



PANOLA COUNTY
groundwater conservation district

2025 ANNUAL REPORT



Table of Contents

Description	Page
District Information.....	3
Staff and Directors.....	5
Management Plan Goals.....	6
Goal A. Providing the Most Efficient Use of Groundwater	
A.1.	7
A.2.	8
A.3.	9
Goal B. Controlling and Preventing Waste of Groundwater	
B.1.	10
B.2.	18
Goal C. Addressing Conjunctive Surface Water Management Issues	
C.1.	19
Goal D. Addressing Natural Resource Issues Which Impact the Use and Availability of Groundwater, and Which are Impacted by the Use of Groundwater	
D.1.	20
Goal E. Addressing Drought Conditions	
E.1.	23
E.2.	23
Goal F. Addressing Conservation, Rainwater Harvesting, Precipitation Enhancement, or Brush Control, Where Appropriate and Cost Effective	
F.1.	24
F.2.	25
Goal G. Addressing in a Quantitative Manner the Desired Future Conditions of the Groundwater Resources	
G.1.	27
G.2.	29
Management Goals Not Applicable	30
Appendix A	31
Appendix B	39

District Information

Creation

In 2007, the 80th Legislature, through the approval of House Bill 1498, authorized the creation of the Panola County Groundwater Conservation District, or the District. The voters of Panola County then confirmed the creation of the District on November



6, 2007 by 87%, along with a tax to fund the District with an 83% approval rate. The purpose of the District is to provide for the conservation, preservation, protection, recharging, and prevention of waste of groundwater, and the groundwater reservoirs or their subdivisions, consistent with the objectives of Section 59, Article XVI, Texas Constitution, Chapter 36 of the Texas Water Code, and the District's enabling act. The District was created to serve a public use and benefit in preserving the groundwater resources of the area.

Mission

Since its creation, the Panola County Groundwater Conservation District has worked hard to develop rules to provide protection to existing water wells, prevent waste, promote conservation, and to preserve and protect the groundwater resources of Panola County. The District is committed to managing and protecting the groundwater resources within its jurisdiction, and to work with other stakeholders to ensure a sustainable, high-quality, and cost-effective supply of water for future generations. The District will strive to develop, promote, and implement water conservation and management strategies to protect the water resources for the benefit of the citizens, the economy, and the environment within the District.

Authority

The District is a political subdivision of the State of Texas organized and existing under Section 59, Article XVI, Texas Constitution, the Texas Water Code Chapter 36, Title 31 of the Texas Administrative Code (TAC) Chapter 256, and the District's enabling act. The District is a governmental agency and a body politic and corporate of the State of Texas. The District exercises the authority it has been granted to preserve and protect the groundwater resources of Panola County through the adoption and implementation of rules for the District.

District Information Continued

Location and Extent

The boundaries of the District are the same as Panola County. The area encompasses 821 square miles (approx. 525,438 acres). The District is bounded by Harrison County to the north, Rusk County to the west, Shelby County to the south, and the State of Louisiana to the east.



District Office

Physical/Mailing Address:

419 West Sabine Street
Carthage, TX 75633

Phone: 903-690-0143

Fax: 903-690-0135

Staff and Directors

Directors

The Board of Directors consists of nine (9) members who are elected by the voters of Panola County. The District utilizes the same four (4) precinct boundaries which are used for the Panola County Commissioners when filling eight (8) of the District’s director positions. One director position for the District is elected at-large from Panola County. Elections are held in November of each even-numbered year. The directors of the District are each elected to a four-year term, and a director may serve consecutive terms.

Mike Pennington, President	Precinct One
Todd Malone, Vice-President	Precinct Two
Danny Reed, Treasurer	Precinct One
Charles Worley, Secretary.....	At-Large
John Burgess, Director	Precinct Two
Heath Hayes , Director.....	Precinct Three
Mike Roquemore, Director	Precinct Three
Corey Turner, Director	Precinct Four
Charles Foster, Director	Precinct Four

Staff

Teresa Griffin.....	General Manager
David Waldrop....	Field Technician/Inspector
Jeremy Green.....	Field Technician

Management Plan Goals

The District Management Plan identifies the goals and objectives of the District and provides performance standards and tracking methods to measure the District's effectiveness in meeting these goals. The District goals are mandated by the Texas Water Code Chapter 36 in Section 36.1071. The Management Plan must be updated every five (5) years, and Panola County's was updated and approved at a Public Hearing in April 2023. Although all groundwater conservation districts are subject to these goals, each district chooses how to best implement the goals within their district by establishing their own objectives and performance standards. The District goals are as follows:

- A. Providing the most efficient use of groundwater
- B. Controlling and preventing waste of groundwater
- C. Addressing conjunctive surface water management issues
- D. Addressing natural resource issues
- E. Addressing drought conditions
- F. Addressing conservation and rainwater harvesting
- G. Addressing the desired future conditions adopted by the district under Section 36.108

The following is a summary of the District's activities related to these goals.

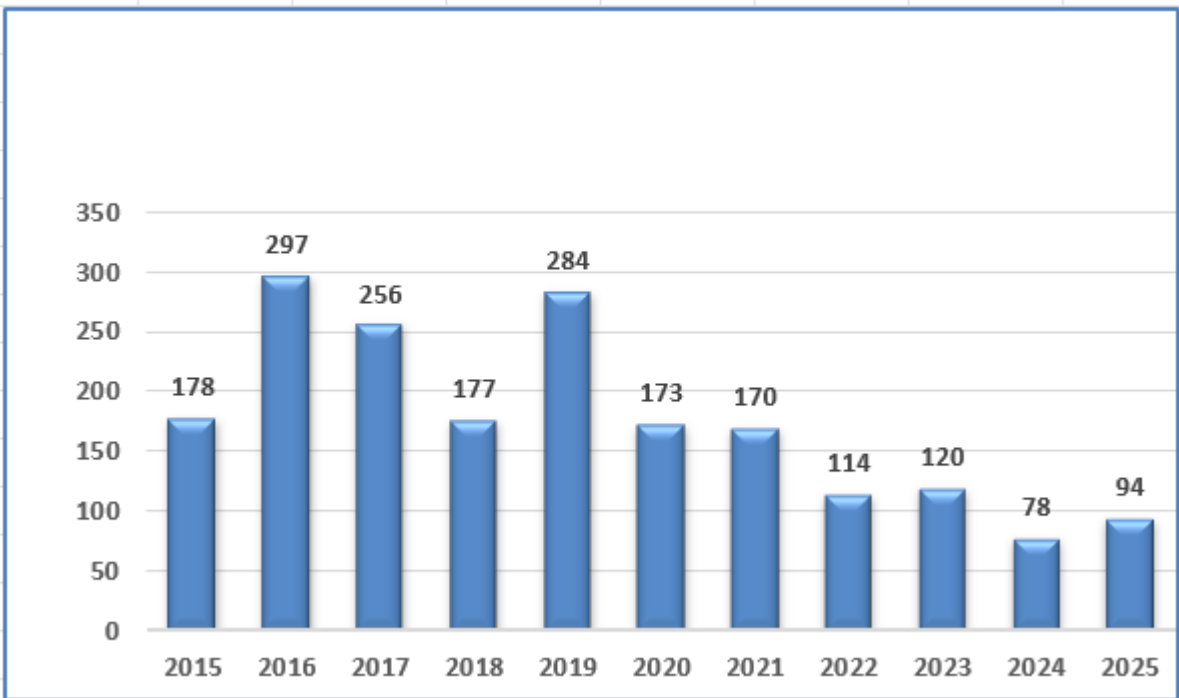
Goal A.1. Registrations

A.1. Objective: The District will require the registration of all wells, exempt and non-exempt, within the District’s boundaries each year in accordance with the District Rules.

A.1. Standard: The number of new and existing water wells registered with the District will be provided in the Annual Report for each fiscal year.

The District uses our database to store and track registrations and permits or all wells registered. In 2025, we had a total 70 new wells drilled, and 24 existing wells register for a total of 94 wells. At the end of 2025 we have a total of 4,949 wells registered. We continue the water well registration program by attempting to register undocumented water wells that field technicians have found in the field or through the State water well database.

**Number of Water Wells Registered
Each Year 2015-2025**

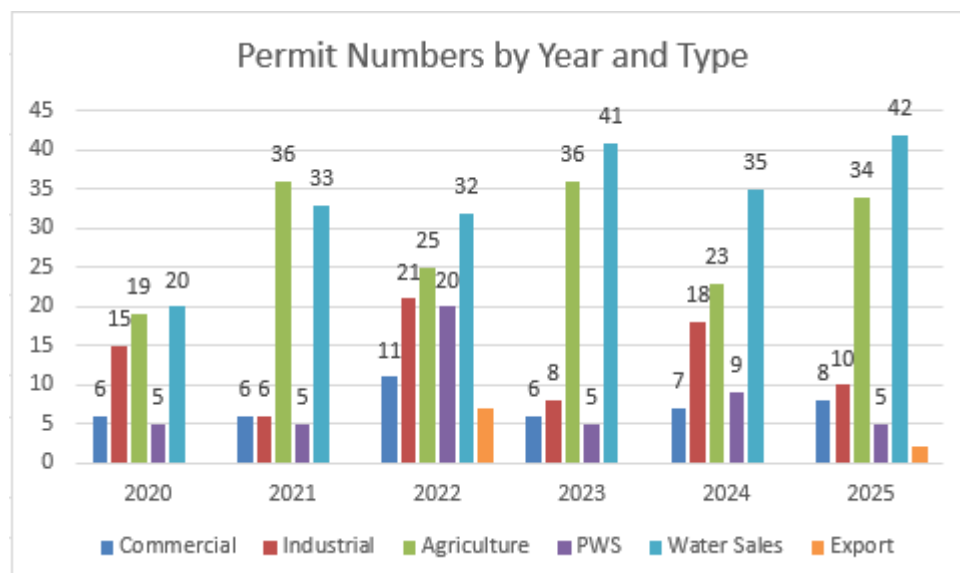


Goal A.2. Permits

A.2. Objective: The District will require permits for all non-exempt groundwater use water wells within the District's boundaries pursuant to the District Rules each year.

A.2. Standard: The District will accept and process applications for permits for all non-exempt groundwater use pursuant to the permitting process described in the District Rules each year. The Annual Report for each fiscal year will contain a summary of the number of applications for the permitted use of groundwater and the number and type of permits issued.

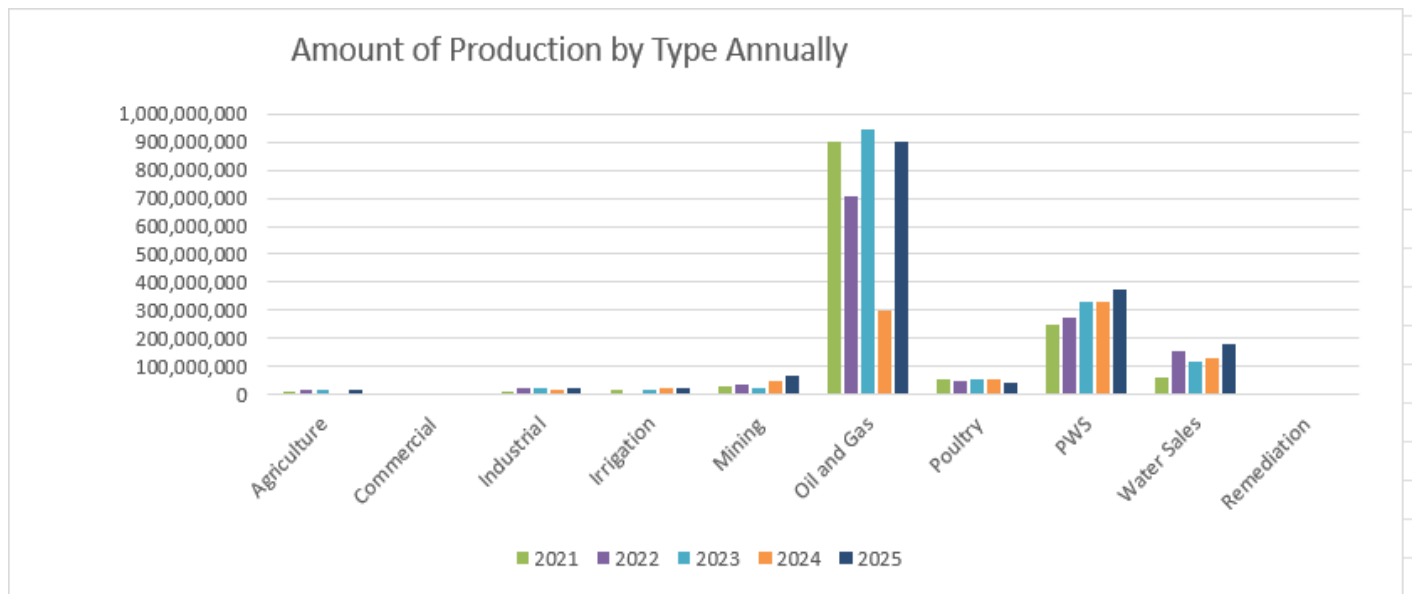
A total of 101 Permits were issued in 2025. The breakdown of permits is as follows: 94 Operating Permit renewals, and 7 new permits.



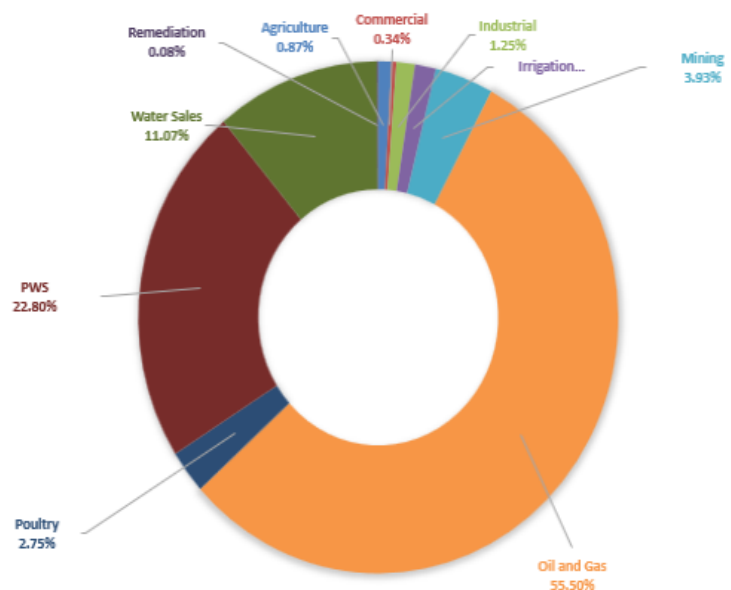
Goal A.3. Production

A.3. Objective: The District will regulate the production of groundwater by maintaining a database of groundwater usage through production volume reports each year according to the District rules.

A.3. Standard: The District will include a summary of the volume of groundwater produced in the county each year in the annual report.



2025 Largest User
Oil & Gas (55.5%)



Goal B.1. Education—Waste and Water Quality

B.1. Objective: The District will provide information on an annual basis to the public on the elimination, reduction, and prevention of waste of groundwater, and information focused on water quality protection each year.

B.1. Standard: The District's Annual Report will include a summary of the District's efforts during the fiscal year to provide educational information to the public on the elimination, reduction, and prevention of waste of groundwater.

The District's web site, www.pcgcd.org, contains links to a number of useful web sites pertaining to the elimination, reduction, and prevention of waste of groundwater. **Exhibit 1** on the following page shows a snapshot of the links on our website.

The District also hands out educational materials at the office and other events from the Texas Water Development Board on how to prevent waste. A copy of the materials are available in **Exhibit 2**.

We also are proud to be an Advocate level sponsor of the Texas 4-H Water Ambassadors Program. A copy of sponsor list is shown in **Exhibit 3**.

In May we partnered with Rusk County Groundwater Conservation District, and Texas Agrilife Extension Service to host a Well Owner Network program where attendees learned about aquifers and water well management along with water quality. Each attendee received a free water quality test for their water well. See **Exhibit 4**

District Field Technician, Jeremy Green and General Manager, Teresa Griffin attended the Sammy Brown Library and participated in the summer reading program themed "Color Your World". The participants were treated to a story and discussion about rain along with a painting craft. See **Exhibit 5**.

In October, the district purchased two working models for educational purposes. One model simulates how an aquifer functions, complete with working "water wells" to show how pumping and contamination affects the aquifer. The other model demonstrates rainwater harvesting. Both models are currently on display at the district office and will be available to display at field days, schools and other educational programs. See **Exhibit 6**

Exhibit 1 - Links to Educational Material

Links

Texas Well Owner Network <http://twon.tamu.edu/>

40 Gallon Challenge <http://www.40gallonchallenge.org/>

The Private Well Class <http://privatewellclass.org/>

Texas Groundwater Protection Committee <http://www.tgpc.state.tx.us/index.php>

Fun For Kids www.twdb.texas.gov/kids

Texas Water Development Board www.twdb.texas.gov/index.asp

TWDB Submitted Drillers Reports www.twdb.texas.gov/groundwater/data/drillersdb.asp

Texas Commission on Environmental Quality Well Reports

Texas Department of Licensing and Regulation for Water Well and Pump Installers www.license.state.tx.us/wwd/wwd.htm

Licensed Water Well and Pump Installer Search www.license.state.tx.us/LicenseSearch/

Railroad Commission of Texas www.rrc.state.tx.us/

Know Your Water, Water IQ www.wateriq.org

Having a Well Drilled [Having-a-Well-Drilled.pdf](#)

Water Well Development www.lifewater.ca/drill_manual/Section_10.htm

National Groundwater Association NGWA

Environment and Natural Resources Portal www.texasonline.com/portal/tol/en/nat/home

Palmer Drought Indices www.drought.gov/drought/data-maps-tools/current-conditions

Exhibit 2 - Educational Material

OUTDOOR TIPS

One inch of water per week in the summer will keep most Texas grasses healthy. To determine how long you should run your sprinklers, place straight-edged cans at different distances away from the sprinkler and time how long it takes to fill an average of 1 inch of water in each can.

Don't abuse the benefits of an automatic sprinkler system by over watering. Set it to provide thorough but infrequent watering. Check sprinkler heads regularly to make sure they are working properly. Install rain shut-off devices and adjust sprinklers to eliminate coverage on pavement.

Prevent evaporation of water. Water lawns early in the morning or in the evening during the hotter summer months. Never water on windy days. Use drip irrigation systems for broad plants, trees or shrubs and use low angle sprinklers for lawns. Cover pools and use low angle sprinklers for lawns. Cover pool volume each year!

Plant water-efficient, well-adapted, and/or native shrubs, trees, and grasses. Choose plants that are drought and heat tolerant and can survive the minimum winter temperatures in your area. In odd shaped areas, use drought-tolerant groundcover instead of grass. Many cities provide lists of water-efficient plants.

Harvest the rain. Buy a rain barrel or a cistern and collect the water from your gutters to water your plants.

Use your water efficiently. Don't waste water by cleaning gutters or sidewalks with it; use a broom. For plants that need more water, use a hose or watering can to give them additional water.

WATER CONSERVING TIPS



USING WATER MORE EFFICIENTLY

will not only save money but, more importantly, will also help protect the quality of life of future Texans.

With the realities of Texas, it's easy to forget two important facts about our state: we are subject to frequent droughts, and our population is projected to double in the next 50 years. The cost of developing new or additional supplies in that same time period is estimated to be \$30.7 billion.

To ensure that we have enough cost-effective water for current and future Texans, we need to reduce the amount of water we waste.



www.twdb.state.tx.us
P.O. Box 13211
Austin, Texas 78711-3211



Visit the following Web site for additional information:
www.epa.gov/watersense

WATER IQ
www.wateriq.org

Printed on recycled content paper

Exhibit 2 - Educational Material

POSSIBLE WATER SAVINGS

- High-efficiency toilets, water-efficient washing machines, rainwater harvesting systems, and water-efficient landscaping can all help reduce water use.
- Water-efficient showerheads and aerators for faucets can significantly reduce the amount of water you use. In fact, installing a water-efficient showerhead is one of the most effective water-saving steps you can take inside your home.
- Leaky faucets and toilets can waste thousands of gallons of water monthly, and they are inexpensive to fix. A few small changes in your water use habits can make a huge difference in water savings.
- In the summer, outdoor water use can account for 50 percent or more of total water use. With proper management, you can have a beautiful, healthy landscape and reduce your water use significantly. This can amount to hundreds of dollars in savings a year in water and often wastewater costs.



INDOOR TIPS

Bathroom

- Replace your showerhead with a water-efficient model.
- Get in the shower as soon as the water becomes warm enough.
- Take short showers.
- Take a shower instead of a bath. A shower with a water-efficient showerhead often uses less water than a bath.
- Reduce the level of water used in a bathtub by 1 or 2 inches if a shower is not available.
- Turn off the water while you are shaving. Fill the sink with hot water instead of letting the water run continuously.
- Replace your old toilet with a high-efficiency toilet that uses 1.3 gallons per flush.
- Test toilets for leaks. Once in awhile, take the top off of your toilet tank and watch it flush. Do you notice any leaks? Yes? Replace the flapper or rubber washer. Don't forget about those less obvious leaks. Add a few drops of food coloring or a dye tablet to the water in the tank, but do not flush the toilet. If the coloring appears in the bowl within a few minutes, the toilet has a leak that needs to be repaired.
- Never use the toilet to dispose of trash.
- Don't waste water when brushing your teeth or washing your hands. Shut off the water until it's time to rinse.

Kitchen

- Run the dishwasher only when full. This practice will save water, energy, detergent, and money. If your dishes are not very dirty, use the short wash cycle. You can spend less money on water and energy by installing a high-efficiency dishwasher.
- Install faucet aerators. You'll never notice the difference, and you'll cut your sink water consumption in half! Also, don't ignore leaky faucets; they waste lots of water.
- Keep a container of water in the refrigerator. It will be refreshingly cool and won't waste water.
- Dry scrape dishes instead of rinsing. Your dishwasher will take care of the rest.
- Use garbage disposals sparingly. They can waste water unnecessarily.
- Scrub pots rather than scrubbing them while the water is running.
- Rinse your vegetables in a pan of cold water; it doesn't take gallons of water to get the dirt off.

Laundry room

- Conventional washing machines use 32 to 59 gallons of water per load.
- Wash only full loads.
- Use the lowest water level setting on the washing machine for light or partial loads whenever possible.
- Use cold water as often as possible to save energy and conserve hot water for uses that cold water cannot serve.

Additional tips

- Don't ignore leaky faucets; they are usually easy and inexpensive to repair. Turn off the valve under the sink until you get around to repairing the leak. A slow drip can waste as much as 170 gallons of water each day and will add to the water bill.
- Know where your master water shut-off valve is in case a pipe bursts. Insulate hot water pipes. You won't waste water waiting for it to get hot, and you will save energy too.
- Install water-sensing systems only when necessary, and if you have one, save water and salt by resetting the minimum amount of regeneration necessary to maintain water softness.
- Replace water-to-air heat pumps and air conditioners with air-to-air if you are purchasing new units. They are just as efficient and do not waste water.
- Find other uses for water rather than letting it go down the drain, such as watering house plants with fish tank water.



Exhibit 3 - Educational Outreach



TEXAS 4-H

Water Ambassadors Program

[Home](#) [About](#) [Academies](#) [News](#) [Apply](#) [Sponsors](#) [Ambassadors](#)

SPONSORS

Signature: [Prairielands Groundwater Conservation District](#), [Brazos River Authority](#), [Central Texas Groundwater Conservation District](#), [High Plains Water District](#), [Post Oak Savannah Groundwater Conservation District](#), [Groundwater Management Area 7](#), [Brazoria County Groundwater Conservation District](#), [HEB](#), [San Antonio Water System](#)

Legacy: [Houston Livestock Show and Rodeo](#), [Middle Trinity Groundwater Conservation District](#), [Bluebonnet Groundwater Conservation District](#), [Clearwater Underground Water Conservation District](#), [Mid-East Texas Groundwater Conservation District](#), [Brazos Valley Groundwater Conservation District](#), [Lower Rio Grande Valley Water District Managers Association](#), [Water Grows](#), [Northern Trinity Groundwater Conservation District](#), [Hickory Underground Water Conservation District No. 1](#), [Glasscock Groundwater Conservation District](#), [Texas Rural Water Association](#), [Pecan Valley Groundwater Conservation District](#), [Corpus Christi Water](#), [Hill Country Underground Water Conservation District](#)

Advocate: [KPA Engineers](#), [Southern Ogallala Conservation and Outreach Program](#), [Lloyd-Gosselink Rochelle and Townsend, P.C.](#), [Hemphill County Underground Water Conservation District](#), [Panola County Groundwater Conservation District](#), [Guadalupe Blanco River Authority](#), [Lone Star Groundwater Conservation District](#), [Guadalupe County Groundwater Conservation District](#), [Upper Trinity Groundwater Conservation District](#), [North Plains Groundwater Conservation District](#), [Lee-McElroy Charitable Foundation](#), [Samuel Jackson, Inc.](#), [Blanco-Pedernales Groundwater Conservation District](#), [Culberson County Groundwater Conservation District](#), [Tarrant Regional Water District](#), [Evergreen Underground Water Conservation District \(in honor of Paul Bordovsky\)](#)

Stewardship: [Rusk County Groundwater Conservation District](#), [Upper Guadalupe River Authority](#), [Brush Country Groundwater Conservation District](#), [Trinity Glen Rose Groundwater Conservation District](#), [Mesquite Groundwater Conservation District](#), [Pumps of Houston, Inc.](#), [Lavaca Navidad River Authority](#), [Hydrogeologic/Environmental, Inc.](#), [Lake Stillhouse Clean Water - Mr. Kenneth Schoen](#), [San Jacinto River Authority](#), [Hazen and Sawyer](#)

Exhibit 4 - Educational Outreach

Water Well Owners Educational Event



Sample Drop Off
Monday, May 5, 2025
8:30—10:00 a.m.
Panola County AgriLife Extension Office
Rusk County AgriLife Extension Office
Panola Co. GCD Office or Rusk Co. GCD Office

Educational Meeting
Thursday, May 8, 2025
8:00 a.m.—12:00 p.m.
Texas Country Music Hall of Fame
310 W. Panola Street
Carthage

TEXAS WELL OWNER NETWORK PROGRAM

The Texas Well Owner Network (TWON) program is a free, educational training for Texas residents who depend on household wells for their water needs. TWON is for private well owners who want to become familiar with groundwater resources, septic system maintenance, well maintenance, water quality and water treatment. Private well owners are independently responsible for monitoring the quality of their wells. Essentially, they are the operators of their own water system and are responsible for ensuring that their water is safe.

BRING YOUR WELL WATER SAMPLES!

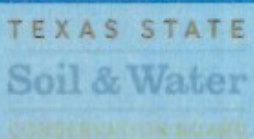
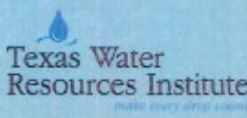
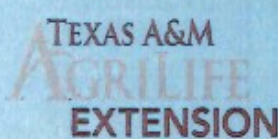
Well owners should bring water samples Monday, May 5 to be screened for nitrate-nitrogen, total dissolved solids (TDS) and *E. coli* bacteria. Pick up approved sample containers with instructions at your local County AgriLife Extension office: Panola County, 316 W. Sabine St, Carthage; Rusk County, 113 E. Fordall St., Henderson or Local Groundwater Conservation District office: Panola GCD, 419 W. Sabine; Rusk GCD, 500 N. High Street, Henderson. Please RSVP for the educational program and lunch count to the Panola County GCD office prior to noon May 5th at 903-690-0143.

Drop samples at the same location where testing materials were picked up.

Samples are due on Monday, May 5th by 10:00 a.m.

There is a \$15 per sample cost for this screening. Well owners with a registered well in Panola County will have that cost covered by the Panola County GCD.

Pre-register by contacting Joel Pigg
Phone: 979-321-5946
Email: j-pigg@tamu.edu



TWON
TEXAS
Well Owner
NETWORK

Funding for the Texas Well Owner Network is through a Clean Water Act section 319 (h) nonpoint source grant from the Texas State Soil and Water Conservation Board and the U.S. Environmental Protection Agency. The project is managed by the Texas Water Resources Institute, part of Texas A&M AgriLife Research, AgriLife Extension and the College of Agriculture and Life Sciences at Texas A&M University.

Exhibit 5 - Educational Outreach



Sammy Brown Library

July 3, 2025

Exhibit 6 - Educational Outreach



Goal B.2. Rule Evaluation

B.2. Objective: The District will make an annual evaluation of its Rules to determine whether any amendments are necessary to facilitate the prevention of waste of the groundwater within the District boundaries.

B.2. Standard: The District's Annual Report will include a summary of the evaluation of the District Rules, and will provide a recommendation as to whether any amendments to the Rules are needed to facilitate the prevention of waste.

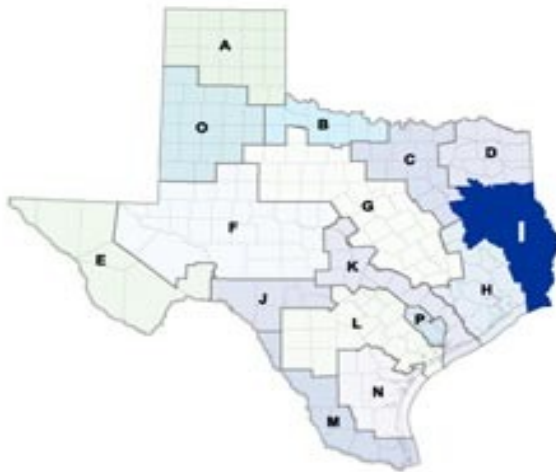
In July the Board began their annual review and discussions of the District Rules for any amendments. Our attorney came and presented suggested revisions to coincide as a result of the 88th Texas Legislative Session. Rule Amendments included changes in civil penalty fee structure for certain suits, changes that update how the District achieves its DFCs and reporting GMA's progress in achieving DFCs, considerations when issuing permits or permit amendments, and amendments relating to the use of certain export fees. The Public Hearing on Rule Changes was held in August. A copy of the agendas, and the minutes showing the rule review and Public Hearing for Rule Changes can be found in **Appendix A**.

Goal C.1. Regional Planning Process

C.1. Objective: The District will participate in the regional planning process by sending a representative to attend at least one meeting of the East Texas Regional Water Planning Group (Region I) each fiscal year.

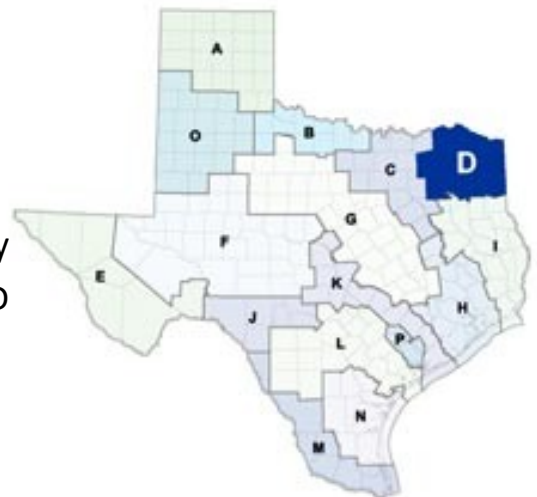
C.1. Standard: The attendance at any Region I meeting by a representative of the District will be included in the District's Annual Report, and will indicate the dates of attendance.

The District participates in the regional planning process by attending Region I and Region D Planning Group meetings. The attendance of District staff at these meetings provides valuable input to the Planning Group relative to groundwater's role in overall regional planning, and it helps to coordinate information between the Regional Planning Groups and GMA 11.



General Manager, Teresa Griffin, attended the September 9, 2025 Region I meeting.

General Manager, Teresa Griffin, attended the February 19, 2025, July 9, 2025 and October 1, 2025 Region D Water Planning Group meetings.



Goal D.1. Aquifer Levels

D.1. Objective: The District will monitor water levels within District boundaries on an annual basis by measuring the water level and collecting water quality of at least fifteen (15) water wells.

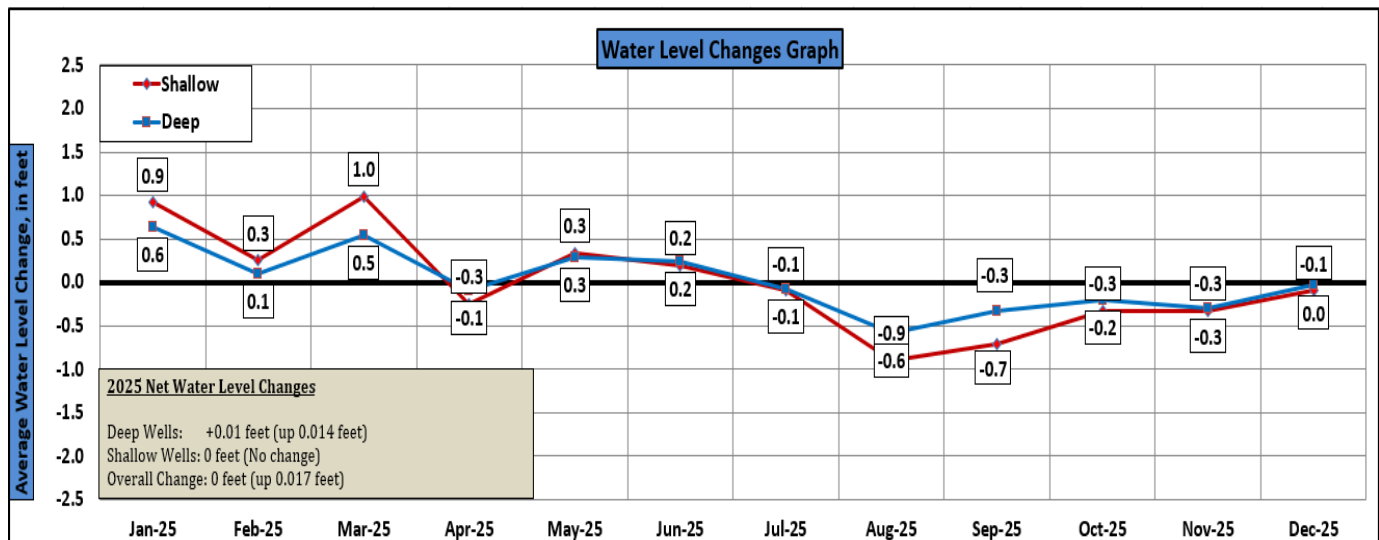
D.1. Standard: The District's Annual Report will include a description of the number of wells measured and the monitoring results of the measured wells along with the water quality for each year.

The District currently checks ninety-three (93) water wells for water levels. Eleven (11) of the wells are annual monitor wells for the Texas Water Development Board, twenty-four (24) are monitored pumping areas, and the other fifty-eight (58) are non-pumping areas. The wells are checked at a minimum monthly for the District. Based on the 2025 measurements, we saw a net change of 4.2-feet decrease in water levels in our pumping areas; a 1.2-foot decrease in our wells for the Texas Water Development Board, and 0.1-foot decrease in water levels in our non-pumping wells over the course of the year, (Table 1& 2). The District also deploys three water well sensors that measure pressure, temperature, and specific conductivity to gain higher-resolution data from long-term and temporary monitor wells.

Table 1 and 2 - Monitor Well Water Level Data

Well ID	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
PC2009-0801	20.8	20.7	17.3	19.4	18.9	18.9	19.2	20.1	20.7	20.7	20.7	21.2
PC2009-0794	31.4	31.1	28.5	28.9	29	28.9	29.1	31.3	32.5	33.6	32.4	31.7
PC2009-0660	23.2	23.3	21.7	22.1	22.1	21.4	21.1	22.5	22.9	23.5	24.3	24.6
PC2009-0795	17.2	16.9	15.9	16.1	15.9	15.8	15.9	16.5	17.7	17.5	18.5	18.1
PC2018-0008	69.9	69.8	68.9	68.9	68.4	68.7	68.1	69.1	69.9	NA	70.7	70.7
PC2017-0057	27.5	26	25.4	23.4	22.6	21	21.2	21.3	22	22.1	22.9	23.7
PC2011-0532	38.9	39.3	38.6	38.3	37.7	37.4	38.1	37.5	37.8	38	38.1	38.2
PC2011-0170	55.5	55.2	55.1	55.1	54.9	54.3	54.1	54.7	55	55.3	55.3	55.5
PC2009-0763	45.8	46	44.9	44.1	43.3	42.7	42.6	44.3	45.4	45.7	46.2	45.5
PC2009-0452	63.5	63.5	63.3	63.2	63.2	63.2	63.1	63.4	63.8	63.8	63.8	63.8
PC2011-0329	22.5	24.1	21.5	21.4	21.1	20.8	21.2	22	22.7	23.3	23.6	23.8
PC2013-0125	52.6	53.1	52.7	52.6	51.4	51.3	52.2	52.4	52.6	52.6	52.6	52.9

Table 1 and 2 - Water Level Changes & Water Quality Data



Panola County Water Quality Results 2025

	Troll 500 FP Test	F°	mg/L	mg/L	mg/L	mg/L	mv/L	mg/L	mg/L
Well Owner	Average Date	Temperature	Chloride	pH	TDS	Nitrate NO3	ORP	Salinity	Conductivity
PC2024-0059	10/27/2025	68.525	56.813	6.675	152.405	0.120	-16.658	0.107	234.510
PC2024-0061	10/21/2025	69.050	208.393	6.700	374.413	0.378	-28.620	0.273	576.025
PC2024-0062	10/21/2025	68.375	105.688	6.500	235.740	0.228	-4.455	0.170	362.715
PC2021-0018	10/20/2025	69.975	43.575	7.475	307.955	0.233	-52.925	0.228	473.715
PC2021-0028	10/20/2025	69.650	32.513	7.300	210.558	0.123	-51.940	0.153	323.945
PC2021-0029	10/20/2025	69.475	58.868	7.400	286.263	0.225	-56.775	0.208	440.543
PC2021-0025	10/22/2025	69.967	42.227	7.667	335.893	0.227	-47.417	0.247	516.763
PC2021-0026	10/22/2025	70.133	30.060	7.567	284.150	0.183	-15.637	0.208	437.153
PC2021-0027	10/22/2025	69.367	25.950	6.963	126.640	0.137	-5.473	0.090	194.833
PC2020-0114	10/23/2025	68.300	29.733	7.000	132.240	0.343	-3.933	0.093	203.463
PC2020-0153	10/23/2025	67.800	27.960	7.000	197.950	0.167	-26.897	0.120	264.920
PC2020-0004	10/23/2025	71.875	189.905	8.875	719.940	0.885	90.583	0.548	1093.625
PC2020-0007	10/23/2025	65.300	4.060	8.800	683.220	0.810	122.210	0.520	1051.110
PC2020-0059	10/23/2025	69.975	166.630	7.750	598.198	0.820	-54.203	0.453	920.325
PC2020-0058	10/23/2025	70.550	59.970	7.075	267.783	0.288	-43.600	0.193	411.978
	Average	69.221	72.16	7.383	327.56	0.344	-13.05	0.24	500.37
	Quality Standards	Not Regulated	Less Than 250	6.5-8.5	Less than 500	10 or less	Less than 650	Not Regulated	200- 800

Goal E.1. Drought

E.1. Objective: The District's Management Plan requires the District to download at least one updated U.S. Drought Monitor map each month.

E.1. Standard: The District will include the 12 monthly downloaded U.S. Drought Monitor maps in the Annual Report for each fiscal year.

The U.S. Drought Monitor reports can be found in **Appendix B** of this document.

Goal E.2. Drought Contingency Plan

E.2. Objective: The District will create and adopt, through the Board of Directors, a Drought Contingency Plan, and will monitor drought conditions in the Carrizo-Wilcox Aquifer as outlined in the Drought Contingency Plan. If necessary, the District will update its Drought Contingency Plan when changes are warranted.

E.2. Standard: The District's Annual Report to the Board of Directors will provide a summary of any implementations of the Drought Contingency Plan for each year and will include an update on any revisions made during the year.

The drought contingency plan was approved at the May 24, 2016 board meeting. There have been no problems with drought since its approval, so the plan has yet to be activated and no changes have been required to the plan since its implementation in 2016.

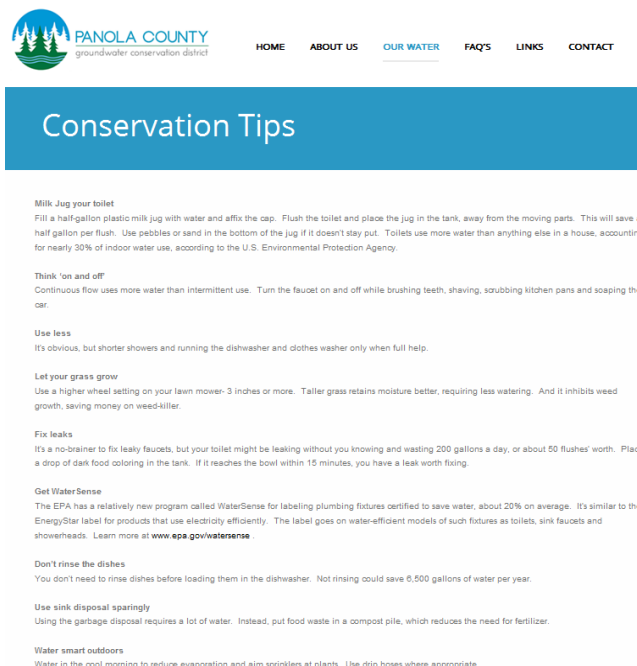
Goal F.1. Conservation

F.1. Objective: The District will promote conservation at least once during each fiscal year by distributing literature packets or brochures and will sponsor an educational program/curriculum.

F.1. Standard: The District's Annual Report will provide a summary of the District's efforts and a copy of any information provided by the District to the public during the previous fiscal year to promote conservation.

Summary of Actions

During the summer PCGCD staff, made our annual visit to the Summer Reading Program at the Sammy Brown Library. This year's theme was "Color Your World", the participants were given small easels, paints and aprons to create their own masterpieces, while we read a book about rain. See **Exhibit 4**.



Goal F.2. Rainwater Harvesting

F.2. Objective: The District will advocate for rainwater harvesting each year by providing updated information about rainwater harvesting on the District website at least once each fiscal year.

F.2. Standard: The District's Annual Report will include a copy of the information on rainwater harvesting which has been provided on the District website within the previous fiscal year.

Summary of Actions

The District has added to the District website the information on rainwater harvesting. The picture below is a snapshot showing the links on our website. We also have installed a rain barrel at our office, which is used to water our flower beds and plants! In October we also purchased a working model that shows harvesting calculations, along with how rain collects off your roof!



[HOME](#) [ABOUT US](#) [OUR WATER](#) [FAQ'S](#) [LINKS](#) [CONTACT](#)

Rainwater Harvesting

Click the links below for more information about Rainwater Harvesting.

[TWDB – Rainwater Harvesting](#)

[The New Landscape of Rainwater Harvesting in Texas](#) – (article by Kristen Fancher, Attorney)

[AgriLife Extension, Texas A&M – Rainwater Harvesting](#)

NEWS

[Water Is The Future](#)
OCTOBER 16, 2013

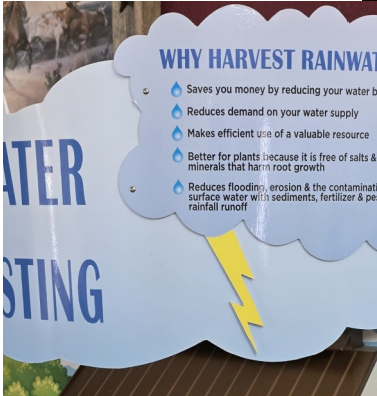
ANNOUNCEMENTS

[February Board Meeting](#)
FEBRUARY 23, 2016

CONTACT US

419 W. Sabine St., Carthage, TX 75633
903-690-0143

Goal F.2. Rainwater Harvesting



Goal G.1. Desired Future Conditions

G.1. Objective: Using water levels monitored as part of Objective D.1, the District will evaluate water level trends and quantitatively compare these to the adopted desired future conditions.

G.1. Standard: The District's Annual Report will include documentation of water level trends from the monitoring program results described in Objective D.1. This documentation will include a comparison of these trends to adopted desired future conditions.

Summary of Actions

For the year 2025, the District used forty-two (42) deep water wells to track groundwater levels. The purpose was to monitor the water table throughout the county in an attempt to quantify the established Desired Future Conditions (DFCs) for the aquifer. The tables on the next page show the numbers for fluctuations in those monitor wells. The District will continue developing its research studies in 2025 to address the Desired Future Conditions set by GMA 11 and to build a greater understanding of the aquifer.

Desired Future Conditions (DFCs) in Panola County

The District's groundwater elevations are compared to the 2013 baseline. The District makes these comparisons on an annual basis for the DFC and MAG, as guided by the District's management Plan, Chapter 36 of the Texas Water Code, and best management practices of our groundwater resources. An analysis of the 2023 groundwater elevations to the DFC found that Panola County's monitoring data are consistent with the desired future conditions.

The new DFC for the Carrizo-Wilcox Aquifer in Panola County is an average drawdown of **21 feet** from 2013 to 2080. GMA 11 adopted new DFCs on August 11, 2021. The new DFCs are based on the updated Groundwater Availability Model (GAM) which corrects many of the limitations and problems associated with the old GAM. Texas Water Development Board issued a report of GAM Run 21-016 MAG on March 7, 2022 with updated MAGs. The MAG of the Carrizo-Wilcox Aquifer for the years 2020-2080 is **4,999 a/f.**

Panola County MAG Values (acre-feet per								
County	Region	Basin	2020	2030	2040	2050	2060	2070
Panola	I	Cypress	0	0	0	0	0	0
		Sabine	4,999	4,999	4,999	4,999	4,999	4,999

Goal G.1. Desired Future Conditions

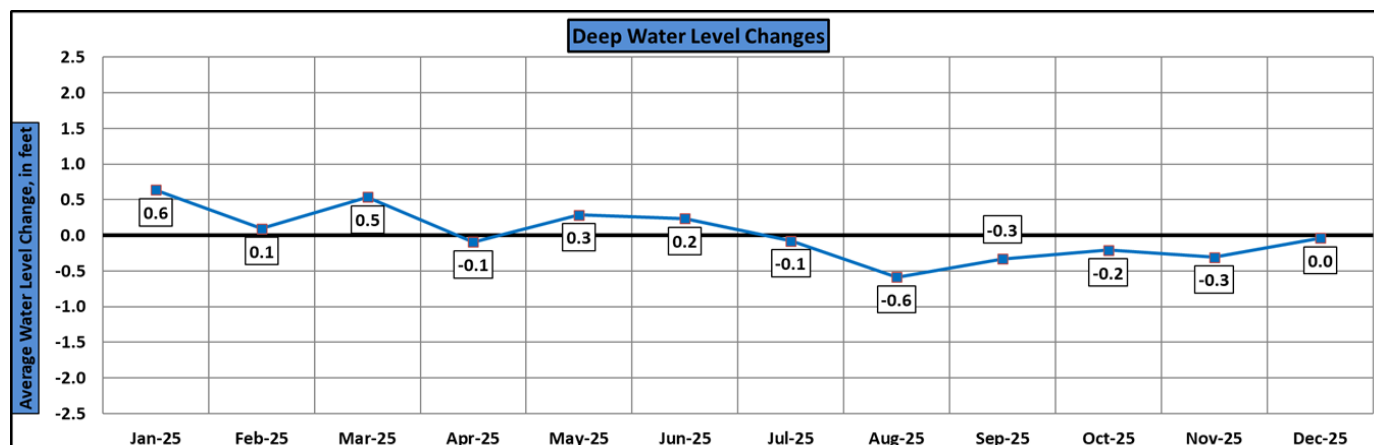


Table 1
Desired Future Conditions for Each County-Aquifer Unit in GMA 11
Expressed at Average Drawdown from 2013 to 2080 (ft)

County	2013-2080 Average Drawdown (ft) Scenario 33, TM 21-01		
	Sparta Aquifer	Queen City Aquifer	Carrizo-Wilcox Aquifer
Anderson	30	44	155
Angelina	6	28	67
Bowie			12
Camp		11	85
Cass	66	34	79
Cherokee	7	31	176
Franklin			102
Gregg		49	109
Harrison		41	26
Henderson		33	106
Hopkins			61
Houston	3	12	86
Marion	123	32	32
Morris		39	78
Nacogdoches	7	22	73
Panola			21
Rains			17
Rusk	26	17	86
Sabine	1	3	9
San Augustine	2	7	22
Shelby	18	12	17
Smith	121	132	265
Titus		9	66
Trinity	5	18	56
Upshur	10	30	149
Van Zandt		73	55
Wood	9	16	122

Goal G.2. Non-Exempt Production

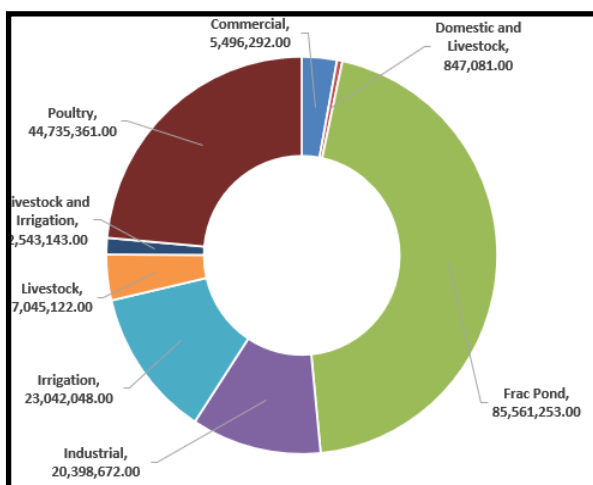
G.2. Objective: The District will consider a reasonable estimated amount of actual ground-water production on an annual basis through tracking production of permitted water wells and estimating use in non-permitted wells.

G.2. Standard: The District's Annual Report will include the amount of production for each permitted water well within the District. The Annual Report will also contain an estimate of use in non-permitted wells and a description of the method used to develop the estimate.

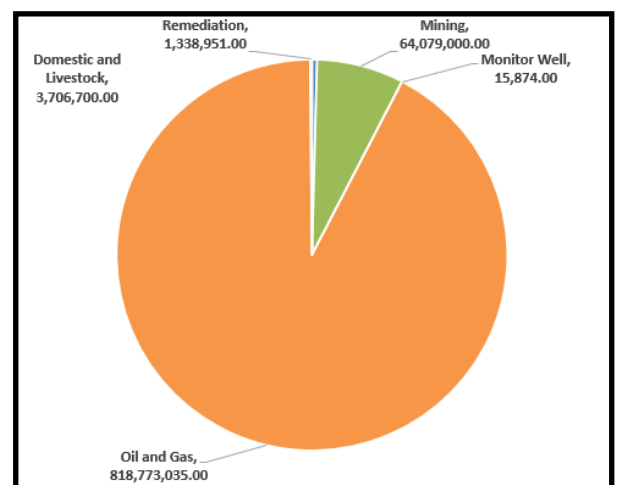
Summary of Actions

The reported total production for all permitted water wells in 2025 was 1,629,388,262 gallons or 5,000 acre-feet. The total amount of groundwater permitted by well type is represented in the chart below. The District has also estimated the amount of non-permitted groundwater used in 2025. With the use of our database, reported production and estimating average household usage of 4,500 gallons per month, we were able to come up with estimated usage of non-permitted wells within Panola County.

2025 Permitted Production



2025 Estimated Non-Permitted



Management Goals Determined Not Applicable to the District

The following goals have been determined by the District to not be applicable.

- ♦ Controlling and Preventing Subsidence
- ♦ Addressing Precipitation Enhancement
- ♦ Addressing Brush Control
- ♦ Recharge Enhancement

Appendix A

REGULAR BOARD MEETING

Panola County Groundwater Conservation District

419 W. Sabine St., Carthage, Texas 75633

Phone: 903.690.0143 Fax: 903.690.0135

Regular Board Meeting of the PCGCD Board of Directors

Tuesday, July 22, 2025, 5:30 p.m.

County Clerk's Office Use Only:	
FILED FOR RECORD	
IN MY OFFICE	
AT 1:15	O'CLOCK P M
18 2025	
BOBBIE DAVIS	
COUNTY CLERK, PANOLA COUNTY, TEXAS	
DEPUTY	

REGULAR BOARD MEETING AGENDA

1. Call to order.
2. Invocation.
3. Public comments. Comments are limited to 3 minutes. No action will be taken unless provided on the agenda.
4. Review and consider approval of minutes for the May 27, 2025, Regular Board Meeting.
5. Review and discussion on preliminary 2026 District Budget and 2025 tax rate.
6. Presentation by District's Attorney on 2025 Texas Legislative Session
7. Review and possible approval of rule changes for public rule making hearing as a result of the 2025 legislative session and attorney recommendations
8. Hear General Manager report and discuss topics such as, driller violations, updates on meetings attended, District Rules and information related to District operations.
9. Hear staff reports and discuss topics such as water well issues, frac pond monitoring, monitor wells, rain gauges, collection of field data, and information related to the management plan.
10. Review and confirm the Quarterly Investment Report and District expenditures from May 24, 2025 – July 18, 2025.
11. EXECUTIVE SESSION: The Panola County Groundwater Conservation District Board of Directors may go into an executive session under the authority of the Government code, Chapter 551, Texas Open Meetings Act. Please see details below.
12. Consider action(s) regarding matters discussed in executive session.
13. Set date and time for the next meeting.
14. Adjournment.

This meeting is available to all persons regardless of disability. If you require special assistance to attend or participate in the meeting, please contact the Panola County GCD at (903) 690-0143 at least 24 hours in advance of the meeting.

At any time during the meeting and in compliance with the Texas Open Meetings Act, Chapter 551, Government Code, Vernon's Texas Codes, Annotated, the Panola County Groundwater Conservation District Board may meet in executive session on any of the above agenda items for consultation concerning attorney-client matters (§551.071); deliberation regarding real property (§551.072); deliberation regarding prospective gift (§551.073); personnel matters (§551.074); and deliberation

Appendix A

regarding security devices (§551.076). Any subject discussed in executive session may be subject to action during an open meeting.

Certification

I, the undersigned authority, do hereby certify that on July 18, 2025 at or before 5:00 p.m., our office posted and filed the above notice of meeting with the Panola County Clerk's Office, and also posted a copy near the front door of the Panola County GCD office in a place convenient and readily accessible to the general public at all times, and that it will remain so posted continuously for at least 72 hours preceding the scheduled time of said meeting in accordance with Texas Government Code, Chapter 551.



Teresa Griffin, General Manager
Panola County Groundwater Conservation District

WITNESS THE HAND AND SEAL OF THE UNDERSIGNED CLERK ON THIS THE
18th DAY OF JULY 2025 AT 1:15 O'CLOCK A.M. P.M.


BOBBIE DAVIS, COUNTY CLERK
PANOLA COUNTY, TEXAS

BY  DEPUTY

Appendix A

Panola County Groundwater Conservation District
Board of Directors Regular Meeting Minutes
July 22, 2025

A regular meeting of the Panola County Groundwater Conservation District Board of Directors was held on Tuesday, July 22, 2025, at 5:30 pm. in the District Conference Room at 419 W. Sabine Street, Carthage, Texas 75633. The following were in attendance:

Board Members:

Precinct #1 Mike Pennington
Danny Reed
Precinct #2 Todd Malone
John Burgess
Precinct #3: Mike Roquemore

Precinct #4: Charles Foster

At Large: Charles Worley

District Staff: Teresa Griffin, General Manager; David Waldrop, Field Technician/Inspector,
Jeremy Green, Field Technician

Absent: Heath Hays, Precinct #3, Corey Turner, Precinct #4

Other: Ty Embry, Lloyd Gosselink, Attorneys at Law

1. The regular board meeting was called to order by Mike Pennington, Board President at 5:30 P.M.
2. Charles Foster conducted the invocation.
3. There were no public comments at the July 22, 2025, Regular Board Meeting.
4. After reviewing the May 27, 2025, Regular Board Meeting Minutes, Danny Reed moved, and Charles Foster, seconded the motion to approve the minutes. The motion passed unanimously.
5. The preliminary 2026 District Budget was reviewed, and the 2025 tax rate was discussed; no action was taken.
6. The district's attorney, Ty Embry, updated the board on the 2025 legislative session, including changes to Chapter 36 of Texas Water Code.
7. The Board reviewed possible rule changes for approval at the next board meeting based on the information resulting from the 2025 Texas legislative session and based on the recommendation provided by the District's Attorney, Ty Embrey. Charles Foster made a motion to approve the proposed rule changes for public hearing, Charles Worley seconded, and the motion carried unanimously.

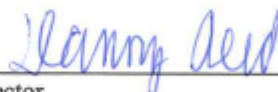
Appendix A

8. The General Manager gave routine office updates. There was no action taken.
9. District staff provided updates on monitor well, rain gauges, and other District field work. The monthly monitor deep well readings showed a water level decrease of 0.078 feet in the last month. The shallow monitor well water levels showed a decrease of 0.100 feet in the last month. Panola County's recorded rainfall average for June was 5.04 inches. The historical precipitation average for June is 4.09 inches. The cumulative precipitation total for 2025 is 28.73 inches. As of July 15, 2025, Panola County's drought status is none, according to the U.S. Drought Monitor for Texas. In the last month, there have been no significant drawdowns near pumping monitored areas, and water levels have increased in other areas.
10. After reviewing the expenditures from May 24, 2025, to July 18, 2025, Danny Reed moved, and Mike Roquemore seconded the motion to approve the expenditures as presented. The motion passed unanimously.
11. The board did not enter Executive Session at the July 22, 2025 meeting.
12. Since the board did not enter Executive Session, there was no action to be taken.
13. Next meeting dates were set for August 5, 2025, and August 26, 2025, both at 5:30 P.M.
14. With no further business, Charles Worley moved, and Charles Foster seconded the motion to adjourn the meeting. The motion passed unanimously of those present, and the meeting was adjourned at 6:41 P.M.

Approved this 26th day of August 2025



Director



Director

Appendix A

PANOLA COUNTY GROUNDWATER CONSERVATION DISTRICT NOTICE OF PUBLIC HEARING ON DISTRICT RULE AMENDMENTS

Notice is hereby given that the Board of Directors of the Panola County Groundwater Conservation District ("District") will hold a public hearing on Tuesday, August 26, 2025 at 5:30 PM in the District office located at 419 West Sabine Street, Carthage, Texas, 75633, to discuss, consider, receive public comment, and potentially act on the adoption of proposed amendments to the District Rules.

The proposed amendments to the District Rules include changes in civil penalty fee structure for certain suits, changes that update how the District achieves its DFCs and reporting GMA's progress in achieving DFCs, considerations when issuing permits or permit amendments, and amendments relating to the use of certain export fees.

All interested members of the public are invited to attend. Any person who wishes to present comments or other information at the hearing may do so in person, by counsel, or both. Comments may be presented verbally or in written form. Limits may be placed on the amount of time that each person can present verbal comments at the hearing. The hearing posted in this notice may be recessed from day to day or continued where appropriate. A copy of the proposed District Rules may be requested by email at district@pcgcd.org, may be reviewed or copied at the District office, 419 West Sabine Street, Carthage, Texas, 75633, or are available on the District's website at www.pcgcd.org. Written comments may be submitted to the District email address or to the District mailing address provided above.

FILED FOR RECORD
IN MY OFFICE
AT 11:25 O'CLOCK A M

AUG 05 2025

BOBBIE DAVIS
COUNTY CLERK, PANOLA COUNTY, TEXAS
BY [Signature] DEPUTY

Appendix A

PUBLIC HEARING – RULE AMENDMENTS

Panola County Groundwater Conservation District
419 W Sabine St., Carthage, Texas 75633
Phone: 903.690.0143 Fax: 903.690.0135

Public Hearing on District Rule Amendments
Tuesday, August 26, 2025 at 5:30 pm

County Clerks Office Use Only:	
FILED FOR RECORD IN MY OFFICE	
AT <u>11:25</u> O'CLOCK	<u>11</u> M
AUG 05 2025	
BOBBIE DAVIS COUNTY CLERK, PANOLA COUNTY, TEXAS	
BY <u>[Signature]</u>	DEPUTY

PUBLIC HEARING AGENDA – RULE AMENDMENTS

1. Call to order.
2. Public Hearing for District Rule Amendments:
 - a. Rule 2.1 updates how the District achieves its DFCs and reporting GMA's progress in achieving DFCs
 - b. Rule 3.12 adds to considerations when issuing permits or permit amendments
 - c. Rule 13.2 and 13.3 increase the amount of civil penalty per violation per day in certain suits
 - d. Rule 14.1 Relating to the use of certain export fees
3. Adjourn

These public hearings are available to all persons regardless of disability. If you require special assistance to attend or participate in the hearings, please contact the Panola County GCD at (903) 690-0143 at least 24 hours in advance of the meeting.

At any time during the meeting and in compliance with the Texas Open Meetings Act, Chapter 551, Government Code, Vernon's Texas Codes, Annotated, the Panola County Groundwater Conservation District Board may meet in executive session on any of the above agenda items for consultation concerning attorney-client matters (§551.071); deliberation regarding real property (§551.072); deliberation regarding prospective gift (§551.073); personnel matters (§551.074); and deliberation regarding security devices (§551.076). Any subject discussed in executive session may be subject to action during an open meeting.

Certification

I, the undersigned authority, do hereby certify that on August 5, 2025, at or before 5:00 p.m., our office posted and filed a notice of meeting with the Panola County Clerk's Office, and also posted a copy near the front door of the Panola County GCD office in a place convenient and readily accessible to the general public all times and that it will remain so posted continuously for at least 20 days preceding the scheduled time of said meeting in accordance with Texas Government Code, Chapter 551.

Appendix A

Panola County Groundwater Conservation District Minutes of Public Hearing on Rule Amendments August 26, 2025

A Public Hearing was held by the Panola County Groundwater Conservation District Board of Directors at 5:30 P.M. in the District Conference Room at 419 W. Sabine Street, Carthage, Texas 75633 on Tuesday, August 26, 2025, on District Rule Amendments. The following were in attendance:

Board Members:

Precinct #1	Mike Pennington Danny Reed
Precinct #2	John Burgess Todd Malone
Precinct #3	Mike Roquemore Heath Hays
Precinct #4:	Corey Turner Charles Foster
At Large:	Charles Worley

District Staff: Teresa Griffin, General Manager; David Waldrop, Field Technician/Inspector, Jeremy Green, Field Technician

Absent: None

Others: James Mills, Michael Wilcots, Mary Robinson, Gerald Gray, Venita Judice, James Browning, Brenda Wilcots, Kalona Wilcots Kindle, Linda Weaver, Judith Dean, Larry Dean, Donald Wilcots, Cora Wilcots, James Wilcots, Sara Edwards

1. The Public Hearing was called to order by Mike Pennington, Board President, at 5:32 p.m. on Tuesday, August 26, 2025.
2. Mr. Pennington moved into review of District Rule Amendments. The General Manager then began to discuss what was being amended in each rule. She overviewed each rule as follows:
 - a. Rule 2.1 updates how the District achieves its DFCs and reporting GMA's progress in achieving DFCs
 - b. Rule 3.12 adds to considerations when issuing permits or permit amendments
 - c. Rule 13.2 and 13.3 increase the amount of civil penalty per violation per day in certain suits
 - d. Rule 14.1 Relating to the use of certain export fees

After the General Manager finished the review of these rules Todd Malone motioned to approve the rule changes as presented. Mike Roquemore seconded the motion and the motion passed unanimously.

3. With no other items on the agenda, Mr. Pennington adjourned the Public Hearing at 5:35 P.M.

Appendix A

Approved this 23rd day of September 2025.

C


Director


Director

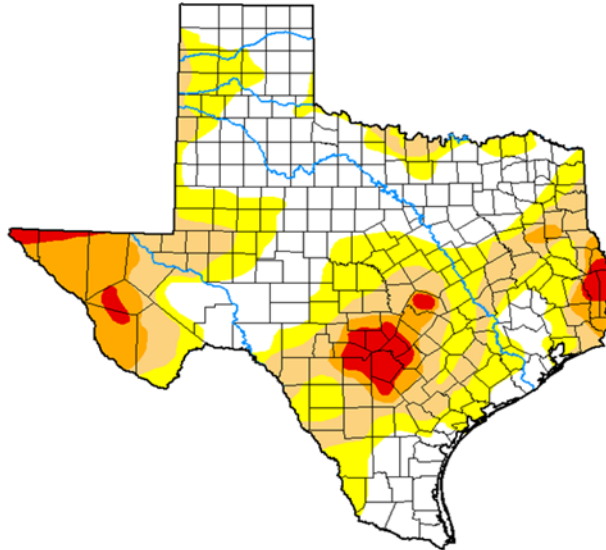
C

C

Appendix B

U.S. Drought Monitor Texas

January 16, 2024
(Released Thursday, Jan. 18, 2024)
Valid 7 a.m. EST



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:

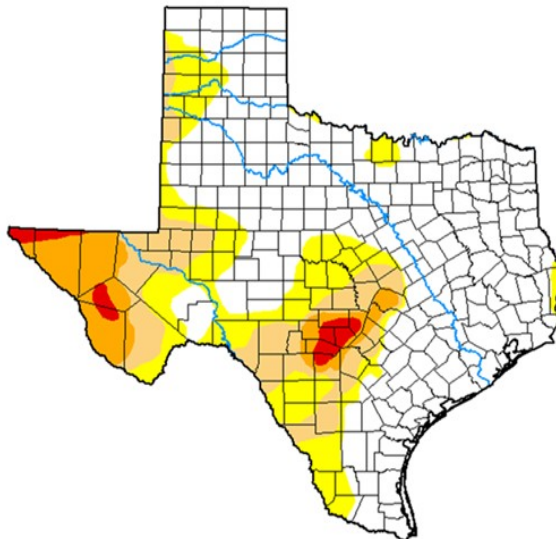
Adam Hartman
NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu

U.S. Drought Monitor Texas

February 13, 2024
(Released Thursday, Feb. 15, 2024)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	61.49	38.51	20.70	8.94	1.97	0.00
Last Week 02-06-2024	60.12	39.88	20.83	9.09	2.04	0.00
3 Months Ago 11-14-2023	20.89	79.11	54.12	28.55	7.69	1.73
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 09-26-2023	3.03	96.97	80.64	59.66	38.06	12.68
One Year Ago 02-14-2023	22.96	77.04	54.75	29.94	9.38	1.82

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:

Deborah Bathke
National Drought Mitigation Center

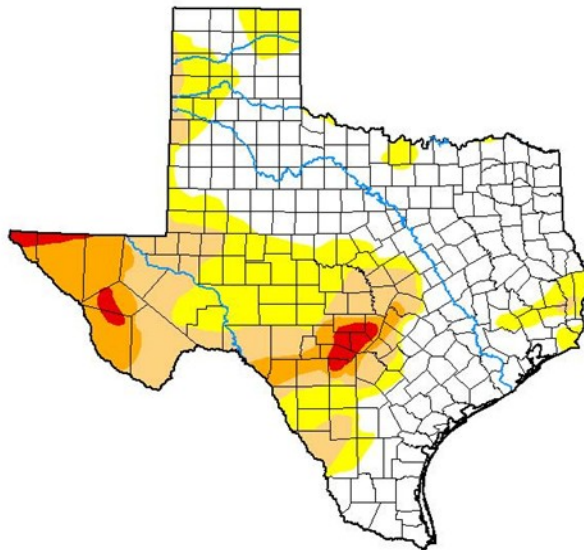


droughtmonitor.unl.edu

Appendix B

U.S. Drought Monitor Texas

March 19, 2024
(Released Thursday, Mar. 21, 2024)
Valid 8 a.m. EDT



	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	54.13	45.87	24.33	9.68	1.97	0.00
Last Week 03-12-2024	50.94	49.06	24.22	10.03	1.97	0.00
3 Months Ago 12-19-2023	35.24	64.76	42.68	18.20	6.47	0.86
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 09-26-2023	3.03	96.97	80.64	59.66	38.06	12.68
One Year Ago 03-21-2023	21.63	78.37	64.18	43.53	14.21	3.15

Intensity:



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>

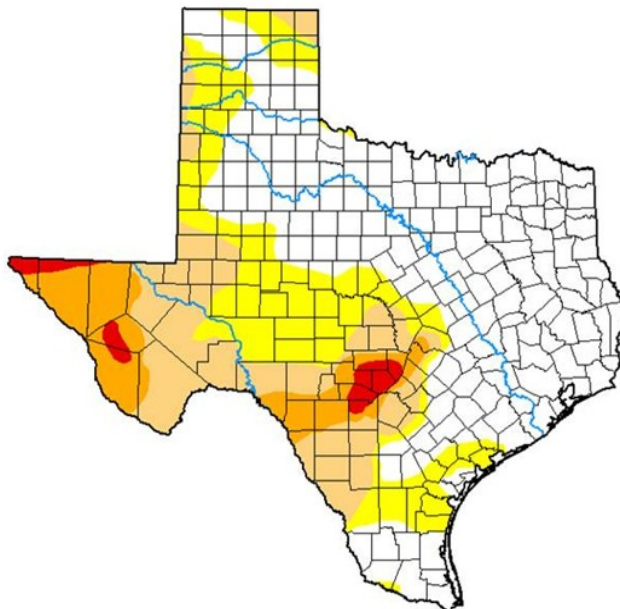
Author:

Brad Rippey
U.S. Department of Agriculture

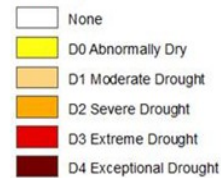


U.S. Drought Monitor Texas

April 16, 2024
(Released Thursday, Apr. 18, 2024)
Valid 8 a.m. EDT



Intensity:



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:

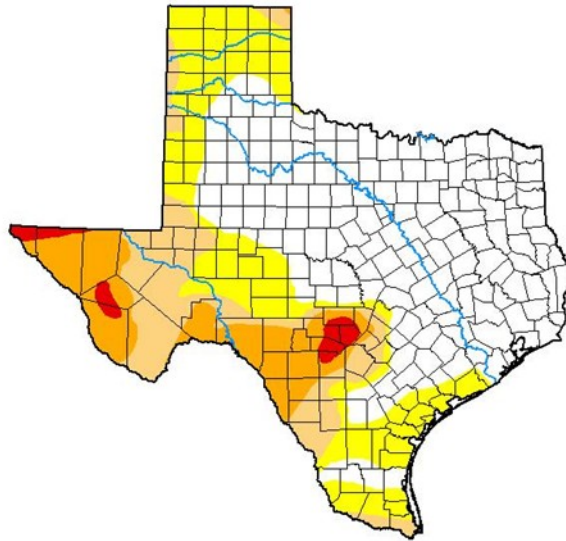
Lindsay Johnson
National Drought Mitigation Center



droughtmonitor.unl.edu

Appendix B

U.S. Drought Monitor Texas



May 21, 2024

(Released Thursday, May. 23, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	52.61	47.39	25.99	13.03	1.90	0.00
Last Week 05-14-2024	50.74	49.26	26.27	13.21	2.05	0.00
3 Months Ago 02-20-2024	60.17	39.83	22.67	8.94	1.97	0.00
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 09-26-2023	3.03	96.97	80.64	59.66	38.06	12.68
One Year Ago 05-23-2023	39.03	60.97	42.30	21.48	7.79	0.51

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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>

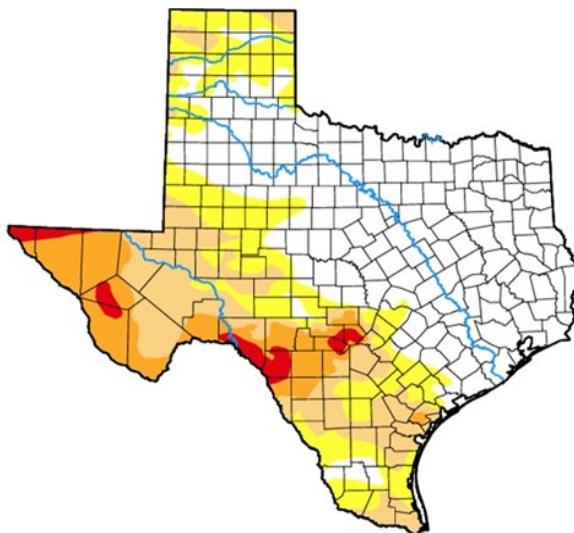
Author:

David Simeral
Western Regional Climate Center



droughtmonitor.unl.edu

U.S. Drought Monitor Texas



June 18, 2024

(Released Thursday, Jun. 20, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	50.99	49.01	29.61	12.33	2.40	0.00
Last Week 06-11-2024	51.94	48.06	29.12	12.64	2.40	0.00
3 Months Ago 03-19-2024	54.13	45.87	24.33	9.68	1.97	0.00
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 09-26-2023	3.03	96.97	80.64	59.66	38.06	12.68
One Year Ago 06-20-2023	41.61	58.39	22.81	6.31	1.37	0.29

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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:

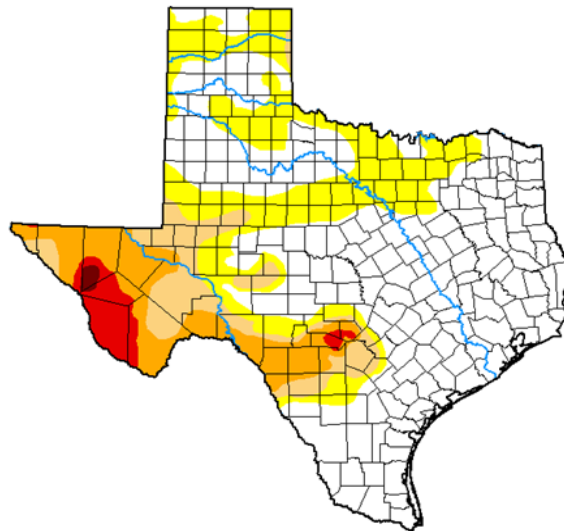
Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

Appendix B

U.S. Drought Monitor Texas



July 23, 2024
(Released Thursday, Jul. 25, 2024)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	57.12	42.88	21.26	12.79	3.41	0.30
Last Week 07-16-2024	51.19	48.81	25.36	14.20	6.11	0.00
3 Months Ago 04-23-2024	51.85	48.15	28.10	13.37	2.05	0.00
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 09-26-2023	3.03	96.97	80.64	59.66	38.06	12.68
One Year Ago 07-25-2023	21.67	78.33	48.61	18.01	4.81	1.06

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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>

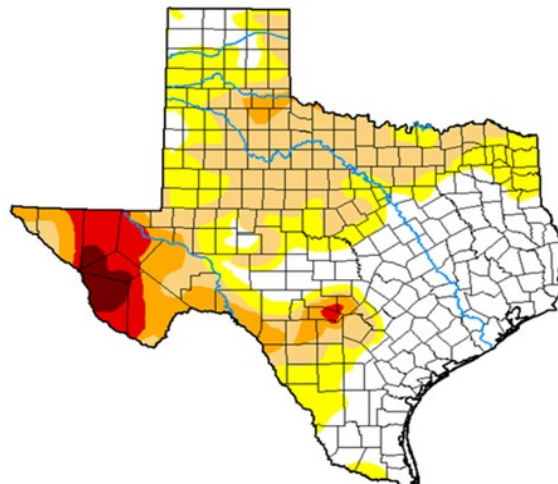
Author:

Rocky Bilotta
NCEI/NOAA



droughtmonitor.unl.edu

U.S. Drought Monitor Texas



August 20, 2024
(Released Thursday, Aug. 22, 2024)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	37.79	62.21	40.01	14.17	6.18	1.82
Last Week 08-13-2024	42.08	57.92	30.19	14.17	4.77	1.82
3 Months Ago 05-21-2024	52.61	47.39	25.99	13.03	1.90	0.00
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 09-26-2023	3.03	96.97	80.64	59.66	38.06	12.68
One Year Ago 08-22-2023	4.13	95.87	78.71	62.10	33.99	11.67

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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:

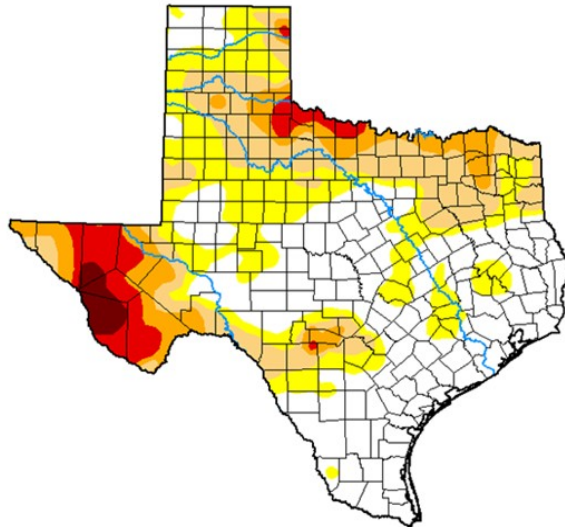
Richard Heim
NCEI/NOAA



droughtmonitor.unl.edu

Appendix B

U.S. Drought Monitor Texas



September 17, 2024

(Released Thursday, Sep. 19, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	42.75	57.25	34.06	16.05	7.18	1.65
Last Week 09-10-2024	39.37	60.63	32.16	15.69	6.01	1.65
3 Months Ago 06-18-2024	50.99	49.01	29.61	12.33	2.40	0.00
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 09-26-2023	3.03	96.97	80.64	59.66	38.06	12.68
One Year Ago 09-19-2023	3.03	96.97	81.91	61.33	40.76	16.02

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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>

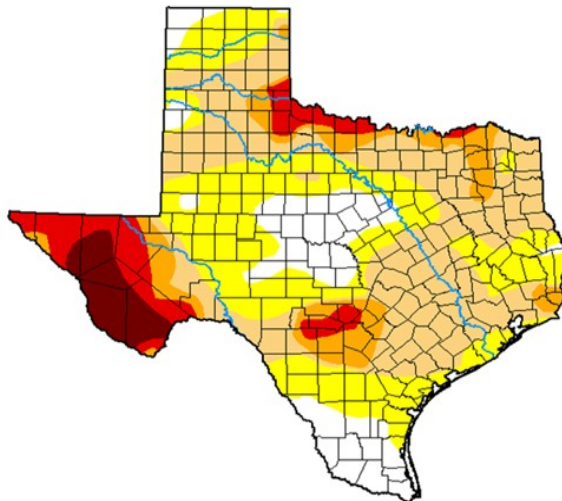
Author:

Brad Rippey
U.S. Department of Agriculture



droughtmonitor.unl.edu

U.S. Drought Monitor Texas



October 15, 2024

(Released Thursday, Oct. 17, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	13.88	86.12	55.12	21.41	12.29	4.58
Last Week 10-08-2024	17.13	82.87	41.66	19.17	11.34	4.58
3 Months Ago 07-16-2024	51.19	48.81	25.36	14.20	6.11	0.00
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 10-01-2024	26.09	73.91	34.39	16.62	8.91	3.36
One Year Ago 10-17-2023	11.24	88.76	74.43	53.45	26.75	7.02

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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:

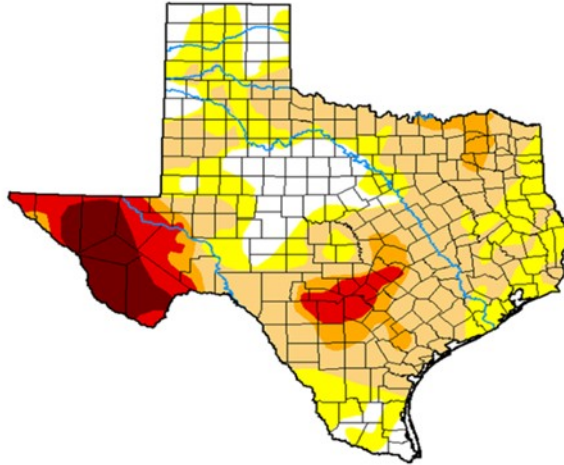
Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

Appendix B

U.S. Drought Monitor Texas



November 12, 2024
(Released Thursday, Nov. 14, 2024)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	14.63	85.37	59.66	20.31	13.13	6.06
Last Week 11-05-2024	9.78	90.22	68.08	23.81	11.64	4.58
3 Months Ago 08-13-2024	42.08	57.92	30.19	14.17	4.77	1.82
Start of Calendar Year 01-01-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 10-01-2024	26.09	73.91	34.39	16.62	8.91	3.36
One Year Ago 11-14-2023	20.89	79.11	54.12	28.55	7.69	1.73

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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>

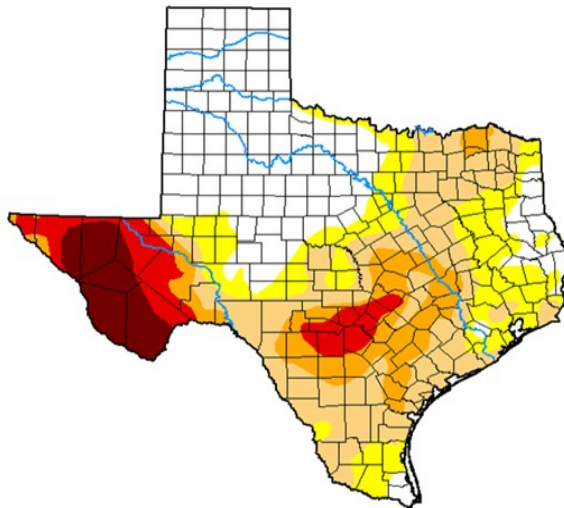
Author:

Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

U.S. Drought Monitor Texas



December 10, 2024
(Released Thursday, Dec. 12, 2024)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	33.61	66.39	48.95	23.75	12.99	6.30
Last Week 12-03-2024	32.02	67.98	50.38	22.68	12.99	6.30
3 Months Ago 09-10-2024	39.37	60.63	32.16	15.69	6.01	1.65
Start of Calendar Year 01-01-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 10-01-2024	26.09	73.91	34.39	16.62	8.91	3.36
One Year Ago 12-12-2023	32.59	67.41	43.80	18.04	6.48	0.86

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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:

Curtis Riganti
National Drought Mitigation Center



droughtmonitor.unl.edu