COMAL TRINITY GROUNDWATER CONSERVATION DISTRICT

Board of Directors

Larry Hull, President	Precinct 1
David Evetts	Precinct 2
Larry Jackson, Secretary	Precinct 3
Ron Harris	Precinct 4
Joseph DiPasquale	At-Large
Connie Lock	At-Large
Felicia James	At-Large

District Staff

Carl Haack, General Manager

Grace White, Administrator

Comal Trinity GCD

Physical: 9850 FM 311
Mailing: PO BOX 664
Spring Branch Texas 78070
830-885-2130
www.comaltrinitygcd.com

This Annual Report for 2025 provides performance and progress in achieving management goals of the Comal Trinity Groundwater Conservation District (CTGCD or District). This report was prepared by the General Manager and staff and presented to the CTGCD Board of Directors and the public at the first board meeting following the end of the year 2025. The first CTGCD Management Plan was approved by the Texas Water Development Board (TWDB) on April 25, 2018, with a revised Management Plan approved by the TWDB on May 5, 2023.

DISTRICT MISSION

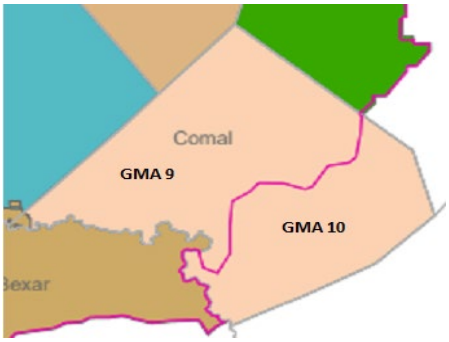
The Comal Trinity Groundwater Conservation District was created under Chapter 36 of the Texas Water Code (TWC) for the purpose of conserving, preserving, recharging, protecting, and preventing waste of groundwater from the Trinity Aquifer and its subdivisions within Comal County. The District conducts administrative and technical activities and programs to achieve these purposes. The District uses the authority granted under its enabling legislation, HB2407, and TWC Chapter 36 and other state laws to conduct aquifer research, monitor water well drilling and production from non- exempt wells, collect and archive well water and aquifer data, issue authorizations for well drilling, modification, equipping, and plugging, promote the capping or plugging of abandoned wells, provide information and educational material to local property owners, interact with other governmental or organizational entities, and incorporate other groundwater-related activities that may help meet the purposes of the District.

GUIDING PRINCIPLES

The District recognizes that groundwater resources throughout this region are of vital importance to all citizens and must be managed effectively. The CTGCD Management Plan serves as a guideline for the District to ensure greater understanding of local aquifer conditions, the development of groundwater management concepts and strategies, and subsequent implementation of appropriate groundwater management policies.

GENERAL DESCRIPTION OF THE DISTRICT

The Comal Trinity Groundwater Conservation District resides within the majority of Comal County, excluding a small portion of territory included within the boundaries of the Trinity Glen Rose Groundwater Conservation District. The District covers 559 square miles and resides in two Groundwater Management Areas (GMA-9 and GMA-10) with an estimated population of 209,451 with a growth rate of 3.9% in 2025 according to the US Census Bureau estimate. US Census data also shows that Comal County has realized an 85.81% growth between 2010 and 2024.



REPORT ON 2025 GROUNDWATER MANAGEMENT PLAN GOALS AND ACHIEVEMENTS

ACTIONS, PROCEDURES, PERFORMANCE AND AVOIDANCE NECESSARY TO EFFECTUATE THE MANAGEMENT PLAN AND DETAILS OF HOW THE DISTRICT WILL MANAGE GROUNDWATER SUPPLIES

MANAGEMENT PLAN GOAL 1 – STRATEGIES FOR EFFICIENT USE OF GROUNDWATER

The District continues its program of issuing well drilling permits. The District maintains a permitting and registration program for all new water wells drilled within the District's jurisdiction. These activities ensure management of water well use to include spacing requirements, Non-Exempt well registration, and water usage reporting requirements. The table below summarizes the well drilling and plugging activities in 2025.[1]

Well Applications By Type

Type of Application	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total for Year	GMA 9	GMA10
a) Domestic	32	17	22	**24**	95	79	16
a)S Livestock	1	0	1	**0**	2	0	2
a)L Domestic Landscape Irrigation	2	4	0	**2**	8	7	1
b) < 25,000 GPD (Non-exempt)	3	1	1	**0**	5	3	2
c) > 25,000 GPD (Non-exempt)	0	0	0	**0**	0	0	0
d) Plugging	3	2	4	**5**	14	5	9
e) Test Bore	0	5	1	**6**	6	4	2
f) Completion of test < 25,000 GPD	0	0	0	**0**	0	0	0
g) Completion of test > 25,000 GPD	0	0	1	**0**	1	0	1
Geothermal	0	0	0	**0**	0	0	0
Monitor well	0	0	0	**0**	0	0	0

[1] CTGCD Management Plan Goal 1.A

Water usage data collection for identified non-exempt wells began January 1, 2016. Monitoring of acre-feet of water used as compared to the two GMA's Modeled Available Groundwater (MAG) occurs throughout the year and is reported to the Board on a quarterly and annual basis.[2]

		GMA-9 Pumped	GMA-9 MAG Availability	GMA-10 Pumped	GMA-10 MAG Availability
1Q2025			9,383		33,554
	Gallons:	220,809,847		670,604,399	
	Acre-ft:	678	8,705	2,058	31,496
2Q2025					
	Gallons:	357,141,395		674,080,736	
	Acre-ft:	1,096	7,609	2,069	29,427
3Q2025					
	Gallons:	396,425,683		750,881,636	
	Acre-ft:	1,217	6,392	2,304	27,123
4Q2025					
	Gallons:	352,326,802		776,702,150	
	Acre-ft:	1,081	5,311	2,384	24,739
2025 Reported	Acre-ft:	4,072	57%	8,815	74%

Fees are collected per District rules and rates as defined in those rules. The complete rules are available at www.ComalTrinityGCD.com. The production income funds are administrative and operational activities of the District, and reserves are in place for potential capital improvement and District growth needs as determined by the Board of Directors.

Strategies to Control and Prevent Waste of Groundwater

Public outreach and education are a focus for CTGCD and, typically, board members or staff are active in attending and presenting materials and information at various events throughout the year. Pamphlets developed by the District (Appendix A) are distributed at each event and are always available in the CTGCD office for the public. There were 28 pamphlets picked up by members of the public. There were two public presentations by CTGCD president, Larry Hull in 2025: CTGCD President presented at the Canyon Lake Republican Women at St. Francis by the Lake Episcopal Church (5/21/2025) and the Comal County Commissioners Court (9/24/2025).[3] The presentation included a history of CTGCD and discussion of the Trinity Aquifer and importance of controlling and preventing waste of groundwater.

[2] CTGCD Management Plan Goal 1.B
[3] CTGCD Management Plan Goal 2.A

Strategies to Prevent and Control Subsidence

While the Management Plan includes a goal to prevent and control subsidence, this issue has not been identified by CTGCD in Comal County. Appendix B cites the latest study in support of the CTGCD assertion that this Management Plan goal is not currently relevant to the District.[4]

Strategies to Address conjunctive surface water management issues

Per the TWDB, "conjunctive use water management strategies combine multiple water sources, usually surface water and groundwater, to optimize the beneficial characteristics of each source, yielding additional firm water supplies." Within the District, NBU, GBRA and TWC formally SJWTX, Inc. are most involved in conjunctive water management, and the District will attend any meetings called by either agency if the opportunity arises. Additionally, President Larry Hull attended the 10/2/2025 meeting of the South-Central Texas Regional Water Planning Area, Region L.[5]

In 2025, CTGCD representatives participated in multiple GMA Joint Planning meetings for both GMA-9 and GMA-10 (dates and discussion are recorded in quarterly meeting minutes). This year the meetings for both GMAs were focused primarily on Desired Future Conditions Joint Planning activities for the 2026 Explanatory Report to TWDB. This Explanatory Report considers spring flow and surface water in addition to groundwater.

An additional Management Objective set out in the Management Plan to monitor at least five District wells and report to the Board quarterly has been achieved. Reports of monitored wells and groundwater trends were presented to the Board at each quarterly meeting of the CTGCD Board (February 24th, June 16th, August 18th, and November 17th, 2025).[6] More details are provided in the section of this report titled "Addressing Desired Future Conditions".

Strategies to Address natural resource issues which impact the use and availability of groundwater, or which are impacted by using groundwater

The District considers the greatest potential for natural resource issues which impact the use and availability of groundwater could arise from the use of water by Industrial/Mining operations. The District is home to several quarries (mining/industrial operations) and collects quarterly water usage information from them. This category is the second largest groundwater user type in the district, behind municipal users. In 2025, the reported groundwater usage by Industrial/Mining operations was 4,807 acre-feet (with 100% of mining/industrial reports received at the date of this report).[7]

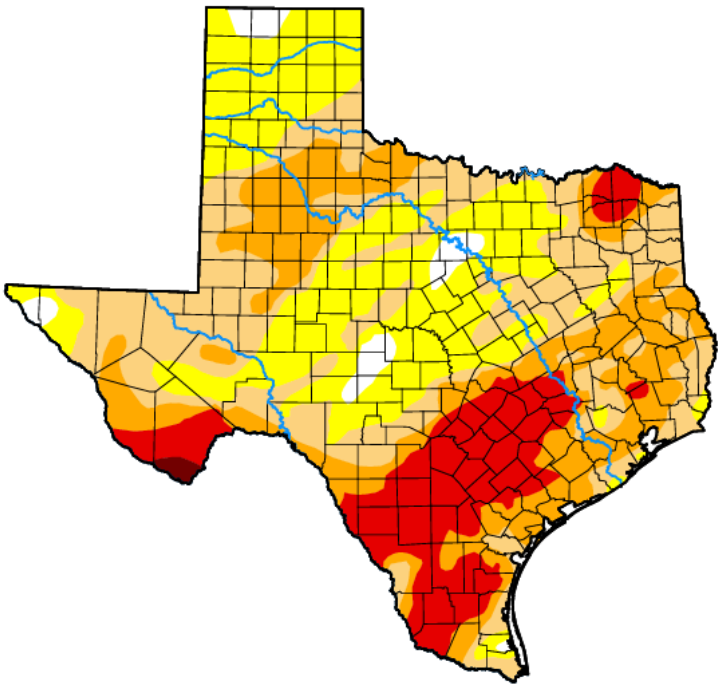
In addition, the District maintains a strong program of identifying and gaining compliance with plugging of abandoned or compromised wells. This directly protects the quality and availability of groundwater by preventing contamination. In 2025, 14 wells were identified, and 14 were plugged.[8]

---

[4] CTGCD Management Plan Goal 3.0
[5] CTGCD Management Plan Goal 4.A
[6] CTGCD Management Plan Goal 8.A
[7] CTGCD Management Plan Goal 5.A
[8] CTGCD Management Plan Goal 5.B

Strategies to Address Drought Conditions

The District monitored and collected data quarterly from the U.S. Drought Monitor (https://www.drought.gov/states/texas/county/Comal) and the information was reported to the Board at the quarterly board meetings.[9] Additionally, precipitation patterns as reported by the National Weather Service (https://water.weather.gov/precip/) were reported to the Board quarterly.[10] Dry conditions continued as 98% of the county began the year in Extreme Drought conditions, by year-end 54% of the county was in Extreme Drought conditions and 46% was in severe drought conditions.



February 3, 2026
(Released Thursday, Feb. 5, 2026)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2.72	97.28	68.58	37.97	15.64	0.36
Last Week *01-27-2026*	5.03	94.97	66.66	32.01	15.31	0.36
3 Months Ago *11-04-2025*	16.54	83.46	45.37	16.64	4.01	0.15
Start of Calendar Year *01-06-2026*	11.66	88.34	57.31	27.77	9.33	0.36
Start of Water Year *09-30-2025*	37.15	62.85	23.67	13.00	3.33	0.29
One Year Ago *02-04-2025*	28.22	71.78	41.26	23.51	15.74	6.30

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:
Lindsay Johnson
National Drought Mitigation Center

droughtmonitor.unl.edu

[9] CTGCD Management Plan Goal 6.A
[10] CTGCD Management Plan Goal 6.B

STRATEGIES TO ADDRESS GROUNDWATER CONSERVATION AND RAINWATER HARVESTING

The website maintained by CTGCD is an important source of information and includes links to groundwater conservation education on its Conservation page: https://www.comaltrinitygcd.com/conservation

Below[11] are the number of hits to the Rainwater Harvesting, Drought Information and Water Conservation on the District's website:

Page path 2025	Site sessions	Unique visitors
/	2,154	1,490
/rainwater-harvesting	168	151
/drought-information	186	151
/conservation	38	38

Rainwater harvesting is promoted strongly by the District, both in the pamphlet[12], news articles, and on the website. CTGCD representatives presented an informational workshop to the public regarding the water district and the importance of water conservation and actively continues educational efforts on behalf of CTGCD. In addition, Dr. Larry Sunn, retired Board member (7/31/2023), along with Dr. Stephen Grainger offer free consultation to county residents on rainwater catchment systems and education and were very active in performing site visits and presentations for community members and groups in 2025. Details of those visits are included in the quarterly board minutes.[13]

Additionally, in 2025, there were numerous articles written by Dr. Larry Sunn regarding rainwater harvesting and published locally in *The Front Porch News (11), Spring Branch Neighbors (8), and (Canyon Lake Living (4).*[14]

STRATEGIES TO ADDRESS RECHARGE ENHANCEMENT, BRUSH CONTROL, AND PRECIPITATION ENHANCEMENT

Recharge enhancement is a strategy to increase groundwater storage, and the District was receptive to exploring these avenues, however, the General Manager reports that there have been no findings related to recharge enhancement in the District in 2025. Brush Control is one method of supporting recharge enhancement, and the District includes information on the pamphlets that are distributed at the events and locations previously mentioned.[15] The CTGCD Management Plan states that the precipitation enhancement goal is not applicable to the District as this objective is not cost effective at this time.[16]

ADDRESSING DESIRED FUTURE CONDITIONS (DFCS)

[11] CTGCD Management Plan Goal 2.A, 7.A
[12] CTGCD Management Plan Goal 7.C (35 distributed 2024)
[13] CTGCD Management Plan Goal 7.C
[14] CTGCD Management Plan Goal 2.A
[15] CTGCD Management Plan Goal 7.D
[16] CTGCD Management Plan Goal not applicable

The District Management Plan calls for water level monitoring in the Trinity Aquifer. The District has installed WellIntel monitoring equipment in twenty-three wells throughout the District. In 2025, twenty-three CTGCD wells and two TWDB wells were actively monitored the entire year. The General Manager provides a monitor well report at each quarterly board meeting and provides annual drawdown totals of the monitored wells to the Board and included, below.[17]

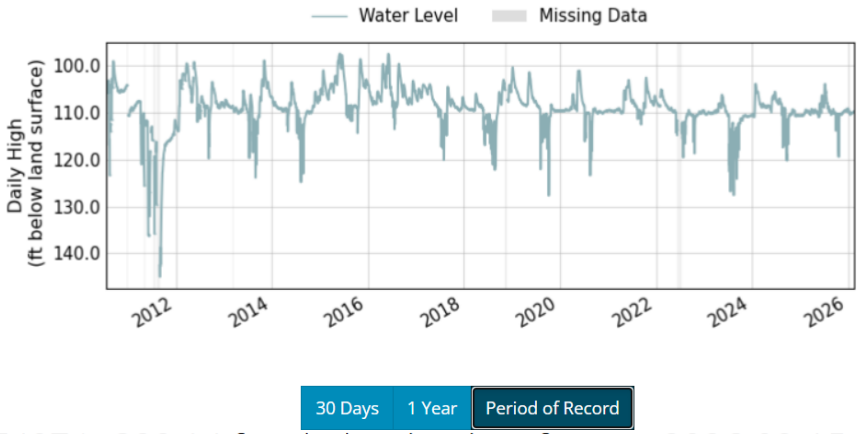
CTGCD MONITORING WELLS - 1ST QTR THROUGH 4TH QTR 2025

Well Number	Start Date	End Date	Number of Readings	Minimum Valuve	Maximum Value	Start Readintg	Final Reading	Water Level Change 2025
MW - #01	1/1/2025	1/1/2026	12	209.49	210.59	210.24	209.95	0.29
MW - #02	1/1/2025	1/1/2026	13	96.82	97.10	96.97	96.82	0.15
MW - #03	1/1/2025	1/1/2026	13	517.76	522.78	522.48	520.82	1.66
MW - #05	1/1/2025	1/1/2026	5	343.88	344.52	343.88	344.43	-0.55
MW - #06	1/1/2025	1/1/2026	5	465.01	481.82	465.79	480.66	-14.87
MW - #08	1/1/2025	1/1/2026	13	388.02	406.39	406.39	404.92	1.47
MW - #09	1/1/2025	1/1/2026	8	300.82	304.30	301.30	300.82	0.48
MW - #10	1/1/2025	1/1/2026	13	323.66	326.84	324.42	325.56	-1.14
MW - #11	1/1/2025	1/1/2026	11	362.31	363.10	363.09	362.68	0.41
MW - #12	1/1/2025	1/1/2026	13	415.06	437.50	430.39	433.8	-3.41
MW - #13	1/1/2025	1/1/2026	13	305.67	340.57	339.64	337.89	1.75
MW - #14	1/1/2025	1/1/2026	13	215.47	236.78	234.95	215.47	19.48
MW - #15	1/1/2025	1/1/2026	13	293.67	305.79	296.59	298.80	-2.21
MW - #16	1/1/2025	1/1/2026	12	219.85	267.17	237.7	233.21	4.49
MW - #17	1/1/2025	1/1/2026	13	154.27	154.85	154.85	154.27	0.58
MW - #18	1/1/2025	1/1/2026	11	258.00	260.19	258.72	259.5	-0.78
MW - #19	1/1/2025	1/1/2026	5	563.01	576.48	563.01	576.19	-13.18
MW - #20	1/1/2025	1/1/2026	9	89.69	136.68	109.83	111.59	-1.76
MW - #21	1/1/2025	1/1/2026	13	192.52	193.75	192.84	192.71	0.13
MW - #22	1/1/2025	1/1/2026	13	414.50	423.3	421.10	415.64	5.46
MW - #23	1/1/2025	1/1/2026	8	226.33	257.06	229.13	237.77	-8.64
MW - #24	1/1/2025	1/1/2026	3	398.73	406.38	398.87	406.38	-7.51
MW - #25	1/1/2025	1/1/2026	6	224.58	227.23	225.48	227.23	-1.75
TWDB - #6807407	1/1/2025	1/1/2026	13	333.30	356.20	336.19	350.78	-14.59
TWDB - #6815211	1/1/2025	1/1/2026	13	108.12	113.86	110.77	109.26	1.51
						AVERAGE DRAWDOWN FOR 2025		-1.30

[17] CTGCD Management Plan Goal 8.A

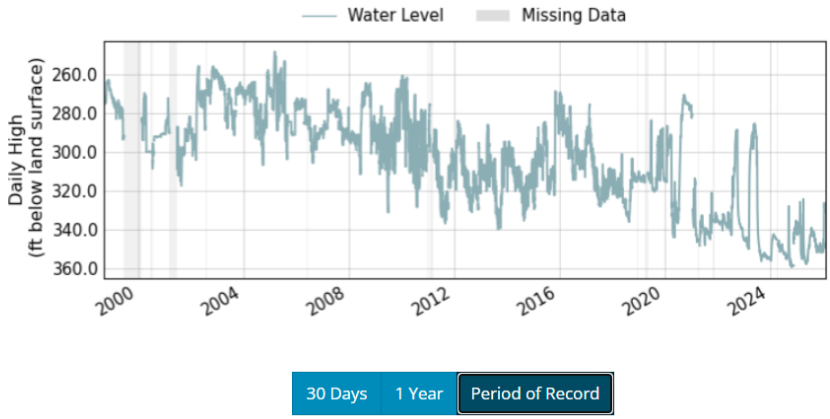
State Well Number 6815211 is 109.77 feet below land surface on 2026-02-15

Oldest record 7/20/2010 water level was 103.1 below surface. As of 2/15/2026, water was 109.77 below land surface, representing decrease of 6.67 feet.



State Well Number 6807407 is 329.14 feet below land surface on 2026-02-15

On 12/30/2008 water level was 291.8 below surface. As of 2/15/2026, water level was 329.14 below, representing a decrease of 37.34 feet.



The Desired Future Condition (DFC) for the Trinity Aquifer Modeled Available Groundwater (MAG) in GMA 9 in 2023 was determined by a specific model run and scenario—*MAG for the Trinity Aquifer, GMA 9, for CTGCD (in ac-ft) GAM Run 21-014 MAG* which allows 9,383 acre-feet per year water usage to stay within the DFCs. Likewise, the DFCs for GMA 10 were set by the *GAM Run 16-033 MAG* allowing for 33,554 acre-feet water usage per year.

The DFCs call for comparisons of average and allowable drawdown to the generally agreed upon baseline 2008 water levels. However, the CTGCD monitoring capability came online in 2019. Comparisons with average drawdown and allowable drawdown from the DFC is currently monitored and reported to the Board on a quarterly basis. The two TWDB monitoring wells in Comal County have historical data and are currently monitored and reported to the Board on a quarterly basis.

Addressing Desired Future Conditions: Groundwater Management Area Joint Planning Process[18]

There were seven GMA-9 DFC planning meetings in 2025; February 18, April 15, May 16, June 13, September 9, October 21, and December 16, 2025, of which all were attended by a CTGCD representative. Additionally, CTGCD provided a report on Management Plan achievements and DFC monitoring results at the December 16th meeting.

There were five GMA-10 meetings held in 2025; March 17, May 19, September 8, October 28, and December 10, 2025, all of which were attended by a CTGCD representative.

[18] CTGCD Management Plan Goal 8.B

APPENDIX A – CTGCD Pamphlet

Collecting Rainwater

- It reduces the water withdrawn from groundwater so it conserves our aquifers.
- It can be collected for non-potable and irrigation and, it can be collected and treated for potable uses in the home.
- The Texas Water Development Board provides a link to their *Texas Manual to Rainwater Harvesting* and other rainwater collecting resources at http://www.twdb.texas.gov/innovativewater/rainwater/links.asp
- Texas A&M AgriLife Extension Service in Comal County has a demonstration rainwater collection system at their facility. They offer periodic classes and events to learn more about rainwater collection. https://comal.agrilife.org/

Land Management & Brush Control

- Protect water supplies and water quality by caring for your land.
- Maintain deep ground cover, such as native grasses, to absorb rain and recharge the aquifer.
- Before removing vegetation, consider the soil profile and conditions. The Texas Water Development Board (TWDB) advises, "Excessive removal of brush or removal of brush in areas that have thin soil profiles or steep slopes can lead to severe erosion. This can negatively impact water quality downstream and remove important soil micro-organisms."
- TWDB also advises, "Identify the vegetation appropriate for restoration of the area. Assess whether the restoration can occur naturally or if it needs to be augmented with planting."

Did you know? *Comal County draws groundwater from two aquifers. The Edwards Aquifer is in the east. The Trinity Aquifer underlies all of Comal County, dipping under the Edwards in the east.*

Preventing Groundwater Waste

Outdoors

- Outdoor watering uses 50% to 80% of residential water use during Texas summers.

www.texaslivingwaters.org **suggests:**

- Plant drought-tolerant native and adapted grasses & plants.
- Limit landscape irrigation to no more than twice a week (once is better).
- Never water in the heat of the day.
- Convert gardens & landscapes to drip irrigation.
- Sprinklers do not deliver water efficiently.

Indoors

- Upgrade to water-efficient appliances, including washing machines, dishwashers, low-flow sinks, toilets, & shower fixtures.

New Braunfels Utility, Conservation Tips:

- http://www.nbutexas.com/conservation
  Rebates, water restrictions, & leak detection info.

Canyon Lake Water Service Company:

- https://www.clwsc.com/resources/conservation
  Possible irrigation system audit and other info on water conservation.

COMAL TRINITY
Groundwater Conservation District
PO Box 664, Spring Branch, TX 78070
830.885.2130

Did you know? *Most utilities in Comal County use a mix of water sources. Both NBU and CLWSC use some Trinity Aquifer water.*

Your Water Quality is Your Responsibility

Well Owner Tips

- Protect Wellheads from Contamination
- Don't store or use chemicals or fuels in the pump house or near the wellhead.
- Don't mix pesticides or store gasoline within 150 feet of the well.
- Inspect the wellhead every month. Repair breakage, soil disturbance by burrowing animals, or flooding of the wellhead.
- Locate pet or livestock holding areas at least 150 feet away and downslope of the wellhead. Pet and livestock waste can runoff and contaminate groundwater.

Household Waste Management:

- Septic tank should be at least 50 feet from the wellhead. The drain field should be at least 100 feet from a wellhead.
- Aerobic septic systems require regular maintenance. Comply with manufacturer requirements to avoid contaminating soil and groundwater.

Learn more

www.comaltrinitygcd.com

Texas Well Owners Network Resources
http://twon.tamu.edu/

What We Do

Protect Groundwater

Established rules for well construction, well spacing, and other regulations protect everyone's wells from contamination.
As of January 1, 2019, no well may be drilled into the Trinity Aquifer without receiving authorization to drill from GTGCD.

Preserve Groundwater

CTGCD projects and plans for sufficient groundwater supplies to meet future demand; we meet regularly with Groundwater Management Areas 9 & 10, and with the Region L Water Planning Group.

Collect Data

Track real-time Trinity water levels in monitoring wells throughout the county. Record geophysical logging of selected new wells.

Conserve Groundwater

Encourage voluntary water conservation through education via an informative website and via no-cost presentations to your organization—contact the CTGCD office.

COMAL TRINITY
Groundwater Conservation District
PO Box 664, Spring Branch, TX 78070
830.885.2130

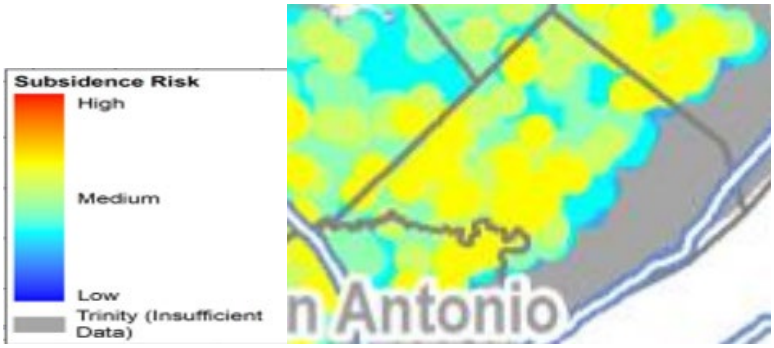
Working with you to conserve, protect, and preserve the groundwater in the Comal Trinity Aquifer

Test your water annually for Coliform Bacteria and Nitrates

The CTGCD
Brush Control
Well Owner Tips
Land Management
Collecting Rainwater
Water Conservation Tips

APPENDIX B

Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping – TWDB Contract Number 1648302062, by LRE Water
http://www.twdb.texas.gov/groundwater/models/research/subsidence/subsidence.asp



APPENDIX C

Final Report: Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping – TWDB Contract Number 1648302062

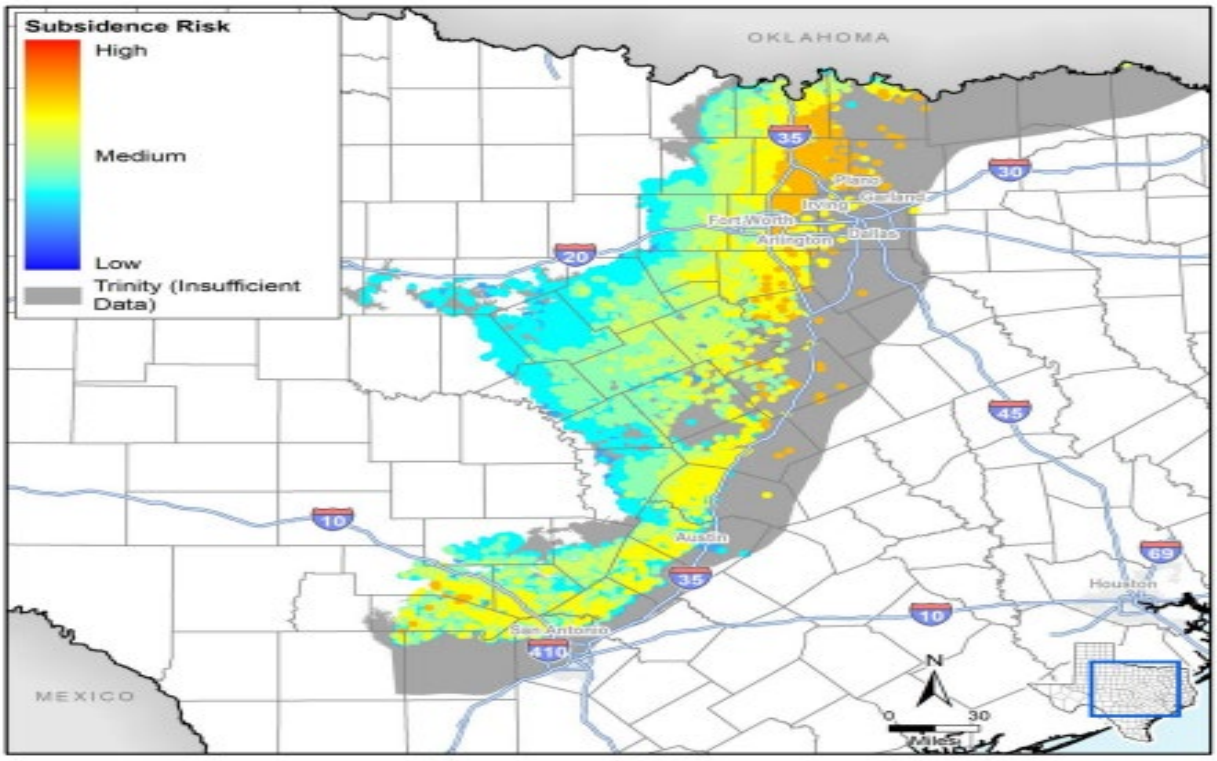


Figure 4.49. Trinity Aquifer subsidence risk vulnerability at well locations.

Comal Trinity Groundwater Conservation District Management Plan Revision Record

Date Adopted	Version
March 19, 2018	Original Adoption
March 13, 2023	Revision #1 (TWDB Approved May 5, 2023)