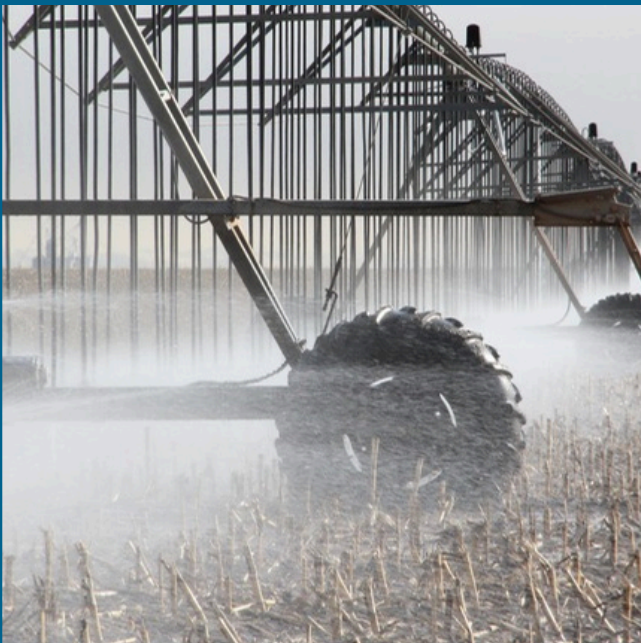




**NORTH PLAINS
GROUNDWATER**
Conservation District



ANNUAL REPORT



2023
EDITION

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Mission Statement

Maintaining our way of life through the conservation, protection and preservation of our groundwater resources.

What the District Does

The District issues water well permits, collects groundwater information, performs water quality analyses and provides a number of well system tests and other services. Extensive databases are used to store, retrieve, and analyze groundwater information for the District.

The purpose of the North Plains Groundwater Conservation District is achieved through rules, educational programs, District-provided services, and through the cooperation of local, state, and federal agencies.

Throughout the history of the North Plains Groundwater Conservation District, the board of directors and staff have been committed to identifying future concerns and finding solutions before they become problems. The District continues to be aware of regulations of other local, state, and federal agencies which affect groundwater use or groundwater management. The District acts as a liaison between these agencies and the residents of the District. It is the goal of the District to provide the best management of groundwater resources and educational resources available to every water user group to insure that a supply of potable water will be available for future generations.

Board of Directors

Mark Howard - President
Represents Hartley County

Danny Krienke- Vice President
Represents Ochiltree County

Bob Zimmer - Secretary
Represents Hutchinson &
Hansford Counties

Justin Crownover- Director
Represents Sherman County

Harold Grall- Director
Represents Moore County

Gene Born- Director
Represents Lipscomb County

Allan Frerich- Director
Represents Dallam County

District Staff

Steve Walthour
Previous General Manager

Janet Guthrie
Current General Manager

Kristen Blackwell
Administration Manager

Lou Orthman
Compliance Coordinator

Dusty Holt
Permitting Specialist/
Finance Assistant

Kirk Welch
Assistant General Manager

Krystal Donley
Administrative Assistant

Casey Tice
Production Coordinator

Sherry Robinett
Administrative Assistant

Baylee Barnes
Conservation Outreach
Specialist

Odell Ward
Aquifer Science Manager

Braden Cadenhead
Natural Resource Specialist

Mitch Funk
Natural Resource Specialist

Paige Glazner
Conservation Outreach Assistant

Curtis Schwertner
Natural Resource Specialist

Management Plan Objectives and Annual Activity Report

Providing for the Most Efficient use of Groundwater

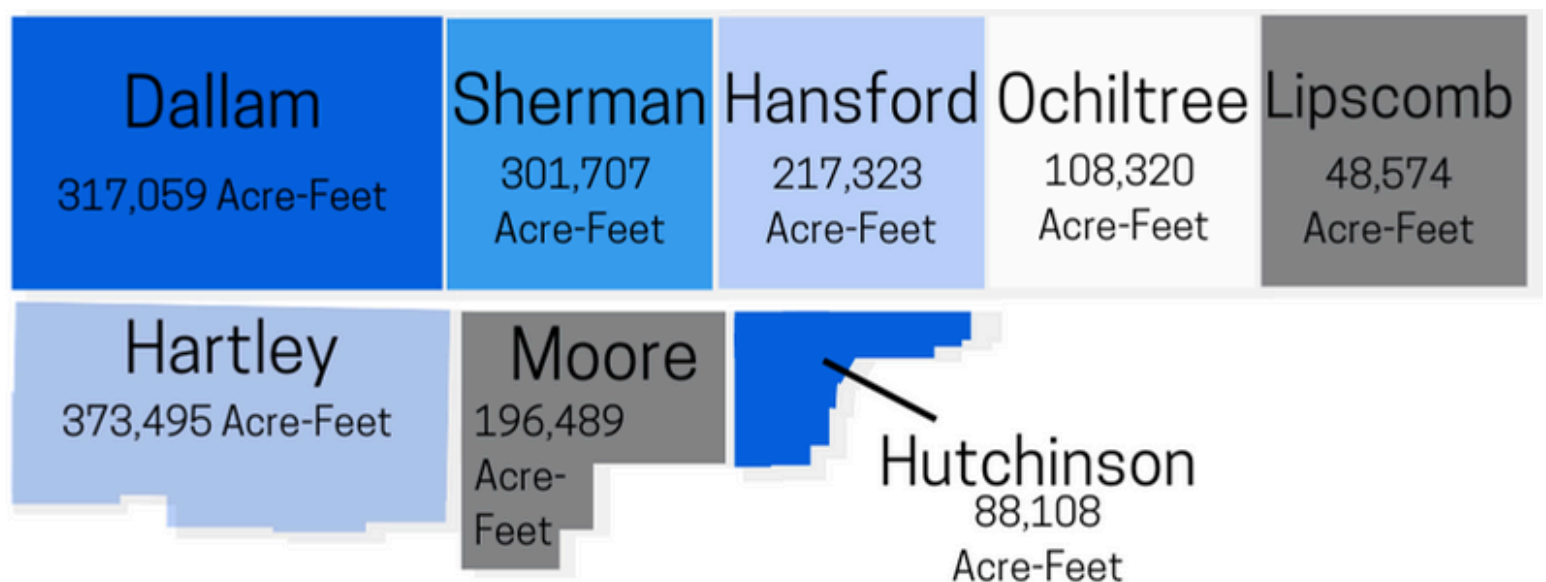
A1. Groundwater Reporting

Management Objective: Monitor total annual groundwater withdrawals through water use reporting by all producing groundwater right owners that have a well capable of producing more than 25,000 gallons of groundwater a day.

Performance Standards: Annually, the District will collect production reports on all properties containing non-exempt wells and calculate annual groundwater withdrawals for the District.

Action Taken: The District received production reports for 2023 from 2954 Groundwater Production Units. Annual groundwater withdrawals were calculated and published in the Hydrologic Report and presented to the Board at the August 13, 2024 board meeting.

ANNUAL GROUNDWATER PRODUCTION IN ACRE-FEET FOR 2023



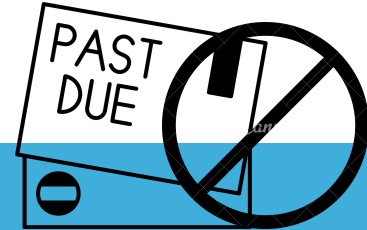
2954

TOTAL PRODUCTION REPORTS



2888

**COMPLIED
WITH RULES**



66

**LATE & EXCEEDED
ALLOWABLE**



36

**ADMINISTRATIVELY
RESOLVED**



30

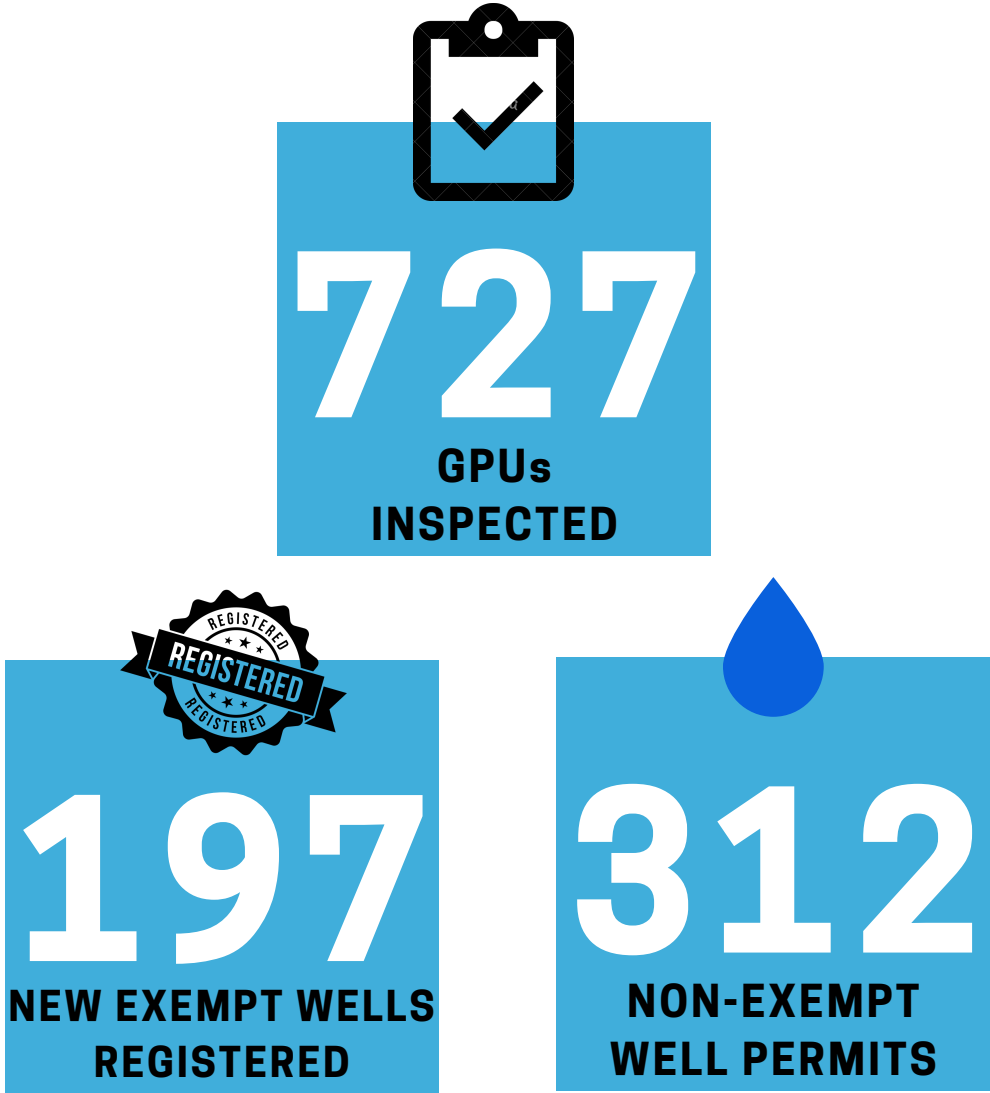
**ADMINISTRATIVELY
UNRESOLVED**

A2. Well Registrations and Permitting

Management Objective: All exempt and non-exempt wells constructed within the jurisdiction of the District are required to be registered or permitted in accordance to the District’s Rules.

Performance Standards: District staff will verify all wells within a Groundwater Production Unit(s) are registered or permitted in accordance with the District Rules during any site visits.

Action Taken: In 2023, the District inspected all Groundwater Production Units (GPUs) on which applications were made for new non-exempt wells, new exempt wells were registered, and previously unregistered wells were discovered during inspections. The following table gives the results from permitting and inspecting wells in 2023.



A3. Conservation Demonstration and Education

Management Objective: Provide support through the District's North Plains Water Conservation Center, demonstrations, and other District education programs to promote groundwater conservation

Performance Standards: At least annually, conduct field days and/or other events to educate stakeholders regarding water use efficiency technologies and practices. The District will publish reports on the activities at the North Plains Water Conservation Center and other demonstrations and education programs.

Action Taken:

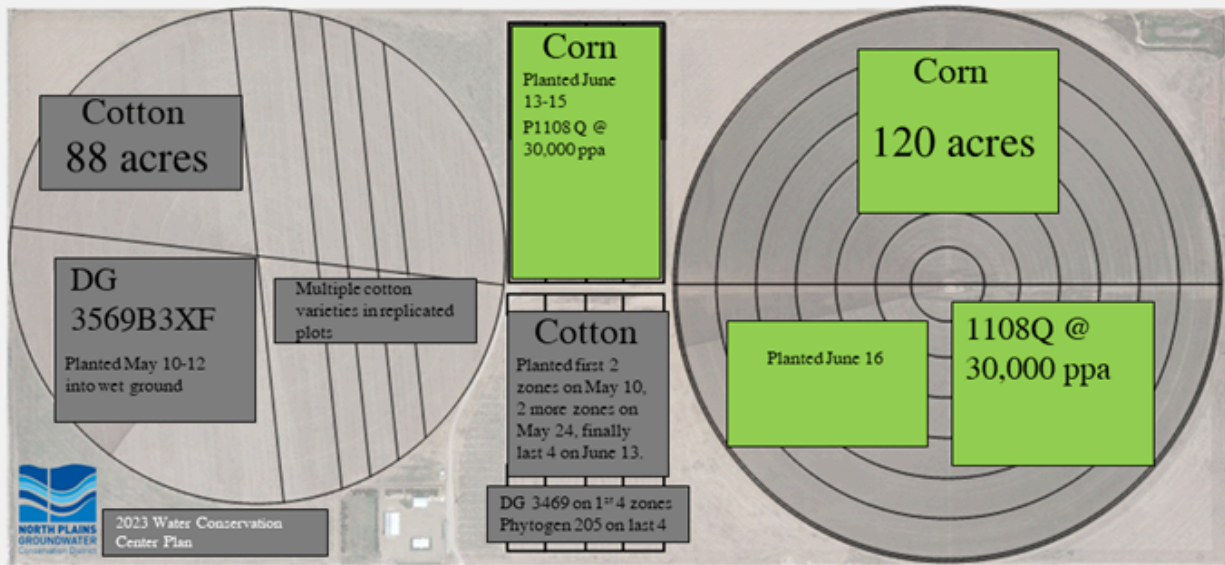
The Master Irrigator Program



The Master Irrigator is a 4-day interactive training program combining lecture and producer panel interaction to provide a fast track to adoption of irrigation conservation practices, tools and technologies. Ultimately the program helps growers be more efficient stewards of the area's groundwater resources.

The Master Irrigator Program was held in the spring 2023. The 2023 class graduated 25 participants, increasing the number of acres influenced by the Master Irrigator Program to approximately 500,000 acres since instalment in 2016.

2023 - Water Conservation Center



2023 Irrigation Summary

Corn Plant Date: 13-16 June 2023
 East Pivot: 22.7 Inches (5.2-inches pre-water)
 North SDI: 20.4 Inches (2.2-inches pre-water)

Cotton Plant Date: 10-12 May 2023
 West Pivot: 5.2 Inches (5.2 Inches pre-water)
 South SDI: 3.65 Inches (2.2 Inches pre-water)

WCC 2023 DEMONSTRATION UPDATE: SALVAGE OPERATION FROM THE BEGINNING

2023 Yield and WUE

Corn

East Pivot:	218 Bu / Acre – 9.5 Bushel / Acre-inch Irrigation
	218 Bu / Acre – 5.5 Bushel / Acre-inch Total Water
North SDI:	208.8 Bu / Acre – 10.1 Bushel / Acre-inch Irrigation
	208.8 Bu / Acre – 5.5 Bushel / Acre-inch Total Water

Cotton

West Pivot:	679 lbs / Acre - 130.6 lbs / Acre-inch Irrigation
	679 lbs / Acre - 30 lbs /Acre-Inch Total Irr. and Rain
South SDI:	333 lbs / Acre - 91.2 lbs / Acre-inch Irrigation
	333 lbs / Acre - 15.6 lbs /Acre-Inch Total Irr. and Rain

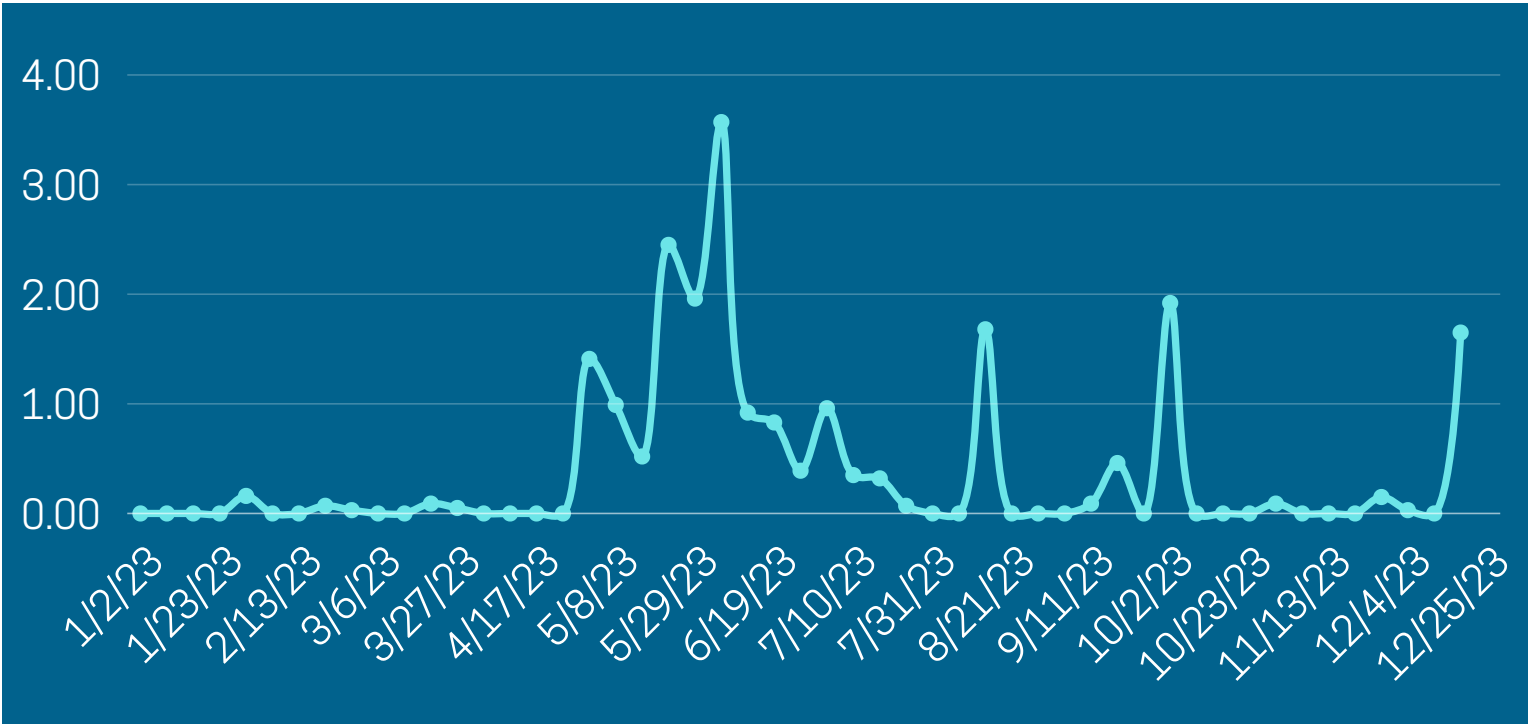


These yield numbers are not what we have come to expect at the North Plains Water Conservation Center, especially in a growing season that was blessed with almost 18” of rain. We all know that you never complain about rain, anytime you get it. However, based on the plan we started the 2023 growing season with, we did get too much rain, at the wrong time. Nevertheless, as we look back on the 2023 season, keeping the “rain is always good” philosophy in mind, we learned about some adjustments that could allow us to make better use of the extra rain we get, next time.

Even before planting, the demonstrations turned into a salvage operation. Based on three consecutive dry winters, our farmer/operator, engineer, and crop consultant all recommended substantial pre-watering, which was applied at a rate of 5.2 inches under both pivots and 2.2 inches in both drip plots. However, before any of those crops could be planted, the rain started in early May and dropped 11.25 inches in approximately one month. This unexpected rainfall caused challenges with several aspects of the demonstration plan.

First, the timing of the rain substantially disrupted the scheduled dates for planting. The rains interfered with both cotton and corn, altering a planting date demonstration for cotton.

IN-SEASON RAINFALL FOR 2023



Despite the gloomy outlook, a portion of the cotton was actually planted on time. Cotton was planted on schedule on the West Pivot from May 10 -12th into wet ground. In addition, the first two zones of the south drip field were also planted in cotton on schedule on May 10th. However, the initial plan to plant a pair of zones of cotton on the drip field each a week apart was rained-out when the ground was too wet to plant the second two zones on May 17th. The second pair were planted on May 24 and the final two pairs of cotton zones could not be planted until June 13th. A shorter season variety was planted to try to make up for the later planting date, but yields were still not good.

The corn drip fields were also planted fairly timely from May 13-15th. However, the conditions did not allow for the East Pivot corn to be planted until June 16.

Second, the rains created a major challenge for irrigation efficiency. Had we had a crystal ball, we would have not chosen to apply pre-water to the crops. Since we did not know we would be receiving enough rainfall to fill the profile early in the season, significant pre-water was applied that we could not recover.

We did not irrigate cotton again, since the cotton stayed wet throughout the rest of the season. Corn was a different story. Even with the extra water in the soil from pre-water and rainfall, the temperatures in July and August got so hot we were unable to turn-off to try to save some of the irrigation that was applied pre-season.

Third, based on the yields and water use numbers, the untimely rains also negatively affected crop development in several ways. The consensus was that the soggy conditions were not ideal for cotton development, causing it to stop maturing. Combined with some late planting dates, high winds, hail, heavy weed pressure and low growing degree days just after emergence, neither crop responded well. Former Demonstration engineer, Nich Kenny reported soil moisture sensors showed no significant activity for either crop until August.



**SDI COTTON EMERGENCE ON 5/22/23 -
PROBES SHOW NO ACTIVITY UNTIL
AUGUST**



**CORN ON 10/16/23 DRYING DOWN (SLOWLY)
- NO PROBE ACTIVITY UNTIL AUGUST**

Further analysis and interpretation of the results have led to some alternative strategies to consider of similar conditions present themselves in the future. Kenny proposed that substituting sorghum or another forage crop for the late-planted cotton could have allowed for better use of the excess water that was available. In addition, Kenny suggested chopping the late planted corn for silage could have saved some irrigation and improved overall irrigation efficiency.

Though the excessive rain at planting and other obstacles to the season certainly created problems that negatively affected the District’s goals, the news was not all bad. While the cotton yields were significantly lower than in recent history at the WCC, the corn yields were only off by 15-20 percent. That drop-off is not a complete disaster, especially considering the impressive Water Use Efficiency numbers (see “2023 Yield and WUE”). Historically anything over 8 bushels/acre inch of irrigation is commendable, and 9-10 bushels is in the realm of excellence in irrigation efficiency. Certainly, substantial rainfall tended to bolster these numbers by increasing yield, while decreasing the need for as much irrigation.

In addition, because of the higher-than-average rain totals, the fields could start 2024 with moisture in the profile to contribute to the early season moisture demand. And, like every growing season, we learned some lessons that will hopefully make us better prepared for the future.



A4. Financial Assistance

Management Objective: The District will encourage the adoption of technologies that promote efficient use of groundwater and conserve water by providing the means to purchase the technology.

Performance Standards: At least annually, the District will seek financial assistance for stakeholders regarding conservation equipment and practices.

Action Taken: The District continued to provide the following financial assistance programs through 2023.

- TWDB/NPGCD Irrigation Meter Reimbursement – the district distributed \$142,725.52 on 146 meters to eligible irrigators up to half the cost of flow meters.
- TWDB/NPGCD Master Irrigator Reimbursement – the district distributed \$172,270.53 on 12 projects to eligible irrigators.
 - Projects included: Renozzling Sprinklers, Dragonline, Pivot Replacement, Pivot Conversions, and VFDS.



A5. Technical Assistance

Management Objective: The District will assist stakeholders in collecting information and knowledge about practices and technologies that promote efficient use of groundwater.

Performance Standards: The District will provide technical assistance to stakeholders when requested, and the information is beneficial for the efficient use of groundwater.

Action Taken: The District received inquiries for groundwater-related technical assistance and provided information to help users conserve water. Technical services performed by the District included flow tests for eleven (11) property owners and seven (7) water quality tests within the district. The District also partnered with the United States Department of Agriculture – Natural Resources Conservation Service to inspect two (2) Variable Frequency Drives which allow for more control over electric irrigation motors.



MYLAND PROJECT ON ONE OF THE FOUR FARMS PARTICIPATING IN THE PROGRAM. PICTURED ABOVE ARE GENERATORS CONTAINING NATIVE ALGAE THAT WILL BE APPLIED ONTO THE FIELD THROUGHOUT THE GROWING SEASON.

Controlling and Preventing the Waste of Groundwater

Management Objective: Control and prevent the waste of groundwater as defined by state law.

Performance Standards: The District will pursue any reported violations of the District's rules concerning groundwater waste.

Action Taken: The District received no water waste reports or discovered any wasteful activities in 2023.



Controlling and Preventing Subsidence

Controlling and preventing subsidence has historically not been considered as challenging in the High Plains Aquifer System compared to other aquifer systems in Texas.

Action Taken: District staff reviewed the TWDB report on subsidence; “Final Report: Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with regard to Groundwater Pumping, TWDB Contract Number 1648302062. The report lists the northern part of the Ogallala having “the greatest risk for future subsidence due to pumping”. The report goes on to state the “data from wells in the northern Ogallala tend to show a medium to high subsidence risk”. (Page 4-54 in TWDB Contract Number 1648302062).

Due to the depth of the water and the nature of the geology within the District, extensive subsidence is unlikely and the District’s Board of Directors, upon recommendation from qualified staff, have determined that this goal is not applicable to the District.



Addressing Conjunctive Surface Water Management Issues

Management Objective: Address conjunctive water use issues with organizations that have relevant authority or jurisdiction.

Performance Standards: Annually, the District's representatives will attend at least 75% of Region A: Panhandle Regional Water Planning Group's meetings. To further address conjunctive water use issues, the District will submit a copy of its management plan to The Canadian River Municipal Water Authority, Palo Duro Water District, and Red River Authority for their consideration and review.

Action Taken: The District submitted a copy of its 2018 management plan to the Canadian River Municipal Water Authority, Palo Duro Water District, and Red River Authority for their consideration and re-adoption December 16, 2022. The District staff and representatives attended 100% of Region A: Panhandle Regional Water Planning Group's meetings in 2023.



REGION A: PANHANDLE REGIONAL WATER PLANNING GROUPS'S MEETINGS 2023

February 13

Ag Committee

Attendance:

- Steve Walthour - GM
- Danny Krienke - GMA 1 Representative

April 19

Full Water Planning Group

Attendance:

- Steve Walthour - GM
- Danny Krienke - GMA 1 Representative

April 19

Ag Committee

Attendance:

- Steve Walthour - GM
- Danny Krienke - GMA 1 Representative

July 18

Full Water Planning Group

Attendance:

- Steve Walthour - GM
- Danny Krienke - GMA 1 Representative

October 24

Full Water Planning Group

Attendance:

- Janet Guthrie - GM
- Steve Walthour - Former GM
- Danny Krienke - GMA 1 Representative



Addressing Natural Resource Issues that Impact the Use and Availability of Groundwater and which are Impacted by the Use of Groundwater

E1. Aquifer Monitoring

Management Objective: Monitor aquifer characteristics that affect utilization and availability of groundwater and which are affected by the use of groundwater through District programs by maintaining a network of monitor wells.

Performance Standards:

i. District staff will periodically collect and analyze water samples from appropriate monitor wells.

Action Taken: District staff collected water samples from 22 monitor wells across the District in 2023.



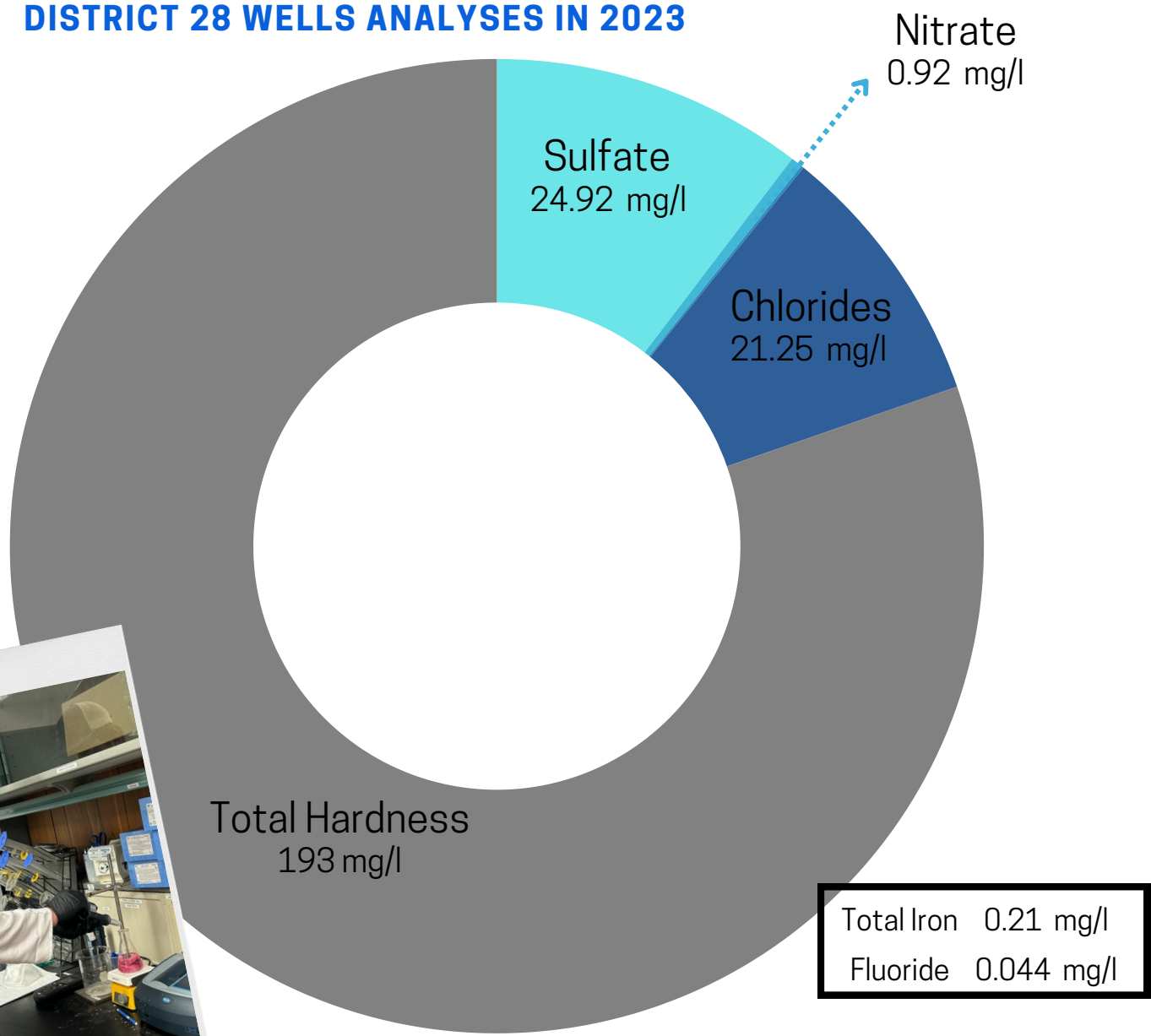
ii. District staff will perform water quality analyses for select constituents for well owners upon request.

Action Taken: In 2023, water samples were analyzed from 7 private wells upon request, compared to 37 in 2022. Water quality results were reported in aggregate in the 2023 Hydrologic Report.

iii. Annually, District staff will summarize their water quality activities and make the information available to the Board of Directors and the public.

Action Taken: Water quality activities are published in the annual Hydrologic Report and presented to Board of Directors for approval August 13, 2024. The information is available in the District office and on the District website.

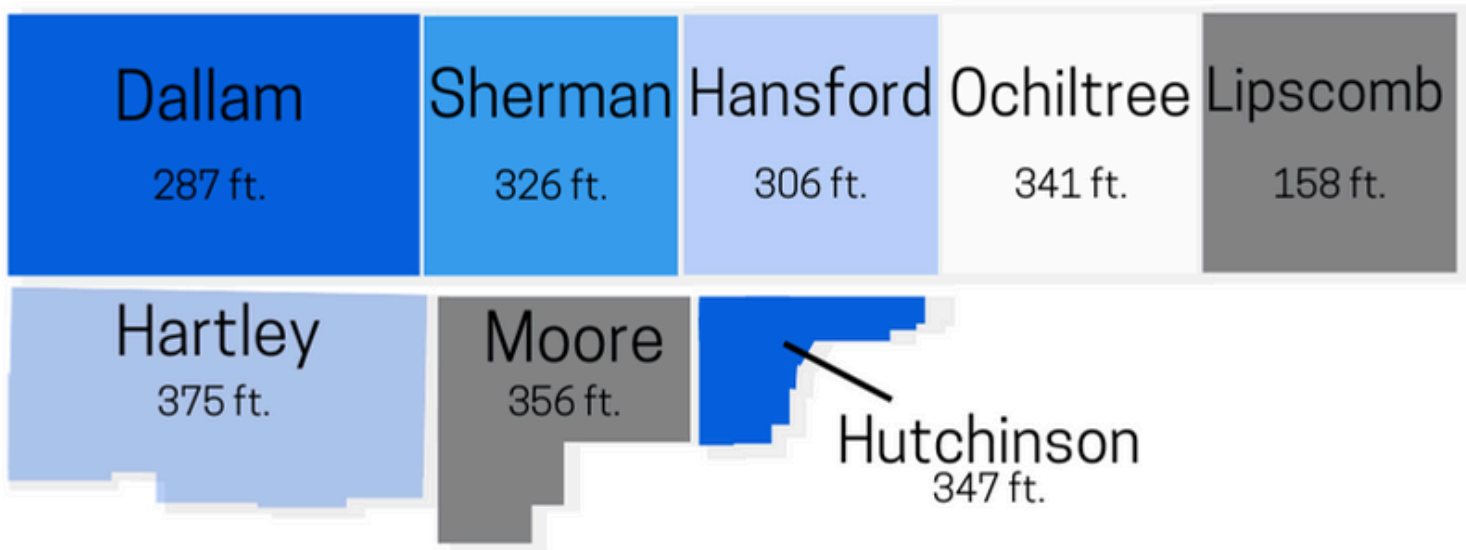
AVERAGE MINERAL ANALYSES FROM WELLS WITHIN THE DISTRICT 28 WELLS ANALYSES IN 2023



iv. District staff will collect aquifer water level measurements annually.

Action Taken: Water levels for select District wells were measured in January and February of each year and reported in the annual Hydrologic Report.

AVERAGE DEPTH TO WATER BY COUNTY



v. Annually, District staff will summarize groundwater level declines and average depth to water and make the information available to the Board of Directors and the public.

Action Taken: Groundwater level declines and average depth to water are calculated and published in the annual Hydrologic Report.

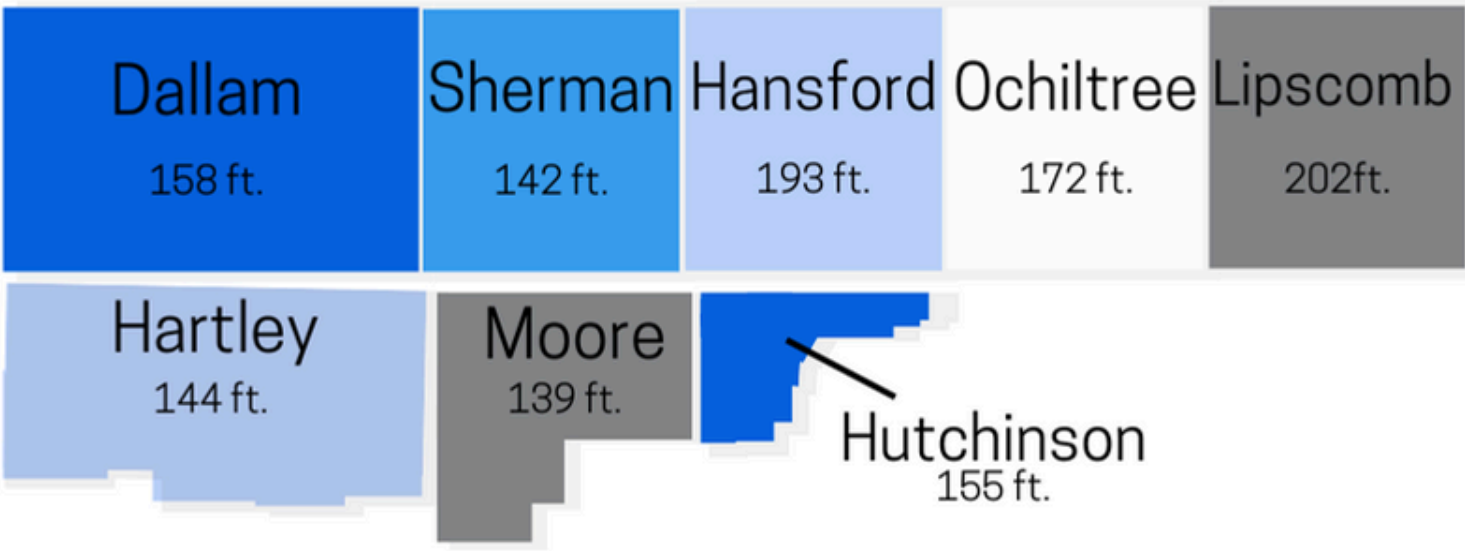
2023 AVERAGE DEPTH TO WATER AND COMPARISONS OF AVERAGE DECLINE IN SELECT DISTRICT WATER LEVEL MONITOR WELLS

County	Avg. Depth to Water (FT)	2024 Avg. Well Decline (FT)	2023 Avg. Well Decline (FT)	Current 5-Year Avg. Well Decline (FT)	Previous 5-Year Avg. Well Decline (FT)	Current 10-Year Avg. Well Decline (FT)	Previous 10-Year Avg. Well Decline (FT)
Dallam	287	2.30	2.33	2.35	2.59	2.53	2.53
Hansford	306	1.54	1.54	1.54	1.53	1.53	1.50
Hartley	375	2.38	3.36	3.35	3.28	3.33	3.25
Hutchinson	347	1.55	1.54	1.53	1.48	1.51	1.44
Lipscomb	158	0.88	0.88	0.88	0.86	0.87	0.82
Moore	356	1.80	1.81	1.82	1.87	1.85	1.68
Ochiltree	341	1.06	1.07	1.08	1.13	1.13	1.17
Sherman	326	2.85	2.82	2.79	2.58	2.67	2.46
District-Wide	317	1.80	1.92	1.92	1.92	1.93	1.86

vi. At least on a two-year cycle, District staff will summarize or update aquifer saturated material information and make the information available to the Board and the public.

Action Taken: The District calculates saturated thicknesses every other year and using District monitor well data. The next scheduled update was in the Summer of 2023.

2022-2023 ESTIMATED AVERAGE AQUIFER THICKNESS BY COUNTY



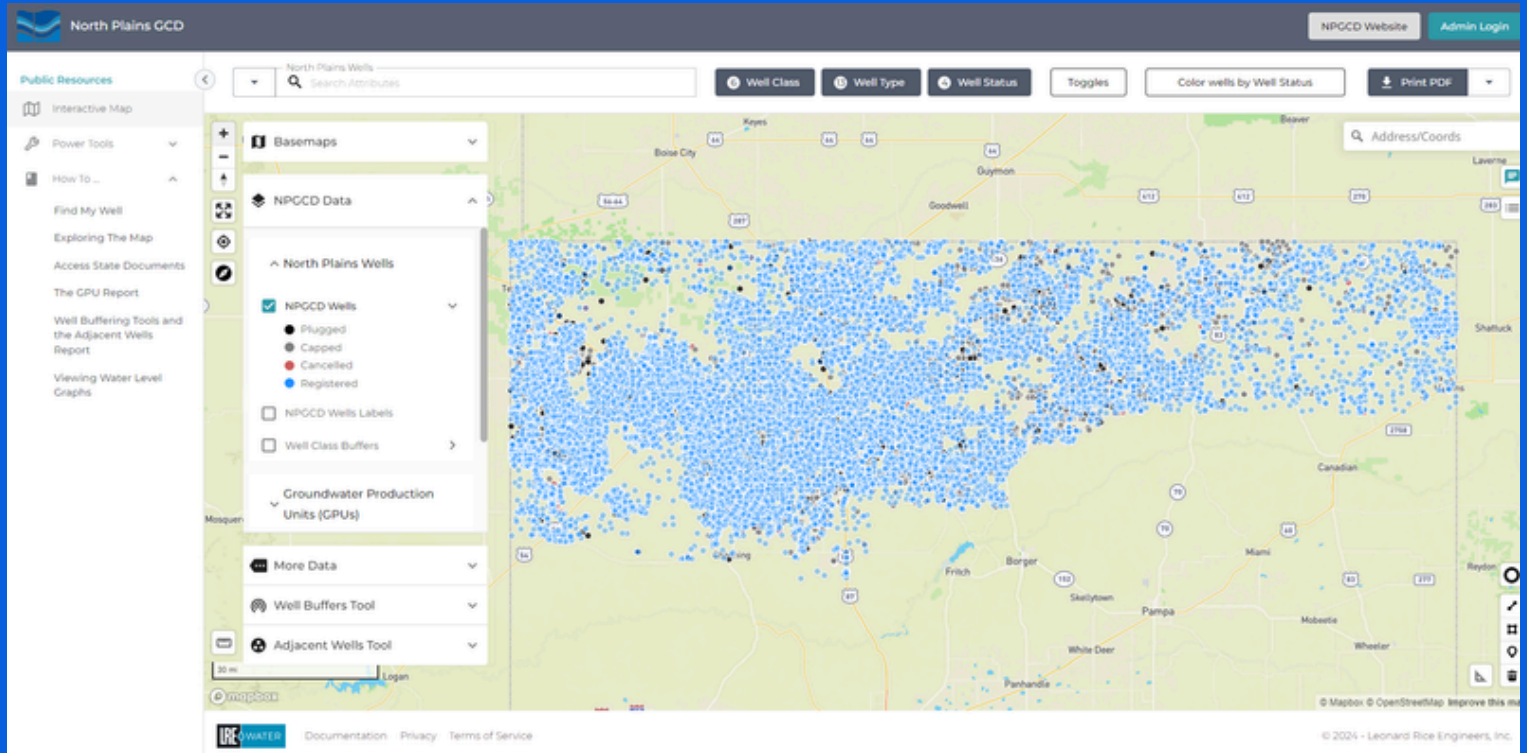
E2. Deteriorated Wells

Management Objective: Investigate and address deteriorated wells that may pose a threat to water quality.

Performance Standard: District staff will pursue repair or plugging of deteriorated wells.

Action Taken: In 2023, District staff observed two (2) deteriorated wells as defined by the Chapter 4 of the District Rules. The wells were followed up and plugged as of 2024, per the District Rules and TDLR requirements.

NPGCD INTERACTIVE WELL MAP



E3. Aquifer Information

Management Objective: The District will provide the public with easily accessible information about the aquifers and wells within the District’s jurisdiction.

Performance Standards: The District will maintain a web-based application for providing information about the groundwater resources in the region.

Action Taken: The public can view a variety of maps and publications related to District groundwater resources on the District’s website at www.northplainsgcd.org. In 2023, the District replaced the interactive map with a newer form, which launched in November of 2023.

North Plains Groundwater Conservation District lies in an area of the State of Texas that has a year-round, semi-arid climate. The area experiences generally dry conditions year-round compared to other areas of the state. The District works to educate the public about methods to conserve water all year, but particularly during dry periods.

F1. Current Drought Conditions

Management Objective: Provide information about the current drought conditions in the area.

Performance Standards: Maintain information about the current drought conditions on the District's website.

Action Taken: The District links the weekly drought monitor published by the National Drought Mitigation Center at University of Nebraska – Lincoln on the website at www.northplainsgcd.org.

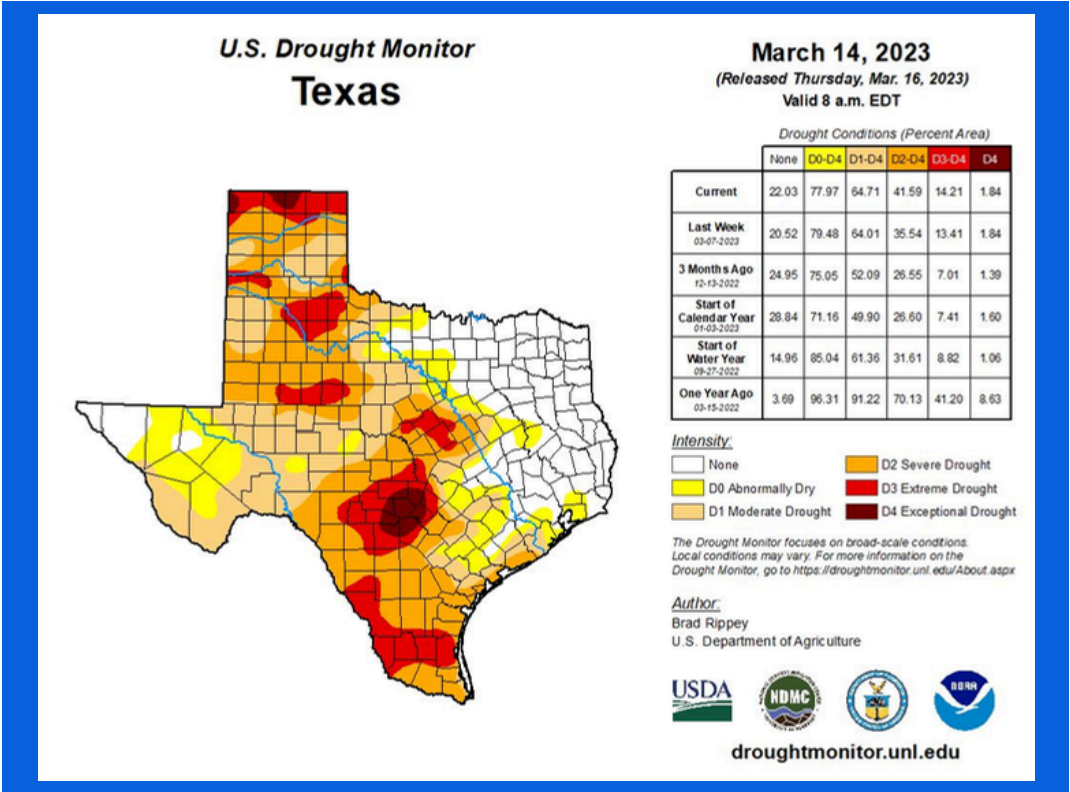
F2. Conservation Education

Management Objective: Provide stakeholders with information and tools to conserve during dry and peak use periods.

Performance Standards: Annually, the District will conduct water conservation communications and education activities.

Action Taken: Drought conditions and water conservation tips were communicated through the District's social media accounts, newsletters and website during 2023.

EXAMPLE POSTS FROM NPGCD SOCIAL MEDIA PAGES FROM 2023





WATER-SAVING TIP

#11

Keep a pitcher of drinking water in the refrigerator instead of running the tap. This way, every drop goes down you and not the drain.



Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement, and Brush Control, Where Appropriate and Cost-Effective

G1. Conservation

a) Groundwater Conservation Reserve Program

Management Objective: Provide program allowing permitted well owners that timely report their groundwater production to retain any unused allowable annual production for future years, promoting the conservation of groundwater.

Performance Standards: Annually, District staff will report to permitted well owners the well owner's conservation reserve.

Action Taken: The District reported cumulative and available groundwater conservation reserve to each non-exempt well owner, or the well owner's agent, as part of 2023 Annual Allowable Production reporting forms emailed or mailed by November 30, 2023 for production year 2023.

In 2023, the total reserve banked by all GPU's was 1,471,725 acre-feet. Conservation reserve is the amount of water conserved by producers who use less than their annual allowable. The banked conservation reserve is available to them for up to five years to increase their annual allowable by up to $\frac{1}{2}$ acre-foot per acre.

b) Conservation Education

Management Objective: Conduct conservation education activities to encourage water conservation and create informed and educated citizens who will be dedicated stewards of their resources.

Performance Standards: Annually, the District will disseminate groundwater conservation and waste prevention information through a variety of media, activities, and events.

Action Taken: The District used traditional and social media to communicate conservation messages in 2023.

-The district newsletter was distributed to approximately 2000 people via email and another 1000 through traditional mail. As of August 2023 the District transitioned to only e-Newletters. A link to sign up to the District's Newsletter is available on the District's website.

-The Cotton and Conservation educational video series marked its fifth year of bringing cotton production best practices to the growers of the North Plains and beyond. Texas A&M AgriLife/Research personnel provide the content for the videos clips that are made available on the District website and on Youtube.

-Live grower demonstrations continued in 2023 with the Grower Education presentations at the Annual Pioneer Crop Production Meetings in January. The event, featuring district agricultural engineer, Nich Kenny and Assistant General Manager – Conservation Outreach, Kirk Welch, covered the demonstrations conducted at the North Plains Water Conservation Center. In addition, Dr. Steve Amosson presented information about the annual Master Irrigator program.



DISTRICT CONSERVATION OUTREACH ACTIVITIES 2023

January 9, 10, 11 & 12

Pioneer Crop Meeting - District Projects and Master Irrigator
Dalhart, Dumas, Stratford, & Spearman

February- March (1 per week for 4 weeks)

Master Irrigator - intensive irrigation conservation class for agricultural producers, taught by experts

May 16, 17, 18 & 19

4th Grade Water Festival - 600 students
Perryton, Dumas, & Dalhart

July 27

Approximately 20 4-H2O Water Ambassadors Visit to WCC

August 8

Master Irrigator Project Advisory Committee Meeting (PAC)

Attendance: Kirk Welch, Steve Amosson, Baylee Barnes, Harold Grall, Danny Krienke, Dr. Jourdan Bell, Keith Sides, Curtis Schwertner

August 3-5

XIT Rodeo and Reunion -
Staff volunteered to run drink stands



Soil Texture Lab



Dumas Water Festival



Perryton Water Festival



Rainwater Harvesting

August 30 - September 1

Texas Alliance of Groundwater Districts (TAGD) Annual Groundwater Summit- NPGCD sponsored the event's mobile app with 450 attendees. Former General Manager Steve Walhour was given a lifetime membership to TAGD and acknowledged his many contributions to groundwater management.

September 25

NRCS STAC Committee Meeting

November 15

Farm Bureau Ag Days

Dumas, staff presented edible aquifer presentation to 365 4th grade students

November 16

Texas A&M AgriLife Extension

Dumas, staff taught 400 8th grade students playing Wateria game

November 28-30

Amarillo Farm and Ranch Show

December 20

Rainwater Harvesting Class

c) Conservation Rule Compliance

Management Objective: Monitor and enforce compliance to District Rules.

Performance Standards: The District staff will report the enforcement to the Board as needed.

Action Taken:

900

TOTAL COMPLIANCE ISSUES



771

**WELL SITES
REVIEWED**



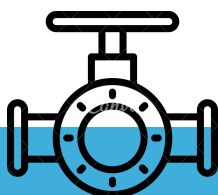
718

WELLS CLEARED



178

MISC



209

**LPD'S & CHECK
VALVES**



423

METERS



90

CAPPED WELLS

d) Recharge Enhancement

The District has limited surface water resources to achieve enhanced recharge through diversion or infiltration of surface water. The District explored recharge enhancement through its precipitation enhancement program, and the District discontinued funding for the program in 2006. The District could not quantify if, or to what extent, the program positively affected recharge or groundwater use in the District. The Board of Directors determined recharge enhancement through surface water diversion, infiltration, or precipitation enhancement is not currently viable or practical. For this management plan, this goal is not applicable to the District.

G2. Rainwater Harvesting

Management Objective: The District promotes rainwater harvesting by maintaining rainwater harvesting information at the District Office and provides literature about its benefits at a public meeting held at least once annually.

Performance Standards: Annually District staff will report to the Board of Directors the number of people who attended the rainwater harvesting meetings.

Action Taken: In 2023 a Rainwater Harvesting Event was held at in Dumas at the District Offices with 6 people from the community in attendance.

G3. Precipitation Enhancement

The District discontinued its funding for the precipitation enhancement program in 2006. The District could not quantify if, or to what extent, the program positively affected recharge or groundwater use. The Board of Directors determined that precipitation enhancement is not currently viable or practical. For this management plan, this goal is not applicable to the District.

G4. Brush Control

The District has a semi-arid climate, has very little surface water, experiences low annual rainfall and has a depth to groundwater exceeding 300 feet. Considering the District's low rainfall, depth to groundwater and lack of surface water resources; brush control as a form of recharge enhancement or groundwater conservation is not practicable or effective. The District has determined that brush control is not a viable groundwater conservation goal for this area and is therefore not applicable.



H1. Compare DFCs to Aquifers' Conditions

Management Objective: Monitor the condition of the aquifers and status of groundwater production compared to the adopted DFCs.

Performance Standards: Annually review groundwater production information, GAMs, and water level measurements to characterize aquifer conditions compared to the DFCs.

Action Taken: The Board reviewed groundwater production information, GAMs, and water level measurements to characterize aquifer conditions compared to the DFCs on Tuesday, June 20, 2023 at the North Plains Water Conservation Center.



2020 PRODUCTION COMPARED TO MODELED AVAILABLE GROUNDWATER

County	2020 MAG	2023 Production	2023 Percent Difference between MAG and Production	Average Production 2019-2023	Average Percent Difference between MAG and Production 2019-2023
Dallam	401,663	314,059	-26.68%	335,072	-19.87%
Hartley	409,187	379,495	-9.56%	390,459	-4.80%
Moore	219,654	196,489	-11.79%	194,018	-13.21%
Sherman	398,183	301,707	-31.98%	316,221	-25.92%
Hansford	275,016	217,323	-26.55%	205,645	-33.73%
Hutchinson	62,803	88,108	28.72%	83,122	24.44%
Lipscomb	266,809	48,574	-449.28%	52,995	-403.46%
Ochiltree	243,778	108,320	-125.05%	106,644	-128.59%
West	1,428,687	1,188,750	-20.18%	1,235,770	-15.61%
East	848,406	462,325	-83.51%	448,405	-89.21%
Total	2,277,093	1,651,075	-37.92%	1,684,175	-35.21%

H2. Joint Planning

Management Objective: The District will participate in the joint planning process of the Groundwater Management Area 1 with other groundwater conservation districts.

Performance Standards: A District representative will participate in each GMA-1 joint planning meeting.

Action Taken:

June 22

GMA 1 Joint Planning.

Attendance:

- Steve Walthour - GM NPGCD
- Bob Zimmer - Director NPGCD
- Danny Krienke - Director NPGCD

H3. Allowable Production Limitation

Management Objective: Manage groundwater withdrawal amounts based on allowable production limits to achieve DFCs.

Performance Standards: The Board of Directors will review groundwater withdrawal amounts annually, and may modify annual allowable groundwater production limits consistent with its Rules to achieve the DFCs and preservation of the groundwater resources in the region.

Action Taken: The Board of Directors reviewed annual groundwater withdrawal on Tuesday, June 20, 2023. The Board meeting was conducted via video conference and teleconference. The Board determined it was not necessary to modify production limits.

Other Management Goals Included in The Plan by the District

No other management goals are listed at this time.