Sandy Land Underground Water Conservation District

Annual Report
January 1, 2024 through December 31, 2024

Sandy Land Underground Water Conservation District
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Sandy Land Underground Water Conservation District

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Sandy Land Underground Water Conservation District

Board of Directors and Staff

Sandy Land Underground Water Conservation District

Board of Directors

Stanley Ashburn, President
Linda Powell, Vice-President
Tracy Welch, Secretary
Rickey Bearden, Director
Duwane Billings, Director

District Staff

Amber Blount, Manager
Gale McDonnell, Office Manager
Michelle Cooper, Education Coordinator

District Office

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Sandy Land Underground Water Conservation District

District Creation

District Creation

Sandy Land Underground Water Conservation District was created by the 71st Legislature of the State of Texas under Article 16, Section 59 of the Constitution of Texas Statutes.

On November 7, 1989, a special election was held in Yoakum County in order to confirm the establishment of the district as provided by Senate Bill No 1777, agree to a levy of a maintenance tax at a rate not to exceed 2½ cents per $100 valuation, and to elect the initial board members for the district. A total of 764 votes were cast with 388 voting "for" and 177 voting "against" the district establishment and levy. David Turnbough, L.J. Sanders, Jr., R. E. Bearden, Brad Palmer and Don Parrish were elected as the initial board members.

Gary L. Walker was selected as the first Manager of Sandy Land Underground Water Conservation District in January 1990.

Kathy Jones was employed by the District in February 1990 to serve as District Secretary and remained so until her resignation in October 2001.

Board members adopted the proposed Rules and Regulations for Sandy Land Underground Water Conservation District on December 12, 1990. The initial tax rate of the District was set at $.007 per $100 valuation at a tax hearing held on August 26, 1991.

David Turnbough was elected President of the Board in 1990. He served in that capacity for the entire time that he was a Sandy Land UWCD Director. David and his wife, Vi, moved to Lubbock in the summer of 2006 necessitating his resignation from the Board of Directors.

R. E. Bearden served on the Board of Directors continuously for 18 years. Mr. Bearden's retirement became effective September 2007.

Amber Blount was named Manager of Sandy Land Underground Water Conservation District in March 2015 after the retirement of Gary L. Walker on January 31, 2015

Dennis G. Harrison resigned from the board in December of 2017. He served continuously on the board for almost 25 years.

Ross Hilburn resigned as President of the board in May, 2024. He served continuously on the board for 16 years.

Sandy Land Underground Water Conservation District

2024 Annual Report Overview

2024 Annual Report Overview

Sandy Land UWCD is, today, an active, functional enterprise that had its beginning in 1989 with the creation of the Water District. The common thread that runs through this program is that of water conservation. We hope this report will detail some challenges and efforts of water conservation this year.

Recurring Monthly

- Board of Directors' meetings 2nd Wednesday of each month.
- Rain gauge readings taken in 26 locations throughout the county.
- Well Depth Measurements performed annually.
- District Manager Blount continues her role and responsibilities as TAGD Executive Committee member.
- Ms. Blount engages in numerous meetings and phone conferences for TAGD Executive Committee Sessions, Conference Planning, Finance Committee, Legislative Sessions, Summit, TWCA Groundwater Committee, GMA2 and Region O.
- Office Manager, Gale McDonnell, continues her role and responsibilities to meet the requirements of various essential elements necessary for efficient daily office operations.
- Manager Blount efficiently manages all well permits, locates, and checks all new wells for necessary reporting to the district and board for approval.
- Ms. McDonnell performs all necessary procedures for securing new ag loans, maintaining current loans, insurance, invoicing, UCCs, and completing payments and reporting to TWDB.
- Amber Blount performs numerous Flow Tests as requested by landowners of Yoakum County throughout the year.
- Raymond Brady and Amy Bush continue contracted hydrological work for the water district including decline maps for use in IRS depletion program and timely updates to saturated thickness maps.
- Quarterly presentations by meteorologist Jennifer Puryear with RMBJ Geo Inc on weather outlook.
- Michelle Cooper, Education Coordinator, continues work with the region's water districts.

January

- Annual well depth measurements taken for Monitor Well Network.
- Sandy Land Board and staff enjoyed Christmas dinner at Double Nickel in Lubbock.
- Gale McDonnell mailed loan payment letters to borrowers in our Water Conservation Agricultural Loan Program.
- Depletion letters mailed to eligible county residents.
- Linda Powell attended the TAWC Annual Water College - Lubbock
- Manager Meetings and Activities included:
  - TAGD Executive & ED Search Committee Calls
  - Groundwater Management District Association (GMDA) - Nashville
  - TAGD Executive Director Interviews – Round Rock

February

- Loan payments on existing loans due and 100% collected from producers on February 15.
- Board of Directors reviewed and approved the Sandy Land UWCD 2023 Annual Report.
- Texas Tech Endowment Graduate students gave their presentations to the Board.
- Ms. Powell presented a review of the TAWC Annual Water College conference in Lubbock to the Board.
- Manager Meetings and Activities Included:
  - Plains High School Mock Interviews
  - Karen Post, Candidate for House District 88 Meeting
  - Rep. Ken King Townhall – Denver City
  - Panhandle GCD Water Symposium – Amarillo

March

- Board of Directors' Meeting met Thursday, March 21, 2024.
- Manager Meetings and Activities Included:
  - Texas Tech Water Law - Lubbock
  - TWCA Legislative Meeting – Austin
  - TWDB Executive Director Jeff Walker Retirement Reception
  - GMA2 Meeting - Seminole

April

- Ryan King of Terry and King CPAs PC performed 2023 in-house tax audit.
- Ryan King of Terry and King CPAs presented the 2023 Financial Audit.
- Board approved SLUWCD 2023 Financial Audit.
- Manager Meetings and Activities Included:
  - Texas Association of Counties Legislative Exchange – Denver City
  - TWDB Workshop and Meeting – Lubbock
  - Women in Ag – Brownfield
  - Yoakum County Commissioner Court
  - TAGD HR Webinar
  - USGS Meeting – Seminole

May

- Reviewed and accepted President, Ross Hilburn's resignation.
- Board and staff reviewed 2023 estimated tax values.
- Rainwater Harvesting Workshop was held at PSB event center.
- Andie Saxon begins as summer contract labor.
- Manager Meetings and Activities Included:
  - Aqua Geo Frameworks – Zoom
  - GMA 1 Meeting – Zoom
  - SPUWCD President Retirement Lunch – Brownfield
  - Senate Ag/Water Senate Hearing
  - Commissioner Court – RWH Project
  - TAGD Meeting – Austin

June

- Water quality testing begins for Sandy Land UWCD's Water Quality Network.
- Manager Meetings and Activities Included:
  - TWCA Meeting – Arlington
  - Region O – Lubbock
  - TWCA Legislative Subcommittee Calls
  - USGS Web Application Update
  - TCEQ Subdivision Rules Hearing

July

- Review and Discussion concerning SLUWCD 2025 budget proposal.
- Completed Water Quality Testing for wells in Sandy Land UWCD's Water Quality Network.
- Began Discussion on Contracting Election Services with Yoakum County Clerk
- Manager Meetings and Activities Included:
  - KLBK Channel 13 Interview
  - YC Commissioner Court – certified tax values

August

- The Board of Directors adopted and approved the SLUWCD 2025 budget.
- The Board of Directors appointed DuWane Billings to fill the Board Vacancy.
- Kyson Bunch and Miranda Jordan presented their 4-H Water Ambassador Summer Leadership Academies reports.
- Andie Saxon completes summer contract labor.
- Manager Meetings and Activities Included:
  - TCEQ Petition Inquiry Report
  - Agriculture Sustainability Summit - Lubbock
  - Texas Runs on Water – Webinar
  - Plains City Council
  - Texas Groundwater Summit – San Antonio

September

- Public Hearing to set 2024 Tax rate at .01099/$100.
- Public Hearing to Adopt Management Plan.
- Oath of Office and Statement of Officer – Duwane Billings
- Manager Meetings and Activities Included:
  - Senate Finance & Water Hearing
  - EMS Facility Contractor Meeting
  - TWON Samples with Texas A&M
  - TWDB Model Update
  - Texas Water Foundation Dinner - Austin
  - Senator Kevin Sparks Townhall
  - GMA1 Joint Meeting to discuss Model Update
- Manager Blount presented the Texas Groundwater Summit report.
- Jake Wood presented Amber Blount, Gale McDonnell, and Michelle Cooper retirement updates – Wood Financial Review.

October

- Board reviewed and approved the Sandy Land UWCD policy, Investment policy, Professional Services, and List of Financial Institutions.
- Manager Meetings and Activities Included:
  - Rep Ken King Townhall – Denver City
  - Yoakum County Soil & Water Jamboree – Denver City
  - TAGD Executive Committee Retreat – College Station

November

- Board approved Rainwater Harvesting Cost Share Program.
- Board adopted Sandy Land UWCD Prohibited Technologies Security Policy.
- Legislative Prefiling Begins.
- Manager Meetings and Activities Included:
  - Education Program Manager Meeting
  - Yoakum County Tax Abatement Hearing
  - GMA 1 Meeting – Zoom
  - Senator Perry Virtual Townhall
  - Region O Water Planning - Lubbock

December

- Sandy Land Board and staff enjoyed Christmas dinner at Double Nickel in Lubbock.
- Manager Meetings and Activities Included:
  George Bomar – Airport
  TWDARMF Appraiser
- Election Notice of Deadline To File For an Application for Place on the Ballot.
- Gale McDonnell attended Election Law Seminar - Austin
- End of year reporting begins for Sandy Land.

Sandy Land Underground Water Conservation District

Goals, Management Objectives and Performance Standards

Goal 1.0 Provide for the most efficient use of groundwater within the District.

Management Objective

(a) Annually conduct irrigation well efficiency tests for 100 percent of requests within 10 days of the property owner request.

Performance Standard

(a1) Percentage of irrigation well efficiency test requests conducted annually within ten (10) days of request.

Current Performance Status

In 2024, property owners requested well efficiency tests from the District for **3** wells & pivots. One hundred percent (100%) of these wells/pivots were tested within 10 days.

Management Objective

(b) There are currently 87 water wells in the District's water level monitoring network. The objective is to annually measure water levels in a majority of the district's monitor well network and replace wells as needed.

Performance Standard

(b1) Percentage of monitor wells in monitor well network in which water levels were measured.

Current Performance Status

In 2024, 66 of the wells in the monitor well network (76%) were measured or attempted to be measured. *(Wells that have been dry for consecutive years were either removed or replaced in 2021*)

Goal 2.0 Control and prevent waste of groundwater within the District

Management Objective

(a) Each year, the District will sample the water quality in at least one selected well(s) in order to monitor water quality trends and prevent the waste of groundwater by contamination. The District will also sample for water quality analysis on 100 percent of other wells which the owner requests to be sampled each year.

Performance Standard

(a1) Number of wells sampled for water quality analysis by the District to monitor water quality trends, each year.

Current Performance Status

Out of 97 wells in the District's water quality network, **80** wells were sampled 2024 to monitor water quality trends and prevent the waste of groundwater by contamination.

Performance Standard

(a2) Percent of wells sampled for water quality analysis by the District upon request each year.

Current Performance Status

In 2024, the District performed water quality and bacteria analysis tests on 100 percent of the **29** requested samples for the residents of Sandy Land Underground Water Conservation District and for others outside the district.

Management Objective

(b) Each year, the district will enforce district spacing and production limitation rules requiring the permitting of all new wells to prevent the waste of groundwater. The District will issue temporary permits for 100 percent of the application requests that meet the District's rigorous rules for spacing within 30 days of the receipt of the application.

Performance Standard

(b1) Number of temporary permits issued by the District for new wells in compliance with spacing and production limits each year.

Current Performance Status

Sandy Land Underground Water Conservation District has issued **146** well permit applications for fiscal year 2024.

Performance standard

(b2) Percent of temporary permits issued to applications that meet the District's rigorous rules for spacing within 30 days of receipt of application.

Current Performance Status

Sandy Land Underground Water Conservation District has issued 100% of permits within 30 days of receipt of application this year to date.

Management Objective

(c) The District will publish articles on the district's activities and water conservation to encourage a reduction of water use. This information may be made available by direct mail, website or local newspaper.

Performance Standard

(c1) Number of articles on water conservation presented by the District each year.

Current Performance Status

In 2024, a total of 5 articles were given to the newspapers of the county to publish, 91 articles or posts referencing conservation were placed on social media, and the website contains information for any interested parties.

Goal 3.0 Controlling and Preventing Subsidence

As noted in *Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping* – TWDB Contract Number 1648302062, by LRE Water, (https://www.twdb.texas.gov/groundwater/models/research/subsidence/Final_Subsidence_Vulnerability_Report_final.pdf) results of the subsidence vulnerability study on the Ogallala Aquifer suggest that the northern part of the Ogallala has the greatest risk for future subsidence due to pumping. Data from wells in the central and southern portions of the aquifer, the location of the District is at lower risk with a medium subsidence risk.

The District measures water levels, collects water quality samples and collects rainfall data countywide, year round. Limited subsidence has been observed. The District will continue to observe well conditions during routine operations but declares that this goal is not applicable.

Goal 4.0 Addressing Conjunctive Surface Water Management Issues

The goal for addressing conjunctive surface water management issues is not applicable to the District due to the absence of any surface water features and hence, any surface water management issues.

Goal 5.0 Addressing Natural Resource Issues

Management Objective

Each year, the District will sample the water quality in selected well(s) in order to monitor water quality trends and prevent the waste of groundwater by contamination. The District will also sample for water quality analysis on 100 percent of other wells which the owner requests to be sampled each year.

Current Performance Status

The District tested 109 samples for water quality analysis to monitor water quality trends each year.

Current Performance Status

100 percent of the samples requested for water quality analysis were tested by the District.

Goal 6.0 Addressing Drought Conditions

As previously stated in the Drought Contingency Plan section on page 9 (of the District's Management Plan), the District is in a constant state of drought and recognizes the importance of rainfall. To review current state of drought, please refer to the US Drought Monitor: https://waterdatafortexas.org/drought/drought-monitor?period=2024-08-20&areaType=state&areaName=tx

Management Objective

(a) The District will maintain a Rain Gauge Network across the county.

Performance Standard

(a1) Maintain a network of rain gauges in the District. Publish rainfall data on the Districts web site as collected.

Current Performance Status

District staff collected rainfall data on the districts 26 rain gauges and published on the district website.

Goal 7.0 Addressing Conservation of Groundwater within the District

Management Objective

(a) As long as funding is available from TWDB, the District will participate in the TWDB Agricultural Conservation Loan program as a lender district and make loans available to all qualified applicants for the purchase of water conserving irrigation apparatus, up to the maximum amount of the loan commitment made to the District by TWDB.

Performance Standard

(a1) Number of Agricultural Conservation loan applications received by the District from qualified applicants, each year.

Current Performance Status

For the fiscal year 2024, no (0) Agricultural Conservation loan applications were received from qualified applicants.

Performance Standard

(a2) Number of Agricultural Conservation loans made by the District to qualified applicant, each year.

Current Performance Status

For the fiscal year 2024, no (0) Agricultural Conservation loans were made to qualified applicants.

Management Objective

(b) Each year, the district will award scholarships to at least four (4) high school students graduating from a high school within the District to facilitate study of water conservation topics.

Performance Standard

(b1) Number of scholarships awarded to students graduating high school within the District to facilitate study of water conservation topics, each year.

Current Performance Status

In May of 2024, four (4) scholarships were awarded to seniors within Yoakum County and two (2) scholarships were awarded to local students who were active in 4-H Water Ambassador Program.

Management Objective

(c) Each year, the District will provide Educational material to specific teachers at each school within the District.

Performance Standard

(c1) Number of teacher/campuses who were provided educational materials

Current Performance Status

Six (6) campuses within the District – 2 (two) in Plains, 4 (four) in Denver City. Plains and Denver City were provided with educational material from the District's Education Coordinator, including access to online and hard copy resources from Texas Farm Bureau, Project WET, Take Care of Texas, and TWDB Major Rivers curriculum.

Management Objective

(d) each year the District will promote water conservation through presentations given within the District

Performance Standard

(d1) Number of presentations given during the fiscal year.

Current Performance Status

Nineteen (19) presentations were given during fiscal year 2024 to the public, schools, libraries and other civic organizations.

Goal 8.0 Addressing Recharge Enhancement

A review of past work conducted by others indicates this goal is not appropriate at present; therefore, this goal is not applicable.

Goal 9.0 Addressing Rainwater Harvesting

Management Objective

(a) The District will conduct an educational program for this conservation strategy at least once a year.

Performance Standard

(a1) Number of educational programs given on rainwater harvesting.

Current Performance Status

The District held its annual Rainwater Harvesting workshop on May 14, 2024. Fifteen (15) rain barrels and rain chains were presented to workshop participants (1 per household). Four (4) Rainwater Harvesting presentations were included in calendar presentations to 4th and 5th grade students in Plains and Denver City elementary schools.

Goal 10.0 Addressing Precipitation Enhancement

While the District did participate in this program previous, in 2015 the Board determined that it was not cost effective. Therefore, this goal is not applicable.

Goal 11.0 Addressing Brush Control

Existing programs administered by the USDA-NRCS are sufficient for addressing this goal. The Board does not believe that this activity is cost-effective and applicable for the District at this time; therefore, this goal is not applicable.

Goal 12.0 Addressing the Desired Future Conditions (DFC)

For the purposes of this management plan, the District proposes to evaluate the cumulative drawdown in 5-year increments, which will gage our attainment of the DFC in shorter increments and allow us to make changes accordingly.

Management Objective

(a) The District will calculate the average annual drawdown using the results of annual water level measurements each winter.

Performance Standard

(a1) Present the average drawdown results to the Board of Directors each year.

Current Performance Status

(a1) The District staff presented the drawdown results to the Board of Directors during the annual report presentation in the February 2024 monthly board meeting.

(a2) The average drawdown results will be made available to the public each year.

Current Performance Status

(a2) The drawdown results are published in the Districts Annual Report which is available to the public. The results are also published on the district's website.

Management Objective

(b) The District will calculate the average cumulative drawdown in 5 year increments.

Performance Standard

(b1) Present the cumulative average drawdown results to the Board of Directors each year.

Current Performance Status

(b1) The cumulative average drawdown results were presented to the Board of Directors during the annual report review at the February 2024 monthly board meeting.

(b2) The cumulative average drawdown results will be made available to the public each year.

Current Performance Status

(b2) The cumulative average drawdown results are available to the public through the district's website.

Sandy Land Underground Water Conservation District

Irrigation Efficiency Tests
Water Level Monitoring Network
Depletion Program

Irrigation Efficiency tests, Water Level Monitoring Network & The Depletion Program

Reference Goal 1.0 (a) (b) (c)

One of the goals of Sandy Land UWCD is to provide the most efficient use of groundwater within the District. One of the ways this is accomplished is by conducting efficiency tests on irrigation wells at the owner's request. District personnel endeavor to perform these tests in a timely manner so that the owner may have the needed information as soon as possible to make important irrigation decisions.

Sandy Land UWCD took the first water level measurements in 1991 and has been doing so on a yearly basis ever since. Approximately 90 wells are in the Water Level Monitoring Network and these are measured each year in January and/or February to provide information about the Ogallala Aquifer in Yoakum County. Measurements in the network are generally taken in the winter months because water levels are more stable at that time than during the summer months when pumping is heavier. Irrigation wells are normally used in the monitoring program as they afford ease of entry for measurements. The measurements from these wells are compared with previous year's measurements to determine any changes in water levels.

District personnel use this well depth data to construct hydrographs and depletion maps which are given to an Internal Revenue Service agent for review. After approval, these are used to determine the amount of decline allowable on federal income tax returns.

All landowners in Yoakum County who utilize groundwater may claim a cost-in-water income tax depletion allowance on their federal income tax return. Landowners must have an established value in their water and a decline of the water table for the year before the claim may be made.

Based on the interest from landowners over the last few years it appears the benefits have been exceptionally good. Request forms may be picked up at the district office in Plains. Requests to participate in the Depletion Program must include:

name;
address;
complete legal description of the tract of land on which a claim is to be filed;
date of acquisition; and
the number of acres in the tract.

Sandy Land UWCD currently has approximately 93 participants and approximately 92,000 acres of land enrolled in the Depletion Program.

Below is an allocation of time spent on Irrigation Efficiency Tests, Water Level Monitoring Network and Depletion Program.

Activity	Total Hours
Perform Irrigation Efficiency Tests at Producers Request	3
Measure Water Levels	66
Draw Decline Map & Assign Declines	30
Update Hydrograph Spreadsheet & Charts, Prepare Hydrograph Book	24
Update, Prepare and Mail Depletion Letters	24
TOTAL	**147**

Well Depth Measurement Sheet for 2024 Measurements

Well Depth Measurement Sheet Comparing 2023 and 2024 Measurements			
Well Number	**Section Number**	**2023 Measurement**	**2024 Measurement**
24-33-801	41	139.2	140.0
24-41-201	100	132.8	135.1
24-41-502	183	168.1	172.6
24-41-602	187	117.3	116.8
24-41-802	306	81.5	79.6
24-41-804	305		88.4
24-42-401	128	131.0	131.2
24-42-801	252	156.6	156.7
24-43-403	196	88.3	89.0
24-43-501	146	121.2	115.4
24-43-801	260	41.3	41.5
24-44-101	10, Block K	148.4	148.2
24-49-101	344	54.2	54.7
24-49-201	365	57.0	57.4
24-49-203	397	102.6	106.3
24-49-303	368	35.1	34.5
24-49-401	418	159.6	156.0
24-49-702	518	181.2	181.0
24-49-802	540	169.10	
24-49-903	514	147.4	147.2
24-50-203	371	105.8	103.8
24-50-204	312	154.8	155.6

Well Number	Section Number	2023	2024
24-50-402	425	116.0	115.0
24-50-501	440	49.6	49.8
24-50-801	510	89.7	90.0
24-51-101	317	127.9	128.3
24-51-201	380	82.5	82.9
24-51-602	489	132.2	127.2
24-51-701	504	190.2	
24-52-701	40, Block K	111.3	109.1
24-57-101	581		
24-57-301	576	123.2	121.6
24-57-305	640	92.9	93.5
24-57-501	642	96.4	83.5
24-57-502	707	56.4	61.6
24-57-601	734		91.4
24-57-702	772	113.7	113.9
24-57-802	770	88.7	91.5
24-57-901	797		
24-58-101	607	117.8	113.8
24-58-201	610	105.2	106.2
24-58-401	637	88.1	
24-58-601	696	104.2	103.9
24-58-801	764		72.4
24-58-901	761		
24-59-101	566	105.1	98.2
24-59-201	564	68.2	65.9

Well Number	Section Number	2023	2024
24-59-301	627	137.5	141.4
24-59-801	757		
24-60-402	686	100.3	
24-60-701	752	53.3	54.5
25-48-301	121	139.5	
25-48-601	165	123.2	123.0
25-48-801	299	64.9	63.5
25-56-201	358	125.8	113.9
25-56-502	414	164.9	
25-56-902	522	155.4	153.8
25-56-901	521	150.9	
25-64-301	597	158.4	152.6
25-64-502	650	133.0	132.6
25-64-801	777	156.1	156.7
25-64-901	789	154.9	
26-08-202	852	175.0	
27-01-202	835	128.4	128.9
27-01-301	895		
27-01-302	862		
27-02-101	864	67.7	67.5
27-02-303	825	71.3	71.0
27-03-101	886	133.3	130.2
27-03-202	819		156.6
27-04-101	Block 19, C34, PSL	151.4	151.9
24-44-701	Block 20, K, PSL	28.8	

Well Number	Section Number	2023	2024
22-42-504	154		92.3
25-48-921	241	73.3	73.1
26-08-317	854		222.9
24-50-605	431	86.8	88.9
24-57-112	645		
24-58-508	700	95.3	96.7
27-02-212	891	102.0	99.8
24-50-924	549	116.3	
24-57-735	791	205.0	
25-48-329	106	139.0	
24-41-535	160	101.5	103.0
24-41-202	101	149.9	145.8
24-42-702	248	71.4	
25-64-604	662	144.2	145.5
27-01-102	902	194.8	195.4

Sandy Land Underground Water Conservation District

Water Quality Network

Sandy Land Underground Water Conservation District
Water Quality Network

Reference Goal 2.0 (a)

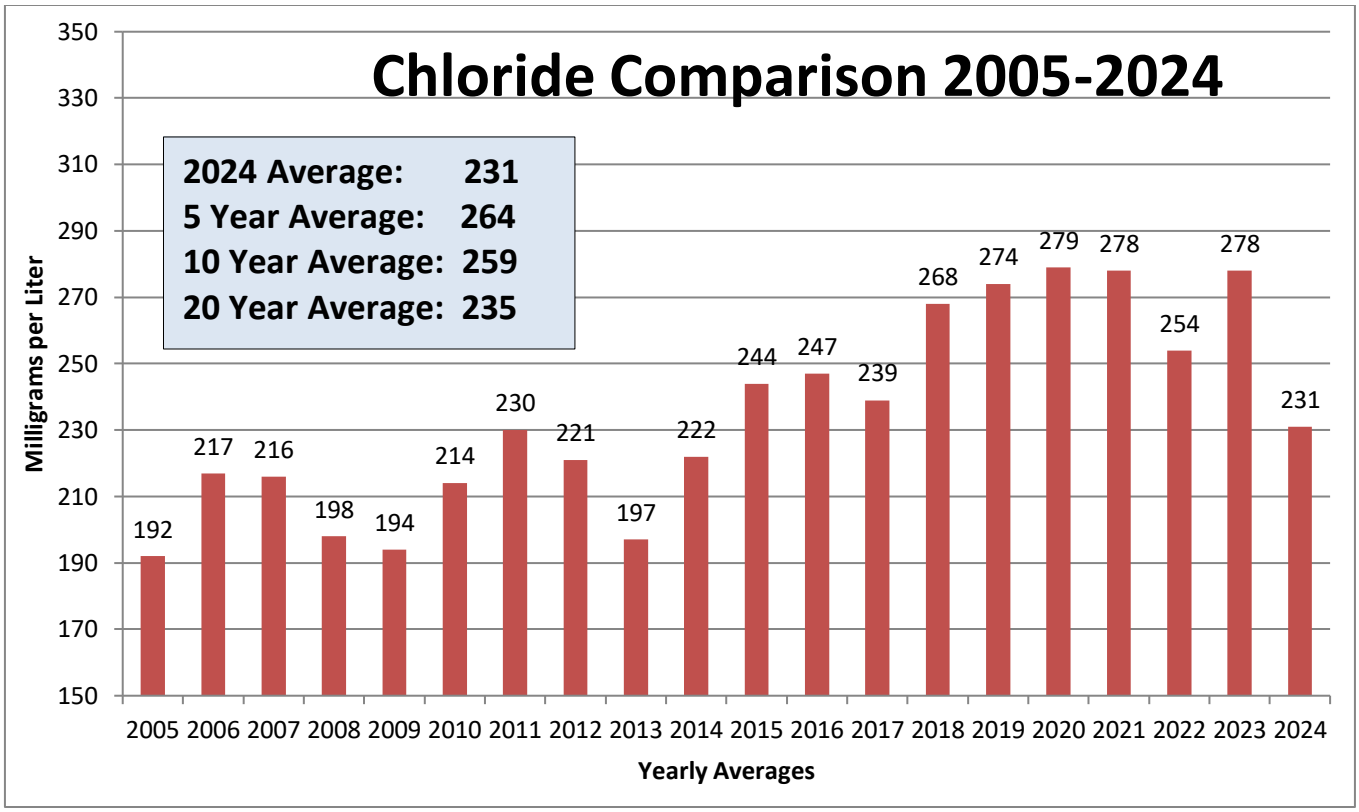
Sandy Land UWCD has completed 33 years of study of rural water in Yoakum County. The district performs water quality analysis on a majority of the 97 wells in the network yearly and has data on the majority of these wells since the districts creation in 1990. Sandy Land UWCD believes it is important to monitor the trends of these wells in order to detect changes in water quality within the Ogallala Aquifer. By detecting changes in the groundwater quality, the District would ideally be able to identify the source that caused the change and work to eliminate it. We at Sandy Land UWCD feel it is important, as a single county water district, to continue to work to protect the groundwater in our area.

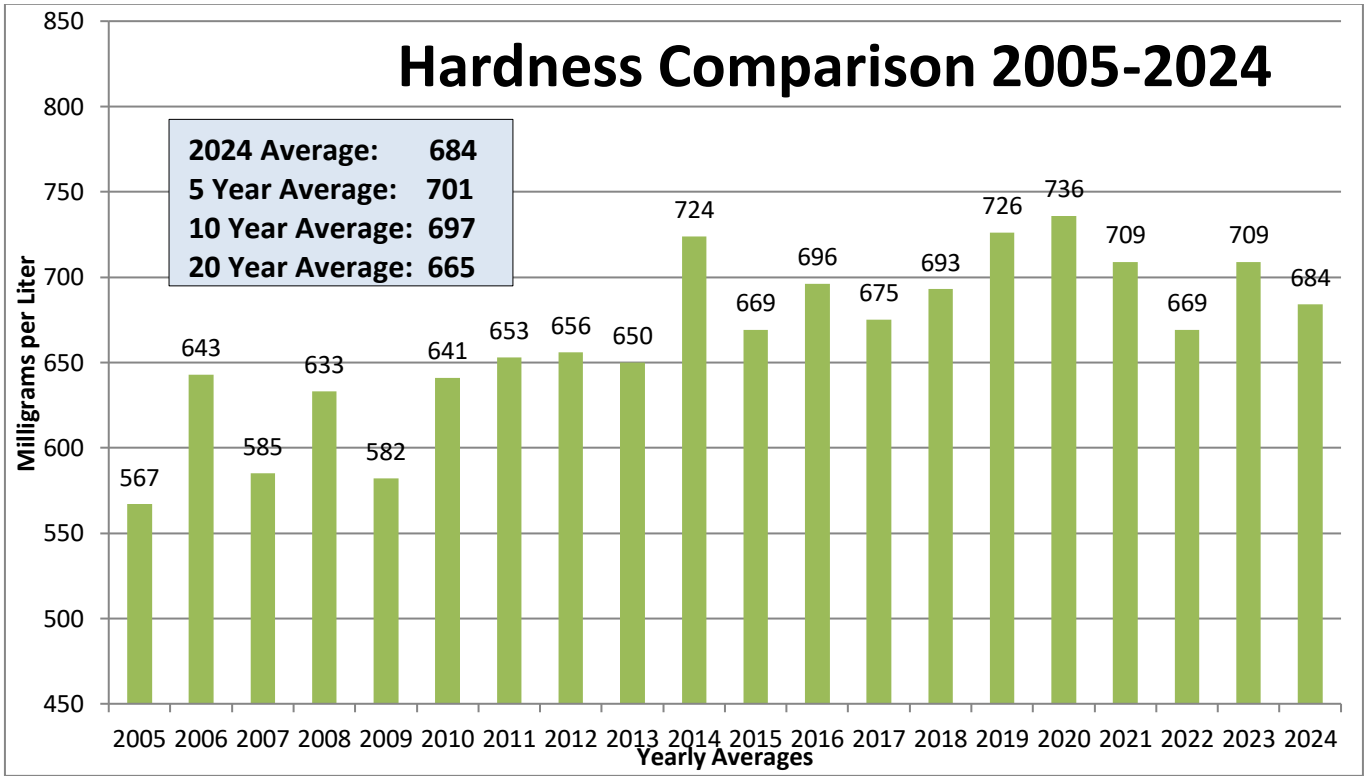
Sandy Land tests for a total of seven components or properties each year. These consist of chloride, hardness, total dissolved solids, fluoride, iron, nitrate, and pH for each well. During the testing process in 2012, we decided that the alkalinity and specific conductivity tests were not pertinent to determining the district's water quality. For this reason, we decided to no longer keep a record of these levels. Bacteria test analysis is not routinely done on network wells but can be done upon request. Residents of the District may request water quality tests at any time and we will perform these tests in a timely manner. Within each property, we are able to detect variances from year to year. Since the test wells are scattered throughout Yoakum County, we are able to tell the difference in quality in different regions of our county.

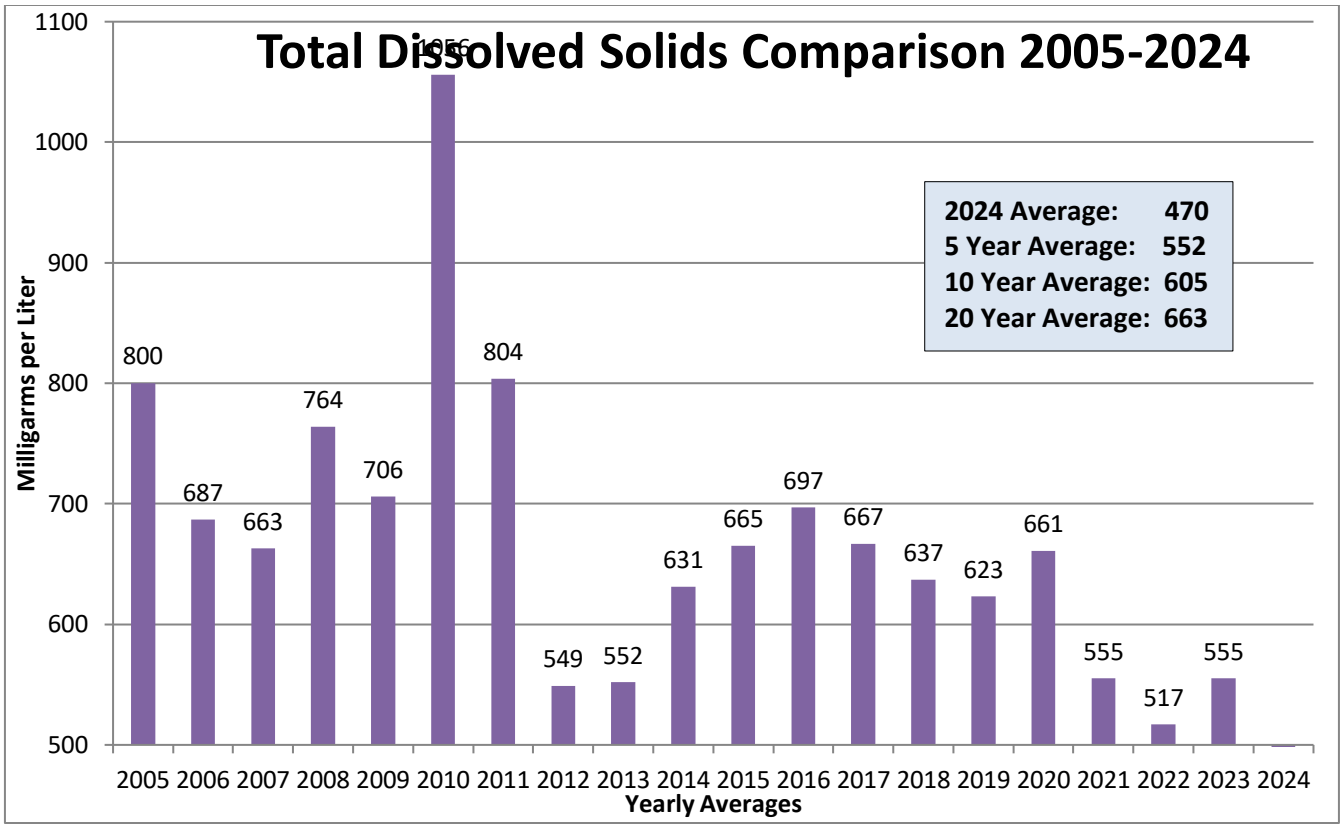
The chart below shows the number of well samples, average, maximum, and minimum values for 2024, as well as the current drinking standards, if available.

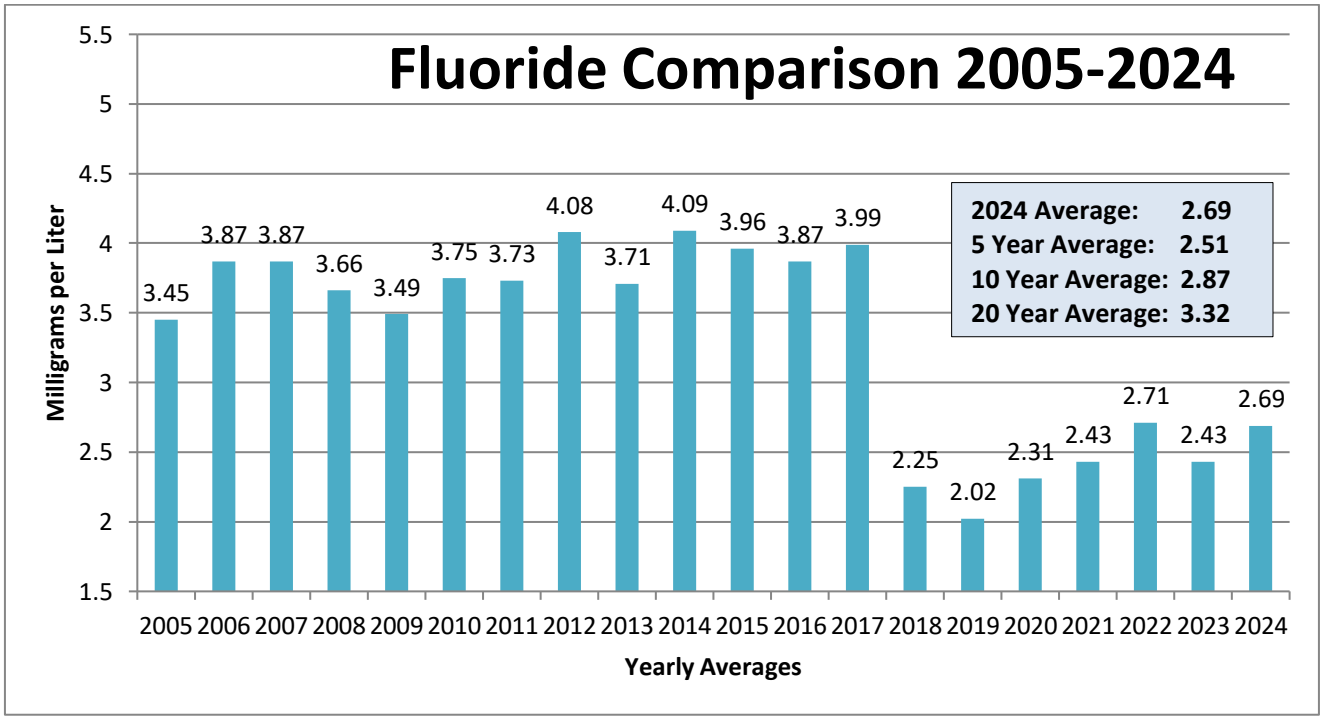
2024 Water Quality Data

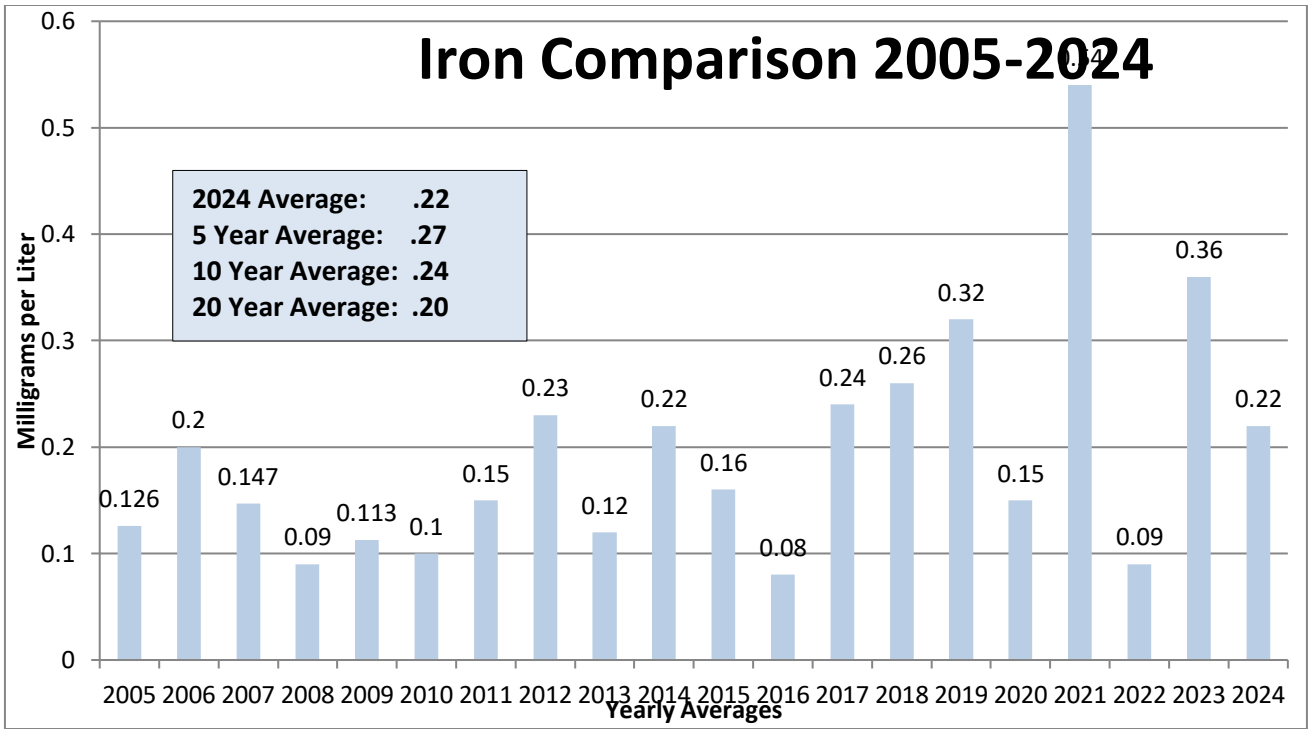
2024	Chloride	Hardness	Total Dissolved Solids	Fluoride	Iron	Nitrate	pH
Average	231	679	466	2.69	0.22	3.7	7.96
No. of Wells Tested	80	79	80	80	80	80	80
Minimum	30	174	136	0	0	.06	7.43
Maximum	1110	1700	923	3.93	3.91	14.2	8.86
Drinking Water Standard	Not to Exceed 300 mg/L	N/A	N/A	Not to Exceed 4.0 mg/L	Not to Exceed 0.3 mg/L	Not to Exceed 10 mg/L	N/A

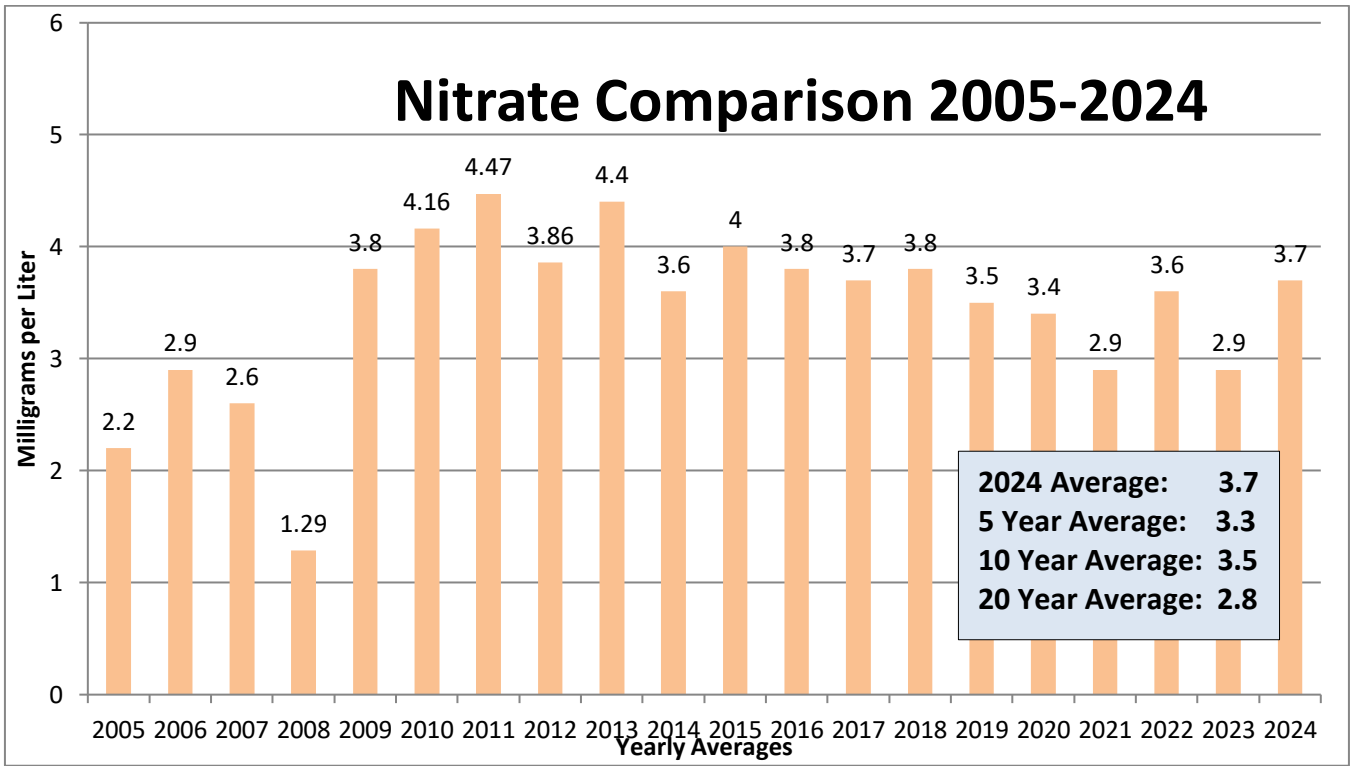

Chloride Comparison 2005-2024
2024 Average: 231
5 Year Average: 264
10 Year Average: 259
20 Year Average: 235
Milligrams per Liter
Yearly Averages
350
330
310
290
270
250
230
210
190
170
150
192
217
216
198
194
214
230
221
197
222
244
247
239
268
274
279
278
254
278
231
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024


Hardness Comparison 2005-2024
2024 Average: 684
5 Year Average: 701
10 Year Average: 697
20 Year Average: 665
Milligrams per Liter
Yearly Averages
850
800
750
700
650
600
550
500
450
567
643
585
633
582
641
653
656
650
724
669
696
675
693
726
736
709
669
709
684
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024


Total Dissolved Solids Comparison 2005-2024
Milligarms per Liter
Yearly Averages
2024 Average: 470
5 Year Average: 552
10 Year Average: 605
20 Year Average: 663
800
687
663
764
706
1056
804
549
552
631
665
697
667
637
623
661
555
517
555
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024


Fluoride Comparison 2005-2024
Milligrams per Liter
Yearly Averages
2024 Average: 2.69
5 Year Average: 2.51
10 Year Average: 2.87
20 Year Average: 3.32
3.45
3.87
3.87
3.66
3.49
3.75
3.73
4.08
3.71
4.09
3.96
3.87
3.99
2.25
2.02
2.31
2.43
2.71
2.43
2.69
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024


Iron Comparison 2005-2024
2024 Average: .22
5 Year Average: .27
10 Year Average: .24
20 Year Average: .20
Milligrams per Liter
Yearly Averages
0.6
0.5
0.4
0.3
0.2
0.1
0
0.126
0.2
0.147
0.09
0.113
0.1
0.15
0.23
0.12
0.22
0.16
0.08
0.24
0.26
0.32
0.54
0.15
0.09
0.36
0.22
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024


Nitrate Comparison 2005-2024
2024 Average: 3.7
5 Year Average: 3.3
10 Year Average: 3.5
20 Year Average: 2.8
Milligrams per Liter
Yearly Averages
6
5
4
3
2
1
0
2.2
2.9
2.6
1.29
3.8
4.16
4.47
3.86
4.4
3.6
4
3.8
3.7
3.8
3.5
3.4
2.9
3.6
2.9
3.7
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

Below is an allocation of time spent on Water Quality Program.

Activity	Hours per Sample	Number of Samples	Total Hours
Perform Water Quality Tests by Requests	1	29	29
Water Quality Network - Retrieve Samples and Perform Tests	1	80	80
Update Records, Notification to Residents	.50	109	54.5
		TOTAL	**163.5**

Sandy Land Underground Water Conservation District

Well Permitting and Registration

Well Permitting and Registration

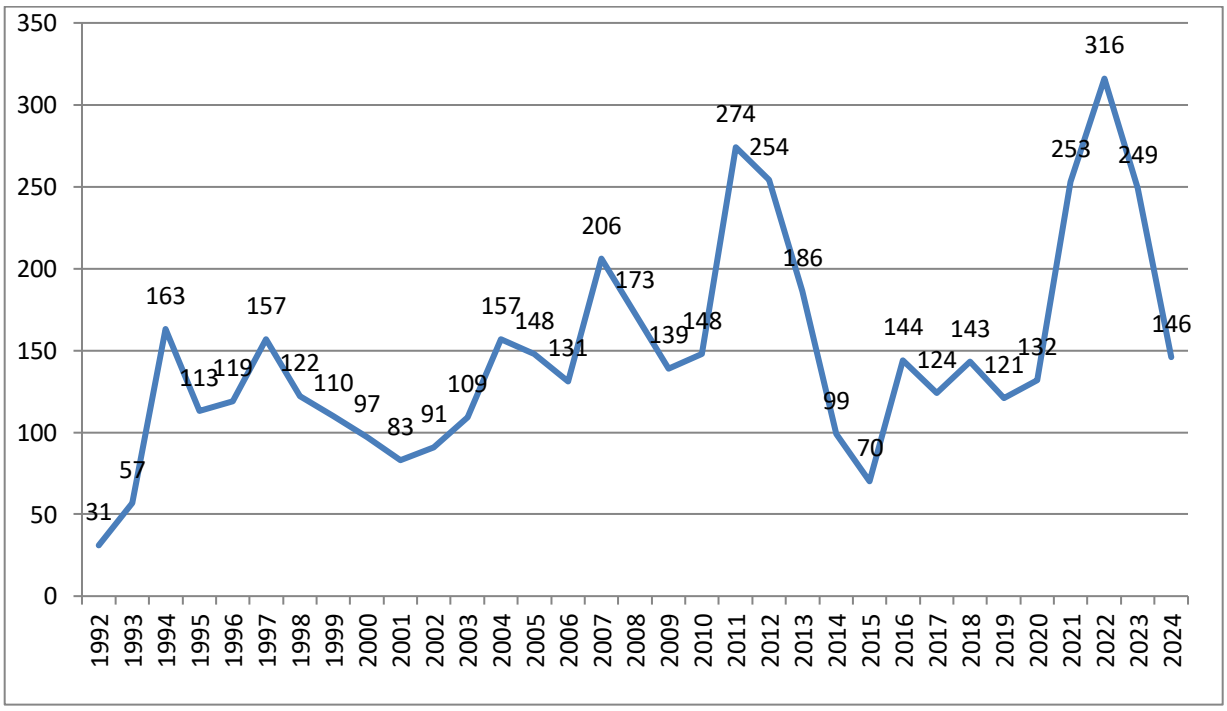
Reference Goal 2.0 (b)

Each year, the District enforces spacing and production limitation rules requiring the permitting of all new wells to prevent the waste of groundwater. The District issues temporary permits for requests that meet the District's rules for spacing. Production limits are also set in an attempt to prevent misuse of our groundwater supply.

During 2024, one hundred and forty-six **(146)** permits have been issued to local producers. Of these permits, one hundred and thirty-one (131) have been returned with well registration logs from the driller or have been voided in view of the fact that the well was not drilled, or the well log has been retrieved from internet. Of the remaining fifteen (15) permits not returned, ten (10) are still within the 90-day drilling period and are not due at this time. This leaves five (5) permits (or 3.8%) not returned within the allotted time period.

Raymond Brady was hired in October of 2005 as a contract hydrologist to enter the well log data into a well log database program. From this information, he has been able to prepare new maps for the district. He presented saturated thickness maps, base of the aquifer maps and prepared our decline map for the depletion program. He is currently working on finding information from other aquifers.

The following graph denotes the number of permits issued over the past 33 years, a total of 4,865.



Below is an allocation of time spent on the Well Permitting and Registration Program.

Activity	Hours	Number of Applications/Logs	Hours
Preparing Permit and Well Log for Applicant, Refunding Deposit	.50	146	73
Entering Permit Information into Computer	.50	146	73
		TOTAL	**146**

Sandy Land Underground Water Conservation District

Agricultural Loan Program

Agricultural Loan Program

Reference Goal 3.0 (a)

In 1989, the 71st Texas Legislature implemented the Agricultural Water Conservation Program to allow the Texas Water Development Board to loan money to water conservation districts. This money was to be used by local districts to make loans to producers within their respective districts for improved efficiency of irrigation systems.

In the February of 1992, the Texas Water Development Board approved their initial loan to Sandy Land Underground Water Conservation District in the amount of $500,000 to provide financing for the purchase of approved agricultural water conservation equipment, including center pivot irrigation systems, sprinkler package conversions, and drip irrigation equipment. Since that time, the Texas Water Development Board has made **24** loans to Sandy Land for over **$19,025,000.00**.

Since 1992, Sandy Land UWCD has loaned money for **414** new and used water conserving center pivot irrigation systems, for a total of **$12,677,310.07** to Yoakum County producers. The District has also loaned money for four sprinkler packages in the intervening years. Sandy Land UWCD has never had a default on a loan.

Below is an allocation of time spent on the Ag Loan Program.

Activity	Hours per Loan	Number of Loans	Total Hours
Processing Existing Loans (Preparing Invoices, Receipts, UCC Filings, etc.)	1.00	14	12
Maintaining Database	1.00	14	14
Maintaining Insurance	.50	14	7
Inspection	.50	14	7
		TOTAL	**42**

Sandy Land Underground Water Conservation District

Scholarship and Education Program

Scholarship and Education Program

Reference Goal 3.0 (b) (c)

Not only is Sandy Land Underground Water Conservation District concerned with the technical side of water issues, education has also become a top priority. With the knowledge that the Ogallala Aquifer has been depleting over the last few years, Sandy Land believes that it has an obligation to help educate the residents of Yoakum County in water conservation. This is being done in several ways, including water conservation booklets and presentations to our school age children, a scholarship essay contest for our high school senior students, newspaper articles, and program presentations at various events and conferences for everyone in the District.

Sandy Land Underground Water Conservation District began awarding scholarships to Plains and Denver City high school seniors in 1991. These scholarships are based on essays written by these students on the topic of the current water situation in our area and proposals for future conservation of that water. In the beginning, only two scholarships were awarded every year, one to a Plains student and one to a Denver City student. In 1996, the Board of Director's decided to give two scholarships to each school (a minimum of four (4) total for the district based on applications received). Over the past **34** years, Sandy Land Underground Water Conservation District has awarded **$135,250** to the students of Yoakum County through these scholarships.

Sandy Land Underground Water Conservation District has participated for many years in the Conservation Jamboree, a presentation of the Natural Resource Conservation Service in Yoakum County. This Jamboree, which targets all the fifth-grade students in the county, presents different learning stations that highlight many aspects of conservation. District personnel from Sandy Land present a water conservation activity in addition to presenting the mobile education trailer models to the fifth grade. Sandy Land's education coordinator presented teacher gifts and resources to elementary science/classroom teachers at the beginning of the school year. Teacher boxes contained water saving tools, lab equipment, and a list of resources available to teachers including videos, lesson plans, curriculum resources, etc. from the water district. Additionally, the District Texas 4-H Water Ambassadors assist in presenting at the Plains ISD Career Fair when held with a station on density and water properties for grades PK – 12.

Sandy Land UWCD frequently has articles published in the county newspaper – Denver City Press. These articles are used to inform the residents of upcoming events, public notices, deadlines for conservation programs and scholarship essays, and other services that are provided by the District.

Various members of the District staff have been very busy this year both attending and speaking at conferences and meetings.

Sandy Land UWCD through the education co-op with Llano Estacado and South Plains groundwater districts has sponsored the Texas 4H Water Ambassador program and helped to facilitate local youth who participate in the statewide program. The first group of water ambassadors from Yoakum County joined the program in 2018. Youth from Yoakum County continue to be actively involved in the program with two former local ambassadors working for Texas A&M AgriLife in College Station while attending TAMU. Currently the education coordinator serves on the state advisory board for Texas 4H Water Ambassadors program.

Below is a listing of scholarship winners by year.

1991
Plains – Dan Rushing
Denver City – J.J. Kleam

1992
Plains – Ashlee Winn
Denver City – Tie
Evertt Harrel
Dallas Stevens

1993
Plains – Gerald Goodman
Denver City – Lysette Silvas1994

1994
Plains – Gabriel Flores
Denver City – Shailaja Marion

1995
Plains – Ken McAdams
Denver City – Jamie Huber

1996
Plains – Valerie Blair
Kelly McGinty
Denver City – Joshua Smith
Jonathan Mock

1997
Plains – Marte Pierce
Jacob Lester
Denver City – Amy Risley
Bud Sanders

1998
Plains – Yvonne Gonzales
Shawna Box
Denver City – Elvia Garcia
Justin Mock

1999
Plains – Steven Bunch
Mike Bell
Denver City – Kristen Long
Traci Tucker

2000
Plains – Jason Swann
Shaunda Eady
Denver City – Glinnis Wolf
Nichole Newsom

2001
Plains – Taylor Gray
Armando Luna
Jessica Long
Denver City – Jennifer Arnold

2002
Plains-Chris Hansen
Jeffrey Lollar
Denver City- Kyndal Eady
Jarryn Mock

2003
Plains- Ryan Swann
Kelly Bowers
Denver City- Jeremy Thompson
Nicole Gutierrez

2004
Plains- Brandon Davis
Lashonda Diamond
Denver City- Abby Droogsma
Leah Gibson

2005
Plains-Caylon Garnett
Payton Bean
Denver City-Chelsey-Anne Bearden
Torre Stewart

2006
Plains- Blake O'Quinn
Benjamin Hays
Denver City- Melina Terrazas
Lizette Bayona

2007
Plains-Clarissa Zorilla
Jose Luis Gallegos
Denver City- Chelsea Stroud
Brandon King

2008
Plains- Lauren Davis
Maria M. Andazola
Denver City- Mallory Milligan
Jacqueline Martinez

2009
Plains- Tie for 1st ($500 each)
Bené Baum and Yesenia Loya
Denver City- Javier Arzate
Lindsey Hudgins

2010
Plains- Natalie Haynes
Emilia Gallegos
Denver City- Amanda Guzman
Katelyn Flores

2011
Plains-Hannah Crump
Shaylin Taylor
Denver City-Brittani Weir
Celia Broadwater

2012
Plains – Jordan Martin
Whitney Davis
Denver City – Garrett English
Mariza Santillan

2013
Plains - Merrit Crump
Matthew Ramos
Denver City - Kathryn English
Jaci Zingerman

2014
Plains – Bailey Winn
Taylor Michaleson
Denver City – Rowdy Brumley
Kaleb King

2015
Plains - Riley Earnest
William Boyles
Denver City - Angel Loya
Hadel Almubiadin

2016
Plains - Brittany Michaleson
Madison Davis
Denver City - Bailee Burkett
Katy Patterson

2017
Plains - Sage Lovelace
Leigha Willians
Denver City - Jacee Billings
Kolt Dierschke

2018
Plains - Kennedy Earnest
Sydney Downs
Denver City - Jaryd Ivy
Cheyenne Beach

2019
Plains - Breann Griffiths
Mark Hartman
Denver City - Kaitlin Stephens
Kenzi Stephens

2020
Plains - Neely Cross
Allie Williams
Denver City - Riley Calk
Hadlea Stine

2021
Plains - Madalyn Franklin
Macy Downs
Denver City - Roberto Hurtado
Alexis Ivy

2022
Plains Maylin Lozano
Denver City Melissa Soto
Miguel Framo
Kamree Horton

2023
Plains Sebastian Brown
Mallory Bunch
Denver City Madison Peters
Jose Antonio Franco

2024
Plains - Andie Saxon
Denver City - Gilbert Ortiz
Jesse Calk
Madison Woosley

Below is an allocation of time spent on the Scholarship and Education Program.

Activity	Hours
Scholarship Program	25
Conservation Jamboree	24
Newsletter Publications and Newspaper Articles	10
Public Programs and Presentations	100
Total Hours	**159**