas and Dripping Springs Water Supply Corporation lawsuits. The District's unstable funding mechanism is especially exposed during periods when interest rates increase and new construction slows. When these factors coincide with legal challenges, the District's "rainy day fund/strategic reserve/ballast," which was built during high-growth/high-revenue years and is used to weather low or no income months, becomes vulnerable to depletion.

In 2025, the District thanked outgoing Director David Smith for his service as he moved out of the District and welcomed Director Keith Miller onto the Board. Similarly, the District extended its gratitude for 5 years of service to outgoing General Manager Charlie Flatten and promoted Assistant General Manager Laura Thomas to General Manager.

The drought, ongoing lawsuits, and the veto have been successive blows to morale, but the commitment to the District's mission and protection of the Trinity Aquifer has not waned. Despite fiscal difficulties and legal attacks, Staff remain professional and committed. The members of the volunteer Board of Directors continue upholding their oaths to serve our community and conserve, preserve, recharge and prevent waste of groundwater within western Hays County.

2025 Numbers At A Glance:

- The HTGCD Board of Directors held 7 Board meetings and 2 Public Hearings in 2025.
- 59 new wells were registered
    - 51 exempt residential/domestic wells
    - 4 exempt agricultural/livestock wells
    - 4 geo-thermal systems
- 104 Operating Permits
- 4,120 total acre-feet/year held in Operating Permits for non-exempt use
- 322 new public water supply connections registered

The District registered 59 new wells in 2025; all are exempt from permitting requirements. The District issued no new permits for non-exempt withdrawals. There were 322 new public water supply connections reported to the District. Permitted plus estimated Exempt volumes committed totaled an **estimated minimum** of 8,162 acre-feet/year.

Rules, Bylaws, Enabling Legislation, and other regulatory structures of the District can be found on the District website's Management page.

Introduction

The Hays Trinity Groundwater Conservation District was ratified by the 77th Texas State Legislature (S.B. 2, 2001). It's mission statement is: "Given the critical importance of water to life and of that part of the water cycle called groundwater to local families, agriculture, commerce, stream flows, and wildlife habitat, the Hays Trinity Groundwater Conservation District works to conserve, preserve, recharge and prevent waste of groundwater within western Hays County. To help accomplish these goals, the District is charged to gather information needed for sound decisions, to provide that information to citizens and local agencies, and to ensure that all groundwater is used efficiently and at sustainable rates." The District compiles and develops sound hydrologic data and manages and protects the aquifers that supply safe water in the portion of western Hays County illustrated by the Map on page 2. The District is governed by a locally elected Board of Directors and is managed by District Staff.

As required by District Bylaws, an annual report is prepared for and provided to the Board of Directors by District Staff on the status of the District and its programs. The *2021 Groundwater Management Plan* serves as a guide for the District's annual reports. The *2025 Annual Report* describes a methodology for tracking progress in achieving management goals. The headings in the report are prescribed by the Texas Water Development Board TWDB: TAC 356.52 (a)(2), (a)(3), TAC 356.52(a)(1), and in TWC 36.071. The District uses this Report to document other business, such as Financial Reports.

Management Objectives and Performance Standards

1. Goal: Providing the Most Efficient Use of Groundwater

1.1. *Management Objectives*

Each year, the District will hold at least one educational event.

Performance Standard

Each year, a summary of the District educational events schedule will be included in the Annual Report

HTGCD attended, participated, hosted, or presented in the following educational, outreach, and planning events (non-exhaustive list):

January 2025

- Participated: TAGD Winter Business Mtg.
- Participated: Region K- Lower Colorado Regional Water Planning Group
- Participated: Region 11 (Guadalupe) Flood Planning Group
- Attended: DSWSC Bd Mtg.
- Participated: RWQPP

February

- Hosted: HTGCD Board Mtg.
- Participated: GMA 9 Mtg. Kerrville
- Participated: Antioch Multiport Well and Cave Tour
- Hosted: BPGCD Intro mtg.
- Participated: Water Infrastructure Texas State
- Attended: DSUC Mtg.
- Participated: Region L – South Central Texas Regional Water Planning Group
- Participated: Region K- Lower Colorado Regional Water Planning Group
- Hosted: Building in the Hill Country: A Regional Workshop
- Attended: Isotopic Fingerprinting of Hydrological Systems

March

- Participated: TAGD Legislative Committee Mtg. (x4)

- Participated: TWCA Annual Convention
- Participated: Region L – South Central Texas Regional Water Planning Group
- Attended: GMA 10 Mtg.
- Attended: DSWSC Bd Mtg.
- Participated: HCA HOA Guide
- Participated: Region 10 FPG
- Presented/Hosted: Extension Office Water Quality Testing Event
- Participated: HCCN Land Team Mtg.
- Participated: HCLI
- Participated: GMA-9 Planning

April
- Presented: Tx State U. Water Symposium
- Participated: HCCN Water Team Mtg.
- Participated: TAGD Legislative Committee Mtg. (x4)
- Participated: Delta Mill Works Site Visit
- Participated: GMA 9 Mtg.
- Participated: Region K- Lower Colorado Regional Water Planning Group
- Attended: DSWSC Board Mtg
- Participated: DSUC
- Presented: Wimberley Earth Day
- Participated: Region 11 Flood Planning Group
- Hosted: HTGCD Bd Mtg

May
- Presented: TWDB Aquifer Seminar
- Participated: TAGD Legislative Committee Mtg. (x4)
- Presented/Hosted: Wimberley Water Roundtable
- Attended: Pedernales Potluck
- Participated: Region 10 Flood Planning Group
- Participated: Region K- Lower Colorado Regional Water Planning Group
- Participated: DSUC
- Participated: GMA 9 Mtg.
- Participated: TWDB-GMA 9 Stakeholders Mtg.
- Presented: HCLI Retreat + Presentations
- Attended: DSWSC Bd Mtg.
- Participated: RWQWG

June
- Participated: Intera Aquifer Test Webinar
- Hosted: HTGCD Bd Mtg
- Attended: SWTCGCD Board Mtg.
- Participated: Glenn Well Site Visit
- Attended: DSWSC Bd Mtg.
- Attended: Lone Star Healthy Streams Workshop

- Participated: GMA-9
- Participated: Region 11 Flood Planning Group
- Presented: The State of Water, Chamber Luncheon Wimberley
- Presented: Ledgestone Senior Living
- Attended: DSUC

July
- Attended: SWTCGCD Board Mtg.
- Attended: House Natural Resources Committee Hearing
- Participated: LCRA Workshop and Tom Miller Dam Tour
- Participated: Region K- Lower Colorado Regional Water Planning Group
- Region 10 Lower Colorado-Lavaca Flood Planning Group Meeting
- Participated: RWQWG
- Participated: City of DS Ground & Wastewater Mtg.
- Attended: DSWSC Bd Mtg.
- Participated: HCLI Flood Response and Legislative Special Session
- Attended: DSUC

August
- Hosted: HTGCD Board Meeting
- Hosted: Lege Committee
- Attended: DSUC
- Attended: DSWSC Bd Mtg.
- Participated: TAGD Annual Summit
- Presented: Groundwater Class San Marcos
- Participated: Region K- Lower Colorado Regional Water Planning Group
- Participated: Region L policy & Lege committee
- Participated: Cyber Security Training

September
- Participated: Region L – South Central Texas Regional Water Planning Group
- Attended: DSWSC Bd Mtg.
- Participated: GMA-9
- Attended: GMA-10
- Participated: Texas Water Leaders: Budgeting Across the Water Sector Panel
- Region 10 Lower Colorado-Lavaca Flood Planning Group Meeting
- Participated: Region K- Lower Colorado Regional Water Planning Group
- Participated: RWQWG
- Participated: HCA Leadership Summit

October
- Participated: Hays County Regional Water Planning Steering Cmt.
- Hosted: HTGCD Board Mtg. & Hrg.
- Attended: SWTCGCD Board

- Participated: An Introduction to Geochronological Methods: Tools to Uncover Earth's History and Inform Multidisciplinary Research
- Participated: GMA-9
- Participated: HCCN Water Team Mtg.
- Participated: SOAH (Blizexas)

November
- Participated: GMA-9
- Participated: GMA-9 Modeling Results
- Attended: RWQWG
- Participated: Women in Land & Conservation
- Participated: Annual Gathering-Hill Country Conservation Network
- Attended: PUA
- Participated: Jacob's Well Data Dive
- Attended: Texas Water Trade + Texas Water Foundation Open House
- Participated: One Water Event Wimberley
- Attended: DSWSC Bd Mtg.
- Attended: DSUC

December
- Hosted: HTGCD Board Mtg.
- Participated: USGS Workshop
- Participated: GMA-9
- Participated: GMA-9 Modeling Results
- Participated: WWSC Mtg.
- Attended: TAGD + Meadows Center Correlative Allocation Seminar
- Participated: Rainwater Harvesting Event Planning Group
- Hosted: TWT at D.O.
- Attended: DSWSC
- Attended: DSUC

2. Goal: Controlling and Preventing Waste of Groundwater

2.1. *Management Objectives*

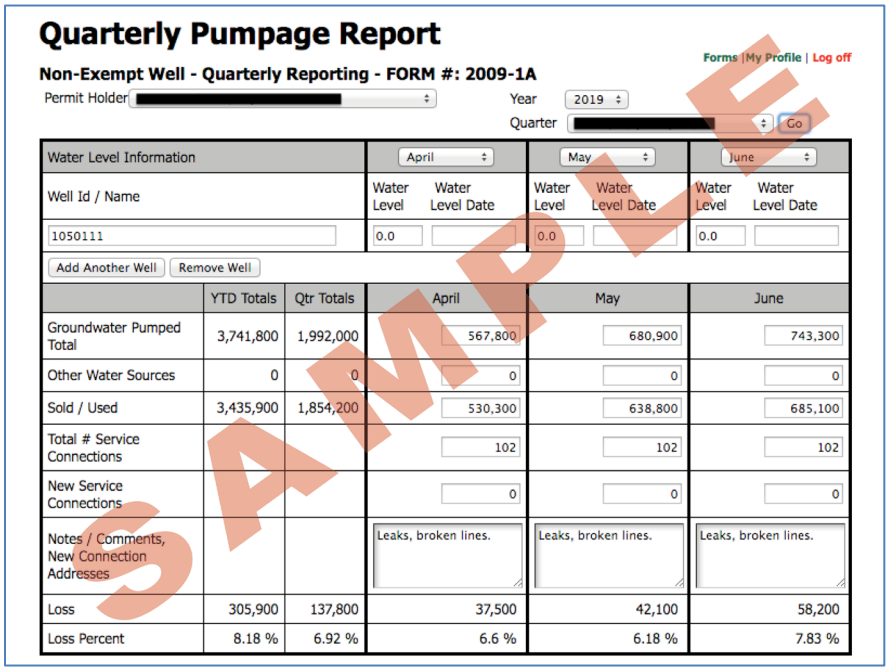
Each year, the District will take complaints from any concerned citizen or entity in the District on cases of waste or possible waste.

Performance Standard

In each Annual Report, the District will include a discussion of the recent issues with waste and recommend any amendments to the rules to prevent the waste of groundwater.

District Staff reports to the Board of Directors during public meetings on the topic of waste. No official public complaints were submitted to the District office concerning waste or possible waste during 2025. However, the District offices did field complaints about excessive irrigation and vanity ponds/lakes.

The District relies on the online Quarterly Reporting process that allows all District operating permit holders instant access to enter and review their own production, sales, connections, and percent losses. Communication concerning loss is tied directly to each quarterly report. This gives the permit holder and the District an electronic record of reasons for loss including circumstances such as line-breaks, meter replacement, fires, or flushing. It also gives an indication of historic line loss and information on permittees who have habitually high line loss due to inadequate maintenance. An example of a Quarterly Report can be found in **Figure 1,** below.



Quarterly Pumpage Report

Forms | My Profile | Log off

Non-Exempt Well - Quarterly Reporting - FORM #: 2009-1A

Permit Holder [redacted] Year 2019 Quarter [redacted] Go

Water Level Information	April		May		June	
Well Id / Name	Water Level	Water Level Date	Water Level	Water Level Date	Water Level	Water Level Date
1050111	0.0		0.0		0.0	

Add Another Well | Remove Well

	YTD Totals	Qtr Totals	April	May	June
Groundwater Pumped Total	3,741,800	1,992,000	567,800	680,900	743,300
Other Water Sources	0	0	0	0	0
Sold / Used	3,435,900	1,854,200	530,300	638,800	685,100
Total # Service Connections			102	102	102
New Service Connections			0	0	0
Notes / Comments, New Connection Addresses			Leaks, broken lines.	Leaks, broken lines.	Leaks, broken lines.
Loss	305,900	137,800	37,500	42,100	58,200
Loss Percent	8.18 %	6.92 %	6.6 %	6.18 %	7.83 %

SAMPLE

Figure 1: Quarterly Report showing an example of how line loss is calculated.

3. Goal: Controlling and Preventing Subsidence

The District has considered the vulnerability of the District to subsidence associated with groundwater withdrawals from aquifers in the District, including a review of TWDB's subsidence risk assessment report Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping (LRE Water and others, 2017). The map in Figure 4.49 in Chapter 4 page 79, shows the aquifer in the District to have a low to moderate risk of subsidence. There has been no evidence of subsidence in the District occurring as a result of past groundwater withdrawals. Because of this, this goal is not considered applicable to the District, however the District will respond to any reports of potential subsidence.

4. Goal: Addressing Conjunctive Surface Water Management Issues

4.1. *Management Objective*

The District promotes the use of surface water or other alternatives to groundwater in growing areas where groundwater demand is projected to lower the water tables and to reduce stream and spring flow to unacceptable levels.

Performance Standard

The District will strive to meet with the planning departments of major surface water providers within the District at least once per year. The District will summarize these meetings and their outcomes in the Annual Report.

Dripping Springs Water Supply Corporation (DSWSC) and the West Travis County Public Utility Authority (WTCPUA) are the two major surface water providers in the northern portion of the District. They supply wholesale and retail water sourced from the Lower Colorado River Authority (LCRA) Highland Lakes resource. Meetings were held with DSWSC and WTCPUA.

Meetings*:*

- The General Manager and/or select Board members communicated or met on a regular basis with DSWSC Staff and/or select Board members on conjunctive use issues and other matters of interest.
- The General Manager and WTCPUA Director and or Board Members met to discuss the PUA's potential expansion of services and/or expansion of supplies to the DSWSC and others.
- The General Manger serves as an alternate voting member on one or both of the District's Regional Water Planning Groups and attends the Blanco/Guadalupe meetings, where future plans to move surface water up into the HTGCD are monitored.
- District Staff promote the use of rainwater, reuse of water, and all alternative water supplies at every available interaction with the public in order to reduce the use of groundwater.

5. Goal: Addressing Natural Resource Issues Which Impact the Use and Availability of Groundwater or are Impacted by the Use of Groundwater

5.1. *Management Objective*

Each year, the District will make at least one endorsement or contribution to ongoing studies of geologic, environmental, or hydrogeologic studies being performed in the district area.

Performance Standard

Each year, a summary of the District's contributions or endorsements of ongoing studies will be included in the Annual Report.

Aquifer Studies, Completed and In Progress

- Report (in progress): *Estimate recharge distribution over the Blanco River Management Zone using magnesium-calcium ratios,*
- Contributor: *GMA9 Synoptic Water Level Measurements*
- Contributor (in progress): *USGS Synoptic Water Level Measurements for the Trinity Camp Bullis Project*
- Project: *develop methodology to quantify District status on DFC compliance.*
- Project: *application for TWDB Groundwater Science, Research, and Data Collection Grant funding*

ONGOING STUDIES

Blanco River Management Zone: Rule 16 calls for continued data collection, research, and scientific development of the hydrogeology of the Blanco River Basin as defined. Staff have been collecting new data (water levels in wells, water quality and isotopy) and compiling available information to delineate and characterize the source(s) of the springflow in the Pleasant Valley Springs.

Horseshoe Ridge Middle Trinity Monitoring Well: With assistance from the Texas Water Development Board, the Middle Trinity monitoring well was upgraded to GOES satellite telemetry. Water level readings are posted on the TWDB Water Data For Texas website: https://waterdatafortexas.org/groundwater/well/5764405.

Dedicated Monitor Well Project: The HTGCD Dedicated Monitor Well Project continued in 2025. The Dedicated Monitor Well Project is designed to provide long-term water-level monitoring and ongoing groundwater quality data from carefully selected well sites in western Hays County. A complete aquifer formation evaluation program was carried out at each borehole, including core and cutting samples analyses, geophysical logging, down-hole video, aquifer testing, and water sample recovery. An extensive technical report was completed for each location and posted to the District website. Funding for the project came from HTGCD, Hays County, Dripping Springs Water Supply Corporation, and Barton Springs Edwards Aquifer Conservation District (BSEACD). Technical support and assistance were provided by District Staff, the Blanco Pedernales Groundwater Conservation District, BSEACD, Edwards Aquifer Authority, Texas Water Development Board, the University of Texas Bureau of Economic Geology, and the Texas State University Meadows Center for Water & the Environment. There is also outstanding cooperation and assistance from local landowners who allow District access to their properties.

As a result, continuous water level data and periodic water quality samples are collected from the dedicated monitor wells and made available to the public. Through ongoing monitoring

of the dedicated wells, the District continues to expand the reliable long-term record of water levels and groundwater quality, a critical dataset for informing groundwater management decisions.

District Hydrogeological Analyses of the Trinity Aquifer System: Hydrogeologic data from the Trinity Aquifer was collected and analyzed during 2025. This is an ongoing project designed to acquire and interpret pertinent technical data and to apply this information to District operational management. Data includes geophysical well logs, cuttings samples, groundwater levels, groundwater samples & chemical analyses, pumping test reports, surface geology, and groundwater use (pumpage). This information is maintained in the District's growing database and is used in conjunction with the TWDB groundwater database. Local and regional modeling projects such as the TWDB Conceptual Model of the Hill County Trinity Aquifer and more local modeling will incorporate these data into their analyses.

Lower Trinity Project: The Project was initiated in 2012 to evaluate the potential for an alternative groundwater source for western Hays County. Previous Lower Trinity studies have consisted of aquifer testing to define aquifer parameters and overall groundwater availability and adding Lower Trinity wells to the District's Monitoring network. The northeastern part of the District is an area of ongoing study due to rapid development where the Middle Trinity Aquifer appears to be dewatered, and new wells are finding minimal production from the Lower Trinity Aquifer.

6. Goal: Addressing Drought Conditions

The continued health and potential sustainability of the Trinity Aquifer is the primary informer of the District's outlook and actions (Figures 3, 6, 7). Drought is the most difficult variable in the hydrologic equation to manage. The District employs a variety of drought management tools ranging from education to rulemaking, including mandatory non-exempt use curtailment throughout the District and a prohibition on the acceptance of operating permit applications and non-exempt well drilling during the most extreme drought stages. A variance from those rules may be sought for groundwater wells that address threats to the health, safety, and welfare of the public. At least three surrounding GCD's implemented similar rules as the Hill Country community works to endure historic drought conditions.

2022 saw the first District-Wide 40% Emergency Stage in the history of the District. Throughout 2025, weather conditions remained dire with below-average rain fall and above average stretches of high temperatures, and the District remained in Emergency Drought Stage throughout 2025. Emergency Stage includes a 40% curtailment of permitted volumes District-wide. The Jacobs Well Groundwater Management Zone was in maximum 30% curtailment of historic use for every month in 2025.

The District fulfilled requirements and enforced rules associated with the Jacob's Well Groundwater Management Zone. The rules were created to protect Trinity Aquifer resources in Jacob's Well Springshed.

The District fulfilled its Rule 16 requirement to gather scientific data on the 56-square mile Regional Recharge Study Zone. That fulfillment included the creation by rule of the Blanco Valley Groundwater Management Zone.

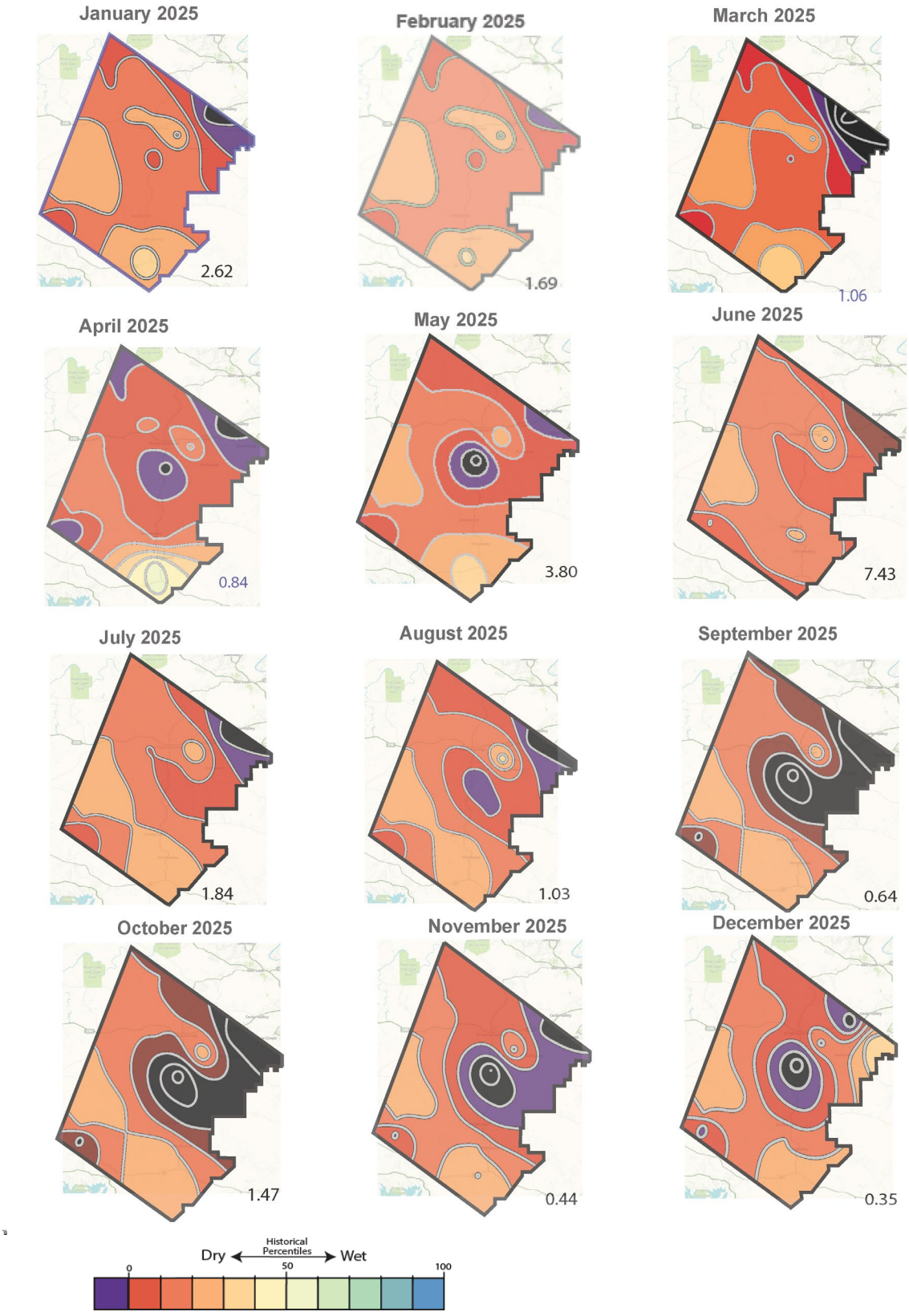


Figure 3: Timestep Water Level Percentiles for the Middle Trinity Aquifer; 2025

6.1. *Management Objective*

The District has developed a Drought Contingency Plan (and individual permit specific User Drought Contingency Plans) to protect and conserve groundwater during critical drought conditions. The plan will be updated as additional data becomes available.

Performance Standard

The District will post a copy of the plan on the HTGCD website and will include an updated Drought Contingency Plan, available to end-users, in the Annual Report.

The District's Drought Contingency Plan is updated and posted on the District website. The District updated its User Drought Contingency Plan (UDCP) for all non-exempt operating permit holders. The UDCP is available for review on the District's website under Forms. A Water Conservation Plan is also part of the paperwork required by the District for all new and amended operating permit applications to be administratively complete.

A Drought Production Cutback (Curtailment) Chart is included with each new permit, amended permit, and permit renewal. An example of a Drought Production Cutback Chart can be seen in **Figure 4**. The cutback chart divides the permitted amount of each permit to show an exact monthly production, in gallons, for every possible drought stage so permit holders can prepare for Board-declared drought conditions.

6.2. *Management Objective*

Each quarter, the District will check the National Weather Service – Climate Prediction Center website (https://www.ncdc.noaa.gov/temp-and-precip/drought/weekly-palmers/) for updates of the Palmer Drought Index. The District will download the updated Palmer Drought Severity Index (PDSI) map and check for periodic updates on www.waterdatafortexas.org/drought.

Performance Standard

Quarterly, the District will assess the status of drought in the District and prepare a quarterly briefing to the Board of Directors. The downloaded PDSI maps will be included with copies of the quarterly briefing in the District Annual Report to the Board of Directors.

The General Manager and Staff's Monthly Reports include a briefing on the status of drought within the District and are given to the Board of Directors during open Board Meetings. The Monthly Science and Drought briefings include maps from the US Drought Monitor and the Palmer Drought Severity Index (PDSI), monitor well level averages, and HTGCD drought trigger update. Monthly briefings are timelier and more

informative than waiting for the quarter. The reports are available on the website and appendices.

6.3. *Management Objective*

Each year, the District will collect monthly water level data from a network of monitoring wells.

Performance Standard

Each year, a report of the District water level collection activities, including a table of the water levels measured in District monitoring wells, will be included in the annual report.

Monthly, District Staff collects water levels from dedicated District monitor wells (**Figure 5**). The information collected is entered into and displayed on the District's website as hydrographs transposed with rainfall data collected from NOAA. The public can access the District's website for more specific data by scrolling over the hydrographs to see elevation above mean sea level and surface to top of water level measurements. Hydrographs for Mount Baldy and Henly Church wells (**Figures 6 and 7**), and the flow rates from the Blanco and Pedernales Rivers are used to measure the current health of the aquifer. One can find current flow rates of the Blanco and Pedernales Rivers on the District Drought Management webpage. A table of water levels in District Monitor Wells in 2025 is in the appendices.

In addition, District staff download the data from 37 transducer wells within western Hays County. Of the 37, ten of the wells are monitored remotely using telemetry equipment with occasional site visits for maintenance. This information is located on the District's website for public use.

Drought Production Cutback Chart								
Permit Name			**10.5** Acre-ft.				**Tier:**	**3**
			3,421,436 Gallons					
Month	Gallons Produced	% of Annual Permit	Drought Stage	Monthly Allotment	10% Drought Curtailment	20% Drought Curtailment	30% Drought Curtailment	40% Drought Curtailment
January		6%		205,286	184,758	164,229	143,700	123,172
February		7%		239,500	215,550	191,600	167,650	143,700
March		7%		239,500	215,550	191,600	167,650	143,700
1st Quarter		*20%*						
April		7%		239,500	215,550	191,600	167,650	143,700
May		8%		273,715	246,343	218,972	191,600	164,229
June		10%		342,144	307,929	273,715	239,500	205,286
2nd Quarter		*25%*						
YTD		*45%*						
July		12%		410,572	369,515	328,458	287,401	246,343
August		12%		410,572	369,515	328,458	287,401	246,343
September		10%		342,144	307,929	273,715	239,500	205,286
3rd Quarter		*34%*						
YTD		*79%*						
October		8%		273,715	246,343	218,972	191,600	164,229
November		7%		239,500	215,550	191,600	167,650	143,700
December		6%		205,286	184,758	164,229	143,700	123,172
4th Quarter		*21%*						
TOTALS		***100%***						

Figure 4: Example of a Drought Production Cutback Chart

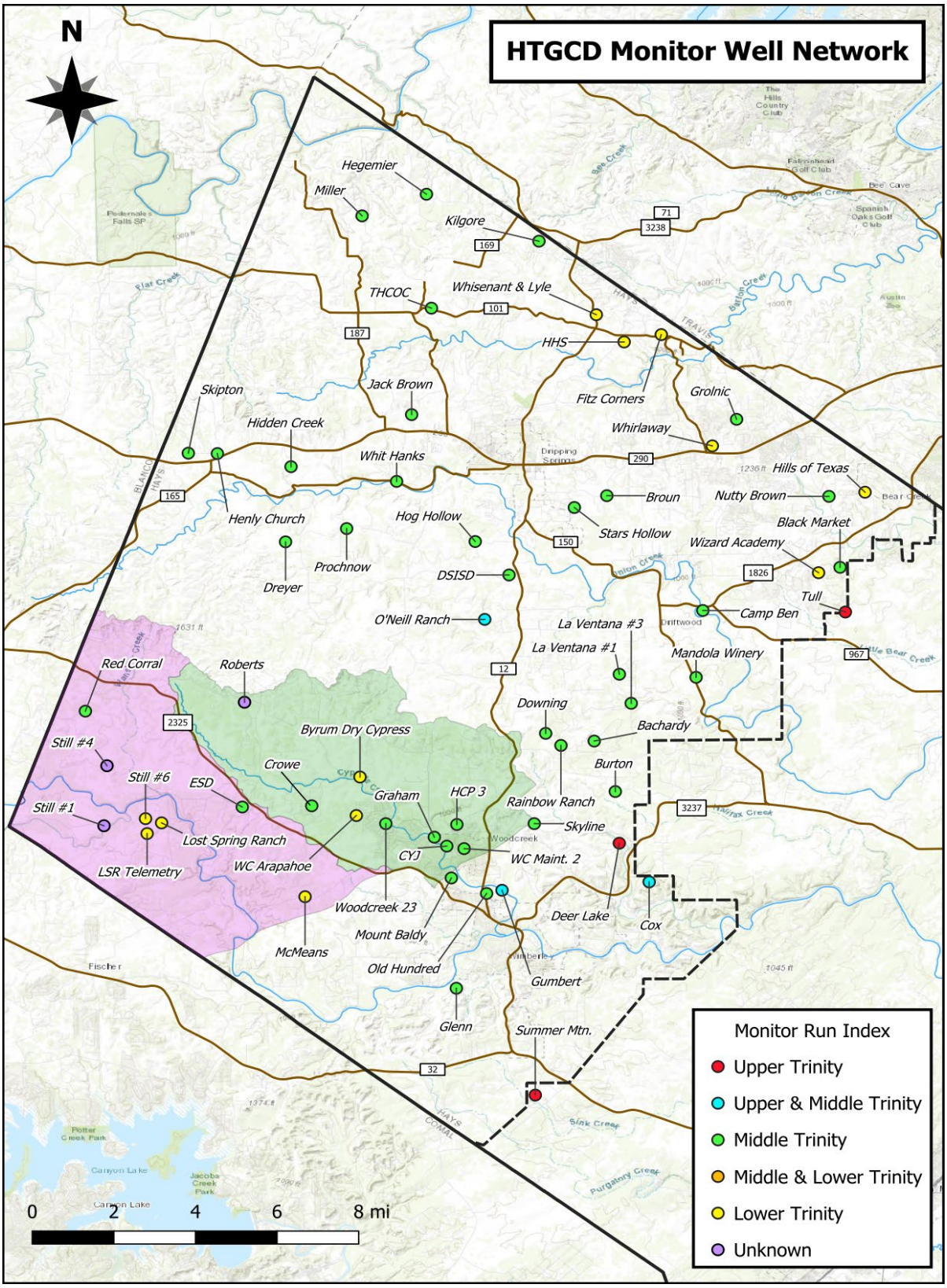


Figure 5: District Well Water Level Monitoring Network

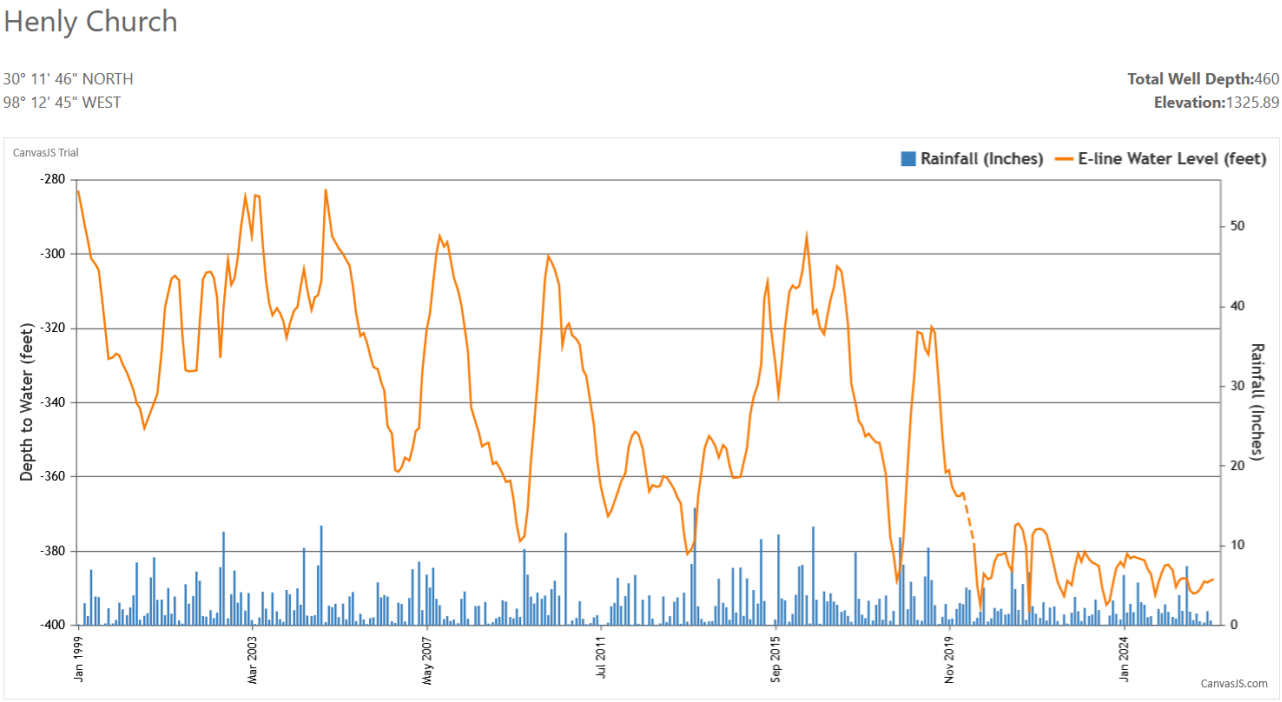


Figure 6: Henly Church Well Hydrograph Showing Water Level Depth (ft. below land surface) and Monthly Rainfall (inches)

Mt. Baldy

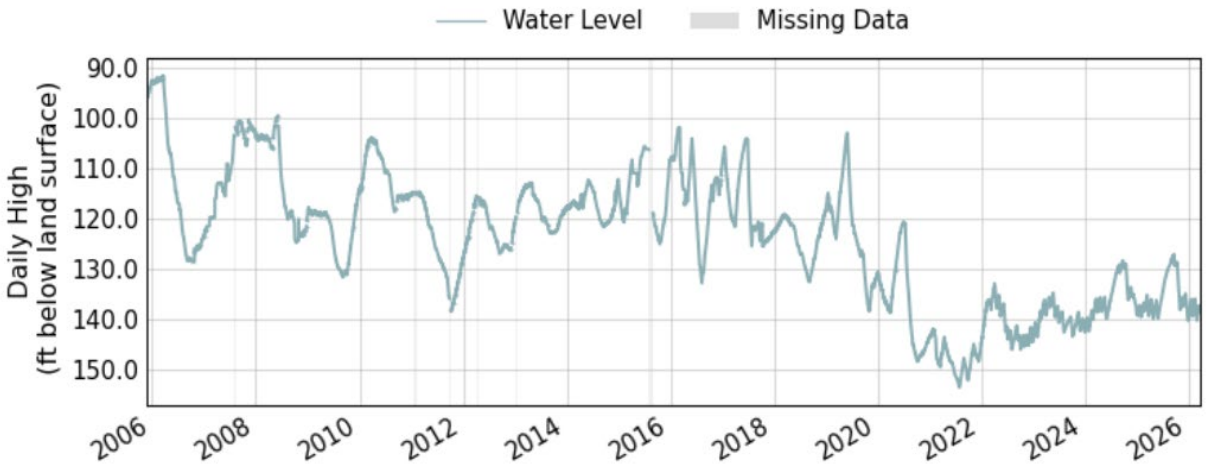


Figure 7: Mount Baldy Well Hydrograph Showing Water Level Depth (ft. below land surface)

6.4. *Management Objective*

Each year, the District will monitor data collected from the U.S. Geological Survey (USGS) water-flow monitoring stations on the Blanco River, Pedernales River, Onion Creek, and at Jacob's Well Spring.

Performance Standard

Each year, the District will review the prior year's monitoring data with local, state, or federal organizations and prepare a summary to be included in the Annual Report.

The Pedernales and Blanco River flow, and the Palmer Drought Severity Index are HTGCD's General Purpose Drought Indicators. Current conditions of the Drought Indicators are hosted on the Drought Management page of the District website. The monthly Science and Drought Reports are posted on the District website each month (on the Board Meetings – Agenda pages) and remain there in perpetuity.

Jacobs Well Spring flow is measured on a ten day rolling average for current conditions as a marker for drought curtailment in the JWGMZ.

7. Goal: Addressing Conservation

7.1. *Management Objective*

Each year, the District will submit one article for publication regarding water conservation to at least one newspaper of general circulation in Hays County.

Performance Standard

Each year, a copy of the article submitted for publication will be included in the Annual Report.

The District submitted, appeared in, or provided information in the following articles for publication in the press (non-exhaustive list):

- Texas Monthly: *Why the Best Chance to Save One of Texas's Most Iconic Swimming Holes Drained Away*. By Forrest Wilder. August 1, 2025
- The Hill: *Texas 'Economic Miracle' Crashes Into New Reality of Extreme Weather*. Saul Elbein. July 18, 2025 (District only)
- Inside Climate News: *Despite Catastrophic Flooding, Drought Persists in Parts of Central Texas*. Dylan Baddour. July 10, 2025 (this article appeared in multiple outlets with multiple titles)
- Wimberley View: *SB 1253 Would Have Provided Groundwater Protection to Hays County Residents*. Charlie Flatten. July 9, 2025
- KUT News: *Recovery Efforts Are Just Beginning After Intense Flooding In The Austin Area Over The Weekend.* Juan Garcia. July 7, 2025

- Dripping Springs Century News: *The State Of The Water: Realities, Setbacks, Victories and the Dawn of Collaboration*. Teresa Kendrick. July 3, 2025
- Wimberley View: *TESPA Addresses SB 1253 Veto*. Andrew Weber, President, TESPA. July 3, 2025 (District only)
- Wimberley View: *The State Of The Water: Realities, Setbacks, Victories and the Dawn of Collaboration*. Teresa Kendrick. July 3, 2025
- Hays Free Press: *State of Water in Wimberley, Hays County Discussed.* Brittany Kelley. July 2, 2025
- San Marcos Daily Record: *Abbott Vetoes S.B. 1253*. Teresa Kendrick. June 29, 2025
- Houston Chronicle: *Major Bills Greg Abbott Vetoed, From Texas' THC Ban to Summer Food Programs*. Tyler Goldenstein. June 26, 2025 (District only)
- Wimberley View: *Abbott Vetoes SB1253, Adds It To Special Session Agenda*. Laurie Anderson. June 25, 2025 (District only)
- Dripping Springs Century News: *Abbott Vetoes SB1253, Adds It To Special Session Agenda*. Laurie Anderson. June 25, 2025 (District only)
- San Marcos Daily Record: *Threats and Lies vs. Water and the Truth…Why They Don't Mix*. Walt Smith, Hays County Commissioner Precinct 4. June 15, 2025 (District only)
- Dripping Springs Century News: *Citizens Pour Into DSWSC Board Meeting For Discussion On Halt Of Bulk Water Sales*. Laurie Anderson. June 12, 2025. (District only)
- Wimberley View: *HTGCD Issues Resolution*. Teresa Kendrick. June 12, 2025.
- Wimberley View: *SB 1253, That Fortifies HTGCD, Now On Governor's Desk*. Teresa Kendrick. June 4, 2025. (District only)

Presentations/Panel Appearances (non-exhaustive list):

- *State of the Water* - Wimberley Valley Chamber of Commerce
- *HCLI Groundwater Panel* - Hill Country Leadership Institute
- *Karst Groundwater Drought Management:* Dr. Robert E. Mace's fall 2025 Groundwater Resources class (GEO-4334). San Marcos Texas
- *Hydrology – Groundwater: A Shared Resource*: Texas Master Naturalists Hill Country Chapter Speaker Bureau

Collaborative efforts

- Active communication and collaboration with the **Meadows Center for Water & Environment**
- Active communication and collaboration with various **University of Texas** Schools, and **Texas State University** Departments of Geography and Biology
- Active collaboration with the **Hill Country** Conservation Network
- Active collaboration with the Barton Springs (Travis/Hays Co) **Regional Water Quality Protection Plan** working group (Austin Water, Austin Watershed Protection, SOS, Save Barton Creek Alliance, WVWA, Hays County, Travis County LCRA, BSEACD, SwTCGCD, City of Buda, &c.)
- Active collaboration with the **Hill Country "*One Water*" Delegation**
- Active communication and collaboration with **local/regional water agencies and utilities**:

        - Aqua Texas
        - Wimberley WSC
        - Dripping Springs WSC
        - City of Dripping Springs
        - West Travis Co. Public Utility Authority
        - Barton Springs/Edwards Aquifer Conservation District
        - Edwards Aquifer Authority
        - Blanco Pedernales GCD
        - Southwest Travis County GCD
        - Comal County GCD
        - Cow Creek GCD
        - Central Texas GCD
        - Hill Country Underground Water District (Gillespie County)
        - Guadalupe Blanco River Authority
        - Lower Colorado River Authority
        - Upper Guadalupe River Authority
        - Bandera County River Authority
    - Active communication and collaboration with **local/regional conservation non-profits**:
        - Cypress Creek Watershed Protection Program
        - Watershed Association (nee Wimberley Valley Watershed Association)
        - Friends of Blue Hole
        - Hill Country Alliance
        - The Nature Conservancy
        - Hill Country Conservancy
        - Hill Country Conservation Network
        - Environmental Defense Fund
        - National Wildlife Federation
        - Trinity Edwards Springs Protection Association
        - Protect our Water
        - Save Our Springs
        - Save Barton Creek Association
    - Active participation in the water management trade organizations:
        - Texas Water Association
        - Texas Alliance of Groundwater Districts
        - Texas Water Trade
        - Texas Water Foundation

8. Goal: Addressing Recharge Enhancement

Due to the geologic and hydrostratigraphic structure of the Trinity Aquifer, the implementation of significantly effective recharge enhancement to the primary source aquifer may not be practical. Current interpretation of geologic data suggest that downward leakage within the Trinity Group is limited, and the majority of recharge takes place west of the bounds of the HTGCD near the sedimentary wedge-edge of the water bearing rock units through diffuse infiltration. Given the location of suspected recharge and its nature, neither general land management nor focused enhancement practices may be feasible. Therefore, until additional hydrogeologic data is available, this goal is not applicable to the operations of this District.

9. Goal: Addressing Rainwater Harvesting

9.1. *Management Objective*

Each year, the District will make at least one endorsement or contribution to programs that encourage, install, educate, or assist individuals in the implementation of rainwater harvesting systems in the District area.

Performance Standard

Each year, the District will provide records of contributions or promotions of rainwater harvesting events or companies in its Annual Report.

The HTGCD's Water Wise Speakers Series features videos on rainwater harvesting and can be viewed on the Districts You-Tube Channel.

The District encourages the use of rainwater collection systems on all new homes, businesses, and existing buildings during every monthly Board Meeting as part of the General Manager's Report. District staff include rainwater system education in all education and outreach events noted in Goal 1.

Additionally, District staff receive TCEQ mailings concerning new business development within the District's boundary. A review of the packets includes direct communication, not only with TCEQ about the project, but also with the developer and their engineer. This includes inquiry about the installation of rainwater harvesting on common buildings and the strong encouragement to install rainwater harvesting systems.

10. Goal: Addressing Precipitation Enhancement

The HTGCD does not have the expertise or the funding capacity to pursue rainfall enhancement practices. Therefore, this goal is not applicable to the operations of this District.

11. Goal: Addressing Brush Control

11.1. *Management Objective*

The District will attend or contribute to at least one event each year that promotes and educates the public on proper land management practices.

Performance Standard

Each year, the District will provide records of contributions or promotions of land management events or companies in its Annual Report.

District staff attend and participate in the monthly Regional Water Quality Protection Program which focuses local agency and NGO capacity on a variety of land management best practices including brush control in the Edwards Aquifer Contributing and Recharge Zone. The District also participates in Hays County Master Naturalist events to raise awareness of the role of native plants in groundwater recharge and health.

District staff promote recharge of the aquifer through proper brush management and reestablishment of deep-rooted native grasses to promote infiltration into the aquifer during on the Conservation page of the website, through links to the Texas State Soil and Water Conservation District's Brush Control Feasibility Studies and the Hays County SWCD #351 page, as well as in monthly Board Meetings in the General Manager's Report.

The District also provides educational materials for the public to take home on the subject of native plants, rainwater harvesting, aquifer storage and recovery, and other educational topics.

HTGCD Staff actively participate in Regional Flood Planning Groups for the Blanco and Pedernales River Basins to advocate for flood mitigation strategies that simultaneously enhance active aquifer recharge.

12. Goal: Addressing Desired Future Conditions (DFCs)

12.1. *Management Objective*

The District is working within the framework of Groundwater Management Area- 9 (GMA-9) to upgrade and maintain a well database map and files that will identify all District monitoring wells in the management area. The District will work with GMA-9 and their consultants on an acceptable method to analyze and report drawdown levels relative to the DFC. Deliverables may include potentiometric surface maps of the Middle and Lower Trinity Aquifers and selected hydrographs plus other documents generated by the consultants.

Performance Standard

Each year, the District will review the average drawdown of at least two Trinity Aquifer monitor wells, one in each Planning Region, against the DFC projected

average regional drawdown for western Hays County. The District shall provide a summary in its Annual Report.

Water Planning

Texas Regional Water Planning requires that all Districts across the Hill Country Trinity Aquifer work together as a Groundwater Management Area (see **Figure 8**) to develop and monitor a 50-year aquifer level management goal. This planning goal is known as a Desired Future Condition (DFC). The DFC adopted in 2021 for the Trinity aquifer-wide is 29-feet of average drawdown in 2060 from 2008 levels, consistent with Scenario 6 in TWDB GAM Task 10-005. The TWDB has estimated that average drawdown as a volume and allotted the District 9,074 acre-feet/year of Modeled Available Groundwater(MAG) to be able to reach that DFC.

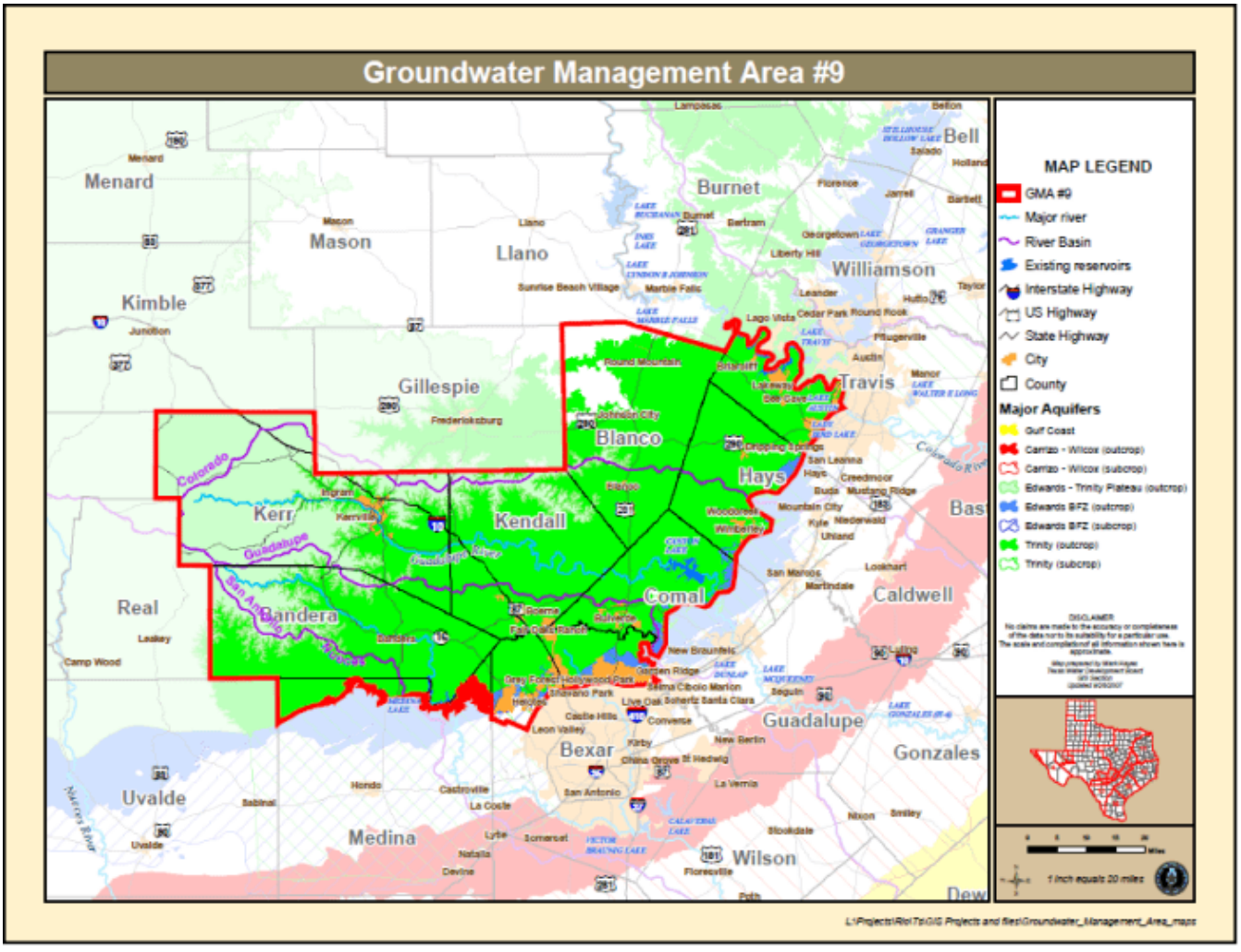


Figure 8: Map of Groundwater Management Area 9

Region K: Henly Church Hydrograph

Applying a trendline to the Henly Church hydrograph from the previous ten years (2016 – 2025) displays decreasing water levels for that period (-8.24 ft./yr.) (Figure 1). This would indicate a water level *decrease* of 82.40 ft. from 2016 – 2025. Evaluating the water level trendline for the entire period of record for this well (1999 – 2025) shows a historical trend that is still negative but has a *smaller yearly decrease* of -2.84 ft./yr., resulting in a drop of approximately 76.68 ft. in water level over that time period. **Figure 9** demonstrates the limitations of applying a trend line to a small sample size.

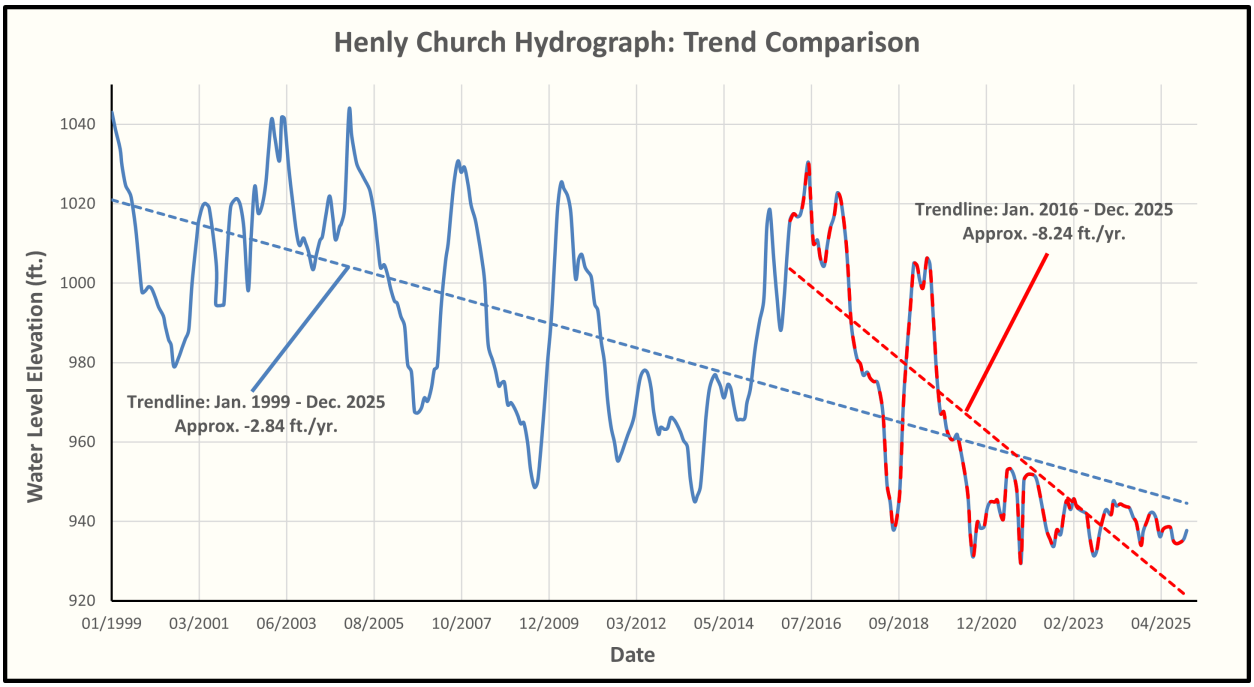


Figure 9: Henly Church well water level trendline comparison showing data from January 2016 to December 2025. The graph shows two trendlines, the blue starting in January 1999, the red starting in January 2016.

Water Planning Region L: Glenn Hydrograph

The Glenn hydrograph trendline is negative (decrease in water level over time) at a rate of -1.88 ft./yr. This would indicate a *decrease* of 32.85 ft. during the 2009 – 2025 time period (**Figure 10**). Like the Henly well, the Glenn well experiences large seasonal fluctuations in water level that require careful assessment of water level trends. Caution should be exercised when using trendlines to evaluate long-term karst aquifer trends.

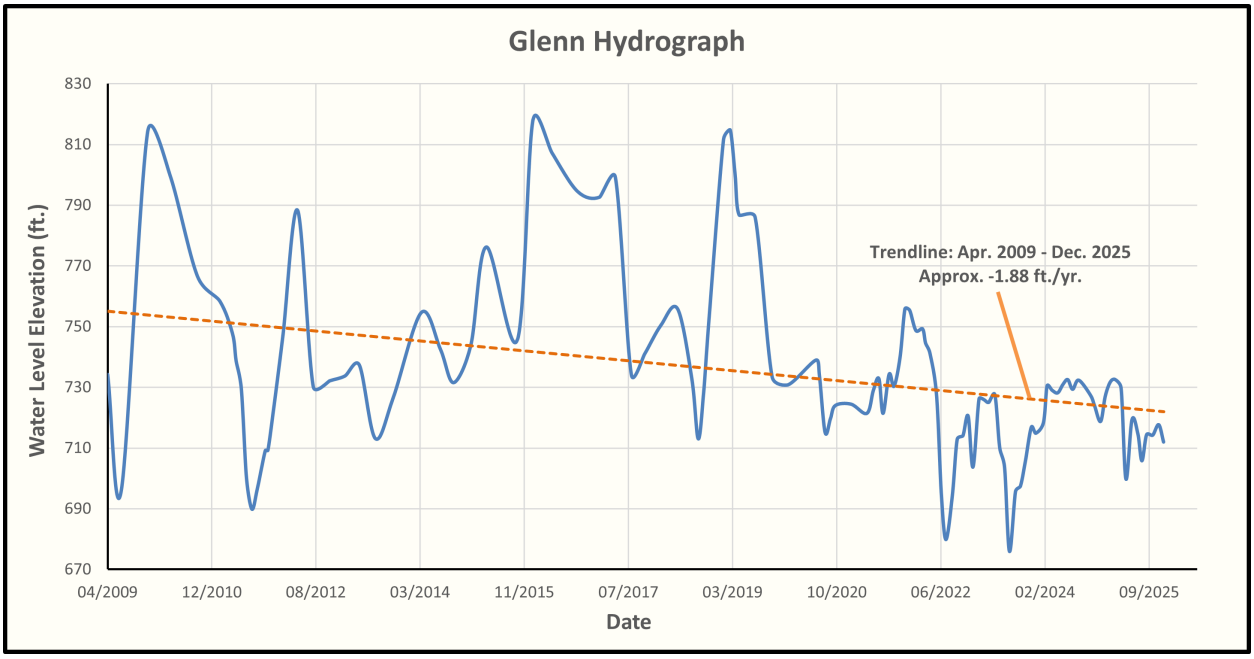


Figure 10: Glenn Well hydrograph showing the trendline from April 2009 to December 2025.

12.2. Management Objective

The Modeled Available Groundwater (MAG) for the Trinity Aquifer in the District is derived from the DFC and requires frequent review against estimated pumpage.

Performance Standard

The District shall prepare an Annual Report of MAG estimated pumpage to monitor District compliance. A summary shall be presented to the District Board and made available to the public and included in the Annual Report.

The Modeled Available Groundwater – Estimated Use HTGCD Trinity Aquifer System chart (**Table 1**) has been updated for 2025 and includes estimated exempt use production numbers and actual production reported from non-exempt permit holders from 2009 through 2025. The summary is presented to the District's Board with the Annual Report. A monthly summary of new wells and PWS connections (**Figures 12** and **13**) is published monthly on the District's website and provided to the District's Board of Directors at Board meetings, with the annual summaries included in Annual Reports.

During 2025, 59 new wells were registered within the District boundary. All of them are exempt wells, 4 were registered as Agriculture & Livestock wells, and 4 were closed-loop geo-thermal systems. About 20 acre-ft/year is estimated to be produced on average from the newly added 59 exempt wells. The total exempt use for domestic and agriculture use during 2025 is estimated at 3,942 acre-ft.

The total permitted non-exempt use during 2025 is 4,220 acre-feet, which includes an estimated 100 acre-feet of non-permitted non-exempt use. The sum of non-exempt use (4,220 acre-feet) and minimum estimated exempt use (3,942 acre-feet) allocated as of 2025 year-end is 8,162 acre-feet. Actual 2025 non-exempt production reported to the District totaled 2,129 acre-feet. Due to the severity of the ongoing drought, non-exempt users were required to curtail production by 30-40% during 2025, reducing actual non-exempt production that year.

Figure 11 shows an extrapolated linear trend line based on the previous 5 years of data. The Texas Water Development Board estimated the total MAG (Modeled Available Groundwater) for HTGCD at 9,074 acre-feet. As of 2025, the District has a *minimum* estimated commitment of 8,162 acre feet.

The Hays Trinity Groundwater Conservation District (HTGCD or District) works to fulfill the GMA's mandate to "provide a balance between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater in the management area" (Texas Water Code Section 36.108(d-2), p. 50).

The Desired Future Conditions adopted in the 2021 planning cycle within the HTGCD are listed below.

> Trinity - Allow for an increase in average drawdown of approximately 30 feet through 2060 (throughout GMA 9) consistent with "Scenario 6" in TWDB GAM Task 10-005. (This is summarized as allowing for an average decrease in water levels in the Trinity aquifer of no more than thirty feet from 2008 to 2060, across the GMA. The estimation for Hays County from GAM Task 10-005 is an average of 19.2 feet drawdown. See the GMA9 2021 Explanatory Report for detailed information.)
>
> Edwards Aquifer (Balcones Fault Zone) – Declared as non-relevant for the purpose of joint planning.

Hickory Aquifer – Declared as non-relevant for the purpose of joint planning.

HTGCD records monthly well levels in over 60 wells across the District. In brief, DFC performance is tracked by comparing an annual average of a set selection of the District's monitor well levels against 2008 levels. The DFC performance is reported annually at public meetings of the District's Board of Directors and more often, upon request of the Board and, as required by the Legislature, within the Management Plan. Monitor well levels are updated monthly on the District's website and highlighted in monthly Science Reports and at the Board's regular meetings.

With 2025 data, the District measured an average drawdown of 37 feet. Historic DFC data shows this condition could reverse substantially when rainfall and recharge patterns improve.

Due to the District's restrictive enabling legislation, many of the tools available in Chapter 36 of the Water Code that help districts achieve DFCs are not available to be used by the HTGCD. These limitations, combined with inadequate funding, recent population growth, limited access to alternative water supplies, and the ongoing drought cycle, are impediments to managing groundwater in western Hays County. The District relies on conjunctive use, well spacing, establishment of management zones, aquifer testing for non-exempt wells, rulemaking, and outreach to manage DFC performance.

A detailed examination of the DFC evaluation method is available from the District.

HTGCD-Trinity Aquifer Management as of December 31, 2025 (Acre-Feet/Year, AFY)

Year-End	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Modeled Available Groundwater [1]	**9,109**	**9,109**	**9,109**	**9,109**	**9,109**	**9,109**	**9,109**	**9,109**	**9,109**	**9,109**	**9,074**	**9,074**	**9,074**	**9,074**	**9,074**	**9,074**
Exempt Use: Domestic+Agricultural (2)	3,322	3,358	3,398	3,448	3,495	3,542	3,577	3,616	3,663	3,716	3,758	3,809	3,859	3,895	3,922	**3,942**
Non-Exempt Use: Permitted[3]	1,877	2,442	2,451	2,854	2,989	3,310	3326	3,545	3,741	3,903	3,924	3,931	3,574	3,805	4,120	**4,120**
Non-Exempt Use: No Permit -Estimated[4]	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	**100**
Non-Exempt Use: Reporting - No Permit	364	306	235	19	2	3	4	0	0	0	0	0	0	0	0	**0**
Total Committed	5,663	6,206	6,184	6,421	6,586	6,955	7,007	7,261	7,504	7,719	7,782	7,840	7,533	7,800	8,142	**8,162**
Net MAG remaining (MAG-Committed)	3,446	2,903	2,926	2,688	2,523	2,154	2,102	1,848	1,605	1,390	1,292	1,234	1,541	1,274	932	**912**
Non-Exempt Reported Production	1,796	2,004	1,691	1,599	1,532	1,537	1,586	1,815	1,904	1,940	2,231	2,049	2,523	2,291	2,046	**2,129**

2010 : 59 new Well Construction Notifications or 22 AFY
2011 : 96 new Well Construction Notifications or 36 AFY
2012 : 107 new Well Construction Notifications or 40 AFY
2013 : 135 new Well Construction Notifications or 50 AFY
2014 : 126 new Well Construction Notifications or 47 AFY
2015 : 127 new Well Construction Notifications or 47 AFY
2016 : 95 new Well Construction Notifications or 35 AFY
2017 : 105 new Well Construction Notifications or 39 AFY
2018 : 126 new Well Construction Notifications or 47 AFY
2019 : 144 new Well Construction Notifications or 53 AFY
2020 : 115 new Well Construction Notifications or 42 AFY
2021 : 137 new Well Construction Notifications or 51 AFY
2022 : 127 new Well Construction Notifications or 47 AFY
2023 : 99 new Well Construction Notifications or 43 AFY
2024 : 73 new Well Construction Notifications or 27 AFY
2025 : 56 new Well Construction Notifications or 20 AFY

[1] TWDB-calculated MAG decreases over time and incorporates assumptions on future use

[2] Approved by the HTGCD Board April 25, 2011 based on the HDR NA Case 5,784 (Water-Wastewater Plan for Hays Co., 2011)

[3] Total AFY permitted for pumping in existing operating permits. Aqua Tx Permits are expired but are included in category until conclusion of pending litigation

[4] Non-Exempt Use: not permitted and not reporting; Goal: permit users and move 100 AFY towards 0 AFY

Numbers are subject to change based on availability of updated data.

Numbers at a Glance

Total Registered Wells:	**3,970**
Total Utility Connections:	**5,270**
Total Volume permitted AFY:	**4,120**
Total non-exempt produced (reported) AFY:	**2,129**
Total exempt use (estimated) AFY:	**3,942**
Total produced (estimated) AFY:	**6,171**

Table 1: Modeled Available Groundwater/Estimated Use in the Trinity Aquifer System within Hays Trinity GCD.

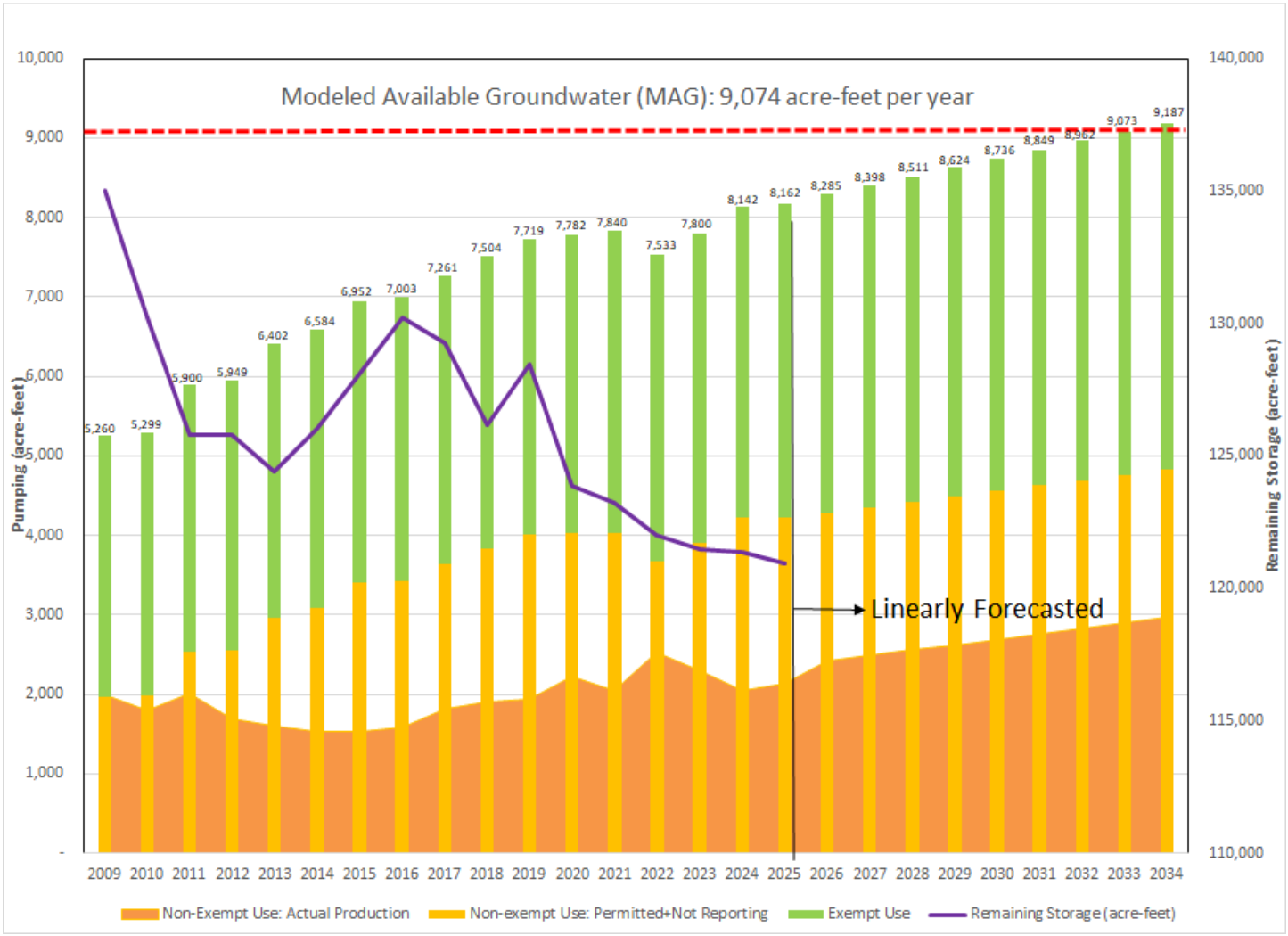


Figure 11: Estimated Exempt and Non-exempt Historical Groundwater Use. The Forecast is a Linear Extrapolation of the 2015 -2025 Data in **Table 1**.

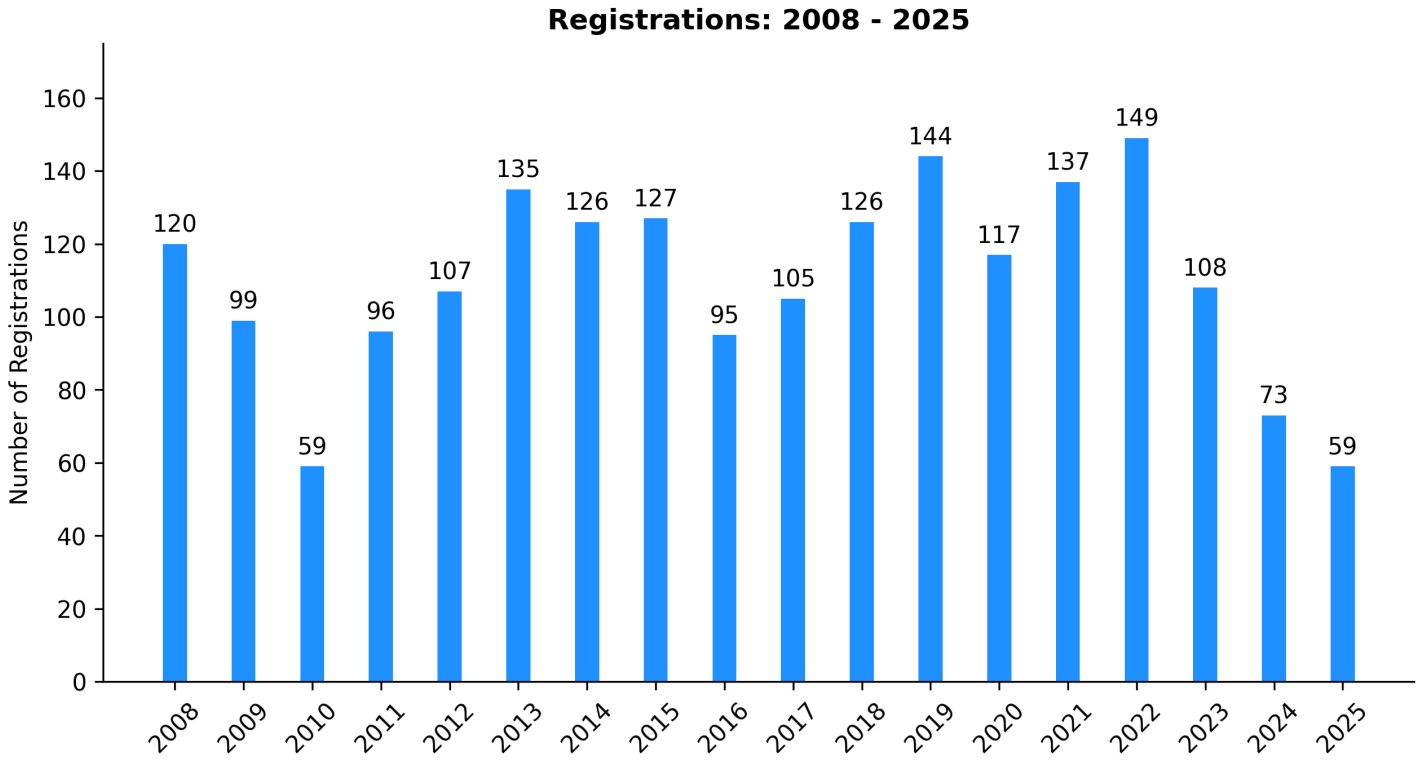


Figure 12: Wells Drilled by Year, Including Geothermal and Non-producing Monitoring Wells

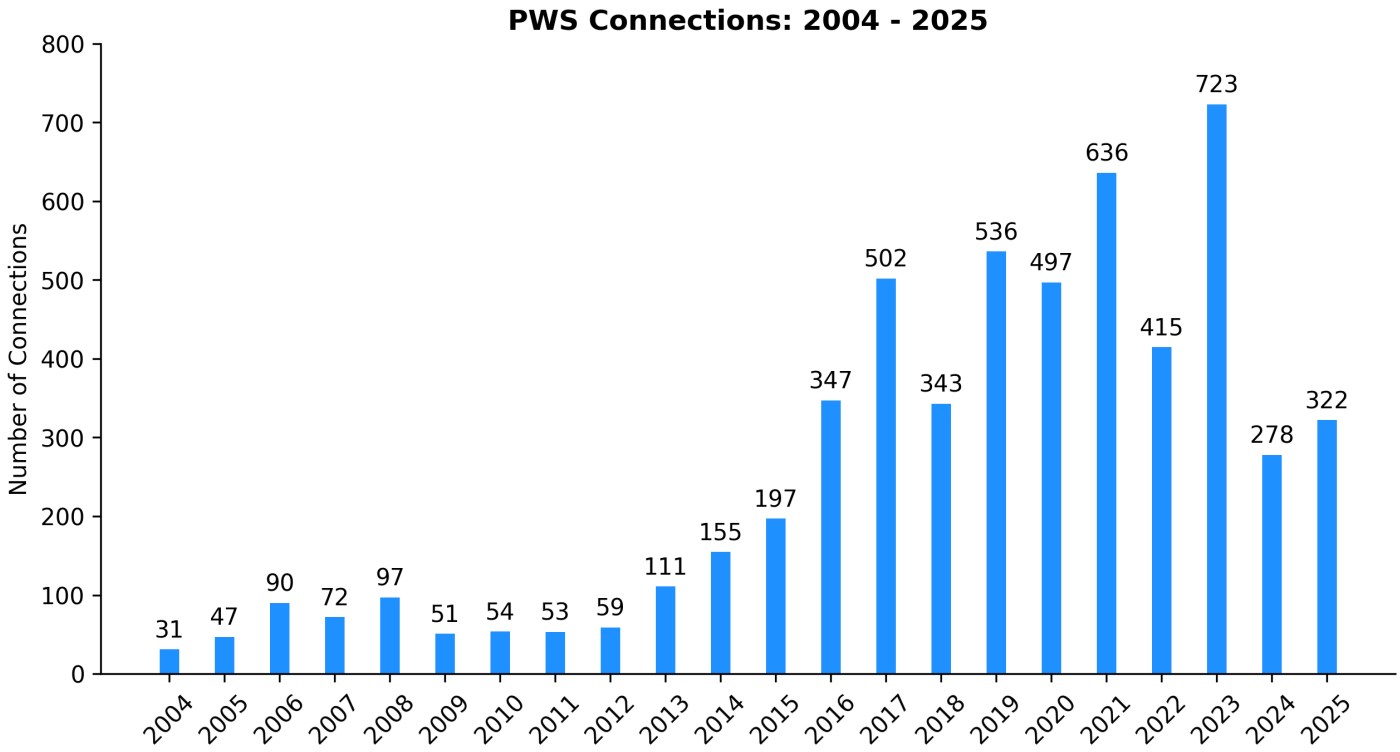


Figure 13. Public Water Supply Connections by Year

Support Documentation is available on request from the District office.