# PANHANDLE WATER NEWS

#### JULY 2023

# THE 88TH TEXAS LEGISLATURE RECAP

The 88th Session of the Texas Legislature adjourned sine die on Monday, May 29, 2023. Recently, they wrapped up their second special session which focused mainly on property taxes. Throughout the regular session, the District tracked over 100 bills that affected Chapter 36 of the Texas Water Code and local government bills. Of the many bills tracked, few made it through both chambers. The five bills that were signed into law by Governor Greg Abbott that will make changes to Chapter 36 are outlined below:

HB 1971 outlines procedures for Board Members relating to approving or denying permits, provides clarification and more information regarding conflicts of interest for Board Members, and provides steps for those who want to appeal a District decision regarding permits. This act is effective immediately.

HB 2443 introduces a section in Chapter 36 that provides guidelines for a person with a real property interest in groundwater to petition the District to change a rule. The act states how long the District has to respond to such a petition. This act goes into effect on September 1, 2023.

HB 3059 amended the export fees section of Chapter 36 and increased the amount allowed for Districts to charge for water exported out of its boundary. The act goes into effect on September 1, 2023.

HB 3278 provides more transparency in the joint planning process and allows for more time for the planning group to publish information and receive additional public comments. This act goes into effect immediately.

SB 1746 allows for an additional exemption from District permitting rules and exempts drilling a water well for temporary use to supply water for a rig actively engaged in drilling a groundwater production well that is permitted by the District. The act goes into effect on September 1, 2023.



# **POINTS OF INTEREST**

Legislative Update

Water Level Measurements

2023 Charts Explained

"Conserving Water for Future Generations"

#### PGCD AQUIFER WATER LEVEL MEASUREMENTS

Panhandle Groundwater Conservation District (PGCD) conducts water level measurements on over 750 wells throughout the District annually to determine changes in aquifer conditions.

The measurements taken are used to determine the current water level in the aquifer, quantify the volume of groundwater remaining, monitor longterm trends in water levels, and provide information needed to determine IRS depletion allowances in addition to evaluating the status of the District's adopted desired future conditions.

The maps in this newsletter reflect the changes in water levels from 2022 to 2023 (in feet). The District generated the 2023 maps using differences in water level measurements taken from designated monitoring wells. These water level changes are shows with graduated symbols and colors to give a clearer representation of the data collected.

PGCD Field Technicians conducted water level measurements from November 2022 to March 2023 during the timeframe where irrigation demands are lowest, allowing the District to obtain a more representative static water level. Every effort is made to capture this measurement when levels have recovered or stabilized. Despite our best efforts, sometimes a credible water level cannot be obtained. This may occur because the well is pumping, the casing is inaccessible, the well has collapsed, or the well site is no longer accessible. If a well poses repeated challenges for several years, we may remove or replace it in the monitoring network with a more suitable site.

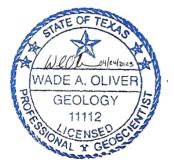
#### 2023 DATA EXPLANATION

PGCD collects water level data on many wells throughout the District dating back as far as the 1950s. In this edition of the water level decline issue, the District mapped the 1-year difference at individual wells within our Annual Observation Well Network.

The column headings in the charts throughout this newsletter show (from left to right) (1) well number, (2) the initial year measured, (3) the initial depth measurement, (4) the 2022 water level depth, (5) the 2023 water level depth, (6) the initial depth measurement minus the current level depth during the period of record, (7) change in water level from 2022-2023 or the 1-year difference. The 1-year difference is the data used to create the maps in this newsletter.

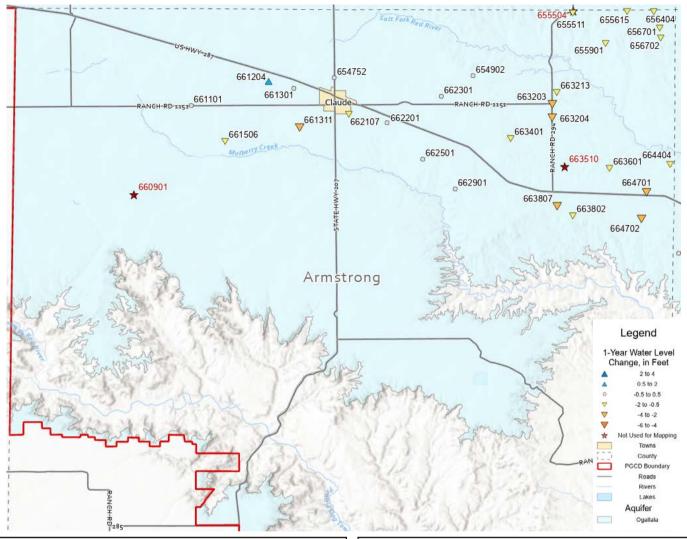
Statistical analysis was conducted on water level measurements to determine any outliers. Through this process the District determined measurements of 14 wells to be removed as outliers and an additional 24 wells to be removed because a credible water level could not be obtained before creating the change in water level maps. These wells are noted with a red star and red label text on the maps and tables shown in this publications.

For further explanation or more information, please contact the District at 806-883-2501. These maps were made by District Hydrogeologist, Ashley Ausbrooks, GIT and were developed under the supervision and with the final approval of Wade Oliver, Professional Geologist.



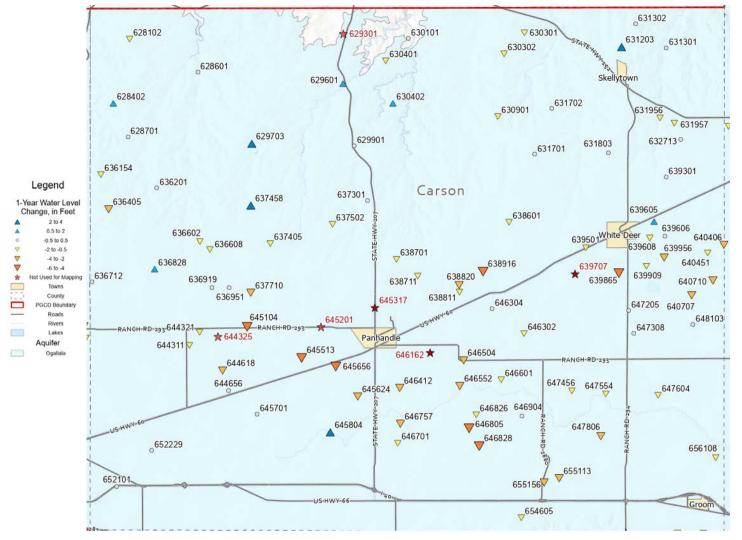
The groundwater-related technical information (text, maps and/or hydrographs) appearing in this newsletter were reviewed and approved by Wade Oliver, Professional Geologist.

#### NORTHEAST ARMSTRONG COUNTY OGALLALA AQUIFER 1-YEAR CHANGE



	Arm	strong Cou	nty - O	gallala A	Aquifer			Arm	strong Cou	nty - Og	gallala /	Aquifer	
Well	First				Water	Data Used	Well	First				Water	Data Used
Number	Reading	Depth to	Water,	in feet	Level	to Make	Number	Reading	Depth to	Water,	in feet	Level	to Make
Number	Year				Difference	Maps	Number	Year				Difference	Maps
		Initial			Initial To	1			Initial			Initial To	1 Year
		Initial	2022	2023	Current	1 Year			Depth	2022	2023	Current	Difference
		Depth			Difference	Difference			· ·			Difference	
654752	2003	-225.2	-183.2	-182.9	42.3	0.3	662107	2005	-175.0	-184.2			-1.8
654902	1971	-295.0	-321.6	-321.2	-26.2	0.4	662201	1975	-185.0	-186.7	-186.8	-1.8	-0.1
★ 655504	1976	-323.5	-	-365.1	-41.6	-	662301	1975	-230.0	-284.2	-284.0	-54.0	0.2
655511	2000	-340.7	-356.2		-16.8	-1.3	662501	1958	-174.9	-181.7	-181.6	-6.7	0.1
655615	1975	-320.5	-366.4		-46.5	-0.6	662901	2005	-218.5	-218.4	-217.9	0.6	0.5
655901	1975	-220.2	-253.4		-34.2	-1.0	663203	2000	-169.4	-185.0	-187.1	-17.7	-2.1
656404	1975						663204	1975	-156.4	-180.8	-184.4	-28.0	-3.6
		-327.2	-364.6		-39.0	-1.6	663213	2014	-161.8	-168.1	-169.8	-8.0	-1.7
656701	2005	-334.7	-365.8		-33.0	-1.9	663401	1975	-196.3	-198.9	-199.5	-3.2	-0.6
656702	1975	-311.4	-348.3		-38.3	-1.4	★ 663510	2022	-108.1	-108.1	-	-	-
★ 660901	2022	-173.7	-173.7		-	-	663601	1983	-94.8	-104.2	-105.8	-11.0	-1.6
661101	1958	-154.2	-154.2	-154.0	0.2	0.2	663802	1972	-190.0	-210.3	-211.4	-21.4	-1.1
661204	2000	-167.0	-164.2	-163.5	3.5	0.7	663807	2014	-191.2	-191.4	-193.7	-2.5	-2.3
661301	1954	-154.9	-156.1	-155.6	-0.7	0.5	664404	1975	-112.0	-124.8	-126.2	-14.2	-1.4
661311	1975	-195.8	-197.4	-201.2	-5.4	-3.8	664701	1955	-114.0	-155.6	-158.0	-44.0	-2.4
661506	2011	-156.7	-163.7	-164.5	-7.8	-0.8	664702	1956	-132.4	-161.1	-164.0	-31.6	-2.9

#### CARSON COUNTY OGALLALA AQUIFER 1-YEAR CHANGE



		Carson Cou	unty - O	gallala	Aquifer				Carson Cou	unty - O	gallala	Aquifer	
Well Number	First Reading Year	Depth to	Water, i	in feet	Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to V	Water,	in feet	Water Level Difference	Data Used to Make Maps
		Initial Depth	2022	2023	Initial To Current	1 Year Difference			Initial Depth	2022	2023	Initial To Current	1 Year Difference
628102	1977	-181.7	-215.5	-217.1	-35.4	-1.6	631701	1970	-380.0	-391.5	-391.8	-11.8	-0.3
628402	1977	-187.4	-203.8	-202.3	-14.9	1.5	631702	1981	-269.2	-281.8	-281.9	-12.7	-0.1
628601	1958	-48.4	-71.6	-71.9	-23.5	-0.3	631803	2001	-396.1	-395.5	-395.0	1.1	0.5
628701	1977	-238.1	-259.8	-259.5	-21.4	0.3	631956	2001	-224.9	-226.8	-227.3	-2.4	-0.5
<b>★ 629301</b>	1977	-180.1	-188.2	-182.8	-2.7	5.4	631957	2001	-327.9	-329.9	-330.4	-2.5	-0.5
629601	1982	-53.7	-53.4	-51.9	1.8	1.5	632713	2017	-408.1	-407.9	-407.9	0.2	0.0
629703	2003	-286.6	-296.7	-293.9	-7.3	2.8	636154	2001	-303.5	-332.0	-333.0	-29.5	-1.0
629901	1982	-76.8	-84.7	-85.0	-8.2	-0.3	636201	1977	-333.0	-372.8	-372.8	-39.8	0.0
630101	2004	-23.8	-30.8	-31.0	-7.2	-0.2	636405	2011	-413.0	-434.2	-436.6	-23.6	-2.4
630301	1977	-147.6	-152.5	-153.4	-5.8	-0.9	636602	1969	-416.0	-514.3	-515.5	-99.5	-1.2
630302	2003	-236.3	-225.2	-226.7	9.6	-1.5	636608	2013	-519.9	-530.9	-531.8	-11.9	-0.9
630401	1977	-233.9	-155.1	-155.8	78.1	-0.7	636712	2012	-416.2	-434.4	-434.2	-18.0	0.2
630402	2003	-121.1	-120.4	-119.7	1.4	0.7	636828	2014	-544.4	-550.6	-549.4	-5.0	1.2
630901	2003	-333.3	-329.1	-330.7	2.6	-1.6	636919	1978	-442.0	-529.9	-529.7	-87.7	0.2
631203	1977	-295.2	-305.4	-301.7	-6.5	3.7	636951	2012	-484.8	-495.0	-495.2	-10.4	-0.2
631301	1977	-118.2	-123.8	-123.9	-5.7	-0.1	637301	1981	-250.8	-287.9	-288.1	-37.3	-0.2
631302	1981	-242.0	-249.8	-249.6	-7.6	0.2	637405	1977	-386.8	-467.2	-468.2	-81.4	-1.0

#### CARSON COUNTY CONTINUED

		Carson Cou	unty - O	gallala	Aquifer				Carson Cou	unty - O	gallala	Aquifer	
Well Number	First Reading Year	Depth to	-	-	Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to V			Water Level Difference	Data Used to Make Maps
		Initial Depth	2022	2023	Initial To Current	1 Year Difference			Initial Depth	2022	2023	Initial To Current	1 Year Difference
637458	2002	-416.7	-456.4	-452.6	-35.9	3.8	645513	2001	-435.1	-469.2	-473.2	-38.1	-4.0
637502	2004	-305.6	-327.9	-329.3	-23.7	-1.4	645624	2015	-425.9	-438.5	-440.7	-14.8	-2.2
637710	2004	-431.6	-461.4	-463.7	-32.1	-2.3	645656	2022	-453.6	-453.6	-457.8	-4.2	-4.2
638601	1956	-306.5	-381.5	-382.3	-75.8	-0.8	645701	1956	-337.8	-392.5	-392.7	-54.9	-0.2
638701	1956	-328.3	-441.6	-442.7	-114.4	-1.1	645804	1994	-323.1	-339.8	-335.8	-12.7	4.0
638711	2001	-431.5	-463.6	-465.2	-33.7	-1.6	<b>*</b> 646162	2002	-374.9	-389.5	-	-	-
638811	1974	-360.3	-473.0	-474.6	-114.3	-1.6	646302	1961	-294.5	-391.8	-393.0	-98.5	-1.2
638820	2015	-446.4	-470.7	-473.2	-26.8	-2.5	646304	2011	-415.9	-448.2	-448.4	-32.5	-0.2
638916	1999	-404.6	-453.8	-458.9	-54.3	-5.1	646412	2010	-405.7	-439.7	-442.8	-37.1	-3.1
639301	1958	-383.4	-399.1	-399.2	-15.8	-0.1	646504	2000	-387.2	-407.1	-409.5	-22.3	-2.4
639501	1958	-284.4	-386.3	-386.9	-102.5	-0.6	646552	2000	-354.7	-376.6	-379.1	-24.4	-2.5
639605	2005	-395.0	-288.6	-287.3	107.7	1.3	646601	1956	-295.2	-384.5	-385.3	-90.1	-0.8
639606	2005	-377.7	-357.1	-356.9	20.8	0.2	646701	1956	-325.9	-374.8	-376.0	-50.1	-1.2
639608	2005	-353.9	-365.6	-366.4	-12.5	-0.8	646757	2003	-375.4	-406.6	-408.8	-33.4	-2.2
<b>★</b> 639707	2000	-380.4	-409.7	-	-	-	646805	2021	-410.1	-411.7	-415.8	-5.7	-4.1
639865	2001	-396.9	-419.4	-423.5	-26.6	-4.1	646826	2016	-391.8	-413.0	-414.2	-22.4	-1.2
639909	2000	-352.4	-362.9	-364.6	-12.2	-1.7	646828	2018	-384.8	-401.7	-406.0	-21.2	-4.3
639956	2001	-371.7	-391.4	-393.5	-21.8	-2.1	646904	2000	-360.5	-379.0	-379.3	-18.8	-0.3
640406	2016	-399.3	-404.8	-406.8	-7.5	-2.0	647205	1956	-297.0	-383.7	-384.0	-87.0	-0.3
640451	2014	-393.8	-399.6		-6.8	-1.0	647308	1969	-296.5	-298.3	-298.4	-1.9	-0.1
640707	2016	-396.0	-402.6	-404.8	-8.8	-2.2	647456	2018	-350.9	-357.4		-7.0	-0.5
640710	2020	-354.1	-354.8	-356.8	-2.7	-2.0	647554	2002	-318.4	-316.2		0.5	-1.7
644311	1956	-387.0	-525.9	-527.1	-140.1	-1.2	647604	1980	-286.4	-331.6	-332.9	-46.5	-1.3
644321	2014	-518.3	-536.0	-537.8	-19.5	-1.8	647806	2002	-352.1	-383.8		-35.5	-3.8
<b>★</b> 644325	2015	-494.4	-512.2	-523.0	-28.6	-10.8	648103	2016	-317.4	-319.1	-319.0	-1.6	0.1
644618	2006	-439.7	-469.7	-473.2	-33.5	-3.5	652101	1982	-194.6	-192.4	-192.5	2.1	-0.1
644656	2000	-433.0	-449.5	-449.1	-16.1	0.4	652229	2017	-214.8	-215.0	-215.2	-0.4	-0.2
645104	2001	-417.7	-460.5	-465.1	-47.4	-4.6	654605	2018	-387.6	-394.3	-396.0	-8.4	-1.7
<b>★</b> 645201	2013	-436.7	-458.3	-467.7	-31.0	-9.4	655113	1999	-369.5	-404.7	-407.2	-37.7	-2.5
<b>★</b> 645317	2023	-	-	-	-	-	655156	2002	-371.2	-404.7	-406.7	-35.5	-2.0
							656108	1968	-370.0	-318.9	-320.7	49.3	-1.8

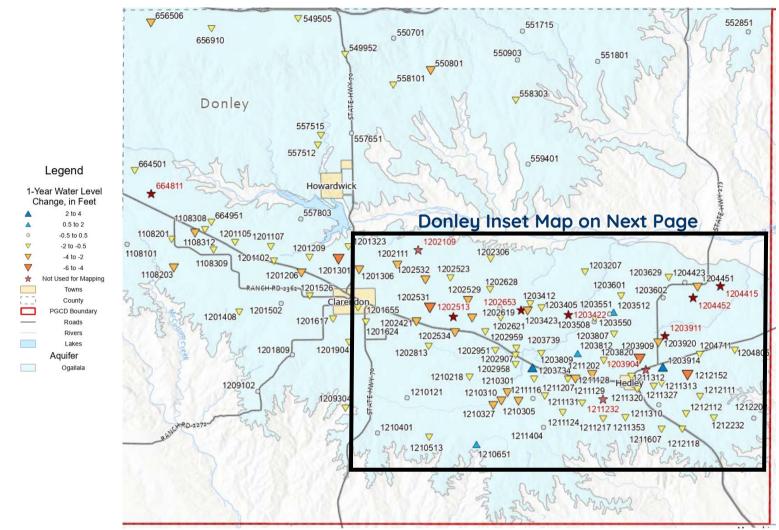
#### THE PANHANDLE RUNS ON WATER-AWARENESS CAMPAIGN

Texas Water Foundation (TWF) is a nonprofit organization that believes everything you love about Texas is rooted in water. TWF offers nonpartisan research-driven policy analysis and invites all Texans to participate in the future of our water.

One of the many ways TWF is involved in our area is through its Panhandle Runs on Water Campaign. This campaign brings awareness to how much the Panhandle uses and is fueled by water. From agriculture and beef industry statistics, to informative articles about the Ogallala Aquifer, TWF works hard to bring awareness to the fact that water is the key ingredient for life in The Panhandle. To see more information about The Panhandle Runs on Water, please visit https://texasrunsonwater.org/regions/panhandle.

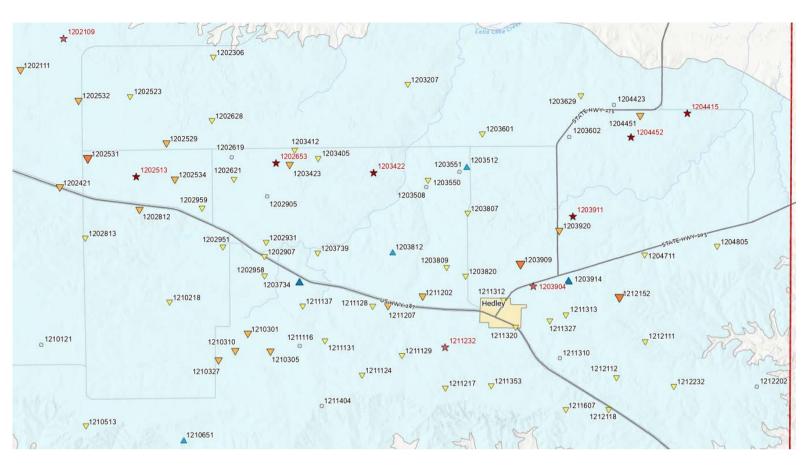


#### **DONLEY COUNTY OGALLALA AQUIFER 1-YEAR CHANGE**



	I	Donley Cou	inty - O	gallala /	Aquifer				Donley Cou	inty - O	gallala /	Aquifer	
Well	First Reading	Depth to	Water,	in feet	Water Level	Data Used to Make	Well	First Reading	Depth to	Water, i	in feet	Water Level	Data Used to Make
Number	Year	-			Difference	Maps	Number	Year	-			Difference	Maps
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference
549505	2018	-340.2	-351.5	-352.6	-12.4	-1.1	664501	1958	-109.3	-132.2	-133.2	-23.9	-1.0
549952	2010	-249.4	-255.6	-256.4	-7.0	-0.8	★ 664811	1976	-96.2	-129.0	-	-	-
550701	1976	-113.9	-112.5	-112.4	1.5	0.1	664951	2000	-62.8	-76.4	-76.9	-14.1	-0.5
550801	2001	-85.8	-103.5	-105.6	-19.8	-2.1	1108101	1999	-96.5	-107.3	-107.7	-11.2	-0.4
550903	1977	-120.0	-103.1	-103.3	16.7	-0.2	1108201	1958	-106.5	-142.0	-143.2	-36.7	-1.2
551715	1976	-133.5	-114.4	-114.7	18.8	-0.3	1108203	1977	-36.3	-61.5	-63.5	-27.2	-2.0
551801	1976	-95.7	-96.0	-96.3	-0.6	-0.3	1108308	1955	-54.5	-90.5	-91.7	-37.2	-1.2
552851	2001	-120.4	-125.3	-125.6	-5.2	-0.3	1108309	2001	-70.5	-98.6	-100.5	-30.0	-1.9
557512	1999	-38.7	-42.1	-43.6	-4.9	-1.5	1108312	2000	-68.6	-99.0	-101.4	-32.8	-2.4
557515	2018	-71.2	-71.3	-71.9	-0.7	-0.6	1201102	1958	-31.4	-45.8	-47.4	-16.0	-1.6
557651	2017	-90.7	-92.0	-92.3	-1.6	-0.3	1201105	2017	-86.8	-94.2	-94.8	-8.0	-0.6
557803	1976	-89.1	-91.1	-91.3	-2.2	-0.2	1201107	2004	-46.5	-56.1	-57.3	-10.8	-1.2
558101	2002	-107.0	-110.6	-111.4	-4.4	-0.8	1201206	1968	-79.1	-78.9	-81.8	-2.7	-2.9
558303	1977	-44.6	-46.2	-47.9	-3.3	-1.7	1201209	2010	-44.2	-54.6	-56.0	-11.8	-1.4
559401	2022	-113.6	-113.6	-113.7	-0.1	-0.1	1201301	1958	-27.6	-67.1	-71.7	-44.1	-4.6
656506	1999	-274.0	-354.7	-357.2	-83.2	-2.5	1201306	1976	-51.6	-80.1	-83.1	-31.5	-3.0
656910	2017	-330.2	-338.1	-339.5	-9.3	-1.4	1201323	2010	-124.1	-148.0	-149.8	-25.7	-1.8

## DONLEY COUNTY CONTINUED



	D	onley Cou	nty - Og	allala A	quifer			C	Oonley Cou	nty - Og	allala A	quifer	
Well Number	First Reading Year	Depth to	Water, i	in feet	Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to	Water, i	in feet	Water Level Difference	Data Used to Make Maps
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference
1201408	2017	-100.5	-103.3	-104.0	-3.5	-0.7	1202534	2012	-65.8	-84.1	-87.5	-21.7	-3.4
1201502	1968	-162.6	-136.3	-136.2	26.4	0.1	1202619	2010	-75.2	-98.0	-98.1	-22.9	-0.1
1201526	2010	-103.2	-107.7	-108.3	-5.1	-0.6	1202621	2010	-52.7	-74.5	-75.9	-23.2	-1.4
1201617	1980	-129.5	-121.5	-122.2	7.3	-0.7	1202628	2010	-49.5	-66.1	-67.7	-18.2	-1.6
1201624	1977	-112.2	-111.4	-112.8	-0.6	-1.4	<b>*</b> 1202653	2010	-99.0	-96.0	-	-	-
1201655	2001	-55.0	-70.2	-71.2	-16.2	-1.0	1202812	1977	-18.8	-46.3	-48.9	-30.1	-2.6
1201809	2015	-218.5	-213.4	-213.7	4.8	-0.3	1202813	2010	-81.9	-88.7	-89.6	-7.7	-0.9
1201904	1980	-152.4	-150.9	-151.9	0.5	-1.0	1202905	2010	-68.6	-85.2	-85.6	-17.0	-0.4
<b>★ 1202109</b>	2010	-96.0	-114.7	-107.9	-11.9	6.8	1202907	2000	-12.0	-22.1	-23.0	-11.0	-0.9
1202111	2015	-115.4	-124.9	-126.9	-11.5	-2.0	1202931	1977	-39.0	-48.9	-50.2	-11.2	-1.3
1202306	1977	-49.2	-56.6	-57.9	-8.7	-1.3	1202951	2007	-15.1	-29.9	-31.5	-16.4	-1.6
1202421	2010	-26.2	-40.6	-43.1	-16.9	-2.5	1202958	2008	-11.5	-22.3	-23.6	-12.1	-1.3
* 1202513	2010	-71.4	-101.8	-	-	-	1202959	2013	-60.5	-73.1	-75.0	-14.5	-1.9
1202523	2010	-84.4	-103.3	-104.5	-20.1	-1.2	1203207	1976	-77.1	-84.8	-85.3	-8.2	-0.5
1202529	2010	-75.5	-101.9	-105.3	-29.8	-3.4	1203405	2000	-62.9	-89.9	-91.4	-28.5	-1.5
1202531	2010	-59.4	-89.0	-93.5	-34.1	-4.5	1203412	2010	-80.6	-94.1	-95.2	-14.6	-1.1
1202532	2016	-75.1	-88.3	-90.9	-15.8	-2.6	★ 1203422	2010	-39.8	-47.5	-	-	-

## DONLEY COUNTY CONTINUED

	D	onley Cou	nty - Og	allala A	quifer			D	onley Cou	nty - Og	allala A	quifer
Well Number	First Reading Year	Depth to	Water, i	in feet	Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to	Water,	in feet	Wate Leve Differe
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial Curre Differe
1203423	2010	-89.6	-109.6	-111.8	-22.2	-2.2	1210305	1976	-31.5	-49.0	-51.1	-19.0
1203508	2012	-83.5	-79.5	-79.9	3.6	-0.4	1210310	2000	-19.8	-38.5	-40.8	-21.0
1203512	2010	-111.0	-115.0	-114.0	-3.0	1.0	1210327	2015	-47.0	-48.9	-51.7	-4.7
1203550	2010	-93.1	-90.4	-91.4	1.7	-1.0	1210401	1958	-111.6	-114.3	-114.4	-2.8
1203551	2010	-112.8	-115.6	-116.0	-3.2	-0.4	1210513	2004	-116.2	-118.5	-119.0	-2.8
1203601	1968	-103.7	-105.8	-106.7	-3.0	-0.9	1210651	2011	-67.8	-68.9	-68.1	-0.3
1203602	2010	-111.8	-123.7	-123.3	-11.5	0.4	1211116	2010	-112.4	-120.3	-120.6	-8.2
1203629	2018	-95.8	-100.0	-101.6	-5.8	-1.6	1211124	2009	-182.8	-190.2	-191.1	-8.3
1203734	2009	-34.9	-38.6	-35.9	-1.0	2.7	1211128	2021	-131.2	-133.2	-134.5	-3.3
1203739	2015	-27.1	-29.4	-29.9	-2.8	-0.5	1211129	2009	-167.7	-169.2	-170.1	-2.4
1203807	2017	-125.3	-129.3	-130.3	-5.0	-1.0	1211131	2009	-76.2	-84.1	-84.8	-8.6
1203809	2009	-55.3	-65.1	-66.1	-10.8	-1.0	1211137	2017	-113.1	-115.2	-116.5	-3.4
1203812	2012	-81.7	-93.4	-92.5	-10.8	0.9	1211202	2015	-56.6	-55.2	-58.2	-1.6
1203820	2010	-70.5	-78.7	-79.8	-9.3	-1.1	1211207	1961	-82.4	-115.2	-118.6	-36.2
<b>★</b> 1203904	1978	-69.8	-82.8	-90.4	-20.6	-7.6	1211217	2017	-143.7	-146.1	-146.9	-3.2
1203909	2010	-83.8	-98.6	-103.1	-19.3	-4.5	<b>*</b> 1211232	2010	-165.5	-191.2	-181.0	-15.
<b>*</b> 1203911	2007	-46.8	-56.2	-	-	-	1211310	1976	-85.0	-81.1	-80.7	4.3
1203914	2010	-96.6	-113.7	-111.6	-15.0	2.1	1211312	2010	-57.4	-68.2	-69.8	-12.4
1203920	2014	-51.9	-56.2	-58.7	-6.8	-2.5	1211313	2010	-147.1	-161.8	-162.5	-15.4
<b>★</b> 1204415	2010	-97.0	-111.0	-	-	-	1211320	2009	-83.1	-92.9	-94.5	-11.4
1204423	2017	-125.6	-132.7	-133.1	-7.5	-0.4	1211327	2010	-119.0	-129.4	-130.6	-11.
1204451	2007	-122.6	-144.1	-146.3	-23.7	-2.2	1211353	1997	-104.1	-113.2	-114.1	-10.
<b>★</b> 1204452	2009	-127.4	-	-	-	-	1211404	1976	-191.1	-201.1	-201.3	-10.3
1204711	2009	-45.0	-38.8	-40.0	5.0	-1.2	1211607	2009	-133.3	-136.0	-137.4	-4.1
1204805	1982	-42.2	-40.7	-41.3	0.9	-0.6	1212111	2009	-59.5	-64.8	-65.5	-6.0
1209102	2001	-99.7	-102.0	-102.4	-2.7	-0.4	1212112	2007	-85.2	-88.6	-90.1	-4.9
1209304	1976	-22.7	-27.6	-28.7	-6.0	-1.1	1212118	2009	-72.9	-92.2	-93.3	-20.4
1210121	2006	-129.3	-137.8	-138.1	-8.8	-0.3	1212152	2009	-94.5	-99.9	-104.7	-10.
1210218	1976	-67.9	-68.4	-68.9	-1.0	-0.5	1212202	1976	-89.8	-87.7	-87.8	2.0
1210301	2000	-9.2	-25.4	-27.4	-18.2	-2.0	1212232	2009	-109.3	-109.5	-110.5	-1.2



PGCD's Xeriscape Garden

#### XERISCAPE GARDENING

Xeriscape is a method of gardening that requires choosing the appropriate plants for the location which can be maintained with little supplemental watering. Advantages include: Lower water bills, more water available for other uses, less time and work needed for maintenance, little to no lawn mowing, and it provides an increased habitat for native bees, butterflies and other fauna. If you would like more information about drought tolerant plants, please contact Aspen Edgar 806-883-2501 website at or visit our at www.pgcd.us/xeriscape-garden.

Water

Level

Difference

Initial To

Current

Difference -19.6

-21.0

-4.7

-2.8

-0.3

-8.3

-2.4

-3.4

-1.6

-36.2

-3.2

-15.5

-12.4

-15.4

-11.4

-11.6

-10.0

-10.2

-6.0

-20.4

-10.2

-1.2

Data Used

to Make

Maps

1Year

Difference

-2.1

-2.3

-2.8

-0.1

-0.5

0.8

-0.3

-0.9

-1.3

-0.9

-0.7

-1.3

-3.0

-3.4

-0.8

10.2

0.4

-1.6

-0.7

-1.6

-1.2

-0.9

-0.2

-1.4

-0.7

-1.5

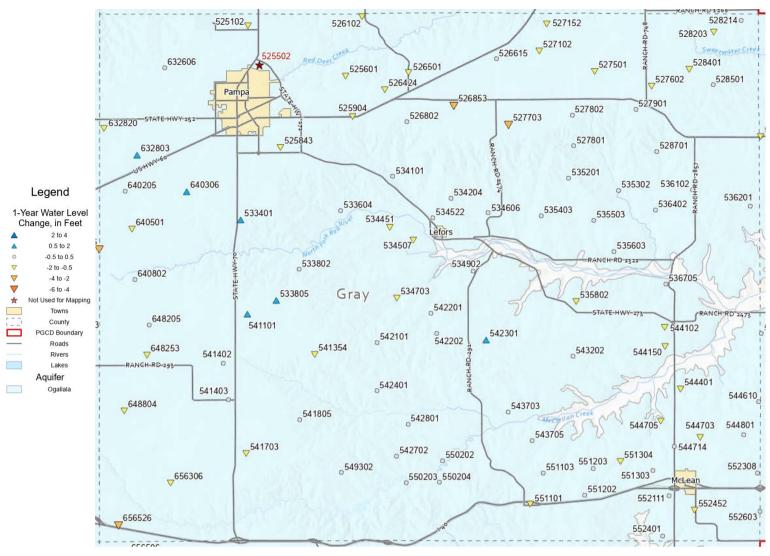
-1.1

-4.8

-0.1

-1.0

#### **GRAY COUNTY OGALLALA AQUIFER 1-YEAR CHANGE**



		Gray Cou	nty - Og	gallala /	Aquifer				Gray Cou	nty - O	gallala A	Aquifer	
Well Number	First Reading Year	Depth to \	Nater, i	in feet	Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to	Water, i	in feet	Water Level Difference	Data Used to Make Maps
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference
525102	2014	-393.7	-392.7	-393.8	-0.1	-1.1	527901	1958	-331.5	-343.5	-343.4	-11.9	0.1
<b>★</b> 525502	1969	-352.1	-354.4	-	-	-	528203	1994	-340.6	-344.7	-345.2	-4.6	-0.5
525601	2002	-369.0	-372.4	-374.1	-5.1	-1.7	528214	2012	-348.2	-351.3	-351.4	-3.2	-0.1
525843	2014	-377.8	-379.0	-380.4	-2.6	-1.4	528401	1958	-320.6	-336.7	-337.8	-17.2	-1.1
525904	1958	-347.9	-371.8	-372.6	-24.7	-0.8	528501	1974	-297.0	-287.3	-287.4	9.6	-0.1
526102	2006	-370.0	-360.8	-361.4	8.6	-0.6	528701	2014	-112.5	-114.1	-114.3	-1.8	-0.2
526424	2019	-380.9	-381.8	-382.6	-1.7	-0.8	533401	1958	-324.8	-352.7	-350.8	-26.0	1.9
526615	2015	-370.7	-384.5	-384.9	-14.2	-0.4	533604	1999	-76.7	-79.1	-79.2	-2.5	-0.1
526802	1999	-355.2	-361.8	-361.6	-6.4	0.2	533802	1971	-210.0	-212.2	-212.3	-2.3	-0.1
526853	1999	-364.7	-373.6	-376.4	-11.7	-2.8	533805	2010	-342.9	-345.6	-344.9	-2.0	0.7
527102	1961	-343.1	-372.5	-373.7	-30.6	-1.2	534101	1966	-150.0	-143.8	-144.2	5.8	-0.4
527152	2009	-344.3	-353.3	-354.0	-9.7	-0.7	534204	1965	-180.0	-197.2	-196.7	-16.7	0.5
527501	1980	-346.1	-357.2	-359.1	-13.0	-1.9	534451	2002	-108.8	-111.7	-112.4	-3.6	-0.7
527602	1975	-324.0	-338.2	-339.3	-15.3	-1.1	534507	1977	-33.2	-35.1	-35.6	-2.4	-0.5
527703	1980	-360.2	-378.8	-380.8	-20.6	-2.0	534522	2016	-54.0	-76.7	-76.9	-22.9	-0.2
527801	1968	-117.0	-136.8	-137.1	-20.1	-0.3	534606	1977	-74.0	-75.5	-75.6	-1.6	-0.1
527802	1975	-342.0	-347.6	-347.7	-5.7	-0.1	534703	1962	-85.0	-77.1	-77.6	7.4	-0.5

#### **GRAY COUNTY CONTINUED**

		Gray Cou	intv - Oa	zallala /	Aquifer				Gray Cou	ntv - Oa	zallala /	Aquifer	
Well Number	First Reading Year	Depth to	, ,		Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to	, ,	-	Water Level Difference	Data Used to Make Maps
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference
534902	1977	-73.0	-71.9	-71.8	1.2	0.1	544610	1967	-178.0	-187.4	-187.8	-9.8	-0.4
535201	1968	-109.9	-123.1	-123.3	-13.4	-0.2	544703	1977	-132.6	-132.3	-132.8	-0.2	-0.5
535302	1969	-14.0	-17.2	-17.3	-3.3	-0.1	544705	1977	-66.0	-66.1	-66.7	-0.7	-0.6
535403	1968	-120.0	-127.2	-127.3	-7.3	-0.1	544714	2006	-109.8	-116.7	-117.1	-7.3	-0.4
535503	1978	-77.0	-76.9	-76.8	0.2	0.1	544801	1968	-116.1	-115.5	-115.3	0.8	0.2
535603	1977	-77.0	-77.4	-77.6	-0.6	-0.2	549302	2005	-214.0	-197.7	-197.8	16.2	-0.1
535802	1968	-116.2	-120.2	-120.7	-4.5	-0.5	550202	1977	-25.7	-23.9	-23.7	2.0	0.2
536102	1979	-163.0	-168.5	-168.7	-5.7	-0.2	550203	1977	-58.4	-57.9	-57.7	0.7	0.2
536201	1968	-143.2	-153.4	-153.8	-10.6	-0.4	550204	1978	-55.1	-52.8	-53.1	2.0	-0.3
536402	1978	-9.3	-8.6	-8.7	0.6	-0.1	551101	1968	-216.0	-216.7	-217.6	-1.6	-0.9
536705	1978	-5.5	-6.8	-6.9	-1.4	-0.1	551103	1991	-138.7	-139.4	-139.7	-1.0	-0.3
541101	1958	-339.6	-377.9	-377.2	-37.6	0.7	551202	1977	-193.9	-195.6	-195.9	-2.0	-0.3
541354	2012	-354.8	-361.5	-362.2	-7.4	-0.7	551203	1977	-152.0	-158.6	-158.9	-6.9	-0.3
541402	2015	-318.8	-320.6	-320.7	-1.9	-0.1	551303	1968	-110.7	-113.7	-113.5	-2.8	0.2
541403	1981	-290.4	-297.7	-298.1	-7.7	-0.4	551304	1978	-76.4	-79.5	-80.1	-3.7	-0.6
541703	2019	-260.6	-260.8	-261.8	-1.2	-1.0	552111	1977	-112.6	-112.0	-111.9	0.7	0.1
541805	2018	-269.8	-267.2	-267.6	2.2	-0.4	552308	1967	-107.0	-105.9	-106.3	0.7	-0.4
542101	1968	-252.2	-264.2	-264.3	-12.1	-0.1	552401	1968	-85.8	-74.4	-74.8	11.0	-0.4
542201	1968	-127.7	-132.8	-132.9	-5.2	-0.1	552452	2001	-105.7	-113.1	-114.2	-8.5	-1.1
542202	1977	-257.6	-263.1	-263.3	-5.7	-0.2	552603	1967	-21.0	-21.6	-21.7	-0.7	-0.1
542301	1968	-136.4	-141.7	-140.9	-4.5	0.8	632606	1980	-378.8	-368.5	-368.9	9.9	-0.4
542401	1968	-193.9	-203.5	-203.4	-9.5	0.1	632803	1967	-375.0	-397.5	-395.8	-20.8	1.7
542702	1978	-144.7	-145.7	-145.9	-1.2	-0.2	632820	2015	-369.2	-369.7	-370.2	-1.0	-0.5
542801	1968	-76.6	-82.1	-82.3	-5.7	-0.2	640205	1982	-384.3	-389.7	-389.8	-5.5	-0.1
543202	1978	-111.4	-112.9	-113.2	-1.8	-0.3	640306	1980	-389.4	-391.9	-391.0	-1.6	0.9
543703	1968	-15.3	-16.7	-16.8	-1.5	-0.1	640501	1980	-362.7	-379.4	-380.2	-17.5	-0.8
543705	1967	-105.0	-107.8	-107.7	-2.7	0.1	640802	1968	-326.5	-376.6	-376.9	-50.4	-0.3
544102	1977	-140.7	-141.5	-142.4	-1.7	-0.9	648205	2014	-378.8	-383.1	-383.3	-4.5	-0.2
544150	2022	-38.1	-38.1	-38.8	-0.7	-0.7	648253	1974	-340.0	-361.8	-362.8	-22.8	-1.0
544401	1968	-64.0	-67.3	-68.9	-4.9	-1.6	648804	2013	-289.8	-293.3	-293.8	-4.0	-0.5
							656306	1980	-273.6	-293.6	-294.8	-21.2	-1.2

656526

2013

-304.4

## RAINWATER HARVESTING REBATE PROGRAM

Rainwater Harvesting (RWH) is the collection and storage of rain from roofs or from surface catchment for future use. The water is stored in tanks to be saved or directed into mechanisms used for groundwater recharge.

PGCD is offering a rebate incentive for residents, landowners and tenants in our District interested in installing a RWH System. Visit www.pgcd.us/rainwaterharvesting for more information and to see if you qualify to participate in the program.



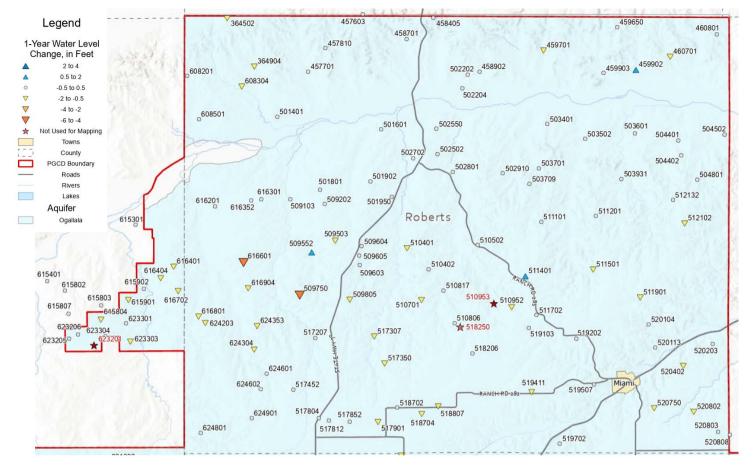
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Catchment System at PGCD's Office

## HUTCHINSON & ROBERTS COUNTY OGALLALA AQUIFER 1-YEAR CHANGE

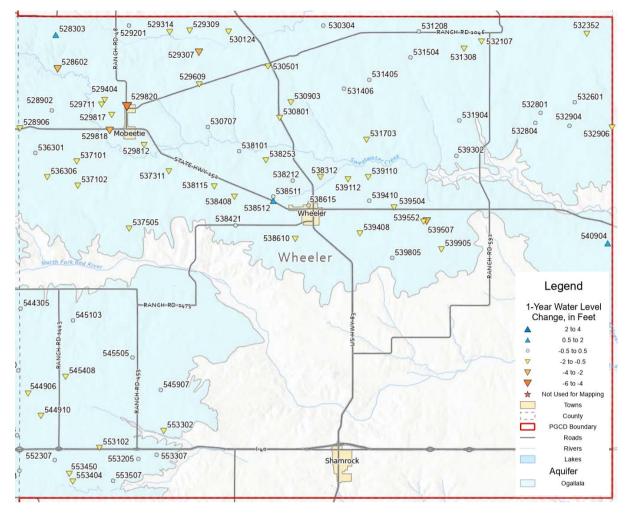


	Hut	chinson Co	unty - C	Ogallala	Aquifer			R	oberts Cou	inty - O	gallala /	Aquifer	
Well Number	First Reading Year	Depth to	Water, i	in feet	Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to V	Water,	in feet	Water Level Difference	Data Used to Make Maps
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference
615301	1999	-131.2	-116.2	-116.5	14.7	-0.3	364502	1977	-412.0	-462.1	-463.4	-51.4	-1.3
615401	2008	-137.2	-133.9	-134.2	3.0	-0.3	364904	2000	-108.6	-120.7	-121.6	-13.0	-0.9
615802	1982	-166.5	-157.2	-157.3	9.2	-0.1	457603	2006	-401.6	-415.6	-415.3	-13.7	0.3
615803	1999	-79.1	-81.1	-81.3	-2.2	-0.2	457701	2003	-21.8	-30.8	-31.2	-9.4	-0.4
615804	1999	-111.4	-111.2	-111.9	-0.5	-0.7	457810	2000	-253.4	-261.9	-262.1	-8.7	-0.2
615807	2019	-146.6	-147.0	-147.3	-0.7	-0.3	458405	2000	-337.8	-348.3	-348.4	-10.6	-0.1
615901	1999	-73.3	-75.3	-77.1	-3.8	-1.8	458701	1981	-76.1	-95.5	-95.9	-19.8	-0.4
615902	2004	-25.7	-25.4	-25.5	0.2	-0.1	458902	2004	-117.0	-120.9	-121.1	-4.1	-0.2
616401	2001	-294.6	-290.9	-291.9	2.7	-1.0	459650	2000	-275.8	-269.3	-269.7	6.1	-0.4
616404	1999	-101.8	-101.7	-102.3	-0.5	-0.6	459701	1980	-48.4	-55.4	-56.1	-7.7	-0.7
616702	2003	-236.7	-247.7	-248.2	-11.5	-0.5	459902	1999	-46.6	-48.7	-48.1	-1.5	0.6
★ 623201	1955	-190.0	-201.8	1	-	-	459903	1999	-39.7	-42.3	-42.6	-2.9	-0.3
623205	2004	-154.6	-157.9	-158.1	-3.5	-0.2	460701	1996	-96.9	-97.8	-98.3	-1.4	-0.5
623206	2016	-197.1	-197.7	-198.1	-1.0	-0.4	460801	1982	-189.2	-186.6	-186.6	2.6	0.0
623301	1999	-116.2	-117.0	-117.4	-1.2	-0.4	501401	1982	-49.8	-56.1	-56.4	-6.6	-0.3
623303	2003	-103.8	-98.1	-98.6	5.2	-0.5	501601	2008	-84.0	-84.7	-84.9	-0.9	-0.2
623304	2004	-190.8	-191.6	-191.9	-1.1	-0.3	501801	1969	-240.0	-245.3	-245.7	-5.7	-0.4

# **ROBERTS COUNTY CONTINUED**

	R	oberts Cou	inty - Og	gallala /	Aquifer			R	oberts Cou	inty - O	gallala /	Aquifer	
Well	First				Water	Data Used	Well	First				Water	Data Used
	Reading	Depth to	Water, i	in feet	Water Level	to Make		Reading	Depth to	Water,	in feet	Water Level	to Make
Number	Year				Difference	Maps	Number	Year				Difference	Maps
		Initial			Initial To	1 Year			Initial			Initial To	1 Year
		Depth	2022	2023	Current	Difference				2022	2023	Current	Difference
		Depth			Difference	Difference			Depth			Difference	Difference
501902	1998	-188.6	-210.5	-210.4	-21.8	0.1	512132	2019	-329.6	-329.8	-330.1	-0.5	-0.3
501950	2003	-127.6	-133.6	-133.9	-6.3	-0.3	517207	2012	-195.9	-209.2	-209.1	-13.2	0.1
502202	1983	-70.8	-71.5	-71.9	-1.1	-0.4	517307	2010	-120.7	-146.1	-146.7	-26.0	-0.6
502204	2007	-18.4	-13.8	-14.2	4.2	-0.4	517350	2002	-340.0	-361.3	-362.4	-22.4	-1.1
502502	1975	-112.0	-108.2	-108.3	3.7	-0.1	517452	2002	-355.2	-365.1	-365.5	-10.3	-0.4
502550	2000	-101.1	-102.8	-102.7	-1.6	0.1	517804	1980	-396.6	-406.9	-407.2	-10.6	-0.3
502702	1981	-54.8	-60.9	-60.7	-5.9	0.2	517812	2017	-402.1	-404.5	-404.4	-2.3	0.1
502801	1974	-11.0	-8.6	-8.7	2.3	-0.1	517852	2001	-405.7	-411.8	-412.1	-6.4	-0.3
502910	2012	-166.9	-168.7	-168.8	-1.9	-0.1	517901	1996	-390.3	-399.2	-400.2	-9.9	-1.0
503401	1970	-95.0	-100.8	-101.0	-6.0	-0.2	518206	2010	-391.9	-457.1	-457.1	-65.2	0.0
503502	1999	-29.5	-32.8	-33.1	-3.6	-0.3	★ 518250	2002	-332.6	-490.6	-486.2	-153.6	4.4
503601	1981	-85.0	-87.2	-87.1	-2.1	0.1	518702	1975	-387.3	-397.2	-397.3	-10.0	-0.1
503701	1975	-85.4	-87.6	-87.7	-2.3	-0.1	518704	1996	-381.2	-389.6		-9.0	-0.6
503709	2005	-276.3	-279.8	-280.0	-3.7	-0.2	518807	2010	-372.3	-383.5	-384.8	-12.5	-1.3
503931	2011	-50.3	-52.6	-52.8	-2.5	-0.2	519103	2012	-424.6	-420.8		3.7	-0.1
504401	1976	-99.1	-100.8	-101.1	-2.0	-0.3	519202	1998	-362.0	-387.8	-388.2	-26.2	-0.4
504402	1996	-167.0		-168.8	-1.8	0.3	519411	2014	-364.0	-368.3		-5.6	-1.3
504502	1977	-116.7	-116.8	-116.9	-0.2	-0.1	519507	2018	-296.4	-295.2	-295.6	0.8	-0.4
504801	1982	-221.8	-162.7	-162.8	59.0	-0.1	519702	1972	-294.0	-267.3		26.9	0.2
509103	2015	-51.0	-58.7	-58.5	-7.5	0.2	520104	1976	-150.0	-151.1	-151.3	-1.3	-0.2
509202	1996	-241.3	-273.1	-273.1	-31.8	0.0	520113	2009	-65.5	-75.7	-75.4	-9.9	0.3
509503	2002	-249.4	-287.3	-288.9	-39.5	-1.6	520203	1977	-112.2	-113.6	-113.7	-1.5	-0.1
509552	2002	-78.9	-138.9	-136.9	-58.0	2.0	520402	1970	-302.0	-298.4	-298.9	3.1	-0.5
509603	1980	-181.3	-221.6	-221.7	-40.4	-0.1	520750	2000	-291.1	-294.1	-294.6	-3.5	-0.5
509604	2003	-180.2		-207.1	-26.9	-0.3	520802	1981	-245.2	-246.2	-246.8	-1.6	-0.6
509605	2004	-231.3		-262.7	-31.4	0.1	520803	2011	-327.8		-327.8	0.0	0.0
509750	1999	-283.5		-497.2		-5.2	520808	2012	-315.3		-316.6	-1.3	0.1
509805	1999	-302.2		-334.3		-1.1	608201	1982	-160.3		-183.6	-23.3	-0.2
510401	1976	-166.1		-173.6		-0.7	608304	2009	-79.8	-87.3	-88.1	-8.3	-0.8
510402	2004	-250.1		-296.5		0.1	608501	1982	-56.7	-67.8	-67.9	-11.2	-0.1
510502	1977	-240.2		-263.4		-0.2	616201	2003	-144.5		-149.1	-4.6	0.2
510701	2004	-273.5		-372.7	-99.2	-1.7	616301	1975	-198.0		-190.7	7.3	-0.3
510806	2010	-286.5		-448.3	-161.8	-0.1	616352	2003	-179.8		-190.9	-11.1	-0.2
510817	2012	-186.6		-205.7		-0.2	616601	1999	-215.9		-290.2	-74.3	-4.3
510952	2001	-345.4	-415.3	-416.1	-70.7	-0.8	616801	1977	-212.6		-231.7	-19.1	-0.9
★ 510953	1998	-178.0	-	-	-	-	616904	1998	-224.3		-333.7	-109.4	-1.5
511101	1977	-281.6		-295.2	-13.6	-0.1	624203	1999	-240.4		-256.8	-16.4	-1.6
511201	1977	-292.2		-296.2	-4.0	0.5	624304	1999	-279.3		-317.7	-38.4	-1.4
511401	1976	-344.1		-328.1	16.0	1.2	624353	1999	-295.1		-380.3	-85.2	-1.7
511501	1981	-307.8		-325.3		-1.7	624601	1996	-200.4		-214.9	-14.5	-0.2
511702	1977	-358.4		-458.7	-100.3	-0.1	624602	2001	-327.1		-328.4	-1.3	0.2
511901	1982	-273.3		-285.6	-12.3	-0.9	624801	1977	-77.5		-113.0	-35.5	-0.1
512102	1999	-281.7	-281.1	-282.3	-0.6	-1.2	624901	1976	-350.5	-362.2	-362.3	-11.8	-0.1

#### WHEELER COUNTY OGALLALA AQUIFER 1-YEAR CHANGE



	W	/heeler Cou	inty - Og	gallala /	Aquifer			N	/heeler Cou	nty - Og	gallala /	Aquifer	
Well	First				Water	Data Used	Well	First				Water	Data Used
Number	Reading	Depth to V	Vater, i	n feet	Level	to Make	Number	Reading	Depth to V	Vater, i	n feet	Level	to Make
Number	Year				Difference	Maps	Number	Year				Difference	Maps
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference
528303	2000	-297.4	-299.6	-298.7	-1.3	0.9	530501	1953	-97.6	-109.9	-111.2	-13.6	-1.3
528602	1979	-111.0	-118.1	-120.2	-9.2	-2.1	530707	1980	-13.8	-14.2	-14.1	-0.3	0.1
528902	1978	-24.7	-40.3	-40.7	-16.0	-0.4	530801	1960	-60.9	-69.1	-69.8	-8.9	-0.7
528906	2003	-167.0	-178.2	-180.1	-13.1	-1.9	530903	1978	-80.9	- <mark>81</mark> .3	-82.1	-1.2	-0.8
529201	1956	-140.2	-141.2	-141.3	-1.1	-0.1	531208	2012	-155.9	-155.7	-156.1	-0.2	-0.4
529307	1975	-135.0	-118.4	-120.7	14.3	-2.3	531308	2019	-55.0	-56.9	-57.4	-2.4	-0.5
529309	2018	-93.1	-92.5	-93.1	0.0	-0.6	531405	2000	-11.7	-16.2	-16.4	-4.7	-0.2
529314	2018	-66.2	-66.8	-67.8	-1.6	-1.0	531406	1976	-95.0	-83.1	-83.5	11.5	-0.4
529404	2004	-65.4	-68.1	-68.9	-3.5	-0.8	531504	1980	-38.6	-35.1	-35.2	3.4	-0.1
529609	1999	-57.9	-59.3	-60.4	-2.5	-1.1	531703	1971	-104.0	-90.4	-91.2	12.8	-0.8
529711	1967	-60.0	-72.2	-73.1	-13.1	-0.9	531904	2008	-73.8	-78.1	-78.5	-4.7	-0.4
529812	1967	-24.0	-25.3	-25.8	-1.8	-0.5	532107	1978	-54.6	-54.9	-55.4	-0.8	-0.5
529817	1979	-73.3	-72.3	-72.9	0.4	-0.6	532352	2003	-98.4	-93.8	-95.1	3.3	-1.3
529818	1979	-51.2	-58.3	-60.9	-9.7	-2.6	532601	1980	-97.8	-70.8	-71.2	26.6	-0.4
529820	1987	-64.0	-75.3	-80.7	-16.7	-5.4	532801	1980	-20.8	-1.5	-1.5	19.3	0.0
530124	2006	-26.3	-27.8	-29.6	-3.3	-1.8	532804	1999	-18.0	-17.8	-17.9	0.1	-0.1
530304	1982	-90.6	-86.5	-86.9	3.7	-0.4	532904	2001	-62.4	-65.3	-65.4	-3.0	-0.1

	W	/heeler Cou	nty - O	gallala /	Aquifer			v	/heeler Cou	inty - O	gallala /	Aquifer	
Well Number	First Reading Year	Depth to V	Vater, i	n feet	Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to \	Vater, i	n feet	Water Level Difference	Data Used to Make Maps
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference
532906	2006	-18.8	-17.7	-19.2	-0.4	-1.5	539410	2011	-28.9	-30.3	-30.7	-1.8	-0.4
536301	2001	-121.0	-147.9	-148.1	-27.1	-0.2	539504	1986	-62.0	-47.1	-47.7	14.3	-0.6
536306	2012	-61.5	-68.2	-69.6	-8.1	-1.4	539507	2008	-25.2	-34.8	-36.8	-11.6	-2.0
537101	2000	-81.8	-90.6	-91.2	-9.4	-0.6	539552	2000	-23.6	-33.2	-34.7	-11.1	-1.5
537102	2001	-52.7	-61.3	-61.9	-9.2	-0.6	539805	2022	-54.6	-54.6	-54.9	-0.3	-0.3
537311	1980	-24.2	-27.1	-27.9	-3.7	-0.8	539905	1977	-35.0	-41.3	-42.3	-7.3	-1.0
537505	1975	-71.0	-64.1	-64.6	6.4	-0.5	540904	2018	-91.7	-92.6	-91.6	0.1	1.0
538101	1956	-1.9	-7.7	-7.8	-5.9	-0.1	544305	1980	-87.4	-89.3	-89.6	-2.2	-0.3
538115	2019	-140.3	-139.1	-139.8	0.5	-0.7	544906	1974	-100.0	-111.2	-111.7	-11.7	-0.5
538212	2010	-67.7	-71.0	-71.4	-3.7	-0.4	544910	2010	-91.5	-95.8	-96.5	-5.0	-0.7
538253	2002	-92.5	-100.8	-101.4	-8.9	-0.6	545103	1979	-8.9	-6.9	-7.3	1.6	-0.4
538312	2014	-60.6	-59.5	-60.1	0.5	-0.6	545408	1980	-111.0	-110.3	-110.9	0.1	-0.6
538408	1979	-88.8	-107.5	-108.4	-19.6	-0.9	545505	1979	-109.5	-107.6	-107.9	1.6	-0.3
538421	2018	-102.5	-102.9	-102.8	-0.3	0.1	545907	1980	-53.0	-50.1	-50.4	2.6	-0.3
538511	1977	-28.0	-46.6	-46.9	-18.9	-0.3	552307	1980	-79.8	-78.3	-78.5	1.3	-0.2
538512	1977	-29.0	-54.3	-53.6	-24.6	0.7	553102	1979	-65.3	-75.1	-76.0	-10.7	-0.9
538610	1978	-69.3	-71.5	-72.6	-3.3	-1.1	553205	2010	-29.5	-32.2	-31.9	-2.4	0.3
538615	2006	-39.0	-36.3	-36.4	2.6	-0.1	553302	1999	-16.6	-28.9	-30.1	-13.5	-1.2
539110	2007	-75.5	-76.7	-77.3	-1.8	-0.6	553307	2011	-38.5	-41.7	-41.8	-3.3	-0.1
539112	2011	-38.3	-40.9	-41.4	-3.1	-0.5	553404	2000	-7.7	-10.1	-10.8	-3.1	-0.7
539302	1999	-36.3	-49.4	-49.8	-13.5	-0.4	553450	2001	-38.8	-43.9	-44.4	-5.6	-0.5
539408	1978	-5.4	-6.6	-7.2	-1.8	-0.6	553507	2010	-37.9	-40.9	-41.3	-3.4	-0.4

#### WHEELER COUNTY CONTINUED

# SUMMER RAINFALL TOTALS

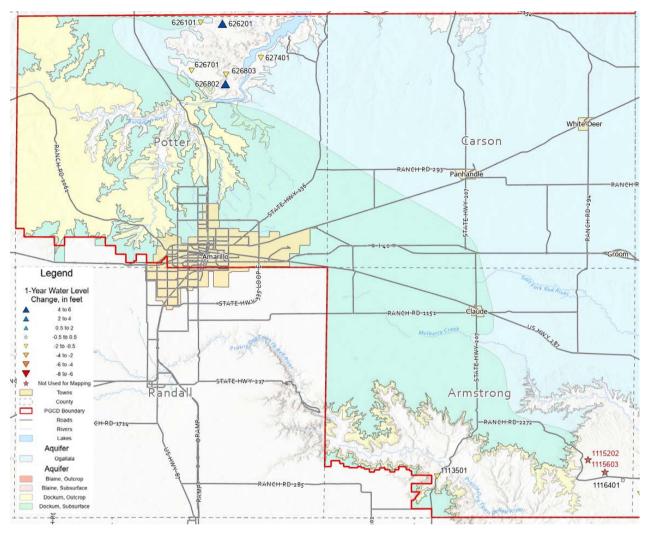
The El Niño/Southern Oscillation (ENSO) Diagnostics Discussion issued by the Climate Prediction Center on July 13 predicted there is a greater than 90% chance that El Niño will continue throughout the Northern Hemisphere this winter. For more information and to read the full report, please visit http://www.cpc.ncep.noaa.gov/.

See the chart below for the average rainfall across District counties in inches. This information was found using data from West Texas Mesonet and from the District's annual rain gauge participants. If you want to become a partner or want more information on rainfall data, please contact PGCD Hydrogeologist Ashley Ausbrooks at 806-883-2501 or by email at araepgcd.us

County	January	February	March	April	May	June	Average Total from Jan-June
Armstrong	0.46	0.37	0.32	1.53	7.36	4.51	14.55
Carson	0.29	0.22	0.38	1.08	7.27	5.95	15.19
Donley	0.61	0.38	0.32	1.50	5.90	2.28	10.99
Gray	0.46	0.54	0.23	1.44	6.14	5.42	14.23
Potter	0.33	0.19	0.40	0.52	9.13	4.19	14.76
Roberts	0.19	0.34	0.20	1.55	5.67	6.80	14.75
Wheeler	0.56	0.58	0.13	1.68	5.80	7.35	16.10
District Average	0.41	0.37	0.28	1.33	6.75	5.21	14.37

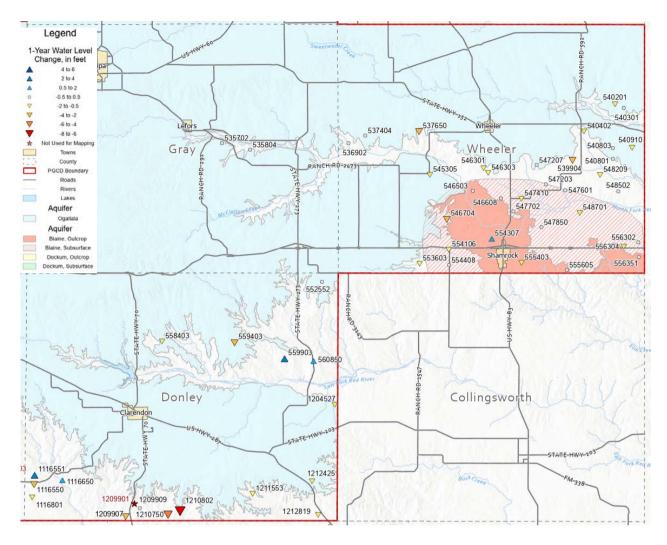
#### Average Rainfall per County in Inches

## ARMSTRONG, CARSON, DONLEY, GRAY, POTTER & WHEELER COUNTIES-BLAINE AQUIFER



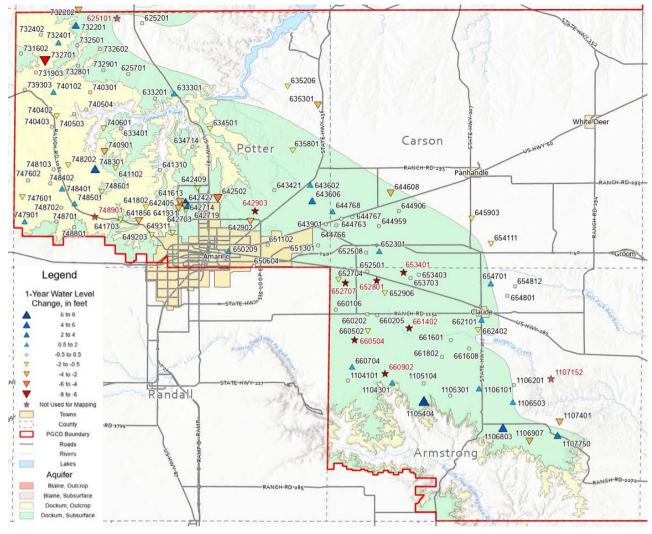
Armstrong, Carson, Donley, Gray, Potter & Wheeler Counties - Blaine Aquifer								Armstrong, Carson, Donley, Gray, Potter & Wheeler Counties - Blaine Aquifer							
Well Number	First Reading Year	Depth to Water, in feet		Water Level Difference	Data Used to Make Maps	Reading Depth to Water in feet				Water Level Difference	Data Used to Make Maps				
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference		
535702	1974	-21.0	-22.8	-22.9	-1.9	-0.1	547203	1956	-25.1	-30.6	-30.8	-5.7	-0.2		
535804	2019	-39.6	-39.6	-39.6	0.0	0.0	547207	2022	-72.3	-72.3	-72.7	-0.4	-0.4		
536902	2001	-28.6	-10.9	-11.3	17.3	-0.4	547410	1999	-21.1	-25.3	-25.8	-4.7	-0.5		
537404	2019	-58.2	-58.9	-59.3	-1.1	-0.4	547601	2000	-47.3	-54.2	-54.6	-7.3	-0.4		
537650	1999	-7.0	-13.3	-15.9	-8.9	-2.6	547702	1999	-30.3	-36.6	-36.6	-6.3	0.0		
540201	1999	-7.3	-8.2	-8.9	-1.6	-0.7	547850	2002	-88.0	-103.2	-102.7	-14.7	0.5		
540301	1999	-34.7	-37.8	-38.2	-3.5	-0.4	548209	2019	-34.8	-32.2	-32.8	2.0	-0.6		
540402	2001	-33.0	-36.8	-37.8	-4.8	-1.0	548502	1999	-31.1	-34.7	-35.1	-4.0	-0.4		
540801	2000	-20.2	-18.7	-18.8	1.4	-0.1	548701	2000	-8.8	-30.4	-31.2	-22.4	-0.8		
540803	2000	-10.4	-6.6	-6.5	3.9	0.1	552552	2002	-95.6	-101.6	-101.5	-5.9	0.1		
540910	2009	-48.8	-48.4	-48.9	-0.1	-0.5	553603	2000	-55.1	-44.1	-44.7	10.4	-0.6		
545305	1979	-74.7	-76.3	-77.1	-2.4	-0.8	554106	1966	-60.0	-60.6	-61.9	-1.9	-1.3		
546301	1999	-7.5	-19.5	-20.8	-13.3	-1.3	554307	2002	-40.8	-52.7	-51.7	-10.9	1.0		
546303	1999	-8.9	-10.4	-11.3	-2.4	-0.9	554408	2001	-83.5	-88.8	-88.7	-5.2	0.1		
546503	2001	-34.2	-38.9	-39.3	-5.1	-0.4	555403	1999	-74.0	-81.1	-81.6	-7.6	-0.5		
546608	1999	-19.5	-47.3	-47.2	-27.7	0.1	555605	2000	-80.4	-100.3	-100.5	-20.1	-0.2		
546704	1999	-89.5	-108.7	-112.4	-22.9	-3.7	556302	2000	-30.6	-10.5	-10.9	19.7	-0.4		

#### ARMSTRONG, CARSON, DONLEY, GRAY, POTTER & WHEELER COUNTIES-BLAINE AQUIFER CONTINUED



Armstrong,	Vheeler Coun	ties - Blaine Aquifer	Armstrong	, Carson, I	Donley, G	ray, Pot	ter & V	/heeler Coun	ties - Blaine Aquifer				
Well Number	First Reading Year	Depth to Water, in feet		Water Level Difference	Data Used to Make Maps	Well Number	First Reading Year	Depth to Water, i		in feet	Water Level Difference	Data Used to Make Maps	
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference			Initial Depth	2022	2023	Initial To Current Difference	1 Year Difference
556304	2011	-34.6	-36.3	-36.8	-2.2	-0.5	1116401	2001	-72.1	-68.2	-68.3	3.8	-0.1
556351	2002	-54.1	-60.2	-59.7	-5.6	0.5	1116550	2001	-121.4	-120.3	-122.9	-1.5	-2.6
558403	1999	-177.0	-131.3	-131.8	45.2	-0.5	1116551	2001	-131.9	-128.0	-124.4	7.5	3.6
559403	1977	-73.0	-77.3	-80.1	-7.1	-2.8	1116650	2001	-5.5	-13.5	-12.9	-7.4	0.6
560850	2001	-118.1	-104.6	-103.8	14.3	0.8	1116801	2001	-46.5	-50.2	-51.5	-5.0	-1.3
626101	2002	-30.4	-31.9	-32.6	-2.2	-0.7	1204527	2019	-30.2	-32.1	-33.0	-2.8	-0.9
626201	2002	-107.0	-137.0	-132.3	-25.3	4.7	★ 1209901	1992	-50.0	-52.3	-	-	-
626701	2002	-36.9	-41.5	-42.3	-5.4	-0.8	1209907	2008	-32.3	-27.8	-30.5	1.8	-2.7
626802	2002	-44.2	-49.5	-45.2	-1.0	4.3	1209909	2002	-168.2	-155.0	-155.1	13.1	-0.1
626803	2002	-32.7	-41.0	-42.3	-9.6	-1.3	1210750	2003	-70.4	-51.1	-55.6	14.8	-4.5
627401	1973	-113.4	-119.2	-119.8	-6.4	-0.6	1210802	2001	-93.4	-114.8	-122.3	-28.9	-7.5
1113501	2022	-38.7	-38.7	-39.7	-1.0	-1.0	1211553	2001	-22.3	-25.1	-25.9	-3.6	-0.8
★ 1115202	2022	-161.1	-161.1	-171.9	-10.8	-10.8	1212425	2009	-29.8	-39.1	-40.9	-11.1	-1.8
★ 1115603	2022	-119.7	-119.7	-129.7	-10.0	-10.0	1212819	2011	-27.6	-34.6	-35.7	-8.1	-1.1

#### **ARMSTRONG, CARSON & POTTER COUNTIES-DOCKUM AQUIFER**



Arm	strong, C	arson & P	otter C	ounties	s - Dockum Aq	uifer	Armstrong, Carson & Potter Counties - Dockum Aquifer							
Well Number	First Reading Year	Depth to	Water,	in feet	Water Level Difference	Data Used to Make Maps	We Numb	Readin	g Depth to	Water,	in feet	Water Level Difference	Data Used to Make Maps	
		Initial Depth	2022	2023	Initial To Current Difference	1 Year Differenc e			Initial Depth	2022	2023	Initial To Current Difference	1 Year Differenc e	
★ 625101	2003	-262.4	-263.0	-275.9		-12.9	6424	2008	-142.4	-155.4	-154.3		1.1	
625201	2002	-211.0	-185.7	-185.3	25.7	0.4	6424	<b>9</b> 2003	-64.2	-74.7	-75.7	-11.5	-1.0	
625701	2002	-153.2	-155.6	-155.7	-2.5	-0.1	6424	27 2013	-159.9	-161.3	-156.3	3.6	5.0	
633201	2002	-84.5	-85.7	-85.9	-1.4	-0.2	6425	2001	-83.6	-81.9	-86.4	-2.8	-4.5	
633301	2001	-61.2	-66.6	-65.1	-3.9	1.5	6427	<b>3</b> 2003	-90.8	-100.9	-102.9	-12.1	-2.0	
633401	2001	-63.4	-66.9	-67.1	-3.7	-0.2	6427	2003	-77.5	-85.9	-86.5	-9.0	-0.6	
634501	2022	-124.9	-124.9	-126.1	-1.2	-1.2	6427	2003 2003	-126.2	-135.0	-131.2	-5.0	3.8	
635206	2011	-223.9	-232.9	-233.5	-9.6	-0.6	6429	<b>1986</b>	-220.3	-221.8	-224.4	-4.1	-2.6	
635301	1993	-293.8	-326.9	-329.1	-35.3	-2.2	★ 642	<b>03</b> 1979	-65.5	-	-	-	-	
635801	1981	-94.7	-131.5	-133.2	-38.5	-1.7	6434	2005	-179.6	-179.1	-179.4	0.2	-0.3	
641102	2001	-102.7	-97.6	-98.4	4.3	-0.8	6436	2001	-320.3	-316.1	-315.5	4.8	0.6	
641310	2001	-37.2	-34.8	-35.0	2.2	-0.2	6436	2004	-278.8	-265.3	-262.9	15.9	2.4	
641613	1980	-92.4	-105.1	-108.0	-15.6	-2.9	6439	2001	-217.0	-201.4	-201.1	15.9	0.3	
641703	2001	-305.2	-294.9	-296.5	8.7	-1.6	6446	<b>1980</b>	-369.9	-478.4	-480.5	-110.6	-2.1	
641802	2001	-85.6	-92.6	-93.9	-8.3	-1.3	6447	<b>3</b> 2000	-233.1	-232.2	-232.1	1.0	0.1	
641856	2014	-142.9	-129.5	-132.3	10.6	-2.8	6447	<b>2000</b>	-226.2	-224.7	-225.1	1.1	-0.4	
641931	2003	-57.1	-66.7	-68.7	-11.6	-2.0	6447	<b>57</b> 2001	-264.7	-257.1	-256.9	7.8	0.2	

#### ARMSTRONG, CARSON & POTTER COUNTIES-DOCKUM AQUIFER-CONTINUED

Arr	nstrong, (	Carson &	Potter	Countie	s - Dockum A	quifer	Armstrong, Carson & Potter Counties - Dockum Aquifer							
Wall	First				Water Level	Data Used	Wall	First				Water Level	Data Used	
Well Number	Reading	Depth to	Water,	in feet	Difference to Make		Well Number	Reading	Depth to	Water,	in feet	Water Level Difference	to Make	
Number	Year				Difference	Maps	Number	Year				Difference	Maps	
		Initial			Initial To	1 Year			Initial			Initial To	1 Year	
		Depth	2022	2023	Current	Difference			Depth	2022	2023	Current	Difference	
		Deptil			Difference	Difference			Deptil			Difference	Difference	
644768	2002	-272.9	-262.5	-261.8	11.1	0.7	732402	2002	-17.5	-17.0	-16.8	0.7	0.2	
644906	2001	-348.9	-350.6	-350.6	-1.7	0.0	732501	2001	-60.2	-61.1	-61.3	-1.1	-0.2	
644959	2000	-221.5	-219.1	-219.3	2.2	-0.2	732602	2002	-41.6	-39.4	-39.8	1.8	-0.4	
645903	1999	-367.2	-418.7	-419.2	-52.0	-0.5	732701	2002	-28.0	-37.5	-43.7	-15.7	-6.2	
649203	2004	-112.0	-109.9	-111.8	0.2	-1.9	732801	2002	-132.5	-134.6	-134.5	-2.0	0.1	
649311	2001	-51.5	-52.0	-53.3	-1.8	-1.3	732901	2002	-171.1	-172.6	-172.6	-1.5	0.0	
650209	2001	-235.6	-191.5	-189.7	45.9	1.8	739303	2015	-98.5	-99.6	-100.0	-1.5	-0.4	
650604	2001	-208.5	-194.3	-194.2	14.3	0.1	740102	2002	-25.6	-28.2	-26.8	-1.2	1.4	
651102	2001	-177.9	-167.0	-167.0	10.9	0.0	740301	2002	-164.8	-167.3	-167.3	-2.5	0.0	
651301	2002	-210.9	-206.4	-206.2	4.7	0.2	740402	2001	-84.1	-84.9	-86.3	-2.2	-1.4	
652301	1956	-192.7	-199.4	-198.7	-6.0	0.7	740403	2002	-59.7	-59.4	-59.4	0.3	0.0	
652501	1958	-188.4	-201.4	-201.4	-13.0	0.0	740503	2001	-30.4	-31.5	-31.7	-1.3	-0.2	
652508	1982	-200.7	-201.8	-201.6	-0.9	0.2	740504	2002	-26.0	-27.3	-27.4	-1.4	-0.1	
652704	2006	-170.9	-178.9	-179.9	-9.0	-1.0	740601	2002	-70.6	-73.9	-74.9	-4.3	-1.0	
★ 652707	2002	-220.0	-	-	-	-	740901	2002	-132.0	-137.0	-139.5	-7.5	-2.5	
★ 652801	1958	-154.1	-	-	-	-	747601	2002	-40.1	-39.2	-40.1	0.0	-0.9	
652906	1976	-106.8	-127.4	-128.2	-21.4	-0.8	747602	2002	-96.2	-77.8	-77.9	18.3	-0.1	
653403	1975	-187.2	-179.7	-179.3	7.9	0.4	747901	2002	-115.1	-115.7	-114.2	0.9	1.5	
653703	1966	-191.0	-178.7	-178.5	12.5	0.2	748103	2002	-42.4	-40.9	-41.2	1.2	-0.3	
654111	2012	-344.0	-342.0	-342.9	1.1	-0.9	748202	2002	-11.9	-6.1	-6.9	5.0	-0.8	
654701	1975	-260.3	-251.3	-250.7	9.6	0.6	748301	2002	-78.0	-73.4	-68.3	9.7	5.1	
654801	1958	-296.9	-291.9	-291.7	5.2	0.2	748401	2002	-42.2	-54.4	-53.6	-11.4	0.8	
654812	2015	-255.9	-254.8	-254.8	1.1	0.0	748402	2002	-25.0	-24.3	-24.6	0.4	-0.3	
660106	1993	-214.4	-209.3	-209.0	5.4	0.3	748501	2001	-44.0	-43.6	-42.0	2.0	1.6	
660202	1992	-163.1	-162.2	-162.4	0.7	-0.2	748601	2002	-142.5	-142.2	-143.5	-1.0	-1.3	
660205	2005	-163.1	-163.8	-163.8	-0.7	0.0	748701	2002	-82.8	-83.2	-83.1	-0.3	0.1	
660502	1993	-154.5	-151.7	-152.3	2.2	-0.6	748702	2002	-42.2	-50.4	-50.5	-8.3	-0.1	
★ 660504	2017	-184.0	-186.9	-	-	-	748801	2001	-40.2	-44.3	-44.6	-4.4	-0.3	
660704	2015	-191.0	-190.6	-189.7	1.3	0.9	★ 748901	2001	-96.0	-92.1	-78.5	17.5	13.6	
★ 660902	1969	-180.0	-211.3	-	-	-	1104101	1975	-197.8	-203.0	-202.9	-5.1	0.2	
★ 661402	2011	-181.0	-185.9	-	-	-	1104301	1981	-317.4	-301.5	-300.4	17.0	1.1	
661601	1975	-170.7	-172.8	-173.2	-2.5	-0.4	1105104	2004	-174.6	-174.1	-174.1	0.5	0.0	
661608	1976	-165.8	-165.4	-165.5	0.3	-0.1	1105301	1980	-162.7	-158.4	-158.4	4.3	0.0	
661802	1980	-162.5	-156.7	-156.2	6.3	0.5	1105404	2017	-227.8	-240.4	-233.0	-5.2	7.4	
662101	1956	-170.0	-203.1	-201.8	-31.8	1.3	1106101	1975	-179.6	-174.5	-173.0	6.6	1.5	
662402	1999	-146.1	-152.5	-153.3	-7.2	-0.8	1106201	1976	-162.7	-160.3	-160.4	2.3	-0.1	
731602	2002	-191.7	-146.8	-146.3	45.4	0.5	1106503	2022	-173.6	-173.6	-173.0	0.6	0.6	
731903	2002	-20.8	-25.5	-25.7	-4.9	-0.2	1106803	2017	-233.8	-247.2	-241.8	-8.0	5.4	
732201	2002	-160.1	-168.8	-166.3	-6.2	2.5	1106907	2022	-113.7	-113.7	-116.2	-2.5	-2.5	
732202	2002	-65.5	-67.4	-70.0	-4.5	-2.6	<b>★</b> 1107152	2022	-285.5	-285.5	-270.0	15.5	15.5	
732401	2002	-28.4	-32.2	-30.8	-2.4	1.4	1107401	1976	-122.8	-120.6	-123.3	-0.5	-2.7	
							1107750	2005	-120.0	-124.7	-121.0	-1.0	3.7	

#### PLAYA LAKE BENEFITS

Playa Lakes are just as important to people as they are to wildlife. They are the primary source of recharge for the Ogallala Aquifer with an average recharge rate across the region of about three inches per year. Playas are water filtration systems and when working properly they keep fertilizers, herbicides, and pesticides out of the groundwater. Playas attract wildlife and also play a huge part in flood control by collecting runoff during high rains. This reduces property damage and erosion. For more information about Playas and their importance please visit the Playa Lakes Joint Venture website at https://pljv.org

#### OPERATING PERMIT REMINDER

PGCD wants to remind constituents to please come in and get an operating permit when bringing old wells back into Any well production. capable of producing more than 17.5 gallons per minute requires an operating permit, and any well that produces more than 35 gallons per minute requires an approved metering method. For more information PGCD's permitting requirements, on please contact Julie Bennett by calling 806-883-2501 or by email at jb@pgcd.us. If you would like to fill out an electronic application, go to www.pgcd.us/permitsand-registrations.

#### SUMMER EDUCATION

PGCD staff presented at the White Deer Library and the Carson County Library Summer Reading Programs on June 20 and June 21. Summer is always appropriate time to incorporate water an conservation conversations with children of all ages, and PGCD was excited to take advantage of these opportunities. PGCD's PR/Education Director Aspen Edgar did an interactive presentation over the water cycle and helped the students create their own conservation foldable to keep as a reminder of all of the simple ways they can conserve over the summer. The District is available to attend group meetings of any kind to talk about the importance of water conservation. For more information, please call Aspen Edgar at 806-883-2501 or email at aedgarepgcd.us.



#### **UPCOMING DATES**

 Next Board of Director's meeting is set for Wednesday, July 26, 2023 at 9:00 a.m. in the Windmill Room. PANHANDLE GROUNDWATER CONSERVATION DISTRICT P.O. BOX 637 WHITE DEER, TEXAS 79097

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# **DISTRICT OFFICE**

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# BOARD OF DIRECTORS

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# SAVE THE DATE



#### 7TH BIENNIAL WATER CONSERVATION SYMPOSIUM. MORE DETAILS TO COME!