

MIDDLE TRINITY
GROUNDWATER
CONSERVATION DISTRICT

2023 Annual Management Plan
Review

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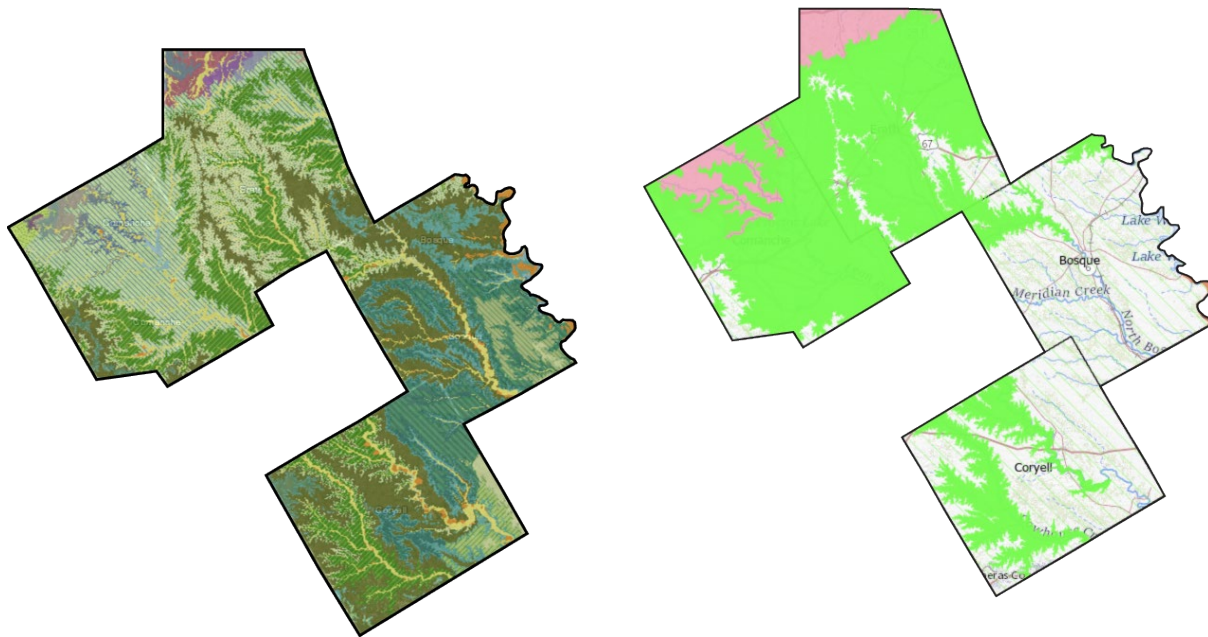
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1. Introduction

The Middle Trinity Groundwater Conservation District (MTGCD) was established in 2001, following the authorization provided by the 77th Texas Legislature in House Bill 3665. The creation of the District was confirmed by the voters of both Comanche and Erath Counties on May 4, 2002. Subsequently, Bosque and Coryell Counties were incorporated into the District through the annexation process outlined in Subchapter J, Chapter 36 of the Texas Water Code. The District received a petition for the annexation of Bosque County on June 30, 2008. The District Board of Directors voted to include Bosque County in the District's territory on March 5, 2009. The voters of Bosque County approved the annexation into the District on May 9, 2009. Similarly, the District received a petition for the annexation of Coryell County on June 29, 2009. The Board voted to add Coryell County to the District's territory on August 6, 2009, and the voters of Coryell County approved annexation on November 3, 2009.

MTGCD aligned its fiscal year with the tax year, running from October 1st through September 30th. This report provides a summary of the accomplishments and activities of the District during 2023.

The District manages groundwater resources from two aquifers: the Trinity (major) and the Cross Timbers (minor). Comanche and Erath Counties are primarily located over the outcrop of the Trinity Aquifer, while Bosque and Coryell Counties cover both the outcrop and subcrop of the Trinity Aquifer. The Cross Timbers minor aquifer is situated in the northern sections of both Comanche and Erath Counties.



The Trinity Aquifer is composed of 3 water bearing layers within the boundaries of the District. These layers are the Upper Trinity (Antlers/Paluxy/ Upper Glen Rose), Middle Trinity (Lower Glen RHensell,

Pearsall), and Lower Trinity (Hosston). Other water bearing formations in the District are Alluvium, and various formations within the Cross Timbers minor aquifer.

2. Administrative Tasks

Administrative tasks include internal administrative activities necessary for a groundwater district to function effectively. Groundwater Management Plan requirements include the required tasks and activities identified in the District’s Groundwater Management Plan. Miscellaneous activities include other activities and programs that have been an integral part of the District but are not required by the Groundwater Management Plan.

A. Contracts/Agreements

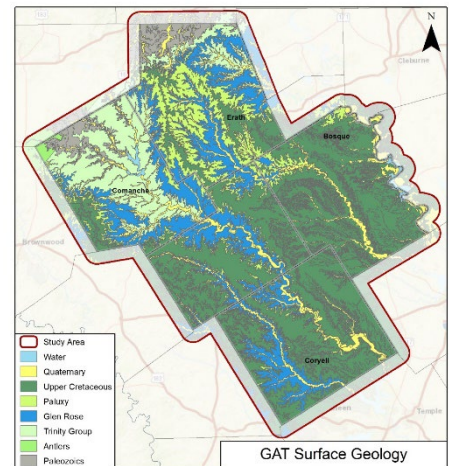
1. Technical Consulting Services

Advanced Groundwater Solutions, LLC

MTGCD has continued with a professional services contract for general consulting with Advanced Groundwater Solutions (AGS) that began in March 2021. General consulting includes review of: hydrogeologic reports and studies, District Rules, Management Plan, and assisting the District with GMA8.

LRE Water, LLC (3D Hydrostratigraphic Model)

MTGCD and LRE Water, LLC entered into a Master Service Agreement (MSA) on November 23, 2022, to perform services under Task Order #1. LRE Water, LLC has commenced the development of a 3D stratigraphic model. In addition to the model, the District will receive a Technical Memorandum on the model, electronic copies of the model for viewing and analysis, and electronic copies of all data used to develop the 3D hydrostratigraphic model. The District is in the final stages of completing the Task Order.



Halff Associates, Inc

Halff Associates, Inc created and continues to manage the District’s online GIS website. This GIS platform allows the District web-based access to the entire database of wells that been compiled through the years. All well information is available online to staff as well as the public. Some of the information available includes well latitude and longitude along with ground level elevation of the well head and total depth of the well. Halff Associates has continued technical support and hosting of the District’s online GIS website through the end of October 2024.

2. Legal Services

Lloyd Gosselink Rochelle & Townsend, P.C

The District requests legal consulting services on an as-needed basis and utilizes Lloyd Gosselink Rochelle & Townsend, P.C. (LGRT) for consultation. LGRT was the District's sole advisor during calendar year 2023 which included the following issues:

- Research and guidance on permitting issues, spacing issues, rule interpretation, public hearing notices, meeting cancellation notices, conservation easements and topics allowed for discussion in closed session.
- Representation of groundwater districts at the Texas Water Conservation Association Groundwater Sub-Committee on Desired Future Conditions.

3. Other Services

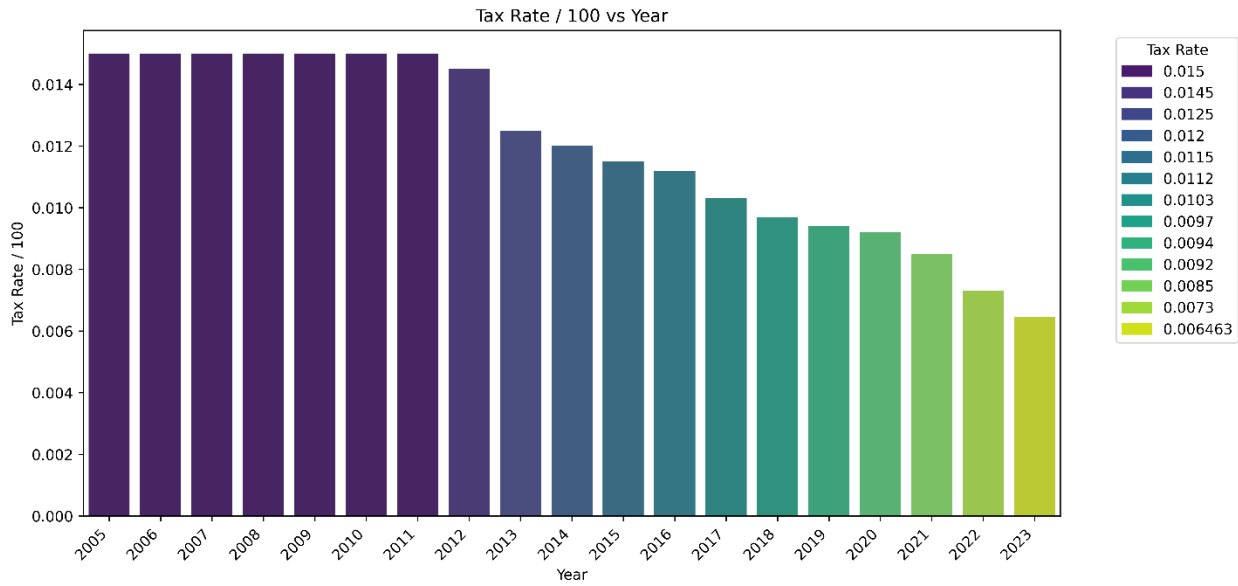
Boucher, Morgan, and Young, a P.C.

An annual audit of the District's finances is required by Chapter 36.153 of the Texas Water Code to determine the financial condition of the district. Boucher, Morgan, and Young, P.C., Certified Public Accountants located in Stephenville, Texas provides the annual financial audit for the District. Two audits were completed for the District during the calendar year 2023. Audits were conducted for periods Jan 1 – Dec 31, 2022, and Jan 1 – Sep 30, 2023 to align with the accounting period change. For more information, see section "B.2 Financial Audit" later in this report.

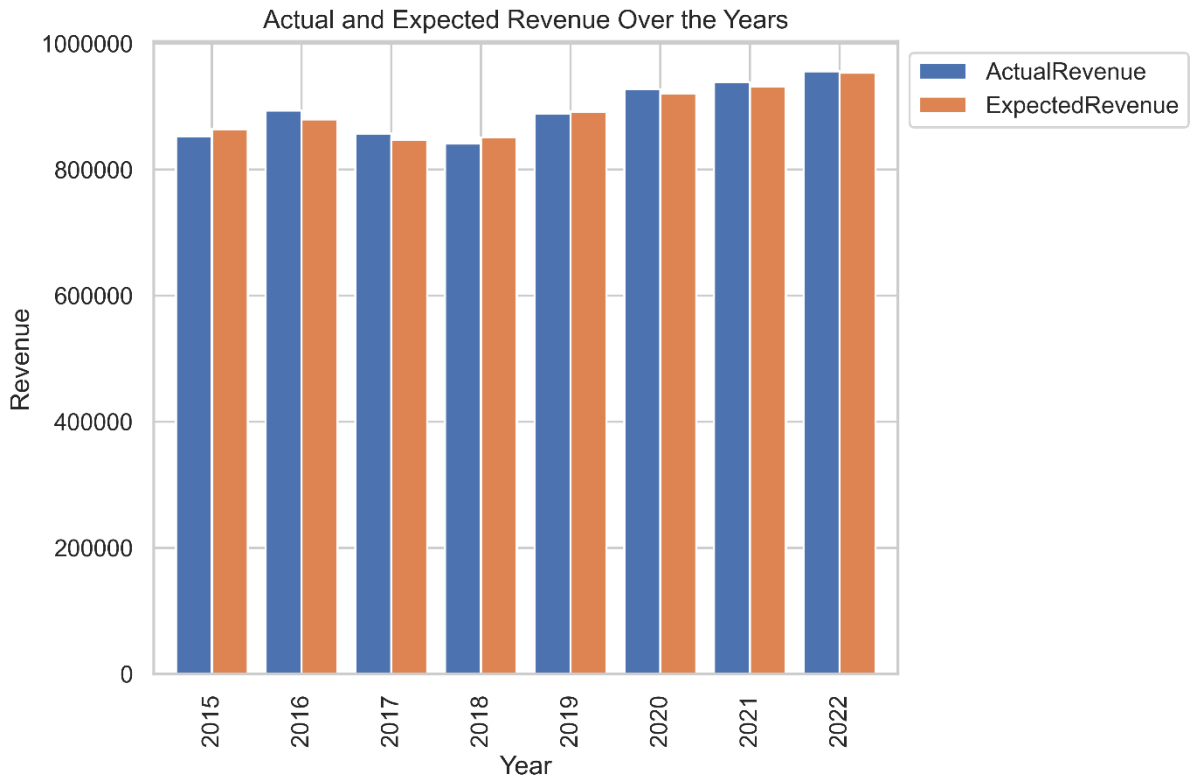
B. Financial Items

1. Budget and Tax Rate

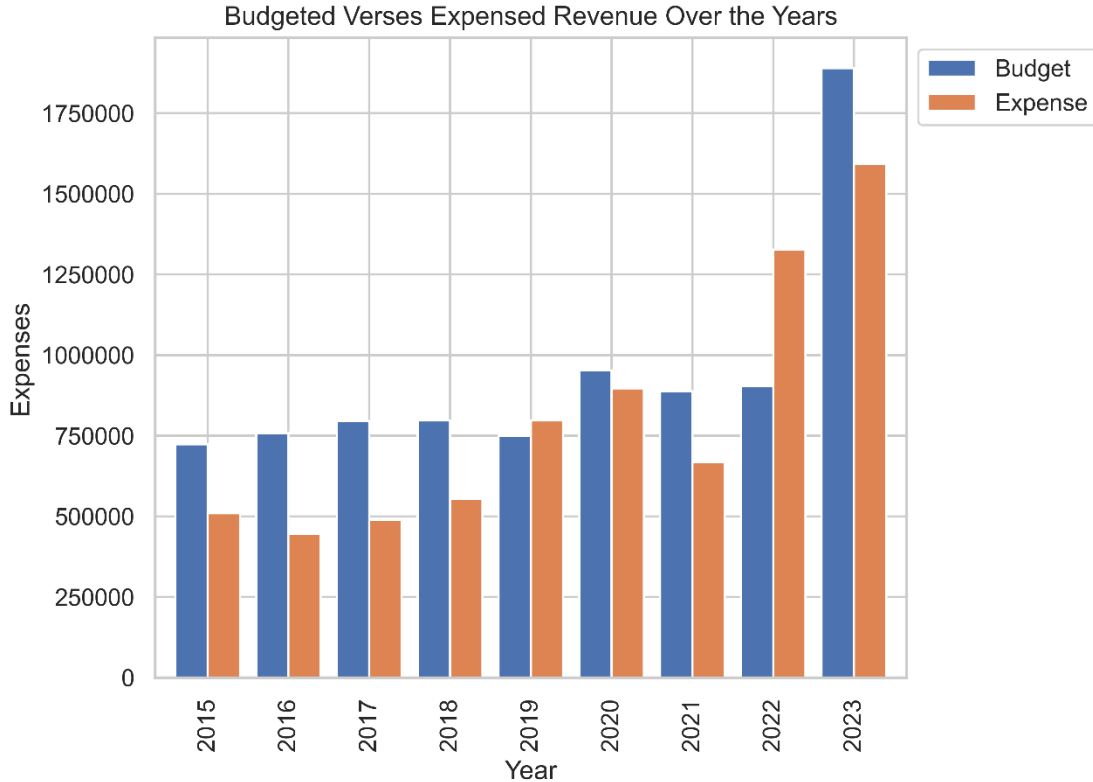
The adopted tax rate for TY22 was \$0.0073/\$100 valuation. The adopted tax rate for TY23 is \$0.006463/\$100. The Board voted to lower the tax rate for the 12th consecutive year. Since the inception of the District, the Board has consistently lowered or kept the same tax rate since it began assessing taxes.



The expected tax collection revenue for TY2022 was \$953,592 while the actual collected revenues were \$955,825.



Total expenditures for FY23 were \$1,591,852, while the District budgeted \$1,889,596. Included within the budget was capital outlay for the Ditch Discovery Water Center, which is expected to be open Winter/Spring 2024.



The approved budget for FY23, along with the schedule of revenues and expenditures is attached as Appendix A.

Online: <https://www.middletrinitygcd.org/district-financials>

2. Financial Audit

An annual audit of the District’s finances is required by Chapter 36.153 of the Texas Water Code to determine the financial condition of the District. Boucher, Morgan, and Young, P.C. (BMY), Certified Public Accountant located in Stephenville, Texas provided the 2022 annual financial audit for the District. The audit began March 2023, and BMY concluded their audit and submitted their findings to the District in May 2023. BMY conducted a second audit to align with the District change in accounting period from a calendar year (Jan 1 – Dec 31) to a fiscal year of (Oct 1 to Sep 30). The second audit began on November 1, 2023, and the final report will be presented to the February 1, 2024 Board Meeting, and will be attached.

See Appendix B for FY22 and Amended FY 23 Financial Audit.

Online: <https://www.middletrinitygcd.org/s/Audit-Report-2022.pdf>

Online:

C. District Rule Amendments

The Board of Directors last amended the District Rules in August 2023. The District previously changed rules in November 2021, and annually reviews the current rules for potential changes should legislative mandates occur and/or until scientific evidence validates a need for such changes in management, policy and application.

See our website for complete rules:

<https://www.middletrinitygcd.org/s/MTGCD+Rules+Adopted+08.10.2023.pdf>

D. Board of Directors

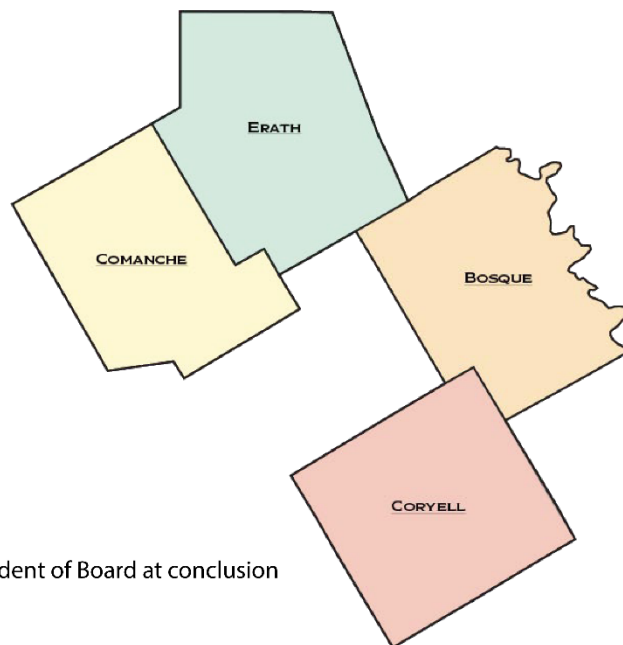
1. District Officers

The Board of Directors, per District bylaws, elect officers annually at the first board meeting of the calendar year. This year the District had a change in one of the Directors from Coryell County, as Gary Kafer stepped down in June of 2023, and the board appointed Butch Ronne to fill the remainder of his term. Butch Ronne ran unopposed in November 2023 and was appointed through 2027. The calendar year 2023 Officers are identified below, along with the office they held and the County they represent.

Rodney Stephens, President - Comanche
Barbara Domel, Vice President - Bosque
Fred Parker, Secretary - Erath

Charles Ferguson*, Director - Bosque
Robert Payne, Director - Bosque
Shane Tucker, Director - Comanche
Frank Volleman, Director - Comanche
Kenneth Bullington, Director - Coryell
W.B. Maples, Director - Coryell
Butch Ronne, Director - Coryell
Joe Altebaumer, Director - Erath
Jerry Hinshaw, Director - Erath

*Charles Ferguson assumes the role as President of Board at conclusion of the December 2023 meeting.



2. Meetings – CY23 (Jan – Dec 2023)

The Board of Directors held 12 regular Board Meetings during CY2023. The regular Board meeting agendas included discussion and presentations on the topics listed below:

- Presentations on 3D Hydrostratigraphic Model by LRE Water, LLC
- Presentations by James Beach and AGS on well spacing/drawdown
- Presentations on the 88th Legislative Session
- Conduct hearings on drilling and operating permits
- Updates on construction of education center

All board meeting agendas, minutes, and financial reports can be viewed online by visiting:

E. Groundwater Management Plan

Texas Water Code, Chapter 36.1071—36.1073, states the Groundwater Management Plan (GMP) must be reviewed and readopted every 5 years by all GCDs in Texas. The plan is then subject to approval by the Texas Water Development Board (TWDB). Middle Trinity’s initial Management Plan was adopted by the District’s Board of Directors on April 29, 2004 and was formally certified by TWDB on July 1, 2004.

Revisions are required every 5 years, even if simply updated with the new DFC’s. During each revision, the proposed GMP must go through staff evaluation and minimum of one preliminary review by the TWDB. The District was required to review and update the current plan in 2022 and have it readopted by the TWDB prior to April 20, 2022. The District completed a full review and formally adopted the revised plan on June 2, 2022. Receiving final approval from TWDB July 27, 2022. The District amended its Management Plan in July 2023, to account for adopted Desired Future Conditions that were determined to be administratively complete in November 2022. The District amended Management Plan was approved as administratively complete on December 12, 2023.

The District’s next Management Plan will be due July 27, 2027.

The District Groundwater Management Plan can be found on MTGCD’s website at:

<https://www.middletrinitygcd.org/s/2023-MTGCD-Management-Plan-Final>

3. Groundwater Management Plan Requirements

A. Providing the Most Efficient Use of Groundwater

1. Well Registrations

Objective: Annually, the District will require all new water wells that are constructed within the boundaries of the District to be registered with the District pursuant to District rules.

Objective Satisfied

During the calendar year 2023, 557 wells were registered with the District compared to the 615 registered in 2022. Beginning this year, the District Staff has been conducting a robust search of all TWDB and TCEQ databases to identify wells that have not been properly registered.

See Appendix C for Master Registration Table

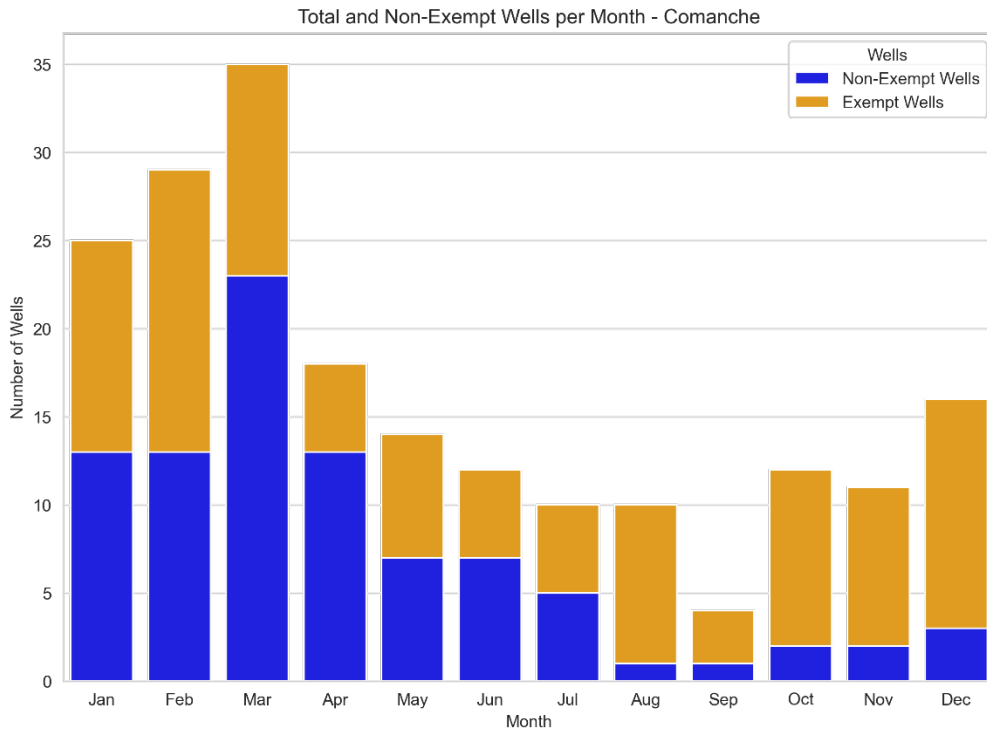
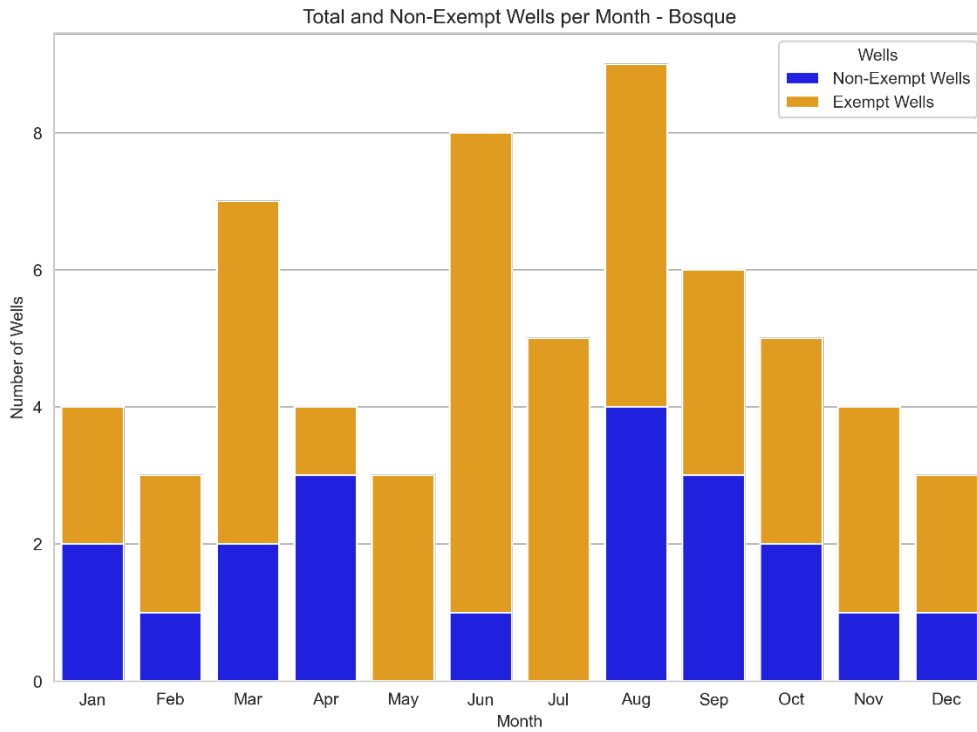
2. Permitted Well Applications

Objective: The District will annually require all water wells subject to the District’s permitting requirements to be permitted pursuant to the District Rules.

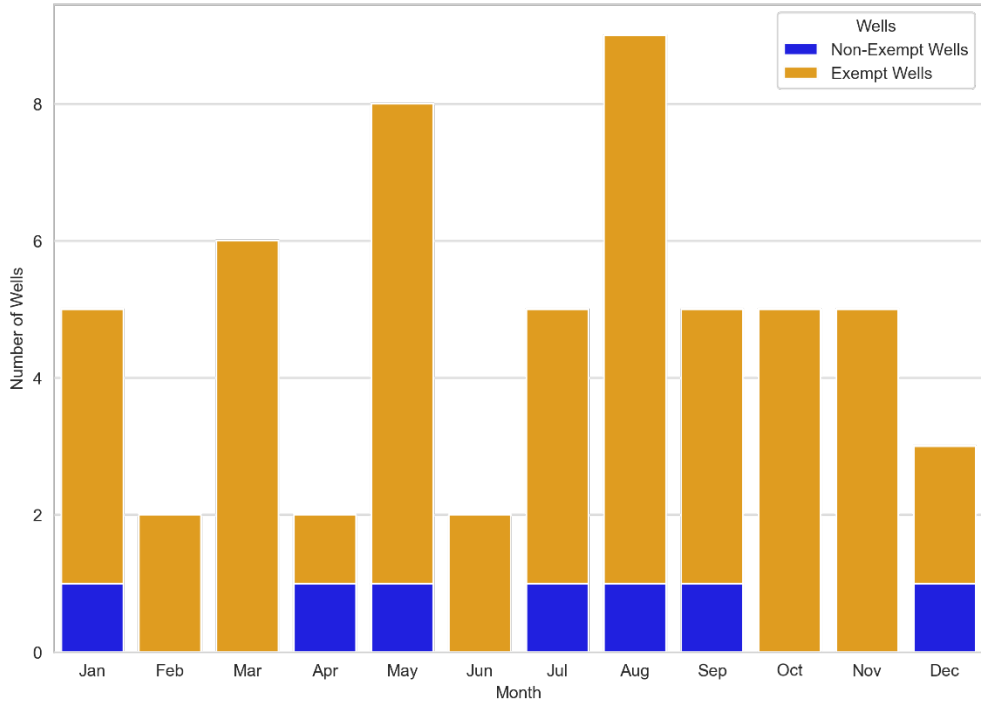
Objective Satisfied

Of the 564 wells registered in the District during 2023, 213 required Operating Permits, compared to 189 in 2002. The table below shows how many Operating Permits were approved by County each month.

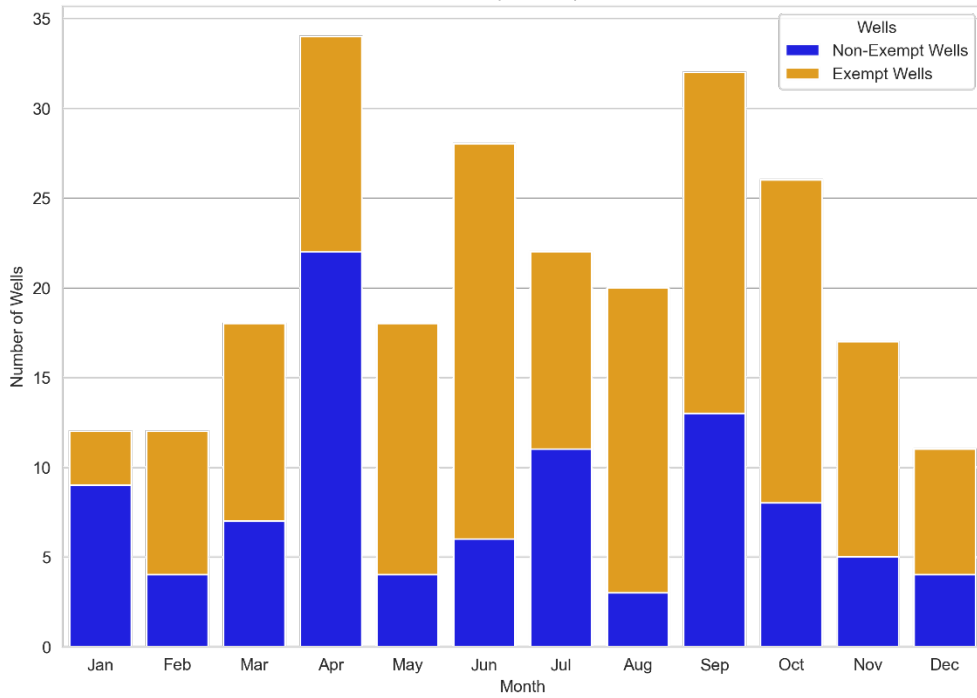
See Appendix D for Master Permitted Wells



Total and Non-Exempt Wells per Month - Coryell



Total and Non-Exempt Wells per Month - Erath



3. Regulate Production of Groundwater by System of Permitting

Objective: The District will annually regulate the production of groundwater by maintaining a system of permitting which authorizes the use and production of groundwater within the boundaries of the District pursuant to the District rules.

Objective Satisfied

A total of 213 permit applications have been processed by the District since January 1, 2023. All were for operating permits and permit applications received pursuant to the rules of the District.

See Appendix D.

4. Public Awareness

Objective: The District will annually attempt to increase the public awareness regarding the purpose, objectives and mission of the District.

Objective Satisfied

During the reporting period, the District has provided presentations for:

- Bluff Dale Conservatives	Talk	01/24/2023
- Texas Rural Water Association - Gatesville	Booth	03/08/2023
- DeLeon Elementary	Talk	03/24/2023
- Tarleton State University Water Policy	Talk	03/27/2023
- Prairie Oaks Training Calls – Tarleton	Talk	04/05/2023
- Stephenville Leadership	Host	04/13/2023
- Farm Bureau Ag in Classroom Bosque	Talk	04/20/2023
- Tarleton Outdoors	Booth	04/22/2023
- Gatesville Erath Day	Talk	04/28/2023
- Erath County Retired School Educators	Talk	05/02/2023
- Central Elementary Science Day	Booth	05/03/2023
- Texas Water Utility Association – Copperas Cove	Talk	05/11/2023
- Erath County – Kids, Cows, and More	Booth	05/17/2023
- Leadership Central Texas - Belton	Talk	07/20/2023
- Realtor Workshop – Moore Realty	Talk	08/01/2023
- Central Texas Early Childhood Conference	Booth	09/23/2023
- Comanche County Reliable Infrastructure	Talk	09/28/2023
- TSU Citizen Science Workshop	Talk	10/01/2023
- Stephenville Realtors Association	Talk	10/12/2023
- DeLeon Elementary	Talk	10/17/2023
- DeLeon Elementary	Talk	10/19/2023
- Tarleton State University Water Policy	Talk	11/09/2023
- Stephenville Optimist Club	Talk	11/09/2023
- TAMU Agrilife Extension – Bosque County	Talk	12/01/2023

See Appendix E for Outreach Events

B. Controlling and Preventing Waste of Groundwater

1. Evolution of District Rules

Objective: At least once each year, the District will evaluate the District rules to identify whether any amendments are needed to reduce the amount of waste of groundwater within boundaries of the District.

Objective satisfied

The District held two Rules Hearing and adopted changes to district rules in the following:

- a. Definition of acre-foot
- b. Permit exclusions and exemptions
- c. Contested case hearing conducted by the State Office of Administrative Hearings
- d. Permit hearing – continuance
- e. Permit hearing – board action
- f. Request for rehearing and appeal
- g. Petition to change rules
- h. Groundwater transport fees

See Appendix F.

2. Information on Groundwater Waste Reduction

Objective: The District will annually provide information to the public on eliminating and reducing wasteful practices in the use of groundwater by publishing information on groundwater waste reduction on the District's website at least once a year.

Objective Satisfied

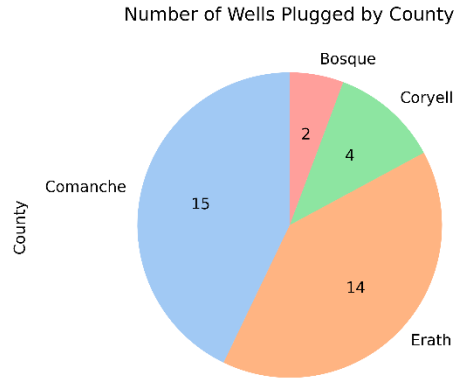
A copy is included under Appendix G.

3. Well Plugging

Objective: The District will require the plugging of at least one (1) deteriorated or abandoned well identified by the District in accordance with the Texas Department of Licensing and Regulation, Water Well Drillers and Pump Installers Rules (16 Texas Administrative Code, Chapter 76).

Objective Satisfied

During the reporting period, MTGCD identified and plugged (35) thirty-five wells under the supervision of well owners. Copies of the Well Plugging Report (TDLR Form a004WWD) were provided to the well owners and copies sent to the Texas Department of Licensing and Regulation as required by Texas Administration Code, Chapter 76.



Copies of plugging reports is included under Appendix H.

4. Injection/Disposal Wells

Objective: The District will provide at least one request each year to the Texas Railroad Commission which asks whether any new salt water or waste disposal injection wells have been permitted by the Texas Railroad Commission to operate within the District within the most recent fiscal year

Objective Satisfied

A copy of the letter that was submitted to the Texas Railroad Commission via an Open Records Request.

Currently in MTGCD, there are a total of 14 Active/Temporarily Abandoned injection/disposals wells. Total injection volume of Salt Water in Comanche County in 2023 is 429 BBLS. Total injection volume of Salt Water in Erath County in 2023 is 19,150 BBLS.

A copy of the list of injection/disposal wells is included with Appendix I.

5. Injection/Disposal Well Integrity Test

Objective: The District will transmit at least one request each year to the Texas Railroad Commission which asks that the Commission provide a copy of the results of integrity tests performed on salt water or waste disposal injection wells permitted by the Texas Railroad Commission to operate within the District.

Objective Satisfied

A copy of the letter was submitted to the Texas Railroad Commission via an Open Records Request.

Of the 14 Active/Temporarily Abandoned injection/disposal wells in the District, 6 wells completed required Mechanical Integrity Test in 2023. All passed.

A copy of the list of injection/disposal wells is included with Appendix I.

C. Addressing Conjunctive Surface Water Management Issues

Objective: Each year, the District will participate in the regional planning process by attending at least 25 percent of the Region G (Brazos G) – Regional Water Planning Group meetings to encourage the development of surface water supplies to meet the needs of water user groups in the District.

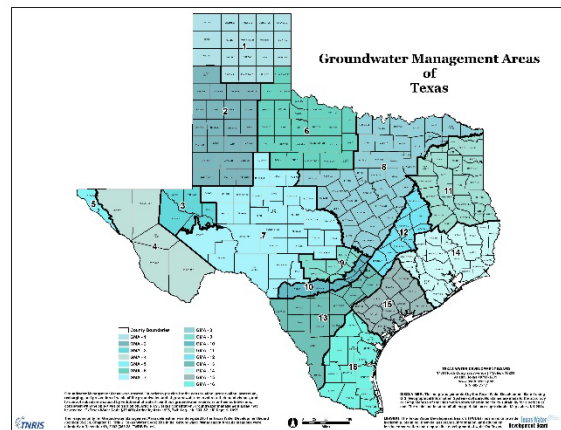
Objective Satisfied

During 2023, District General Manager Patrick Wagner attended the scheduled meetings listed below. In 2022, Patrick Wagner was voted in by the Region G Water Planning Group to join Brazos G to fill a Water District vacancy. Patrick also serves on the Brazos G Groundwater Committee. Director Charles Ferguson served as the replacement for Patrick Wagner at Brazos G when not available.

March 8, 2023	Attended
May 31, 2023	Attended
July 27, 2023	Charles Ferguson
October 20, 2023	Attended



In addition to the regional planning group, District General Manager Patrick Wagner attended the meetings for Groundwater Management Area 8. Groundwater Management Areas were created in order to provide for the conservation, preservation, protection, recharging, and prevention of groundwater waste, and of groundwater reservoirs of their subdivisions, and to control subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions, consistent with the objectives of Section 59, Article XVI, Texas Constitution.



March 7, 2023	Attended
June 27, 2023	Attended

Online: <http://www.gma8.org/>

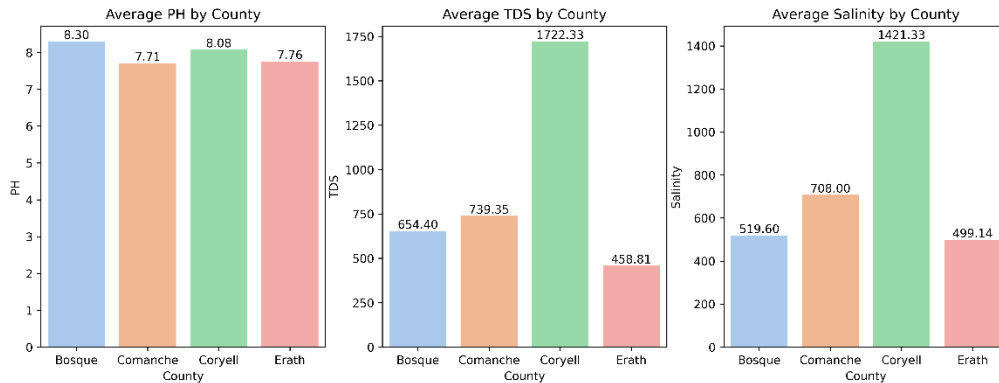
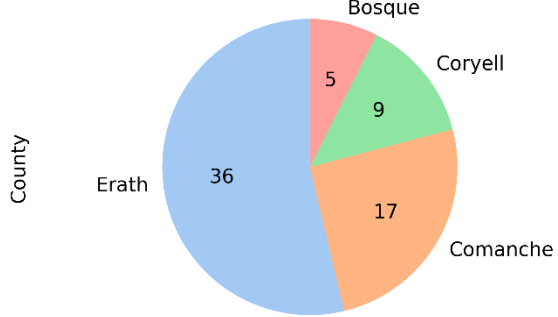
D. Addressing Natural Resource Issues

Objective: The District will monitor water quality on an annual basis within the District by obtaining water quality samples from at least one well in each of the counties in the District.

Objective Satisfied

A copy of all water quality reports is included in Appendix J.

Number of Water Quality Test by County



E. Addressing Drought Conditions

1. Monitor Drought Conditions of the Trinity Aquifer

Objective: The District will monitor drought conditions in the Trinity Aquifer each year through the process established in the District’s Drought Contingency Plan adopted by the District Board of Directors. Additional drought information will be accessed from the TWDB Water Data for Texas

DROUGHT STAGE	PRECIPITATION DEFICIT INDEX (PDI) DROUGHT STAGE TRIGGER PERCENT OF AVERAGE RAINFALL	PERCENT OF VOLUNTARY REDUCTION IN WATER USE
NO DROUGHT	80-100%	0%
STAGE 1 - Mild Drought Status	70-79%	10%
STAGE 2 - Moderate Drought Status	60-69%	20%
STAGE 3 - Severe Drought Status	50-59%	30%
STAGE 4 - Emergency Drought Status	< 50%	40%

<https://www.waterdatafortexas.org/drought/>.

Objective Satisfied

MTGCD updated and re-adopted the Drought Contingency Plan (DCP), a drought stage is only to be triggered when the Precipitation Deficit Index (PDI) is less than a drought state trigger condition exceeding for a period of 30 consecutive days and shall be reduced or terminated when the PDI is greater than the trigger condition exceeding for a period of 42 consecutive days.

Online: <https://middletrinitygcd.org/drought-contingency-plan>

Below are the declared stages during the fiscal year.

Date	County	Declared Drought Stage	PDI Total	PDI % Total
Jan 05 2023	Bosque	Stage 2	22.708	64.456
	Comanche	Stage 2	21.242	66.756
	Coryell	Stage 2	21.005	65.722
	Erath	Stage 1	22.34	70.562
Feb 02 2023	Bosque	Stage 2	24.528	69.623
	Comanche	Stage 2	22.815	68.67
	Coryell	Stage 2	22.297	69.767
	Erath	Stage 1	24.072	76.033
Mar 02 2023	Bosque	Stage 1	25.076	71.18
	Comanche	Stage 1	22.718	71.398
	Coryell	Stage 1	22.446	70.232
	Erath	Stage 1	24.813	78.374
Apr 06 2023	Bosque	Stage 1	25.515	72.426
	Comanche	Stage 1	23.851	74.956
	Coryell	Stage 1	24.091	75.973
	Erath	No Drought	25.911	81.841
May 04 2023	Bosque	Stage 1	27.05	77.094
	Comanche	Stage 1	24.6	77.309
	Coryell	No Drought	25.751	80.572
	Erath	No Drought	26.127	82.523
Jun 01 2023	Bosque	No Drought	29.024	82.384
	Comanche	No Drought	28.301	88.94
	Coryell	No Drought	26.712	83.579
	Erath	No Drought	28.836	91.081
Jul 06 2023	Bosque	No Drought	30.067	85.346
	Comanche	No Drought	28.093	88.288
	Coryell	No Drought	27.293	85.397
	Erath	No Drought	29.168	92.129
Aug 10 2023	Bosque	No Drought	29.126	82.673
	Comanche	No Drought	27.711	87.089
	Coryell	No Drought	27.087	84.752
	Erath	No Drought	28.651	90.495
Sep 07 2023	Bosque	Stage 1	25.93	73.603
	Comanche	Stage 1	23.569	74.069
	Coryell	Stage 1	23.776	74.392
	Erath	Stage 1	24.786	78.289
Oct 05 2023	Bosque	No Drought	30.815	87.469
	Comanche	No Drought	27.168	85.381
	Coryell	No Drought	27.749	86.826
	Erath	No Drought	28.954	91.455
Nov 02 2023	Bosque	No Drought	36.879	104.68
	Comanche	No Drought	30.89	97.077
	Coryell	No Drought	30.531	95.528
	Erath	No Drought	34.427	108.739
Dec 07 2023	Bosque	No Drought	33.538	95.197
	Comanche	No Drought	28.383	89.135
	Coryell	No Drought	26.426	82.684
	Erath	No Drought	31.87	100.625

2. Palmer Drought Severity Index, and Crop Moisture Index

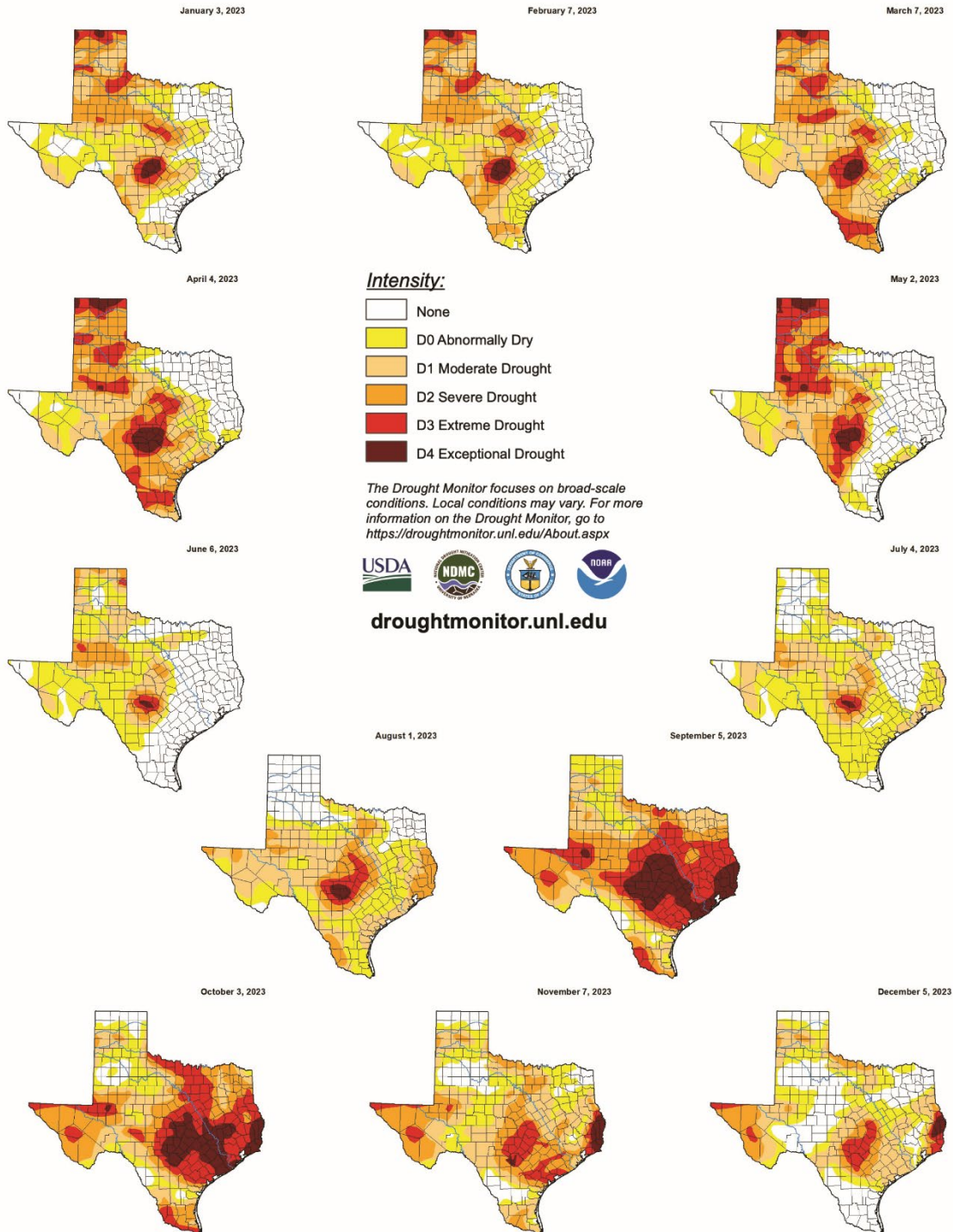
Objective: The District will download the updated Palmer Drought Severity Index (PDSI) maps and review soil moisture index readings for the area within the District's boundaries on a quarterly basis

Objective Satisfied

Four Quarterly Drought Reports were provided to the MTGCD Board of Directors in addition to Monthly Drought Reports during 2023. Reports included information on the Palmer Drought Severity Index (PDSI), and Crop Moisture Index (CMI).

Copies of the Quarterly and Monthly Drought Reports are Included in Appendix K

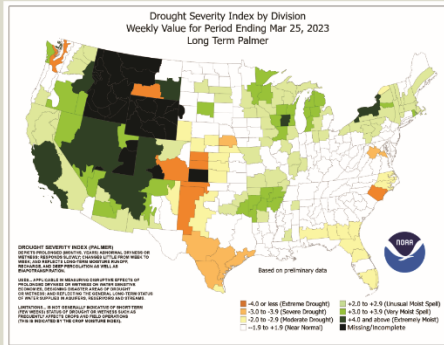
US DROUGHT MONITOR 2023



QUARTER DROUGHT REPORT

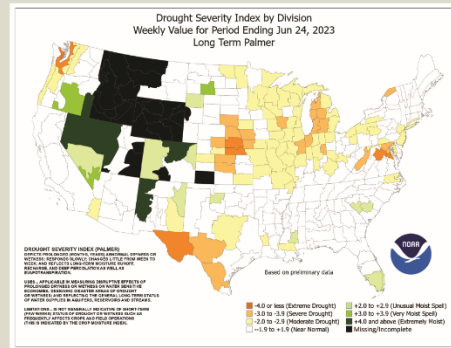
Palmer Drought Severity Index (PDSI)

1st Quarter (Jan - Mar)



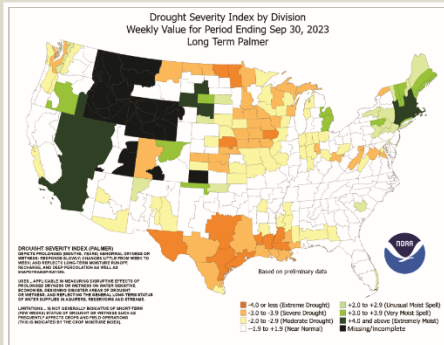
The PDSI as of March 25, 2023, for the North Central Texas region is -0.81 which translates that North Central Texas is currently near normal.

2nd Quarter (Apr - Jun)



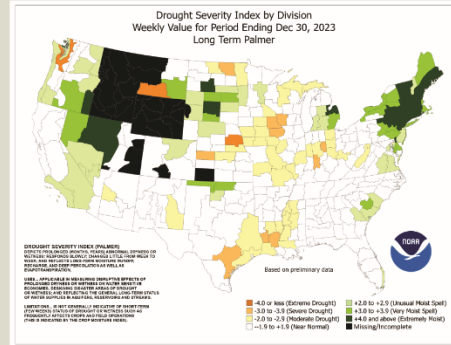
The PDSI as of June 24, 2023, for the North Central Texas region is -2.87 which translates that North Central Texas is currently in a moderate drought.

3rd Quarter (Jul - Sep)



The PDSI as of September 30, 2023, for the North Central Texas region is -4.05 which translates as extreme drought.

4th Quarter (Oct - Dec)

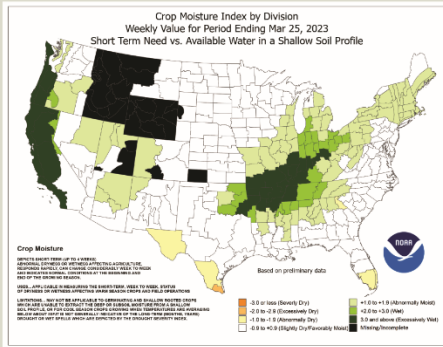


The PDSI as of December 30, 2023, for the North Central Texas region is -0.68 which translates as near normal.

QUARTER DROUGHT REPORT

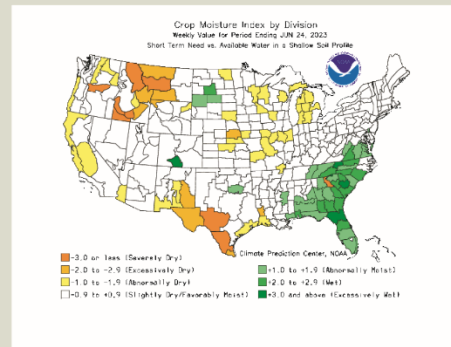
Crop Moisture Index (CMI)

1st Quarter (Jan - Mar)



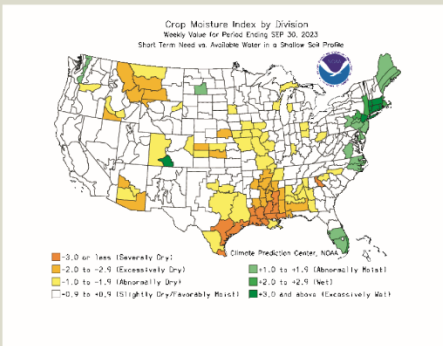
The CMI, as of March 25, 2023, for the North Central Texas region is 0.18, indicating that soil moisture is favorably moist.

2nd Quarter (Apr - Jun)



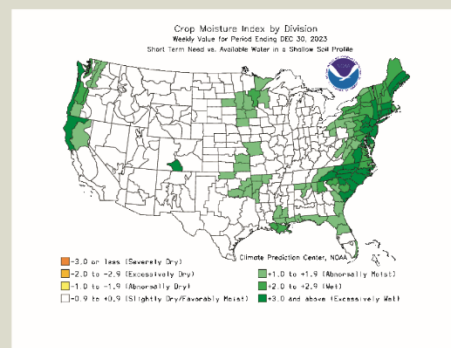
The CMI, as of June 24, 2023, for the North Central Texas region is -0.46, indicating that soil moisture is slightly dry.

3rd Quarter (Jul - Sep)



The CMI, as of September 30, 2023, for the North Central Texas region is -1.93, indicating that soil moisture is abnormally dry.

4th Quarter (Oct - Dec)



The CMI, as of December 30, 2023 for the North Central Texas region is 0.57, indicating that soil moisture is favorably moist.

F. Conservation, Recharge Enhancement, Rainwater Harvesting, and Brush Control

1. Conservation

Objective: The District will submit at least one article regarding water conservation for publication each year to at least one newspaper of general circulation in the District.

Objective Satisfied

Copies of the articles included in Appendix L

2. School Education Program

Objective: The District will present a pre-existing educational program for use in public or private schools in the District at least once each year to educate students on the importance of water conservation.

Objective Satisfied

MTGCD offered several pre-existing educational programs to all 25 ISDs within the District, including Project WET and Getting Little Feet Wet. The District gave presentations to multiple ISDs.

Copies of items included in Appendix M

3. Informational Flier

Objective: On an annual basis, the District will distribute an informational flier on water conservation during at least two public events that occur within the District's boundaries.

Objective Satisfied

The information was provided to the public at educational events and numerous public schools by the District's Education Coordinator.

A copy of the flier is included in Appendix N

4. Recharge Enhancement

Objective: The District will provide information relating to recharge enhancement on the District web site at least once each year.

Objective Satisfied

A copy of recharge enhancement information is included in Appendix O

5. Rainwater Harvesting

Objective: The District will provide information on rainwater harvesting each year by offering new information about rainwater harvesting on the District web site at least once each year.

Objective Satisfied

A copy of rainwater harvesting information is included in Appendix P

6. Brush Control

Objective: The District will evaluate the State Brush Control Plan as it is revised from time to time at least once each year to determine whether projects within the District will increase the groundwater resources of the District.

Objective Satisfied

A copy of the brush control information is included in Appendix Q

G. Addressing the Desired Future Conditions

1. Static Water Level – DFC Target

Objective: The District will annually measure the water levels in at least five monitoring wells in each of the counties within the District and will determine the five-year water level averages based on the measures taken. The District will compare the five-year water level averages to the corresponding five-year increment of its Desired Future Conditions in order to track its progress in achieving the Desired Future Conditions.

Objective Satisfied

MTGCD is collecting water level measurements on a quarterly basis in 136 monitoring wells in the District. 36 in Erath County, 41 in Comanche County, 37 in Bosque County, and 22 in Coryell County. Additionally, MTGCD is monitoring 4 wells in Hamilton County. MTGCD has 15 years of data in Comanche and Erath Counties, 12 years of data in Bosque County, and 11 years of data in Coryell County. Water level samples collected by the District are maintained in a database and are available for viewing on the District's website. Water samples taken in 2023 follow, along with a discussion of the District's comparison of five year water level averages to five year increment of its Desired Future Conditions (DFC) in order to track its progress in achieving its DFCs

MTGCD Water Levels 2023

Counties:	Avg Water Level Drop/Gain in Wells				
	2023	2022	2021	2020	2019
Bosque	-3.95	-7.93	-1.20	2.27	-1.31
Comanche	-0.51	-3.41	1.70	-0.38	-0.3
Coryell	-4.13	-7.51	-0.74	0.1	-0.39
Erath	-0.48	-5.05	0.01	1.34	-3.8

* 5 YR DFC Increment (Avg of Layers)		Counties:	5 YR - Avg.	5 YR - DFC*
1. Add up DFC/Layer and divide by number of layers		Bosque	-2.42	-12.38
2. Multiply result by (0.1) to get 5 YR increment		Comanche	-0.58	-0.46
		Coryell	-2.53	-6.76
		Erath	-1.14	-1.51

Counties:	5 YR - Avg 2023	5 YR - Avg 2022	5 YR - Avg 2021	5 YR - Avg 2020	5 YR - Avg 2019
Bosque	-2.42	-1.5180	-0.45	-0.954	
Comanche	-0.58	-0.2003	0.14	0.726	
Coryell	-2.53	-1.6208	-0.89	0.22	
Erath	-1.14	-0.5355	0.105	0.53	

Comparison of an average of the District’s last five years of water level measurements with five-year increments of the GMA8 Desired Future Conditions for Bosque, Comanche, Coryell, and Erath Counties indicates that MTGCD within range of the 50-year set DFC.

Please refer to the following tables to see DFCs for each County.

Refer to Appendix R for water level measurements for each County.

BOSQUE COUNTY

Aquifer (Trinity subdivisions)	Amount average draw down should not exceed after 50 years (feet)
Paluxy	6
Glen Rose	53
Travis Peak	189
Hensell	139
Hosston	232

COMANCHE COUNTY

Aquifer (Trinity subdivisions)	Amount average draw down should not exceed after 50 years (feet)
Glen Rose	2
Travis Peak	4
Hensell	2
Hosston	3
Antlers	12

CORYELL COUNTY

Aquifer (Trinity subdivisions)	Amount average draw down should not exceed after 50 years (feet)
Paluxy	5
Glen Rose	15
Travis Peak	107
Hensell	70
Hosston	141

ERATH COUNTY

Aquifer (Trinity subdivisions)	Amount average draw down should not exceed after 50 years (feet)
Paluxy	6
Glen Rose	6
Twin Mountains	8
Travis Peak	25
Hensell	12
Hosston	35
Antlers	14

Middle Trinity GCD

MTGCD MW

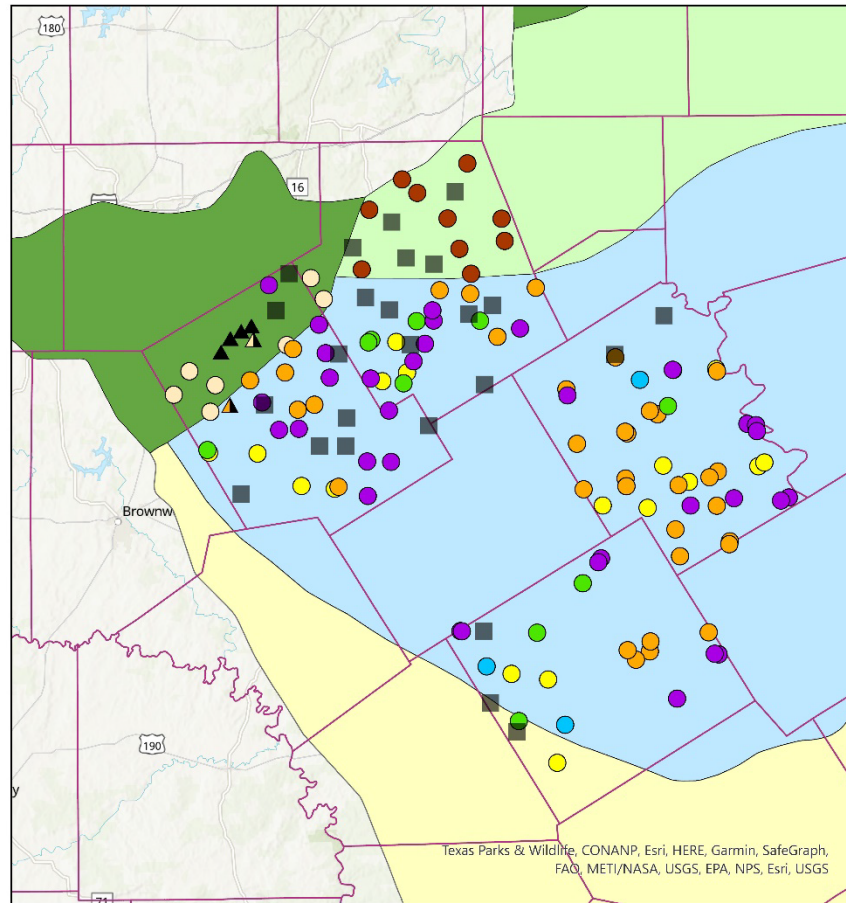
Aquifer

- Antlers
- ▲ Antlers / Cross Timbers
- ▲ Cross Timbers
- Glen Rose
- Hensell
- Hosston
- ▲ Hosston / Cross Timbers
- Paluxy
- Travis Peak
- Twin Mountains
- Unknown
- <all other values>
- County

NTW Aquifer Regions

Id

- Region 1
- Region 2
- Region 3
- Region 4
- Region 5



Selected DFC Compliance Table for Bosque

	Aquifer	Since Baseline	Water Level (ft) +/-	DFC Decline	Total Wells
0	Glen Rose	5	-0.56	-5.3	1
1	Hensell	5	-2.66	-13.9	3
2	Hosston	5	-7.29	-23.2	7
3	Paluxy	5	-0.73	-0.6	1
4	Travis Peak	5	-14.12	-18.9	5

Selected DFC Compliance Table for Comanche

	Aquifer	Since Baseline	Water Level (ft) +/-	DFC Decline	Total Wells
0	Antlers	5	-1.0	-1.2	4
1	Hensell	5	-0.26	-0.2	2
2	Hosston	5	-0.23	-0.3	5
3	Travis Peak	5	0.08	-0.4	8

Selected DFC Compliance Table for Coryell

	Aquifer	Since Baseline	Water Level (ft) +/-	DFC Decline	Total Wells
0	Glen Rose	5	-3.17	-1.5	2
1	Hensell	5	-1.38	-7.0	3
2	Hosston	5	-3.01	-14.1	1
3	Paluxy	5	-0.18	-0.5	2
4	Travis Peak	5	3.74	-10.7	3

Selected DFC Compliance Table for Erath

	Aquifer	Since Baseline	Water Level (ft) +/-	DFC Decline	Total Wells
0	Antlers	5	-0.75	-1.4	1
1	Hensell	5	0.07	-1.2	3
2	Hosston	5	-1.2	-3.5	3
3	Paluxy	5	-0.04	-0.6	4
4	Travis Peak	5	-4.47	-2.5	2
5	Twin Mountains	5	0.12	-0.8	5

2. Total Wells – DFC Target

Objective: The District will review and calculate its permit and well registration totals in light of the Desired Future Conditions of the groundwater resources within the boundaries of the District to assess whether the District is on target to meet the Desired Future Conditions estimates submitted to the TWDB.

Objective Satisfied

The Number of wells registered in 2023 decreased from the number registered in 2022, while operating permits increased. In 2022, 615 wells were registered with the District, 189 of them required permits. By comparison, in 2023, 564 wells were registered, with 213 requiring permits.

District Totals:

Total # of exempt wells		22,201
Total # of grandfather permits	5,083	
Total # of operating permits	1,727	
Total # of permits		6,810
Total # of wells registered in MTGCD		29,011

County Data:

Bosque County

Total # of wells registered – 4,000 Exempt – 3,561 GP – 338 OP – 101

Comanche County

Total # of wells registered – 11,670 Exempt – 7,714 GP – 3,295 OP – 661

Coryell County

Total # of wells registered – 2,883 Exempt – 2,725 GP – 122 OP – 36

Erath County

Total # of wells registered – 10,458 Exempt – 8,201 GP – 1,328 OP - 929

4. Summary

Based on the leadership of the Board of Directors and management under the executive direction of the General Manager, District staff continued expanding their efforts in developing in-depth aquifer science, enhancing educational outreach to public schools and civic organizations, and refining database management for the District records.

The District staff has expanded the educational effort in a partnership with Texas A&M AgriLife Extension, Master Naturalist, and Master Gardner programs. Strategies include: the investment in The Ditch Water Discovery Center, classroom curriculum, science day events, field days, Earth Day events, and informative presentations for civic organizations.

MTGCD has established relationships through Interlocal Agreements with Bosque, Comanche and Coryell Counties, while working towards an agreement with Erath County. MTGCD has added LRE Water, LLC in conjunction with AGS to understand the Trinity Aquifer in terms of groundwater physics, flow, and recharge.

The District is also committed to continuing our efforts to enhance the network of monitor wells in the three layers of the Trinity Aquifer with the addition of ~ 60 new wells to measure drawdown related to pumping. This allows the Board of Directors to manage the aquifers to the DFC rather than simply the MAG. The District continues to monitor over 136 wells in both the Trinity and Cross Timbers Aquifers.