

# **SANDY LAND UNDERGROUND WATER CONSERVATION DISTRICT**

**Annual Report  
January 1, 2021 through December 31, 2021**



**Sandy Land Underground Water Conservation District  
1012 Ave. F  
P.O. Box 130  
Plains, Texas 79355  
(806)456-2155**

# **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

Ross Hilburn, President  
Linda Powell, Vice-President  
Tracy Welch, Secretary  
Rickey Bearden, Director  
Stanley Ashburn, Director

## DISTRICT STAFF

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

## DISTRICT OFFICE

1012 Avenue F  
P.O. Box 130  
Plains, Texas 79355  
(806)456-2155 (806)456-5655 Fax  
[www.sandylandwater.com](http://www.sandylandwater.com)

**SANDY LAND UNDERGROUND  
WATER CONSERVATION DISTRICT**

**DISTRICT CREATION**

## DISTRICT CREATION

Sandy Land Underground Water Conservation District was created by the 71<sup>st</sup> 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.

**SANDY LAND UNDERGROUND  
WATER CONSERVATION DISTRICT**

**2021 ANNUAL REPORT OVERVIEW**

## **2021 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 2<sup>nd</sup> 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 Vice-President through August 2021 and Legislative Executive Committee member.
- Ms. Blount engages in numerous virtual online meetings and phone conferences for TAGD Executive Committee Sessions, Joint and Conference Planning, Finance Committee, Legislative Sessions and update reporting, Summit, TWCA Groundwater Committee, GCD/TAWC, GMA2 and Region O due to Covid restrictions.
- 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.
- 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 Las Brisas Restaurant in Lubbock.
- Office remodel/renovation began.
- Gale McDonnell mailed loan payment letters to borrowers in our Water Conservation Agricultural Loan Program.
- Depletion letters mailed to eligible county residents.

### **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 2020 Annual Report.
- Office remodel continues.

### **March**

- Board reviewed 2020 annual drawdown – well depth measurement comparison.
- Ryan King of Terry and King CPAs PC performed 2020 in-house tax audit.
- Hydrologist Ray Brady presented update on 2020 Annual Draw Down.
- Legislative Session Bill Filing Ends.
- Election notices approved for cancelling election due to Unopposed Candidates.
- Office remodel continues.



## **April**

- Sandy Land UWCD made loan payment to Texas Water Development Board for the Water Conservation Agricultural Loan Program.
- Amber Blount attended Thomas Y Pickett Tax Value Presentation at YC courthouse.
- Zoom meeting with Texas Tech endowment recipients' presenting their research statements.
- Ryan King of Terry and King CPAs presented the 2020 Financial Audit.
- Board approved SLUWCD 2020 Financial Audit.
- Office remodel continues.

## **May**

- Ms. McDonnell presented Certificates of Election and administered Oaths of Office to Directors Ross Hilburn and Stanley Ashburn.
- Officer Elections were performed with officers retaining their current positions by acclamation motion.
- Board reviewed 2019 Irrigation Water Use Estimates.
- Board and staff reviewed 2021 estimated tax values.
- Manager Blount attended PISD Strategic Planning Committee meeting.
- Ms. Blount attended YC Soil Conservation breakfast.
- Staff and Directors completed Cyber Security Training in compliance with HB 3834.
- Office remodel continues.

## **June**

- Water quality testing begins for Sandy Land UWCD's Water Quality Network.
- DFC Public Hearing.
- Macy Downs begins as summer contract labor.
- Texas 4-H Water Ambassador Dinner.
- Rainwater Harvesting Workshop.
- Office remodel completed.

## **July**

- Review and Discussion concerning SLUWCD 2022 budget.
- Water quality testing continues for wells in Sandy Land UWCD's Water Quality Network.
- Collier Consulting – Alyson McDonald.

## **August**

- The Board of Directors adopted and approved the SLUWCD 2022 budget.
- Texas Tier I 4-H Water Ambassadors Mallory Bunch and Gracen Gore gave a visual presentation of their 4-H<sub>2</sub>O Leadership Academy.
- Macy Downs completes summer contract labor.
- Water quality testing concluded on wells in Sandy Land UWCD's Water Quality Network.
- Jake Wood presented Amber Blount, Gale McDonnell, and Michelle Cooper retirement updates – Wood Financial Review.

## **September**

- Public Hearing to set 2021 Tax rate at .0197/\$100.
- Manager Amber Blount elected President of TAGD at Groundwater Summit.
- Director Linda Powell presented TAGD Summit summary report.
- Board reviewed and approved the Sandy Land UWCD policy, Investment policy and Professional Services.
- Directors approved list of financial institutions.

### **October**

- Board approved quarterly payments to YC Tax Assessor/Collector to cover expenses associated with tax collection.
- Plains ISD Career Fair presented by Amber Blount and Michelle Cooper.

### **November**

- Senator Seliger virtual Town Hall Meeting.

### **December**

- Manager Blount attended Representative Ken King Town Hall Meeting – PSB Event Center.
- Ms. Blount participated in Grant Webinar.
- Ray Brady completed IRS program technical review and final report and 2021 saturated thickness map.
- Christmas Party set for January 14, 2022 at Double Nickel in Lubbock.
- 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 2021, property owners requested well efficiency tests from the District for 7 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 2021, 72 of the wells in the monitor well network (83%) 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, **81** wells were sampled 2021 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 2021, the District performed water quality and bacteria analysis tests on 100 percent of the 33 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 **253** well permit applications for fiscal year 2021.

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 2021, a total of 6 articles were given to the newspapers of the county to publish, 210 articles or comments referencing conservation were posted on social media, and the website contains information for any interested parties.

### **Goal 3.0 Controlling and Preventing Subsidence**

*The goal of controlling and preventing subsidence is not applicable to the District.*

### **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**

*The goal for addressing natural resource issues that impact the use and availability of groundwater or are impacted by the use of groundwater within the District is not applicable.*

### **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.

#### 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 District's web site as collected.

#### Current Performance Status

District staff collected rainfall data on the district's 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 2021, two (2) 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 2021, one (1) 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 2021, a total of four (4) scholarships were awarded to seniors within Yoakum County.

### 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 teachers who were provided educational materials

Current Performance Status

Twelve (12) teachers within the District 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, 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

Fifteen (15) presentations were given during fiscal year 2021 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 June 10, 2021. Four (4) Rainwater Harvesting presentations were included in calendar presentations to 4<sup>th</sup> & 5<sup>th</sup> 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 2021 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 2021 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.

<b>Activity</b>	<b>Total Hours</b>
Perform Irrigation Efficiency Tests at Producers Request	
Measure Water Levels	90
Draw Decline Map & Assign Declines	30
Update Hydrograph Spreadsheet & Charts, Prepare Hydrograph Book	24
Update, Prepare and Mail Depletion Letters	24
<b>TOTAL</b>	

## Well Depth Measurement Sheet for 2021 Measurements

<b>Well Depth Measurement Sheet</b>			
<b>Comparing 2020 and 2021 Measurements</b>			
<b>Well Number</b>	<b>Section Number</b>	<b>2020 Measurement</b>	<b>2021 Measurement</b>
24-33-801	41	135.20	136.30
24-41-201	100	123.10	135.50
24-41-502	183	169.10	175.00
24-41-602	187	114.50	115.30
24-41-802	306	76.80	83.20
24-41-804	305	84.30	91.70
24-42-401	128	128.30	
24-42-801	252		163.90
24-43-403	196	88.10	87.40
24-43-501	146	114.30	114.70
24-43-801	260	36.40	37.70
24-44-101	10, Block K	145.30	142.80
24-49-101	344	52.90	53.30
24-49-201	365	56.00	56.30
24-49-203	397	99.00	108.90
24-49-303	368	34.30	34.00
24-49-401	418	152.00	158.10
24-49-702	518	169.00	161.50
24-49-802	540	156.90	
24-49-903	514	147.70	147.90
24-50-203	371	103.60	103.10
24-50-204	312	152.90	153.70

<b>Well Number</b>	<b>Section Number</b>	<b>2020</b>	<b>2021</b>
24-50-402	425	107.80	110.10
24-50-501	440	48.40	75.20
24-50-801	510	88.40	89.00
24-51-101	317	124.20	117.20
24-51-201	380	79.30	80.60
24-51-602	489		127.20
24-51-701	504	118.10	191.10
24-52-701	40, Block K		107.60
24-57-101	581	150.50	
24-57-301	576	120.30	122.10
24-57-305	640	91.60	92.00
24-57-501	642	85.20	90.20
24-57-502	707	58.20	58.90
24-57-601	734	82.80	88.10
24-57-702	772	108.60	102.90
24-57-802	770	87.50	89.50
24-57-901	797	74.10	74.50
24-58-101	607	109.70	112.00
24-58-201	610	86.30	107.10
24-58-401	637	87.30	87.50
24-58-601	696	104.00	104.10
24-58-801	764	71.80	
24-58-901	761	76.10	74.70
24-59-101	566	98.30	98.40
24-59-201	564	62.60	66.80

<b>Well Number</b>	<b>Section Number</b>	<b>2020</b>	<b>2021</b>
24-59-301	627	133.10	142.60
24-59-801	757	75.90	77.50
24-60-402	686	102.60	98.20
24-60-701	752	50.70	51.60
25-48-301	121	135.00	140.60
25-48-601	165	116.40	119.00
25-48-801	299	61.30	64.50
25-56-201	358		113.90
25-56-502	414	150.10	150.50
25-56-902	522	151.00	152.20
25-56-901	521		
25-64-301	597	152.30	163.90
25-64-502	650	129.90	129.20
25-64-801	777		155.60
25-64-901	789	152.5	
26-08-202	852		
27-01-202	835	124.10	126.10
27-01-301	895		
27-01-302	862		
27-02-101	864		70.80
27-02-303	825	69.90	70.50
27-03-101	886	129.50	131.90
27-03-202	819	139.70	
27-04-101	Block 19, C34, PSL	145.00	177.20
24-44-701	Block 20, K, PSL	24.70	27.00



<b>Well Number</b>	<b>Section Number</b>	<b>2020</b>	<b>2021</b>
22-42-504	154	88.60	88.40
25-48-921	241	69.90	
26-08-317	854		223.20
24-50-605	431	85.10	87.00
24-57-112	645		
24-58-508	700	95.40	95.80
27-02-212	891	97.90	98.30
24-50-924	549	103.60	105.60
24-57-735	791		
25-48-329	106	134.90	154.20
24-41-535	160	98.50	
24-41-202	101		
24-42-702	248	70.60	70.10
25-64-604	662	141.30	142.50
27-01-102	902		194.60

**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 29 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.

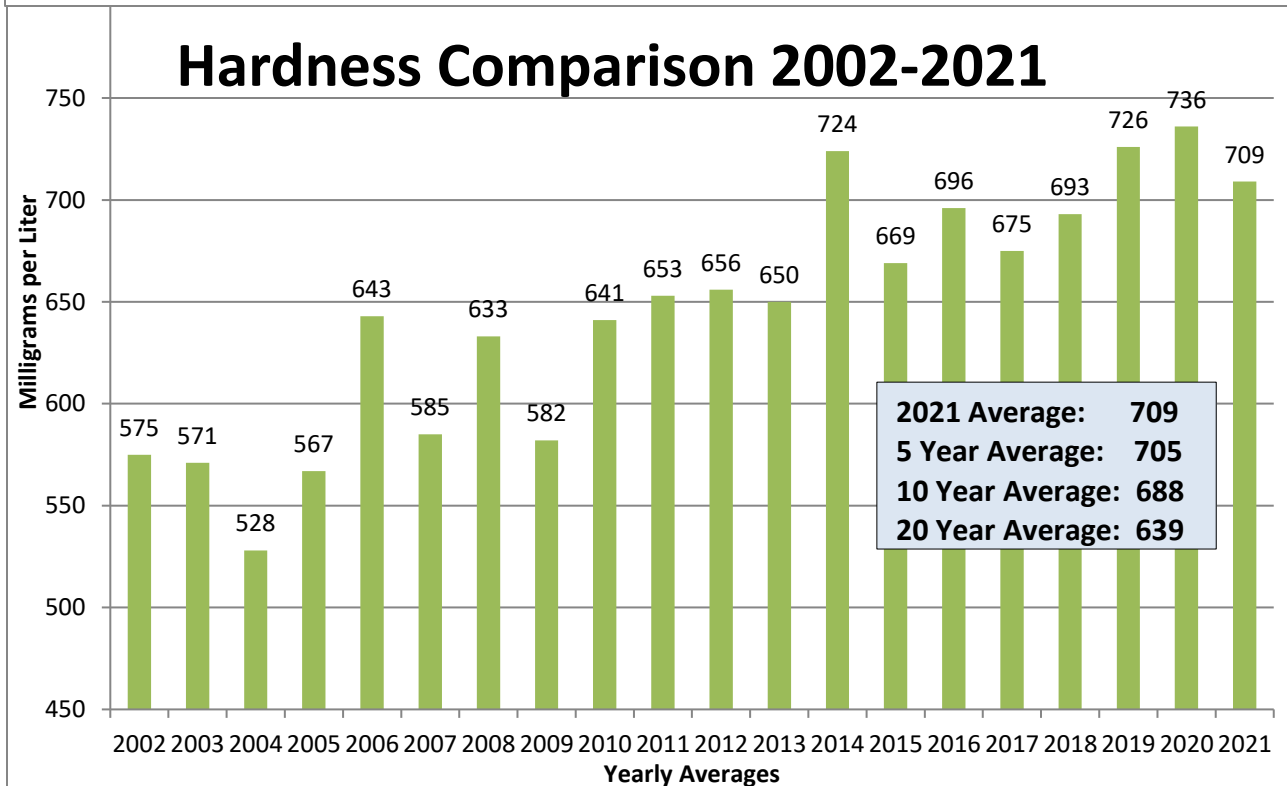
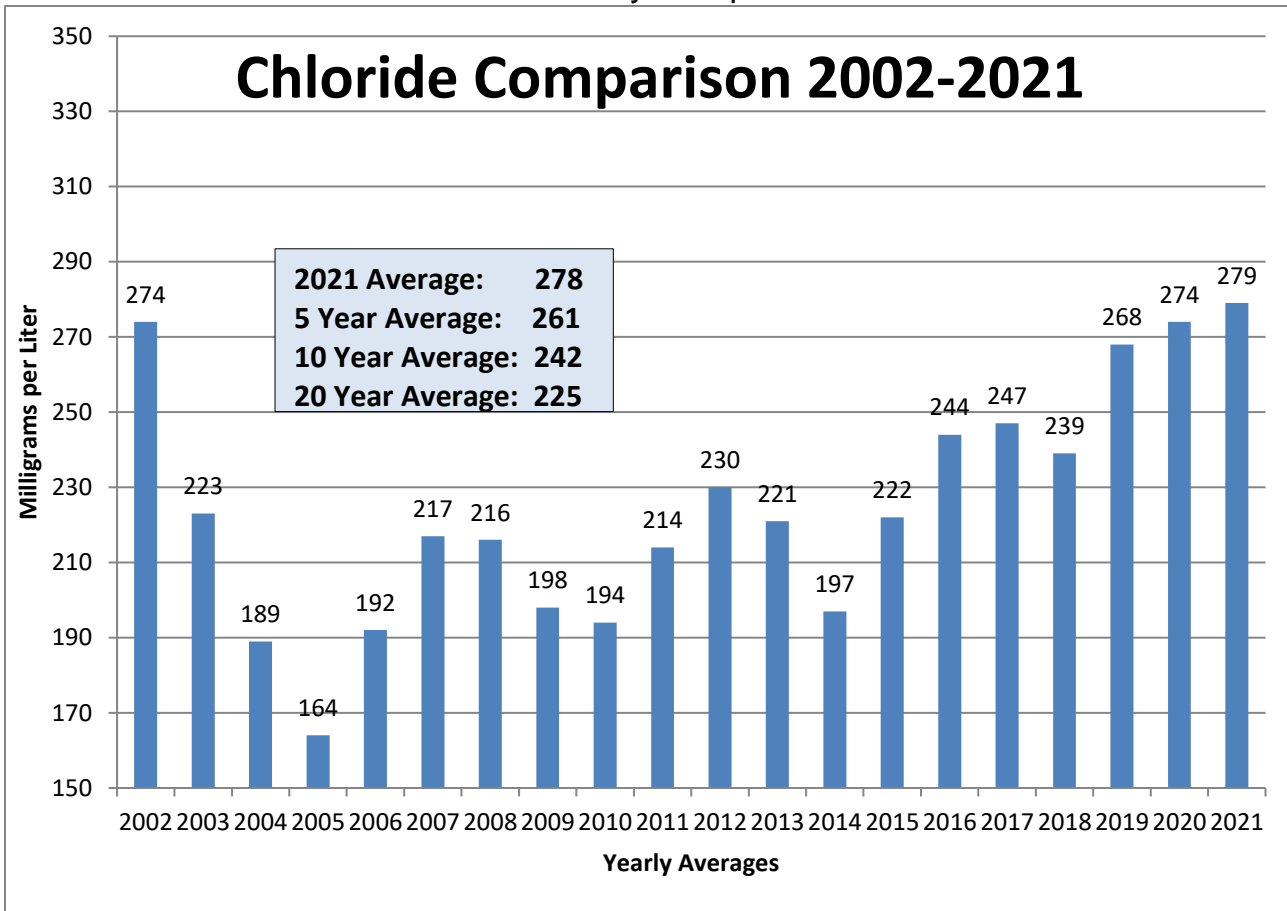
Sandy Land tests for a total of seven components or properties each year. These consist of chloride, hardness, total dissolved solids, fluoride, iron, nitrate, and pH for each well. During the testing process in 2012, we decided that the alkalinity and specific conductivity tests were not pertinent to 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 2019, as well as the current drinking standards, if available.

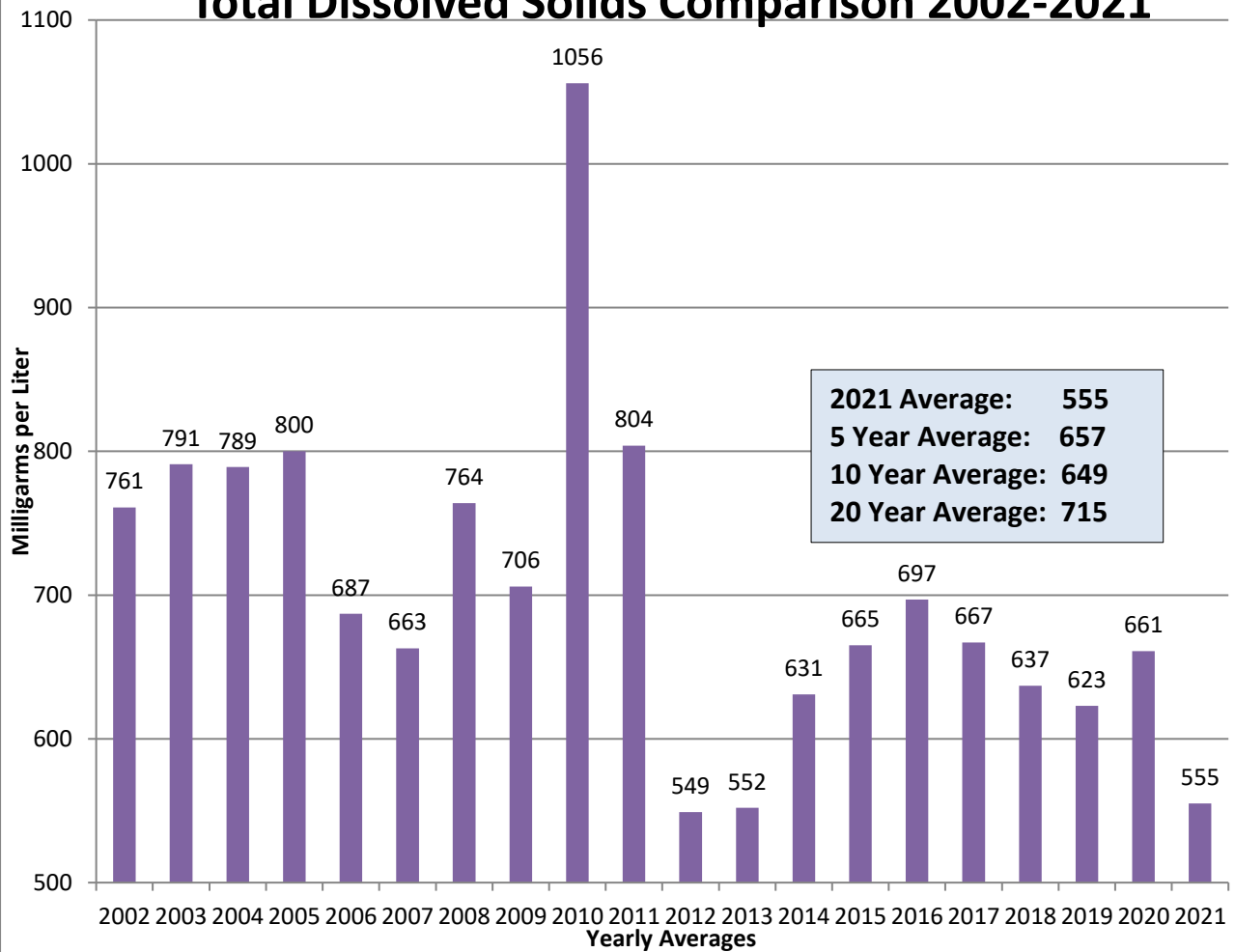
2021 Water Quality Data

<b>2021</b>	<b>Chloride</b>	<b>Hardness</b>	<b>Total Dissolved Solids</b>	<b>Fluoride</b>	<b>Iron</b>	<b>Nitrate</b>	<b>pH</b>
<b>Average</b>	278	709	555	2.43	.54	2.9	7.50
<b>No. of Wells Tested</b>	81	78	81	81	81	81	81
<b>Minimum</b>	66	138	163	.176	0	.248	6.86
<b>Maximum</b>	1010	1772	1410	4.05	3.91	14.1	8.00
<b>Drinking Water Standard</b>	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

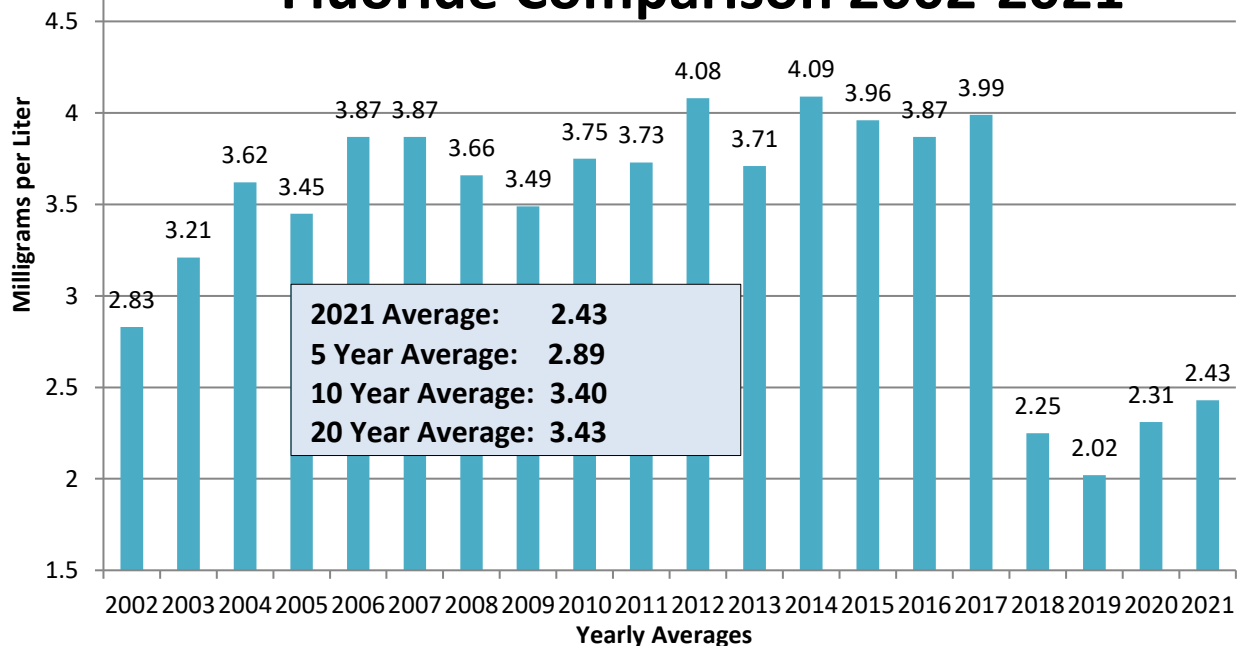
## Water Quality Comparisons



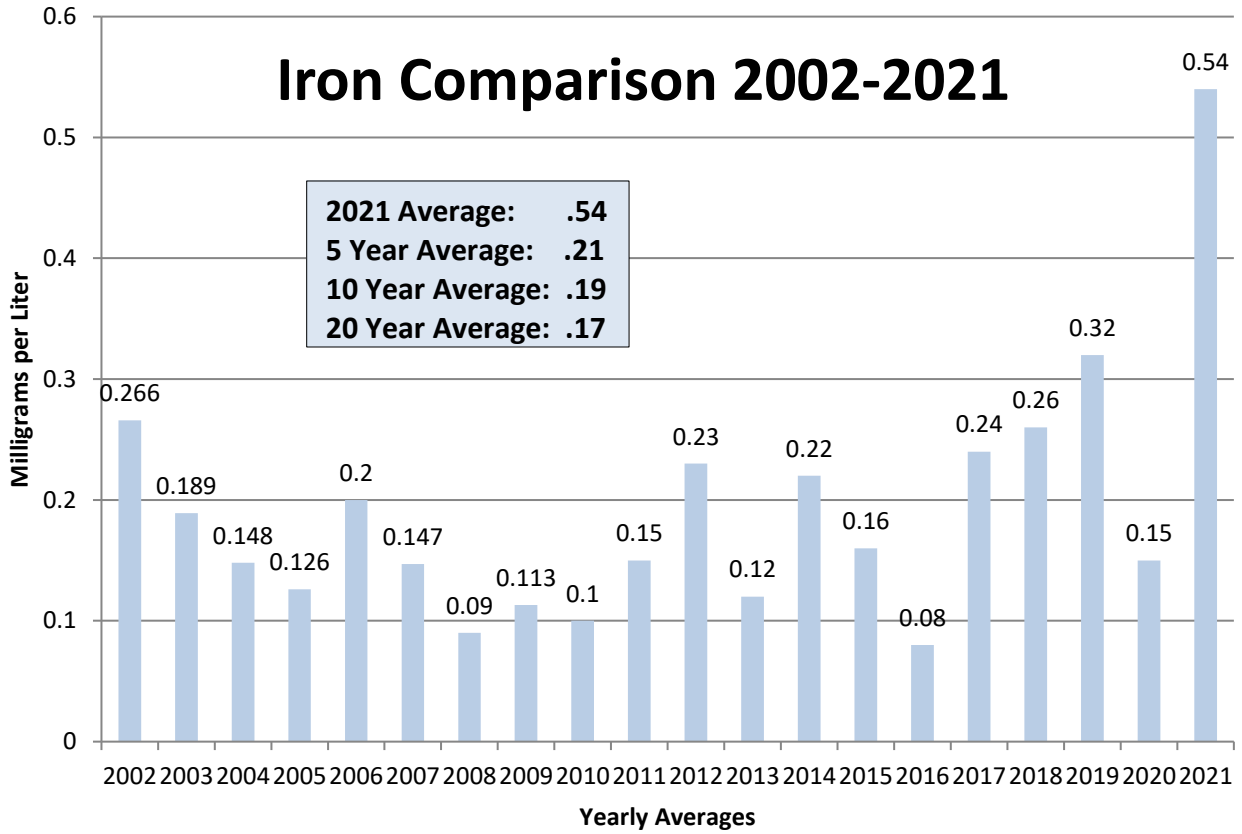
## Total Dissolved Solids Comparison 2002-2021



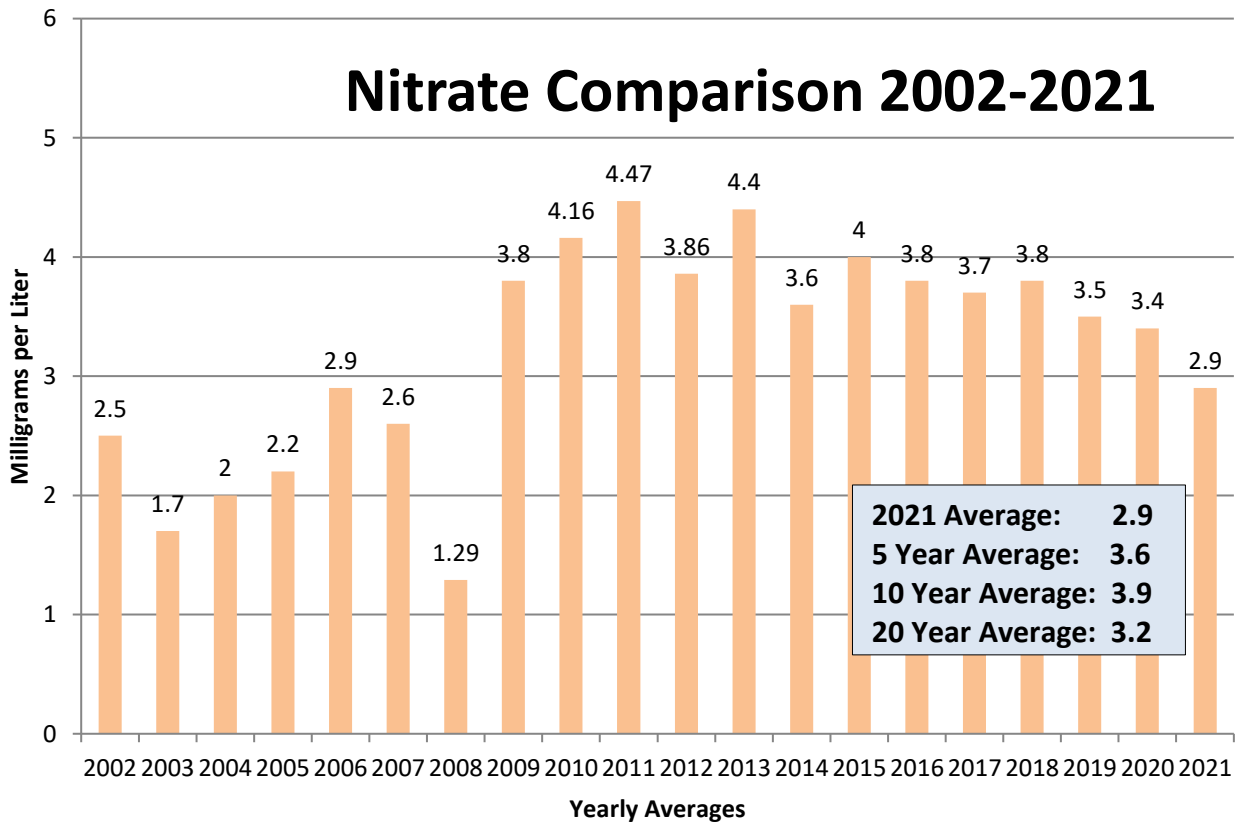
## Fluoride Comparison 2002-2021



## Iron Comparison 2002-2021



## Nitrate Comparison 2002-2021



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		
Water Quality Network - Retrieve Samples and Perform Tests	1	81	81
Update Records, Notification to Residents	.50		
		<b>TOTAL</b>	

**SANDY LAND UNDERGROUND  
WATER CONSERVATION DISTRICT**

**WELL PERMITTING AND REGISTRATION**



## WELL PERMITTING AND REGISTRATION

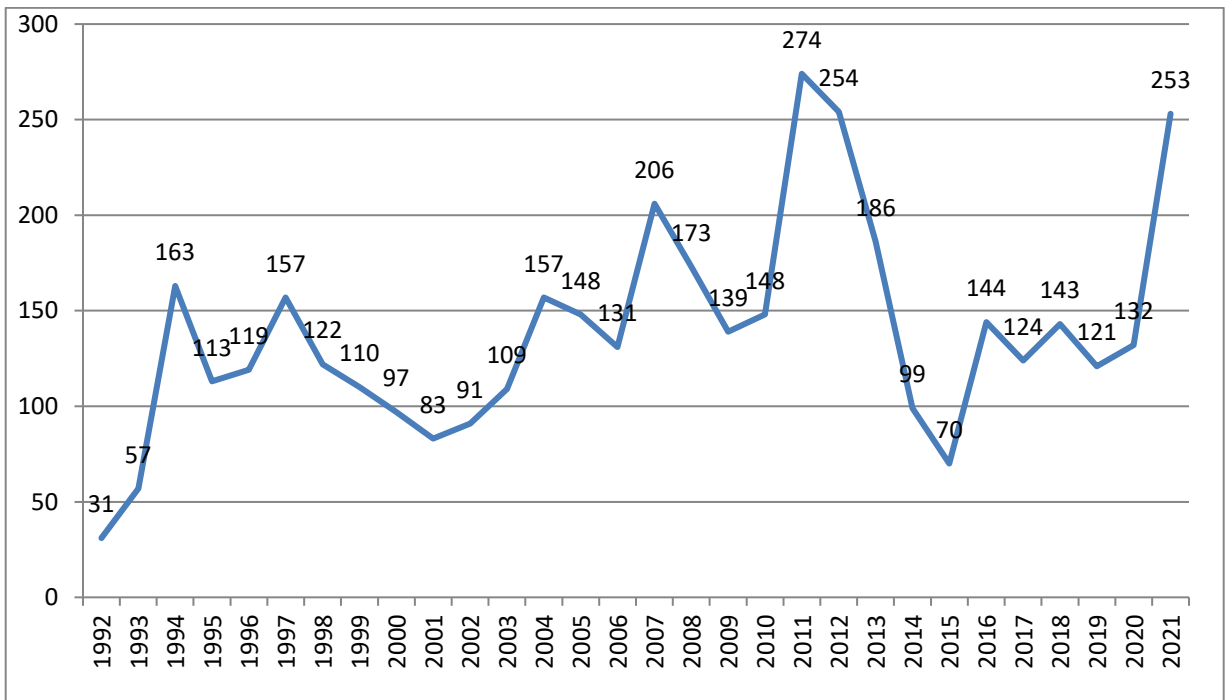
### Reference Goal 2.0 (b)

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 2021, two hundred and fifty-three (**253**) permits have been issued to local producers. Of these permits, two hundred and twenty-nine (229) 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 twenty-four (24) permits not returned, fifteen (15) are still within the 90-day drilling period and are not due at this time. This leaves nine (9) permits (or 3.5%) 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 31 years, a total of 4154.



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	253	126.5
Entering Permit Information into Computer	.50	253	126.5
		<b>TOTAL</b>	<b>253</b>

**SANDY LAND UNDERGROUND  
WATER CONSERVATION DISTRICT**

**AGRICULTURAL LOAN PROGRAM**

## **AGRICULTURAL LOAN PROGRAM**

### **Reference Goal 3.0 (a)**

In 1989, the 71<sup>st</sup> 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 **23** loans to Sandy Land for over **\$18,450,000.00**.

Since 1992, Sandy Land UWCD has loaned money for **410** new and used water conserving center pivot irrigation systems, for a total of **\$12,336,044.67** 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.

<b>Activity</b>	<b>Hours per Loan</b>	<b>Number of Loans</b>	<b>Total Hours</b>
Processing Existing Loans (Preparing Invoices, Receipts, UCC Filings, etc.)	1.00	28	28
Maintaining Database	1.00	28	28
Maintaining Insurance	.50	28	14
Inspection	.50	28	14
		<b>TOTAL</b>	<b>84</b>

**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, and newspaper articles, newsletters, 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. Over the past **31** years, Sandy Land Underground Water Conservation District has awarded **\$118,000** 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 (and 4<sup>th</sup> grade due to covid). 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 participated in the Plains ISD Career Fair (grade PK-12) where a display booth with technical information available to local citizens and a water activity were hosted by district staff and local 4H Water Ambassadors.

Sandy Land UWCD frequently has articles published in the county newspaper. 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 keeps a supply of water-conserving showerheads and aerators to be given away in an effort to make water conservation more convenient and accessible to Yoakum County residents.

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 a former local ambassador working for Texas A&M AgriLife in College Station while attending TAMU.

**Below is a listing of scholarship winners by year.**

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

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 1<sup>st</sup> (\$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

2021

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

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

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

<b>Activity</b>	<b>Hours</b>
Scholarship Program	15
Conservation Jamboree	20
Newsletter Publications and Newspaper Articles	10
Public Programs and Presentations	60
<b>Total Hours</b>	<b>105</b>