2021

ANNUAL REPORT

PANHANDLE GROUNDWATER CONSERVATION DISTRICT

"Conserving Water For Future Generations"

TABLE OF CONTENTS

WHO ARE WE?

Mission

The Panhandle Groundwater Conservation District will strive to develop, promote and implement water conservation, augmentation and management strategies, to protect water resources for the citizens, economy and environment of the District.

50/50 Standard: Our Motto

We want to preserve at least 50 percent of current water supplies for 50 years from now.

Created in 1955 by Texas Legislature.

Derives its authority from Chapter 36, Texas Water Code.

Funded by ad valorem taxes.

MANAGER'S ADDRESS

As I reflect on PGCD's 2020-2021 year, the two words that come to mind are change and adaptability. Of course, an important change to note is C.E. Williams retired in September 2020. Mr. Williams was the Manager from 1991 to 2020 and the District wishes him the very best in his retirement.

Starting out the year, the District began to experience the effects of Covid-19 all around us. The District worked toward changing procedures to not only protect the health of staff members, but also our constituents who came into our office. Many procedures and processes that required in-office visits have been streamlined and changed to be more user-friendly online. For example, permitting procedures and paperwork can now be easily completed over the phone and through email. While many of our regular in-person meetings were cancelled, we quickly adapted to attending and even hosting virtual meetings.

Our field technicians generally begin the year with switching between winter water level measurements and reading meters. Typically, the demand for groundwater is less in the winter months, and that's why they focus on getting water depth measurements, and congruently operators are shutting down their wells and it gives the staff a chance to evaluate annual water usage. This keeps our technicians very busy reading about 1,500 meters and measuring close to 900 wells in a few months. Once the data is collected, it is evaluated by staff members and used for reporting, newsletter information and even mapping procedures.

Mid-year we held a Board of Director election for Precincts 1 and 9, and said goodbye to two tenured Board Members, Mr. Phillip Smith and Mr. Butch Collard. With that election we welcomed Mr. Devin Sinclair, Precinct 1 Director and Mr. Lee Peterson for Precinct 9 – their perspectives and expertise and have already brought more diversity and experience to the Board.

One of the main focuses of this year was evaluating the enforcement rule as it applies to compliance with the 1-acre-foot rule (Reference District Rule 3.3 (e)). The Board of Directors established a Rule's Subcommittee to review and recommend revisions if necessary. The subcommittee met several times and hosted a workshop for all water-users to attend and give feedback. In December of 2021 the subcommittee submitted their recommendations for full Board approval. In a unanimous vote, the Board amended and adopted Rule 3.3 (e). The main change made was moving from a 3 to a 4-year rolling average on production compliance. The Directors are still committed to working with all water-users moving forward to develop rules that achieve the District's Desired Future Conditions while also honoring private property rights.

As always, the District welcomes you to contact it with any questions or concerns.

"

Reflections of Change and Adaptability in 2020-2021

Brittney Butler

BOARD OF DIRECTORS

Jim Thompson
President
Serving since 1994

Chancy Cruse
***Vice** President*
Serving since 2013

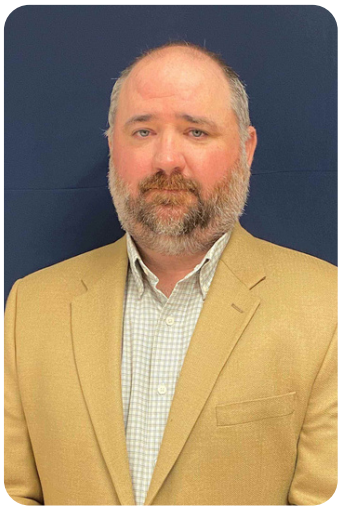
David Hodges
Secretary
Serving since 2020

Charles Bowers
Director
Serving since 1990

Danny Hardcastle
Director
Serving since 1997

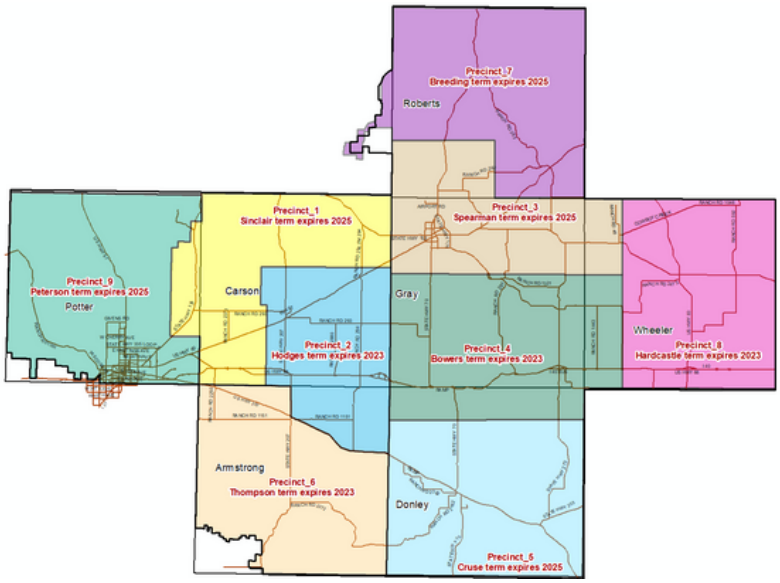
Bill Breeding
Director
Serving since 2013

John R. Spearman Jr.
Director
Serving since 2000



Devin Sinclair
Director
Serving since 2021

Lee Peterson
Director
Serving since 2021



DESIRED FUTURE CONDITIONS

The main purpose of a management plan is to develop goals, management objectives, and performance standards that, when successfully implemented, will work together to achieve the adopted DFCs. Goals 2 through 10 directly and/or indirectly support Goal 1. DFCs adopted for the Ogallala and Dockum aquifers by GMA 1 on November 1, 2016, and subsequently adopted by the Panhandle GCD Board of Directors on July 14, 2016, for the District are described below (note, the Blaine Aquifer in Wheeler County is now classified by GMA 1 as non-relevant for joint planning). A 50-year planning horizon was used in setting the DFCs. Throughout the joint planning process, the District actively worked with the other District Representatives and stakeholders within GMA 1 to determine the DFCs for each relevant aquifer located within each district.

Management Objective 1.1

The cornerstone of the many programs and activities of the District is the 50/50 management Standard which drives its Rules and this Management Plan. The 50/50 Management Standard states that 50 percent of the current volume within the Ogallala Aquifer will remain in 50 years. This 50/50 Management Standard is the tool by which the District will ensure that it meets or exceeds the 50/50 DFC outlined in Rule 1, 3, and 4, which states the maximum allowable volume of pumping from the Ogallala Aquifer is 1-acre foot per acre per year. In order to ensure that the 50/50 Management Standard is being met, the District goes through an annual review process to identify and act upon Contiguous Acreage Tracts exceeding the maximum allowable volume of pumping from the Ogallala Aquifer utilizing flow meter data.

In order to complete Management Objective 1.1, the following Performance Standards will be met. Actions by the District Board of Directors that may result from this review include the enforcement actions stipulated in Rule 3.3, as required.

Performance Standard

1.1A	Quantify all permitted pumping volumes for individual CATs based on flow meter readings and report to Board in Annual Report	December 1st	Presented at the March 25, 2021, Board Meeting	Completed
1.1B	Evaluate all Ogallala Aquifer measurements collected during WLM and report to Board	August 31st	July 29, 2021, Board Meeting	Completed
1.1C	The Board will conduct a Sunset Review to evaluate the effectiveness of the maximum allowable volume of production	Must be conducted by 01/1/25 and every 5 years after that	In Progress	To be Completed in 2025

Ogallala						
County	**2020**	**2030**	**2040**	**2050**	**2060**	**2062**
Armstrong	57,984	53,414	48,170	43,462	38,860	38,080
Carson	192,135	184,263	169,931	153,767	137,215	134,055
Donley	74,808	76,289	72,962	67,873	62,058	60,901
Gray	181,105	175,267	162,653	148,713	134,431	131,744
Hutchinson	15,734	16,740	15,156	13,324	11,742	11,455
Potter	16,969	15,820	14,442	13,162	11,836	11,609
Roberts	430,618	455,129	427,218	390,247	350,459	342,748
Wheeler	130,425	138,810	137,385	132,312	124,778	123,309
District Total	1,099,778	1,115,732	1,047,917	962,860	871,379	853,901

Management Objective 1.1

The District maintains an integrated geodatabase system based on the District's Observation Well Network and computer mapping programs to annually track and evaluate current supplies by a baseline (1998) Ogallala Aquifer saturated thickness dataset in the District. This analysis is utilized to track and review changes in water supplies.

Performance Standard

1.2A	Update Ogallala Aquifer Saturated Thickness Map on District's Website	Every 5 years	Maps were updated, sealed and approved on 2/23/21 https://www.pgcd.us/mapping	Completed

Dockum Aquifer DFCs

The Dockum Aquifer is classified by the TWDB as a minor aquifer that is present primarily in the western portions of the District and is generally under confined (artesian) conditions. Based on our current understanding of water resources in the Dockum Aquifer, DFCs have been adopted for Armstrong, Carson, and Potter counties within the District. Due to the predominantly confined nature of the Dockum Aquifer, a different approach was taken in adopting DFCs for the Dockum Aquifer. The DFCs adopted for the Dockum Aquifer in GMA 1 are that the average decline in water levels will be no more than 30 feet within the District over the next 50 years. The maximum allowable volume of pumping from the Dockum Aquifer is 1-acre foot per acre per year.

The estimates of modeled available groundwater for the Dockum Aquifer were extracted from predictive simulations performed for GMA 1 using the updated High Plains Aquifer System.

Dockum						
County	**2020**	**2030**	**2040**	**2050**	**2060**	**2062**
Armstrong	7,131	9,024	9,588	9,704	9,535	9,494
Carson	68	108	140	169	198	204
Potter	38,803	39,113	36,937	34,505	32,008	31,558
District Total	46,002	48,245	46,665	44,378	41,741	41,256

Management Objective 1.3

While there are tens of thousands of data points collected over time relative to the Ogallala Aquifer, the opposite is the case for the Dockum Aquifer. This can primarily be attributed to dominance of the Ogallala Aquifer in the region and the general prevalence of poor water quality and yields from the Dockum Aquifer. Due to declining water levels in the Ogallala Aquifer, there are areas where the Dockum Aquifer is becoming a more important water resource. There are localized areas of good water quality and where technological advances are being made using brackish groundwater desalination.

Due to the scarcity of data regarding the Dockum Aquifer, the District is primarily focused on data collection and trend analysis on wells completed in the Dockum Aquifer currently included in the District's Observation Well Network. This management objective is to monitor and report on Dockum Aquifer wells in the District's Observation Well Network that are experiencing declines for which the trend is in excess of the DFC of 30 feet.

Performance Standard

1.3A	Report data collection and trend analysis to the Board concerning Dockum Aquifer wells within the District's OWN.	August 31st	July 29, 2021 Board Meeting	Completed

MANAGEMENT OF GROUNDWATER

Throughout its history, the District has operated on the core principle (or goal) that groundwater should be used as efficiently as possible for beneficial purposes. In order to achieve this goal, the District maintains a qualified staff to assist water users in protecting, managing, and conserving groundwater resources. The Board of Directors has in the past and continues today to base its decisions on the best data available to treat all water users as equitably as possible. Once data is collected, the District utilizes a wide variety of forums to provide important information to water users throughout the District so that sound decisions regarding the efficient use of groundwater can be made. The District's Observation Well Network will continuously be reviewed and maintained in order to monitor changing storage conditions of groundwater supplies within the District. The District will continue to undertake and cooperate with technical investigations of groundwater resources within the District. The following management objectives and performance standards have been developed and adopted to collect needed information, disseminate information, and provide opportunities through the District's Agricultural Water Conservation Equipment Loan Program to ensure the efficient use of groundwater.

Management Objective 2.1

The Observation Well Network, with approximately 850 water wells located throughout the District is continuously maintained and monitored. Wells in the Observation Well Network produce groundwater from the Ogallala Aquifer, the Dockum Aquifer, and also other minor aquifers in the area. Water levels are measured by District staff in as many wells as possible, with the management objective being to measure water levels in at least 90 percent of the wells in the Observation Well Network each year. This data is then processed for quality assurance/quality control, entered into the District's geodatabase, analyzed, mapped, and used to make decline calculations and update historic trend lines (hydrographs). Water level measurements from wells in the District's Observation Well Network are used to generate annual decline maps. The District will strive to install additional monitoring wells in locations when necessary in order to evaluate the effects of high-impact pumping operations as necessary.

Performance Standard

2.1 A	Measure Water Levels in at least 90% of the Wells in the District's Network	April 1st	96.9% read by March 23, 2021	Completed
2.1B	Prepare Annual Depletion Map and publish it in the PWN	July 31st	July Newsletter	Completed
2.1C	Prepare Ogallala Aquifer water table decline map for use in the IRS annual depletion program, provide results to participating producers.	January 31st	Results provided via mailed letter on 12/15/21	Completed

Management Objective 2.2

The District encourages efficient groundwater use by continued promotion of low pressure and other efficient sprinkler systems, drip irrigation systems, and other recognized water conservation measures, which will decrease the utilization of less efficient row irrigation techniques. This will be accomplished by increasing the use of the District's Agricultural Water Conservation Equipment Loan Program, as long as TWDB Agricultural Loan Program funds are available and economically competitive. The District will enhance awareness of the loan program by utilizing local newspapers and the PWN. The District website will have information on availability of funds and guidelines for applicants. The District will strive to provide timely responses to loan applicants.

Performance Standard

2.2A	Ag Loan Reminder in PWN	Twice a year	January 2021, July 2021	Completed
2.2B	Review ag loan applications	Within 60 days	All applications were reviewed and approved by the Board within the specified timeframe.	Completed

Management Objective 2.3

The District encourages the efficient use of groundwater by disseminating educational information regarding current best management practices and trends in water conservation for agricultural, municipal, and industrial applications. The District publishes a newsletter quarterly that contains resources for water users interested in water conservation. In addition, the District also attends and participates in public events throughout the District including the annual Amarillo Farm and Ranch Show as often as possible.

Performance Standard

2.3A	Publish Panhandle Water News	Quarterly	October 2020, January, April, May and July 2021	Completed
2.3B	Attend the Farm & Ranch	Annually	Amarillo Farm and Ranch Show 2020 was cancelled due to the Covid-19 Pandemic	Completed

Management Objective 2.4

In order to ensure that the Board of Directors and District constituents are aware of and informed on the most current information on water conservation, groundwater management, and emerging policy issues related to groundwater resources, District staff actively participate in a broad grouping of professional associations that focus on water resource issues. District staff will report at the next available regularly scheduled Board of Directors meting in the General Manager's Report on any activities resulting from participation with the following active affiliations:

- Texas Alliance of Groundwater Districts (TAGD)
- Texas Water Conservation Association (TWCA)
- Groundwater Management Districts Association (GMDA)

Performance Standard

2.4A	Attend and participate in 75% of TAGD, TWCA and GMDA meetings	Annually	Participated in 100% of all meetings either virtually or in person.	Completed

TWCA Service Day

TWCA partnered with Edwards Aquifer Authority (EAA) to volunteer at the EAA Field Research Park. Pictured left is General Manager, Britney Britten along with Cecelia Green (Blanton & Associates), Drew Miller (Kemp Smith), Stephanie Moore (INTERA, Inc.), Ryan Harmon (INTERA Inc.), and Adeline Fox (TWCA). This group had just finished planting native grasses, and also helped mulch areas around the park.

MANAGEMENT OF GROUNDWATER CONTINUED

Management Objective 2.5

The District has adopted rules that require an approved metering method on all wells producing more than 35 gallons per minute. The District believes that when a water user understands the volume of groundwater being used, they are better able to adopt best management practices that result in the efficient use of groundwater. Therefore, the District is committed to continuing the program focused on requiring a metering method for wells pumping more than 35 gallons per minute, flow meter monitoring, and data collection and analysis of water use by cop and irrigation type. To achieve this objective the District will read and record meter data from installed, registered, and accessible meters in the District annually. The information from the District's metering program will be published in the District's Annual Report. Additionally, the District will provide water-users with meter data production reports. Finally, the Board will consider meter data with respect to individual Contiguous Acreage Tracts in order to document compliance with the District maximum allowable production rate.

Performance Standard

2.5A	Read and record flow meter data for 90 percent of installed flow meters	Annually	93% of the Meters Read - 1/15/21	Completed
2.5B	Production Reports sent to water-users	September 1st (Starting in 2020)	96% of Production Reports were emailed or mailed by 3/15/21	Completed
2.5C	Review and prepare revised estimates to TWDB annual agriculture water estimates	Within timeframe requested by TWDB	Report emailed to TWDB on 5/7/21	Completed

GROUNDWATER WASTE PREVENTION

Management Objective 3.1

The District is continuously working to take positive and prompt action to identify and address all reported wasteful practices and instances of waste located by District Staff within the District. This effort involves the following actions to be taken by the District.

- Report each complaint to the landowner and/or operator within five working days
- Resolve the complaint and note the corrective action taken
- Report resolution of each complaint to the landowner/operator and to the Board at the next regularly scheduled meeting during the General Manager's Report

Performance Standard

3.1A	All complaints of waste will be recorded, investigated and reported to land owner	Within 5 working days	There were no official complaints of waste this year.	Completed
3.1B	Report each complaint to board with staff recommendation & resolution	As necessary	There were no official complaints of waste this year.	Completed

DROUGHT PLANNING

Management Objective 4.1

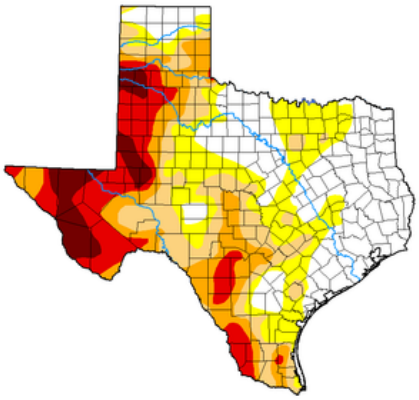
In order to provide ongoing information regarding water conditions in the District, establish and maintain links to National Oceanic and Atmospheric Administration Drought Monitor indices are on the District website.

Performance Standard

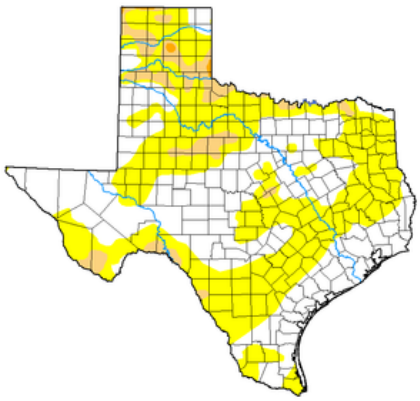
4.1A	Update links to the NOAA Drought Monitor indices on the District's Web-site	Annually	https://www.pgcd.us/links	Completed

2021 TEXAS DROUGHT MONITOR MAPS

January 12, 2021



September 28, 2021



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	3.21	96.79	82.48	62.44	21.91	0.00
Last Week 01-04-2022	7.58	92.42	79.83	54.25	16.69	0.00
3 Months Ago 10-12-2021	46.74	53.26	14.58	0.53	0.00	0.00
Start of Calendar Year 01-04-2022	7.58	92.42	79.83	54.25	16.69	0.00
Start of Water Year 09-28-2021	45.57	54.43	7.26	0.27	0.00	0.00
One Year Ago 01-12-2021	31.28	68.72	48.02	32.25	18.62	5.97

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:
Richard Tinker
CPC/NOAA/NWS/NCEP

droughtmonitor.unl.edu

JOINT MANAGEMENT EFFORTS

The Canadian River Municipal Water Authority (CRMWA) supplements member city allocations of groundwater with supplies from Lake Meredith. The CRMWA system is the largest conjunctive use water provider in the State of Texas, providing a combination of groundwater and surface water to 11 member cities. All current CRMWA groundwater supplies are produced within the boundaries of the District.

The Greenbelt Water Authority (GWA) is the second surface water user with supplies inside the boundaries of the District. GWA is now also utilizing groundwater resources from the Ogallala Aquifer. The District will communicate with regard to rules and technical data as it applies to conjunctive use within the District.

Management Objective 5.1

In order to continually monitor the impact of declining surface-water availability on groundwater resources within the District, the General Manager or designee will participate in the Panhandle Water Planning Group (PWPG) with the two surface-water entities currently operating within the District. This activity helps facilitate regular communication and cooperation with regards to conjunctive use issues in the District.

Performance Standard

5.1A	The district manager or designee will participate in 75% of PWPG meetings and activities	2019-2024	Participated in 100% of all meetings either virtually or in person.	Completed

NATURAL RESOURCE ISSUES

As part of the umbrella goal of achieving the adopted DFCs, the District recognizes that the protection of water quality is equally as important as working to ensure adequate water quantity. In order to protect the District's most important natural resource, the abundant, high quality groundwater resources, the District has for many years maintained and operated a water quality sampling program sampling different areas each summer which yields a complete set of data biennially.

Management Objective 6.1

In order to control and prevent the contamination of groundwater, the District maintains and works to expand the groundwater quality monitoring. As part of this effort, an annual sampling program will be conducted within the District's Water Quality Network. The objective will be to sample at least 80 percent of the wells in the District's Water Quality Network on a biennial basis. Also, upon request the District will conduct analysis of water within current District sampling capabilities, including sites near oil and gas industry injection well sites.

Performance Standard

6.1A	Sample 80% of the Water Quality Network report program status to the Board by September 1st	Biennially (spans over 2 years)	Out of 369 wells in the network, the District sampled 185 wells - 51.2%	Completed
6.1B	Record water quality data in database	Within 30 days	All data was recorded within 30 days and can be viewed in the District's database.	Completed

CUSTOMER SERVICE

Management Objective 7.1

Customer service is of great importance to the Board of Directors and Staff of the District. As detailed in the corresponding performance standards, the District will continue to provide timely response to customer assistance requests in the following areas:

- Pump flow tests
- Processing of well drilling permits
- Review and revision of District Rules, as necessary, to incorporate revisions required by new legislation and as necessary to achieve adopted Desired Future Conditions
- Well camera recordings

Performance Standard

7.1A	Provide requested flow tests and enter into database	Within 5 working days	District staff work with Operators to provide flow tests in a timely and convenient manner.	Completed
7.1B	Managers action on well drilling permits	Within 10 working days after approval	All permits were reviewed and either approved, amended or denied within 10 working days	Completed
7.1C	Provide well camera service and return information to landowner within 5 working days then archive DVD to library	Provide service within 5 days of request and get info back to landowner within 5 working days	Provided and documented within 5 days.	Completed

PRECIPITATION ENHANCEMENT

Texas Water Code Section 36.1071(a)(7) required groundwater conservation districts to include in the management plan a goal addressing precipitation enhancement. The District has one of the longest continuous precipitation enhancement programs in the state of Texas.

Management Objective 8.1

The District will continue to operate its Precipitation Enhancement Program throughout the planning horizon of this management plan. The program will operate within budget. A rain gauge network will be maintained and monitored to confirm precipitation enhancement results. Flight records will be collected and archived.

The program will abide by Texas Department of Licensing and Regulation requirements for testing, monitoring, and reporting in order to ensure compliance with permit guidelines. Results of the District's Precipitation Enhancement Program will be presented to the Board of Directors.

Performance Standard

8.1A	Conduct program from April to September 30	Annually	April 1 - September 30	Completed
8.1B	Calculate the baseline costs for the program	Annually	$0.03 per acre	Completed
8.1C	Collect and record rain gauge reading	At least quarterly	Collected in April, May, June, July, August and September 2021	Completed
8.1D	Maintain all flight records on all precipitation enhancement operations and make available for review upon request	Annually	Current Flight Tracks on our website - https://pgcd.us/flight-tracks	Completed
8.1E	Provide precipitation enhancement annual report to Texas Department of Licensing and Regulation	Annually	Provided to TDLR on December 14, 2021	Completed

The PGCD Weather Enhancement Program completed it's 21st year of consecutive cloud seeding operations this past September. The 2021 campaign had a total of 12 cloud seeding days, with 11 total seeding missions. Recon flights totaled in 12, with 184 flares used.

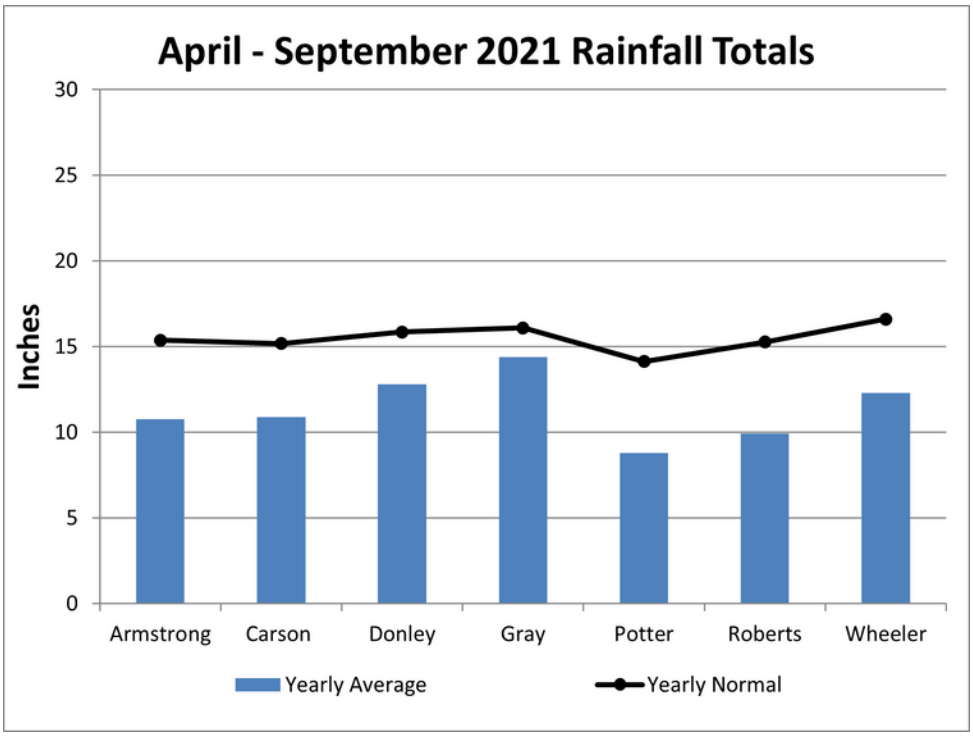
Management Objective 8.2

Educate the public with regards to the benefits of the District's Precipitation Enhancement Program through informational articles in the PWN and local newspapers, public presentations, and program summaries in the District's Annual Report each year.

Performance Standard

8.2A	Publish an article about precipitation enhancement in at least 2 of the quarterly issues of PWN.	Twice a year	October 2020 and April 2021	Completed
8.2B	Provide at least 1 article about the program to all local newspapers	Annually	Corey Clay provided weekend forecast to the Panhandle Herald on April 15, 2021	Completed
8.2C	At least 2 presentations to a public or civic group	Annually	WD 4th Grade Elementary District Field Trip on May 13, 2021, Groom Library Presentation on 6/25/21	Completed
8.2D	Complete the Program Summary Report and include in District's Annual Report each year	Annually	See Table Below	Completed

2021 Program Summary	
Number of Seeding Days	12
Number of Seeding Missions	11
Number of Recon Flights	12
Total Flares Used	184
Total Program Cost per Acre	$0.03



CONSERVATION EDUCATION

Texas Water Code Section 36.0015 states, in part, that, "In order to provide for the conservation, preservation, protection, recharging, and prevention of waste of groundwater... Groundwater conservation districts may be created... are the state's preferred method of groundwater management through rules developed, adopted, and promulgated by a district in accordance with the provisions of this chapter." It is noteworthy that in this overview section of Texas water law addressing groundwater management that "conservation" is the first action groundwater conservation districts are to pursue. The 50/50 Management Standard can only be achieved if our groundwater resources are conserved in a manner that ensures adequate water resources will be available for future generations. While water District's programs, the following represent management objectives most focused on water conservation.

Management Objective 9.1

Continue and expand, when possible, the District's Groundwater Conservation Education program. District staff will make presentations on the importance of water conservation to at least 5 civic organizations and in at least 30 educational settings. Annually, the District will award at least three college scholarships to students in the District based on participation in a water conservation essay competition. The District will maintain an Internet information page and launch an aggressive conservation education initiative called "Water Warriors", as well as work with other entities to present an ongoing Panhandle area water conservation symposium.

Performance Standard

9.1A	Make at least 5 civic education presentations	Annually	Carson County Ag Day 2/25/21, White Deer 4th Graders District Field Trip 5/13/21, Groom Library Summer Reading Program 6/25/21, Booth at White Deer Kick Bay Day 7/31/21, Pampa Desk and Derrick Club 8/24/21, Miami Dianthis Club 9/7/21	Completed
9.1B	Present water conservation presentation in 30 educational settings	Annually	Presented to 5 schools in person and sent educational YouTube Video to all 52 Schools and received 43 views from 10/1/20 - 09/30/21	Completed
9.1C	Provide at least 3 scholarships (student essay competition)	Annually	Mason Zamudio, Jarique Mitchell and Michael Goad	Completed
9.1D	Water Warrior Presenation to at least 3 public school settings outside of school	Annually	Carson Co. Ag Day, WD 4th Grade District Field Trip, Groom Library Summer Reading Program	Completed

RAINWATER HARVESTING

Rainwater harvesting is becoming an increasingly important strategy for meeting water supply needs, especially in the more rural areas of Texas. While rainwater harvesting is one of the many topics included in the District's water conservation education programs, the following management objective and performance standards are specifically focused on rainwater harvesting.

Management Objective 10.1

The District has established and maintains a rainwater harvesting system and provides educational tours to the public regarding the many benefits of the system. Tours of the District office rainwater harvesting system are provided upon request. A link to an informational page highlighting the rainwater harvesting system will be maintained and updated as necessary on the District's website. In addition, a link to the TWDB website on rainwater harvesting will also be maintained on the District's website.

Performance Standard

10.1A	Webpage Highlighting the district's rainwater harvesting system and information about tours	Update annually	https://www.pgcd.us/rainwater-harvesting	Completed
10.1B	Provide a link to TWDB rainwater harvesting webpage	Update annually	https://www.pgcd.us/links	Completed

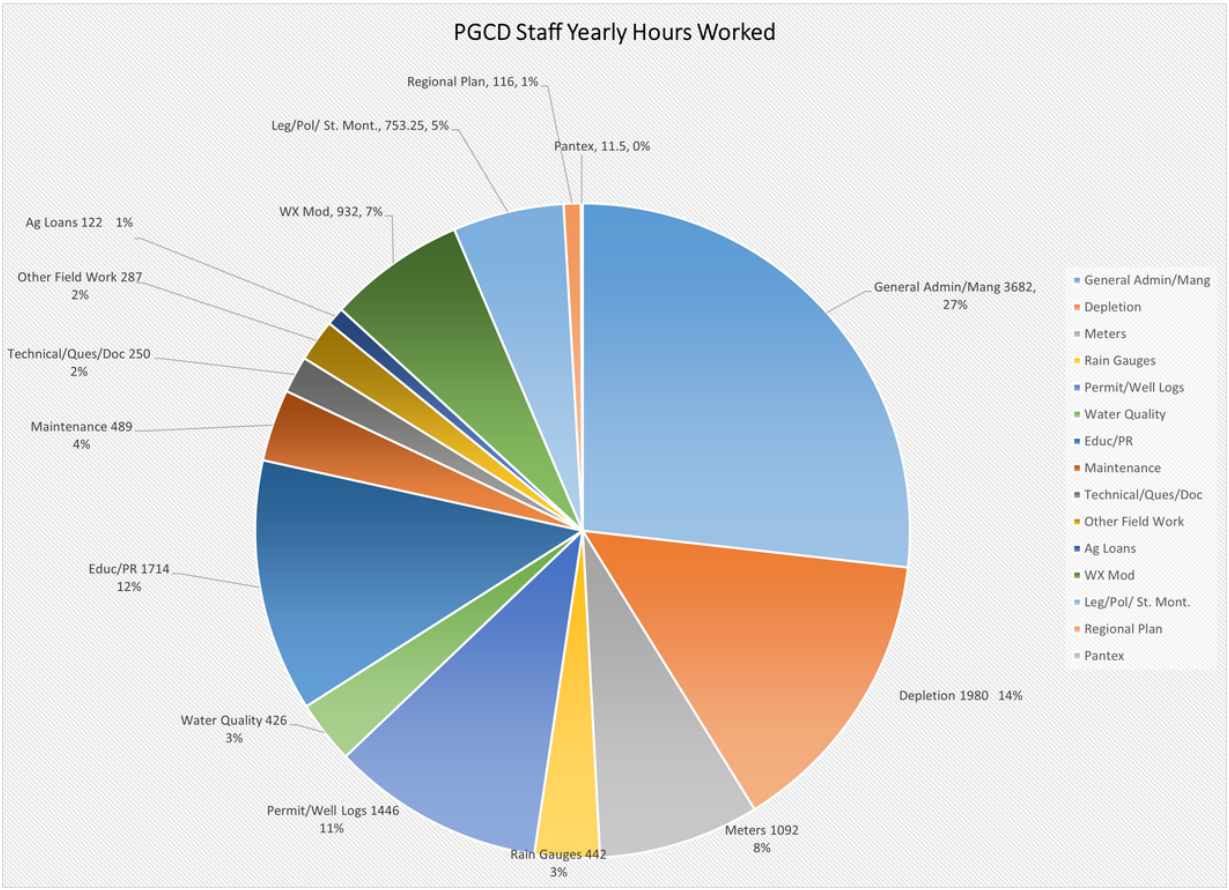
Wilson Elementary 5th grade students toured the District office to learn about our rainwater harvesting system, xeriscaping and how to be good water stewards.

2020-2021 EXPENDITURES

Merchant deposit fees	599.60
Rainwater Harvesting Rebate	17,826.82
1740 · Capital Operating Improvements	17,326.36
1755 · Symposium Expenses	0.00
1760 · Fund Transfer	0.00
1610 · App. Districts	33,143.87
1615 · Board Expense	24,087.16
1620 · Capitol Exp. A	0.00
1625 · Car Expense	20,559.24
1630 · Dues	7,016.55
1635 · Election Exp.	13,338.14
1640 · Field Equipment Asset	1,865.91
1645 · Field Supplies	4,614.10
1650 · Grants Funds	0.00
1655 · Insurance	152,813.69
160 · Labor	634,626.15

1665 · Meter Expense	62,128.14
1735 · Miscellaneous	1,492.91
1675 · Office	30,546.90
1670 · Postage	4,747.08
1685 · PR	28,449.87
1680 · Prof. Services	100,714.12
1690 · Regional Planning	13,271.00
1695 · Repairs	8,917.79
1700 · Scholarship	9,500.00
1750 · Service Charges	75.00
1705 · Tax Increment Payment	12,982.00
1710 · Special Studies	23,692.50
1715 · Travel & Training	19,549.96
1720 · Utilities	19,064.78
1725 · Water Quality	3,863.64
1730 · Weather Modification	123,394.51
Total	1,390,207.79

TIME TRACKING



PERMITTING AND REGISTRATION

Well Permits Approved

	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
Armstrong	6	0	3	8	2
Carson	12	14	13	20	11
Donley	16	5	7	8	8
Gray	5	5	7	12	8
Hutchinson	0	0	0	0	0
Potter	1	0	5	21	42
Roberts	2	2	1	2	2
Wheeler	5	5	9	9	14
Total	**47**	**31**	**45**	**80**	**87**

Domestic, Stock and Rig Supply Well Registrations Received

	2019-2020	2019-2020	2018-2019	2017-2018	2016-2017
Armstrong	16	14	22	28	10
Carson	50	18	22	33	13
Donley	33	19	37	22	20
Gray	36	30	32	19	21
Hutchinson	1	0	1	0	0
Potter	25	60	65	12	22
Roberts	13	9	5	12	7
Wheeler	30	26	22	23	32
Total	**204**	**176**	**206**	**149**	**125**

Observation, Monitoring and Remediation Well Registrations Received

	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
Armstrong	0	0	0	0	0
Carson	23	45	8	31	15
Donley	0	0	0	0	0
Gray	0	0	0	1	0
Hutchinson	0	0	0	0	0
Potter	0	6	7	30	13
Roberts	0	0	0	0	0
Wheeler	0	0	4	4	4
Total	**23**	**54**	**19**	**66**	**32**

Operating Permits Approved

	2020-2021
Armstrong	3
Carson	9
Donley	2
Gray	9
Hutchinson	0
Potter	1
Roberts	1
Wheeler	4
Total	**29**

It is important to remember that all water wells drilled to the water table must have a completed application, signed by the landowner, before it is drilled. This statement is made every year, but is important because without the application prior to drilling, a fine will be assessed to the driller and the landowner. It is as simple as giving the District a call before drilling. "Spacing and Placing" the blue PGCD Logo Flag is has worked out extremely well. There is no mistaking if that blue PGCD Logo Flag is on the location where the water well is to be drilled.

Currently, wells drilled pumping 17.5 gallons per minute or less, which are most commonly domestic and stock wells, is considered an exempt well and is required to be registered with the District prior to drilling, and may require being spaced from property lines and other wells. RIg supply wells generally produce more than 17.5 gallons per minute, but they are defined as an exempt use in Chapter 26 of the Texas Water Code.

Any well that produces more than 17.5 gallons per minute must be permitted. This requires being spaced both from property lines and other water wells. Once the proposed well location meets these requirements and is approved by our field technicians, by placing a blue PGCD flag with latitude, longitude, date spaced and initials, the well may be drilled at the landowner's risk. The application must be approved by the Board of Directors.

YEAR AT A GLANCE

October 2020

10.07	Ogallala Commons Playa Day Festival
10.26- 10.30	Geological Society of America Annual Meeting
10.27- 10.29	2020 ESRI Infrastructure Management & GIS Conference- Virtual

November 2020

11.18	PGCD Board Meeting

January 2021

1.19	PGCD Board Meeting

February 2021

2.23	PGCD Board Meeting
2.24-2.25	Ogallala Summit- Virtual
2.24- 2.25	Carson County Ag Day

Carson County Ag Day 2021

April 2021

4.19-4.27	Early Voting

May 2021

5.01	Election Day
5.11	PGCD Board Meeting

June 2021

6.09- 6.11	TWCA Summer Conference

July 2021

7.29	PGCD Board Meeting

August 2021

8.19	PGCD Board Meeting
8.31	TAGD Groundwater Summit

C.E. Williams Receiving a Lifetime Membership Award to TAGD

September 2021

9.01- 9.02	TAGD Groundwater Summit

PGCD STAFF MEMBERS AND JOB TITLES

- Britney Britten, General Manager
- Katie Hodges, Office Manager
- Julie Bennett, Permitting Administrator
- Kelly Lane, Compliance Officer
- Ashley Ausbrooks, Hydrogeologist
- Jake Robinson, Field Technician
- Richard Dills, Field Technician
- Aspen Edgar, PR/Education


PANHANDLE
GROUNDWATER DISTRICT
"CONSERVING WATER FOR FUTURE GENERATIONS"