Panhandle Water News

JULY 2021

Points of Interest

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The 87th Texas Legislature Anything but Normal

The 87th Session of the Texas Legislature started in January of 2021 under the cloud of COVID-19, which brought stricter safety precautions than previous sessions. In addition to the normal Texas Department of Public Safety Armed Officers, the Texas National Guard highly armed Officers were on every floor and hallway of the Texas State Capitol. Mandatory masks, social distancing and daily COVID-19 testing were all requirements to enter the Capitol.

The Legislature had a terribly slow start and little was accomplished during the first couple months of the session. In addition to COVID-19 distractions, high profile issues such as the Budget, ERCOT reform, Statewide Broadband Access, Election & Ballot Security, and Health Issues demanded much of the legislative focus.

The 87th Session did accomplish several legislative issues as the following table shows:

Bills For Regular Session			
Years	Session	Bills Fielded	Bills Passed
2021-2022	87th Legislature	9,999	3,782
2019-2020	86th Legislature	10,878	4,484
2017-2018	85th Legislature	10,672	4,734
2015-2016	84th Legislature	11,356	5,856
2013-2014	83th Legislature	10,630	5,846

The District tracked approximately 100 bills that had varying effects on groundwater conservation districts. Among the bills tracked were 48 local government bills and 45 water-related bills. PGCD also tracked a few bills that could have effected state agencies that it works with regularly. Texas Water Code Chapter 36 governs most groundwater conservation districts. General Manager CE Williams said, “This is the first session in the three decades that I have been involved in the legislative process that had no bills passed that made changes to the water code.” However, there was one bill, HB 1905 that relieved some of the requirements to the Regional Water Planning Process.

Governor Greg Abbott called the 87th Legislature back into Session on July 8, 2021. Special Session agenda items will include: Bail Reform, Election Integrity, Border Security, Social Media Censorship, Article X Funding, Family Violence Prevention, Youth Sports, Abortion-Inducing Drugs, Thirteenth Check, Critical Race Theory and Appropriations. The Governor has also promised a second special session in the fall.

Ogallala Aquifer Water Level Measurements

Panhandle Groundwater Conservation District (PGCD) conducts water level measurements on over 800 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 long-term 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 2020 to 2021 (in feet). The District generated the 2021 maps using differences in water level measurements taken from designated monitoring wells. These water level changes are shown with graduated symbols and colors to give a clearer representation of the data collected.

Aquifer maps for the Dockum and combined Blaine & Whitehorse Aquifers follow the same format to represent the water level changes. It is important to note that the Texas Water Development Board (TWDB) has found the Whitehorse and Blaine Aquifers are hydraulically connected, meaning free movement of water may occur between these aquifers. We have considered the combined aquifers as the Blaine Aquifer system to implement consistent terminology with the state for that area of the District.

PGCD Field Technicians conducted water level measurements from November 2020 to March 2021 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.

2021 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. This differs from previous years in which the District developed contours of 1-year water level change or the 5-year average change. After discussions with District staff and consultants, the District decided to make this change in order to better show the variability and density of water level data.

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 2020 water level depth, (5) the 2021 water level depth, (6) the initial depth measurement minus the current level depth during the period of record, (7) change in water level from 2020 to 2021 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 5 wells to be removed as outliers and an additional 4 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 publication.

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 hydrographs)* appearing in this newsletter was reviewed and approved by Professional Geologist, Wade Oliver.

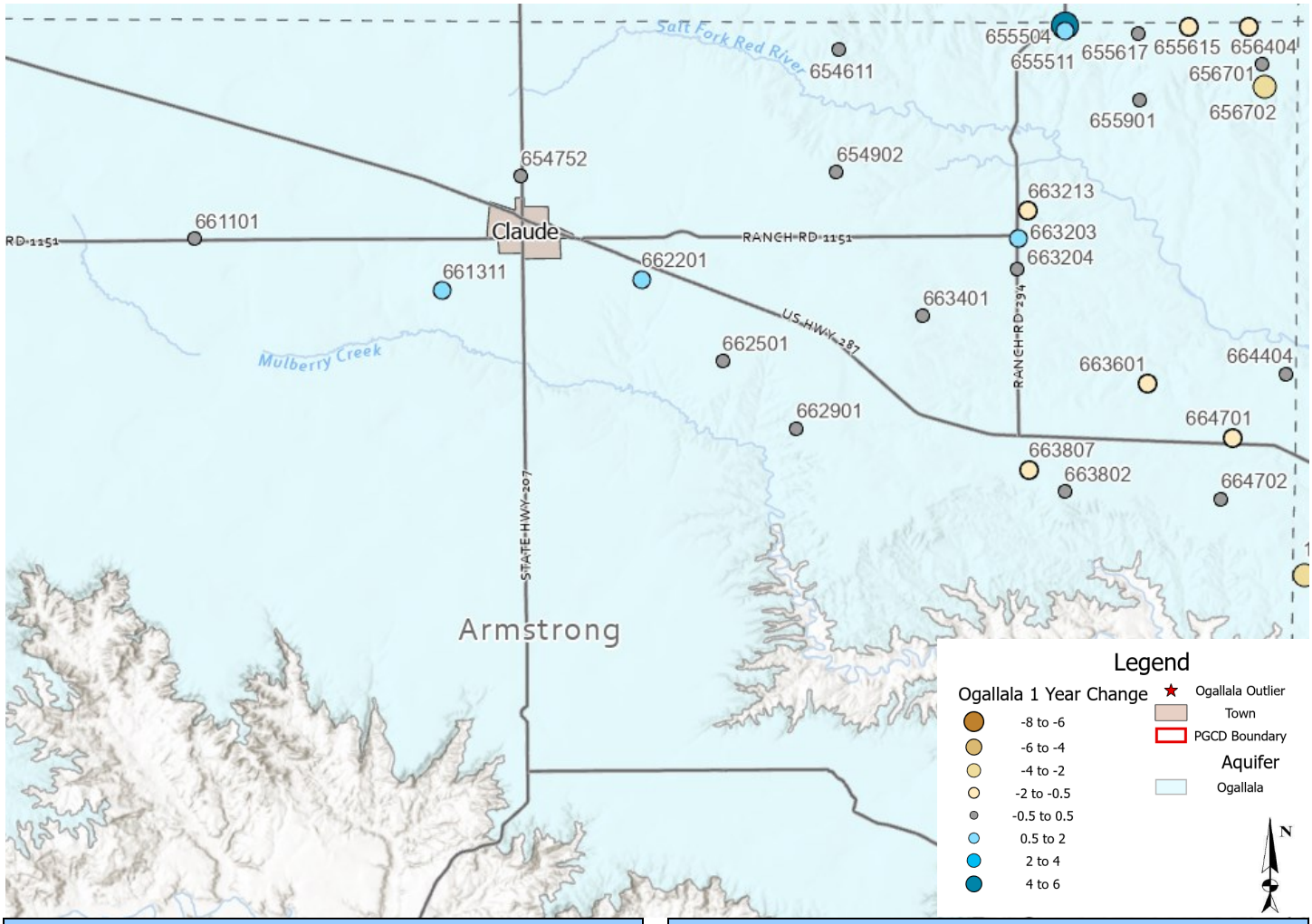
Update to District Meter Standards

District Board of Directors voted at its January 2021 meeting to update District Meter Standards. In a unanimous vote, Directors decided the District Field Technicians are responsible for meter repairs and meter maintenance at no cost to the operator. However, if a meter is in need of a repair, the operator will be billed for the parts used to complete the repair. Operators may complete their own meter repairs if they choose to do so, but they are still required to contact the District if a meter is non-operational and when the meter repair is complete.

Field Technicians and other appropriate staff have completed certifiable training on meter repairs from McCrometer. Staff will not repair a meter without contacting the operator beforehand. Operators may also be required to sign a liability waiver stating the Technicians are repairing the meter to the best of their knowledge and abilities.

An updated copy of District Meter Standards can be found online at www.pgcd.us/metering.

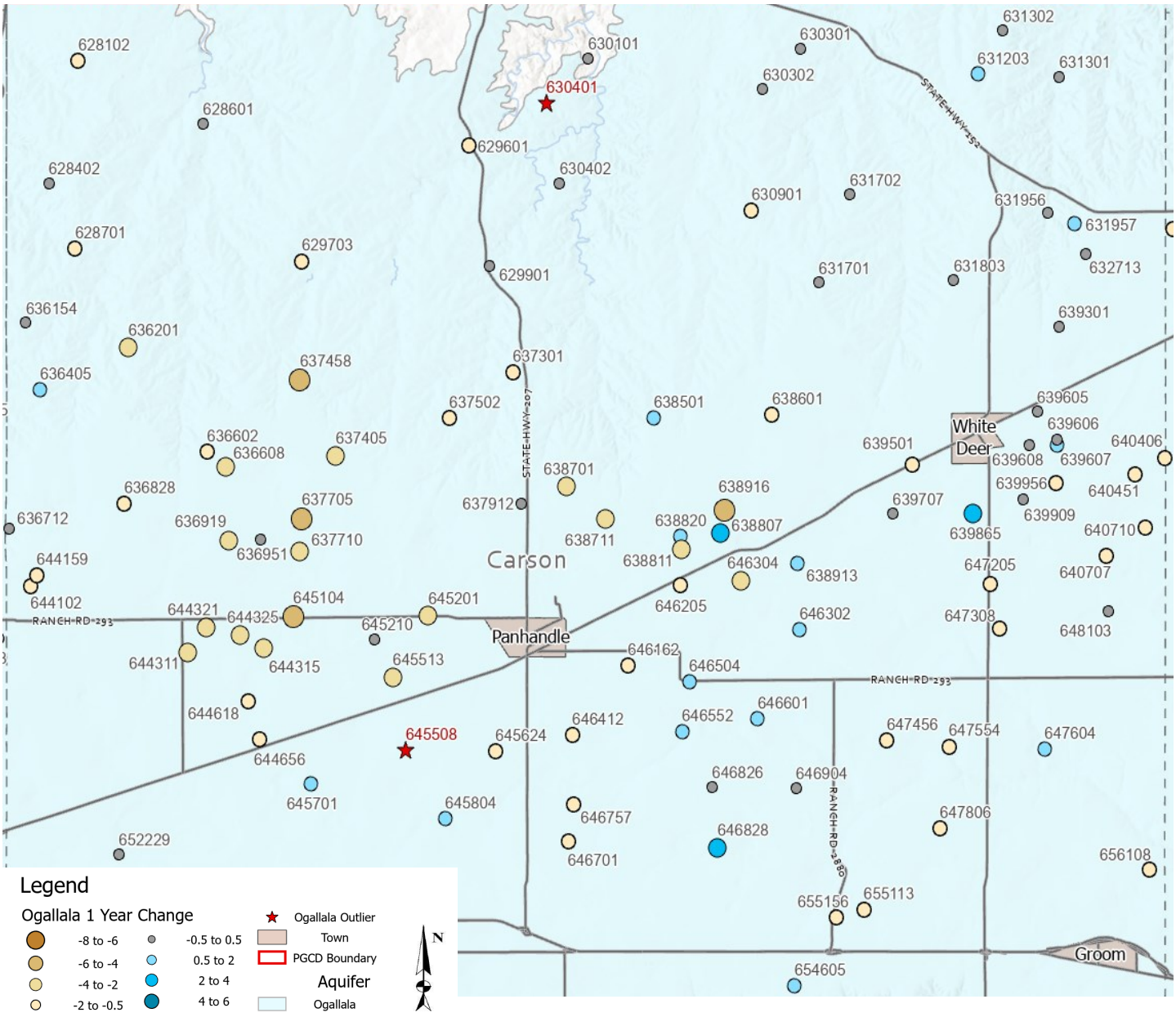
Northeast Armstrong County Ogallala Aquifer
1-Year Change



Armstrong County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
654611	1975	-292.3	-321.1	-320.7	-28.4	0.4
654752	2003	-225.2	-183.4	-183.5	41.7	-0.1
654902	1971	-295.0	-321.5	-321.9	-26.9	-0.4
655504	1976	-323.5	-359.8	-354.0	-30.5	5.8
655511	2000	-340.7	-354.2	-353.6	-12.9	0.6
655615	1975	-320.5	-363.5	-364.4	-43.9	-0.9
655617	2001	-310.8	-362.9	-363.2	-52.4	-0.3
655901	1975	-220.2	-252.2	-251.8	-31.6	0.4
656404	1982	-327.2	-362.3	-363.7	-36.5	-1.4
656701	2005	-334.7	-364.1	-363.8	-29.1	0.3
656702	1975	-311.4	-345.8	-348.6	-37.2	-2.8
661101	1958	-154.2	-153.6	-153.7	0.5	-0.1
661311	1975	-195.8	-198.8	-197.6	-1.8	1.2

Armstrong County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
662201	1975	-185.0	-186.7	-186.1	-1.1	0.6
662501	1958	-174.9	-181.8	-182.2	-7.3	-0.4
662901	2005	-218.5	-218.3	-217.8	0.7	0.5
663203	2000	-169.4	-178.8	-177.7	-8.3	1.1
663204	1966	-135.0	-177.5	-177.1	-42.1	0.4
663213	2014	-161.8	-164.5	-166.0	-4.2	-1.5
663401	1967	-190.0	-198.1	-198.2	-8.2	-0.1
663601	1980	-92.1	-101.8	-102.9	-10.8	-1.1
663802	1972	-190.0	-208.1	-207.8	-17.8	0.3
663807	2014	-191.2	-190.9	-191.4	-0.2	-0.5
664404	1975	-112.0	-123.3	-123.7	-11.7	-0.4
664701	1955	-114.0	-152.9	-153.9	-39.9	-1.0
664702	1956	-132.4	-160.5	-160.4	-28.0	0.1

Carson County Ogallala Aquifer 1-Year Change



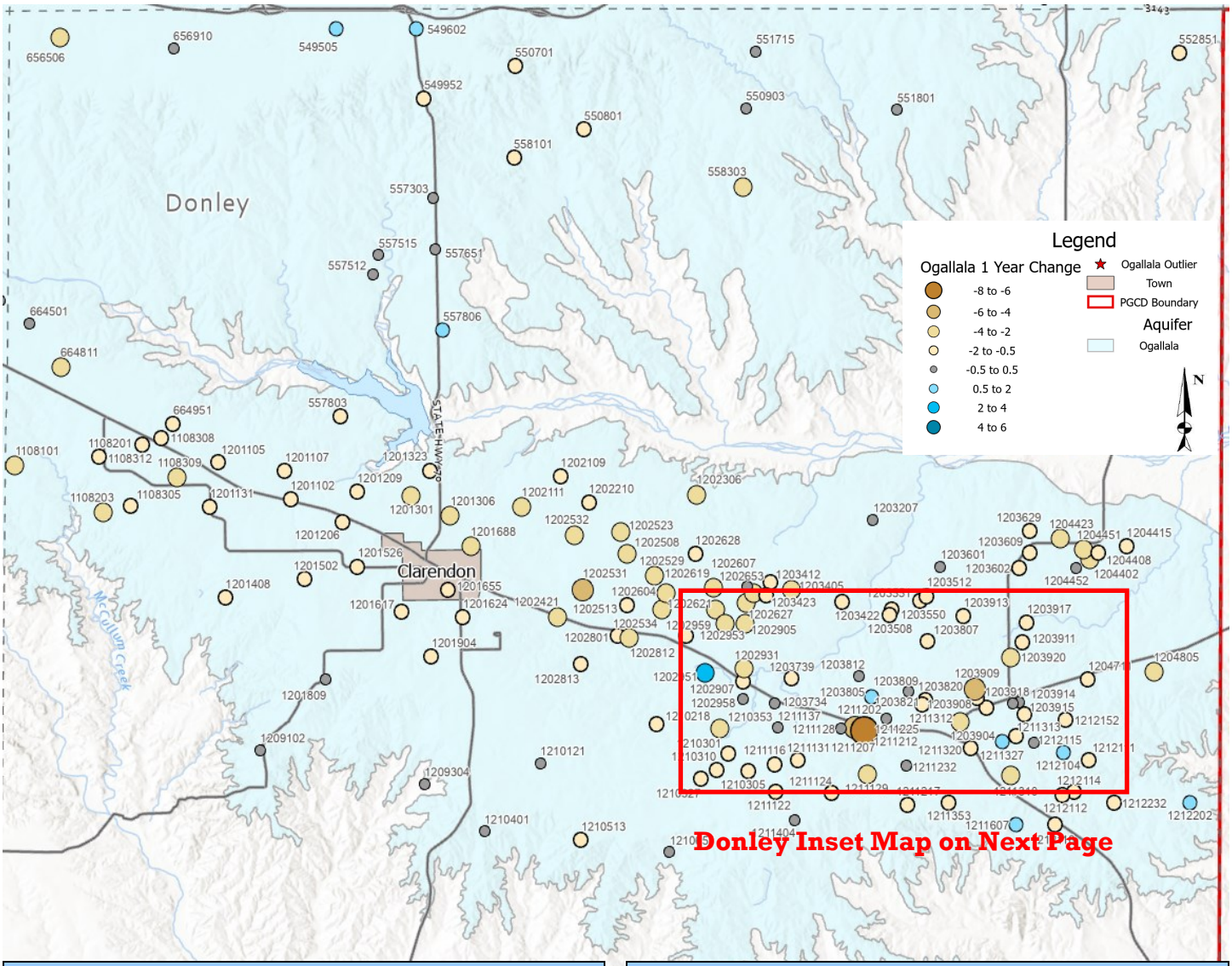
Carson County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
628102	1966	-169.0	-212.9	-214.7	-45.7	-1.8
628402	1977	-187.4	-204.2	-204.4	-17.0	-0.2
628601	1958	-48.4	-70.2	-70.2	-21.8	0.0
628701	1977	-238.1	-257.8	-259.3	-21.2	-1.5
629601	1982	-53.7	-50.4	-51.1	2.6	-0.7
629703	2003	-286.6	-295.9	-296.6	-10.0	-0.7
629901	1982	-76.8	-84.4	-84.6	-7.8	-0.2
630101	2003	-53.4	-30.6	-31.0	22.4	-0.4

Carson County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
630301	1977	-147.6	-151.8	-152.0	-4.4	-0.2
630302	2003	-236.3	-226.9	-227.1	9.2	-0.2
★**630401**	1977	-233.9	-201.1	-165.7	68.2	43.4
630402	2003	-121.1	-120.2	-119.9	1.2	0.3
630901	2003	-333.3	-328.8	-330.0	3.3	-1.2
631203	1977	-295.2	-308.6	-307.2	-12.0	1.4
631301	1977	-118.2	-123.6	-123.5	-5.3	0.1
631302	1981	-242.0	-248.9	-249.0	-7.0	-0.1

Carson County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
631701	1970	-380.0	-390.9	-391.3	-11.3	-0.4
631702	1981	-269.2	-281.2	-281.1	-11.9	0.1
631803	1999	-426.0	-395.2	-395.3	30.7	-0.1
631956	2001	-224.9	-226.9	-226.7	-1.8	0.2
631957	2001	-327.9	-330.9	-329.5	-1.6	1.4
632713	2017	-408.1	-408.1	-407.7	0.4	0.4
636154	2001	-303.5	-330.8	-330.9	-27.4	-0.1
636201	1977	-333.0	-369.8	-371.9	-38.9	-2.1
636405	2011	-413.3	-433.3	-432.0	-18.7	1.3
636602	1969	-421.1	-512.7	-513.6	-92.5	-0.9
636608	1999	-488.4	-528.0	-530.1	-41.7	-2.1
636712	2011	-415.7	-434.0	-434.2	-18.5	-0.2
636828	2014	-545.6	-546.8	-548.1	-2.5	-1.3
636919	1978	-442.0	-525.8	-528.3	-86.3	-2.5
636951	2012	-484.8	-494.7	-494.5	-9.7	0.2
637301	1981	-250.8	-285.1	-286.5	-35.7	-1.4
637405	1977	-386.8	-462.7	-465.2	-78.4	-2.5
637458	2002	-416.7	-442.3	-447.9	-31.2	-5.6
637502	2005	-305.4	-325.0	-326.5	-21.1	-1.5
637705	1992	-467.6	-479.1	-484.0	-16.4	-4.9
637710	2004	-431.6	-456.6	-459.1	-27.5	-2.5
637912	2001	-401.3		-432.6	-31.3	
638501	1958	-321.2	-411.2	-409.9	-88.7	1.3
638601	1956	-306.5	-380.1	-381.0	-74.5	-0.9
638701	1956	-328.3	-436.3	-439.2	-110.9	-2.9
638711	2001	-431.5	-453.5	-457.3	-25.8	-3.8
638807	1956	-310.0	-441.9	-438.6	-128.6	3.3
638811	1974	-360.3	-462.6	-466.0	-105.7	-3.4
638820	2015	-446.4	-462.1	-460.3	-13.9	1.8
638913	2000	-397.4	-436.5	-435.3	-37.9	1.2
638916	1999	-404.6	-443.2	-447.9	-43.3	-4.7
639301	1958	-383.4	-398.4	-398.4	-15.0	0.0
639501	1958	-284.4	-384.4	-385.3	-100.9	-0.9
639605	2005	-395.0	-290.2	-290.3	104.7	-0.1
639606	2005	-377.7	-357.3	-356.9	20.8	0.4
639607	2006	-363.9	-378.8	-377.4	-13.5	1.4
639608	2005	-353.9	-363.6	-363.2	-9.3	0.4
639707	2000	-380.4	-405.6	-405.2	-24.8	0.4
639865	2001	-396.9	-416.9	-414.2	-17.3	2.7
639909	2000	-352.4	-361.9	-361.4	-9.0	0.5
639956	2001	-371.7	-388.8	-390.1	-18.4	-1.3
640406	2016	-399.3	-404.3	-405.1	-5.8	-0.8
640451	2014	-393.8	-397.5	-398.5	-4.7	-1.0

Carson County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
640707	2016	-396.0	-400.2	-401.3	-5.3	-1.1
640710	2020	-354.1	-354.1	-355.2	-1.1	-1.1
644102	2015	-496.8	-503.0	-504.8	-8.0	-1.8
644159	2017	-493.8	-497.4	-498.2	-4.4	-0.8
644311	1956	-387.0	-521.0	-523.1	-136.1	-2.1
644315	1992	-487.1	-477.1	-480.0	7.1	-2.9
644321	2014	-519.0	-530.7	-534.0	-15.0	-3.3
644325	2015	-494.4	-506.3	-509.5	-15.1	-3.2
644618	2006	-439.7	-468.3	-469.2	-29.5	-0.9
644656	2000	-433.0	-447.5	-448.0	-15.0	-0.5
645104	2001	-417.7	-451.7	-457.0	-39.3	-5.3
645201	1958	-331.9	-452.1	-455.6	-123.7	-3.5
645305	2002	-433.8	-464.8	-458.4	-24.6	6.4
★645508	2019	-441.0	-424.5	-448.2	-7.2	-23.7
645513	2001	-435.1	-463.9	-466.5	-31.4	-2.6
645624	2015	-425.9	-433.3	-435.2	-9.3	-1.9
645701	1956	-337.8	-393.6	-392.4	-54.6	1.2
645804	1994	-323.1	-334.2	-332.9	-9.8	1.3
646162	2002	-374.9	-389.0	-389.8	-14.9	-0.8
646205	2000	-427.0	-455.8	-457.6	-30.6	-1.8
646302	1961	-294.5	-389.7	-388.3	-93.8	1.4
646304	2011	-415.9	-442.2	-445.5	-29.6	-3.3
646412	2010	-405.7	-435.1	-436.8	-31.1	-1.7
646504	2000	-387.2	-402.5	-401.9	-14.7	0.6
646552	2000	-354.7	-370.6	-369.8	-15.1	0.8
646601	1956	-295.2	-381.6	-380.8	-85.6	0.8
646701	1956	-325.9	-373.5	-374.0	-48.1	-0.5
646757	2003	-375.4	-404.0	-405.1	-29.7	-1.1
646826	2016	-391.8	-405.1	-404.8	-13.0	0.3
646828	2018	-384.8	-394.8	-392.3	-7.5	2.5
646904	2000	-360.5	-375.7	-375.2	-14.7	0.5
647205	1956	-297.0	-383.7	-384.6	-87.6	-0.9
647308	1969	-296.8	-296.1	-297.8	-1.0	-1.7
647456	2017	-351.3	-353.2	-354.3	-3.0	-1.1
647554	2002	-318.4	-314.5	-315.2	3.2	-0.7
647604	1980	-286.4	-330.6	-329.8	-43.4	0.8
647806	2002	-352.1	-375.2	-376.6	-24.5	-1.4
648103	2016	-317.4	-318.4	-318.7	-1.3	-0.3
652229	2017	-214.8	-214.2	-214.4	0.4	-0.2
654605	2018	-387.6	-391.5	-390.7	-3.1	0.8
655113	1999	-369.5	-400.0	-400.8	-31.3	-0.8
655156	2002	-371.2	-403.0	-403.7	-32.5	-0.7
656108	1968	-370.0	-317.0	-317.8	52.2	-0.8

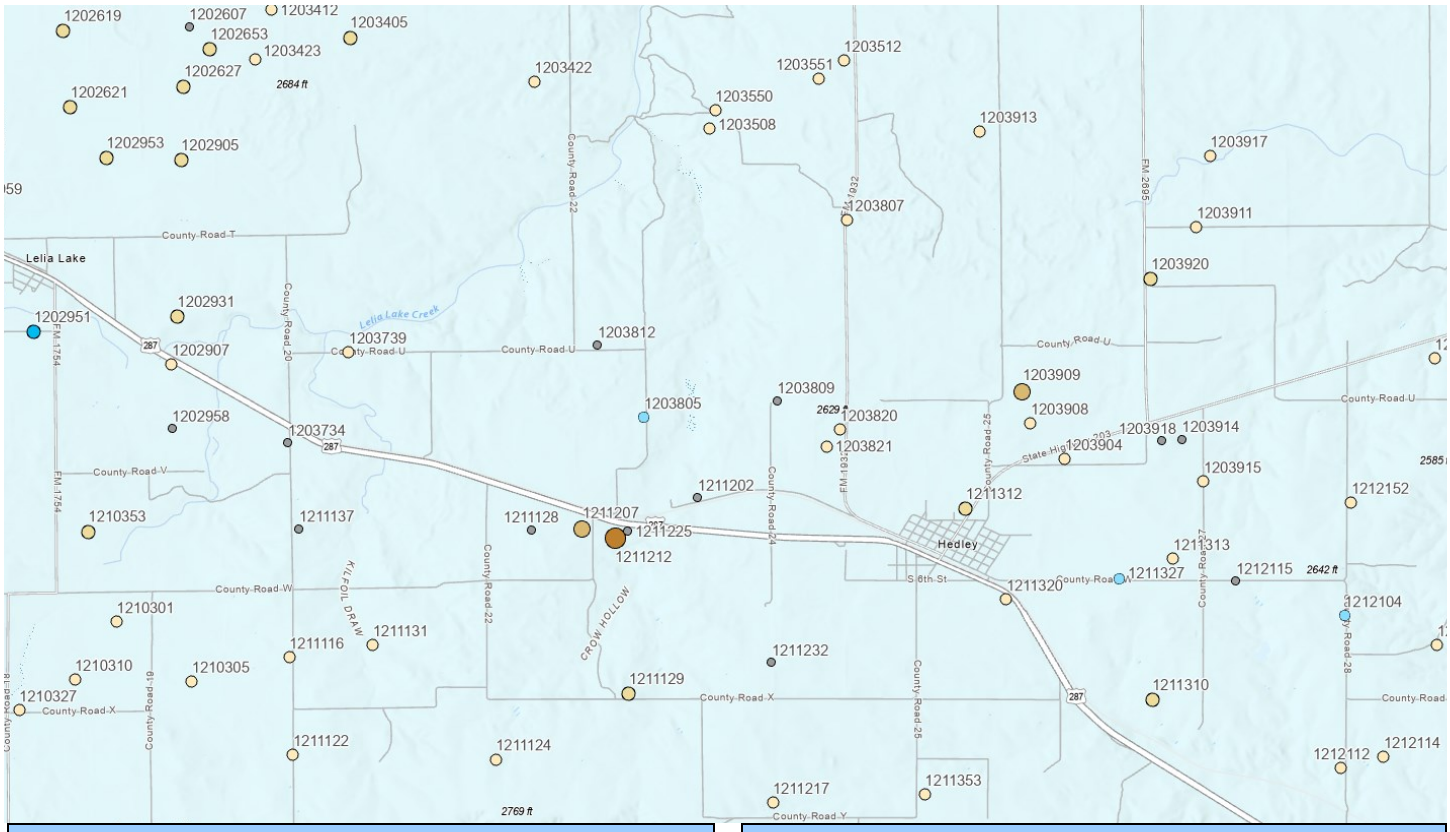
Donley County Ogallala Aquifer 1-Year Change



Donley County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
549505	2017	-345.5	-346.3	-344.6	0.9	1.7
549602	2018	-340.4	-344.4	-342.6	-2.2	1.8
549952	2010	-249.4	-254.0	-254.7	-5.3	-0.7
550701	1976	-113.9	-112.1	-112.7	1.2	-0.6
550801	2001	-85.8	-105.3	-106.4	-20.6	-1.1
550903	1977	-120.0	-110.1	-110.5	9.5	-0.4
551715	1976	-133.5	-114.4	-114.5	19.0	-0.1
551801	1968	-96.0	-95.5	-95.7	0.3	-0.2
552851	2001	-120.4	-124.5	-125.6	-5.2	-1.1
557512	1999	-38.7	-42.8	-42.7	-4.0	0.1
557515	2018	-71.2	-71.4	-71.2	0.0	0.2
557651	2018	-91.0	-91.7	-91.6	-0.6	0.1

Donley County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
557803	1976	-89.1	-90.1	-90.7	-1.6	-0.6
557806	2010	-43.5	-61.6	-60.4	-16.9	1.2
558101	2002	-107.0	-110.5	-111.1	-4.1	-0.6
558303	1977	-44.6	-46.6	-48.6	-4.0	-2.0
656506	1999	-274.0	-349.4	-351.8	-77.8	-2.4
656910	2018	-328.9	-334.1	-334.1	-5.2	0.0
664501	1958	-109.3	-130.0	-130.3	-21.0	-0.3
664811	1976	-96.2	-122.1	-125.1	-28.9	-3.0
664951	1998	-84.2	-74.8	-75.8	8.4	-1.0
1108101	1999	-96.5	-104.1	-107.9	-11.4	-3.8
1108201	1958	-106.5	-138.6	-140.3	-33.8	-1.7
1108203	1977	-36.3	-58.3	-60.9	-24.6	-2.6

Donley County Inset Ogallala Aquifer 1-Year Change



Donley County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
1108305	2001	-92.4	-114.1	-115.8	-23.4	-1.7
1108308	1955	-54.5	-87.5	-89.3	-34.8	-1.8
1108309	2001	-70.5	-95.3	-97.3	-26.8	-2.0
1108312	2000	-69.0	-96.8	-98.7	-29.7	-1.9
1201102	1958	-31.4	-44.8	-46.2	-14.8	-1.4
1201105	2018	-87.5	-90.6	-91.7	-4.2	-1.1
1201107	2004	-46.5	-54.1	-55.4	-8.9	-1.3
1201131	1976	-51.1	-65.7	-66.2	-15.1	-0.5
1201206	1968	-79.1	-77.9	-79.0	0.1	-1.1
1201209	2010	-44.2	-52.2	-53.6	-9.4	-1.4
1201301	1958	-27.6	-64.0	-66.6	-39.0	-2.6
1201306	1968	-46.8	-76.0	-78.5	-31.7	-2.5
1201323	2010	-124.1	-145.3	-146.6	-22.5	-1.3
1201408	2017	-100.5	-102.2	-103.3	-2.8	-1.1
1201502	1968	-162.6	-135.9	-136.4	26.2	-0.5
1201526	2010	-103.2	-107.0	-107.5	-4.3	-0.5
1201617	1980	-129.5	-119.9	-120.8	8.7	-0.9
1201624	1977	-112.2	-109.4	-110.8	1.4	-1.4
1201655	2001	-55.0	-67.7	-68.8	-13.8	-1.1
1201688	2012	-49.1	-63.4	-66.2	-17.1	-2.8
1201809	2015	-218.5	-213.2	-213.4	5.1	-0.2

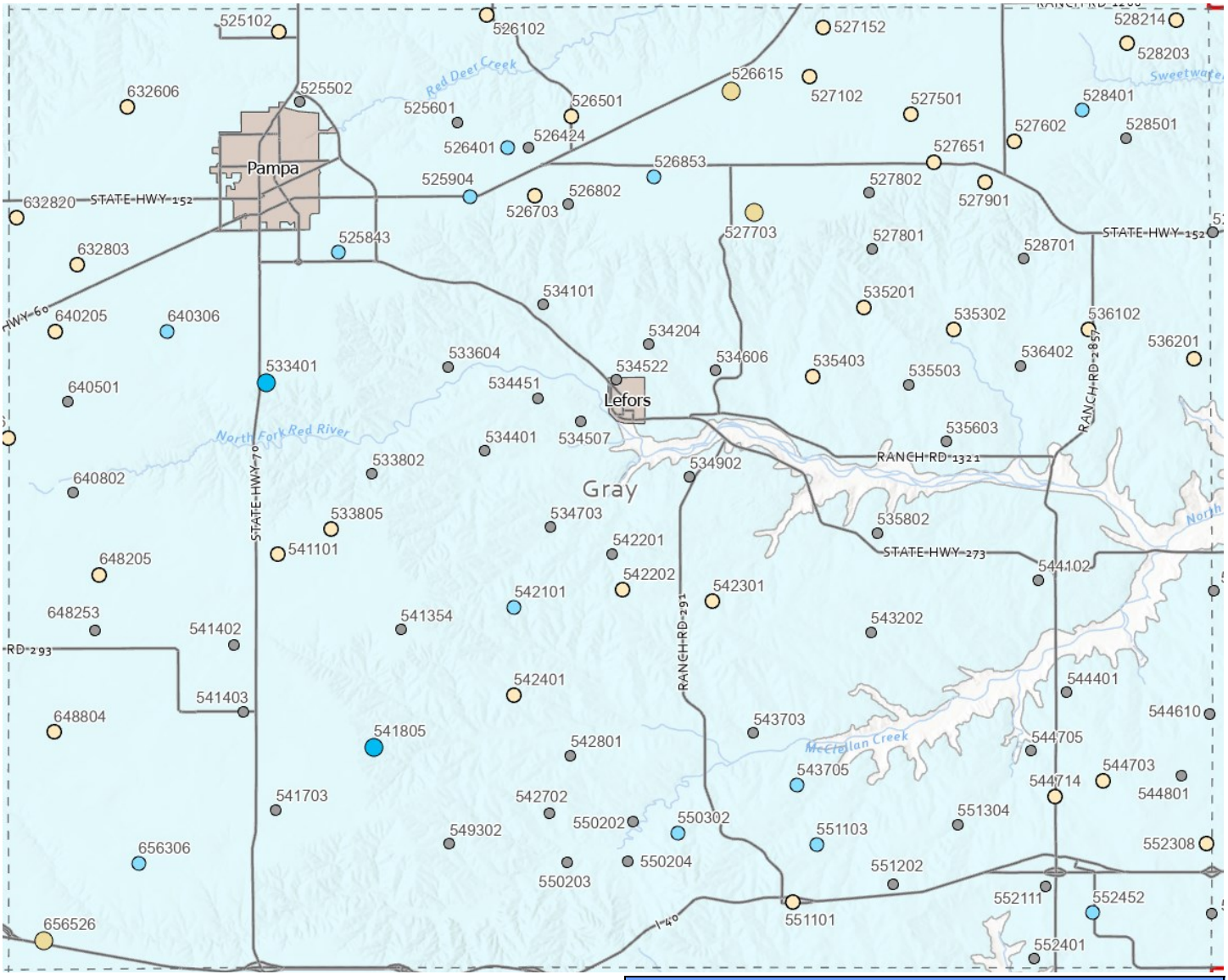
Donley County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
1201904	1980	-152.5	-149.0	-150.1	2.4	-1.1
1202109	2010	-96.0	-104.3	-105.9	-9.9	-1.6
1202111	2015	-115.4	-120.0	-123.0	-7.6	-3.0
1202210	1976	-60.7	-86.6	-88.3	-27.6	-1.7
1202306	1977	-49.2	-56.2	-58.4	-9.2	-2.2
1202421	2010	-26.2	-36.6	-39.2	-13.0	-2.6
1202508	2010	-83.1	-104.2	-107.6	-24.5	-3.4
1202513	2010	-71.4	-93.4	-94.1	-22.7	-0.7
1202523	2010	-84.4	-98.3	-100.7	-16.3	-2.4
1202529	2010	-75.5	-96.7	-100.3	-24.8	-3.6
1202531	2010	-59.4	-82.2	-86.5	-27.1	-4.3
1202532	2016	-75.1	-83.9	-86.2	-11.1	-2.3
1202534	2012	-65.8	-78.2	-81.5	-15.7	-3.3
1202604	1967	-46.0	-85.8	-89.6	-43.6	-3.8
1202607	1961	-56.3	-91.8	-92.2	-35.9	-0.4
1202619	2010	-75.2	-90.8	-92.8	-17.6	-2.0
1202621	2010	-52.7	-66.8	-70.4	-17.7	-3.6
1202627	2010	-79.0	-90.3	-93.8	-14.8	-3.5
1202628	2010	-49.5	-62.9	-64.3	-14.8	-1.4
1202653	2010	-99.0	-90.8	-93.5	5.5	-2.7
1202801	2010	-32.5	-51.2	-52.8	-20.3	-1.6

Donley County Wells Continued on Next Page

Donley County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
1202812	1977	-18.8	-42.5	-44.8	-26.0	-2.3
1202813	2010	-81.9	-87.3	-88.0	-6.1	-0.7
1202905	2010	-68.6	-79.9	-81.9	-13.3	-2.0
1202907	2000	-12.0	-18.9	-20.8	-8.8	-1.9
1202931	1977	-39.0	-46.1	-48.2	-9.2	-2.1
1202951	2007	-15.1	-26.7	-24.6	-9.5	2.1
1202953	2010	-48.0	-60.2	-63.5	-15.5	-3.3
1202958	2006	-11.5	-21.7	-21.8	-10.3	-0.1
1202959	2013	-60.5	-69.0	-70.0	-9.5	-1.0
1203207	1976	-77.1	-83.9	-84.3	-7.2	-0.4
1203405	2000	-62.9	-84.6	-87.2	-24.3	-2.6
1203412	2010	-80.6	-91.6	-93.4	-12.8	-1.8
1203422	2010	-39.8	-46.1	-46.9	-7.1	-0.8
1203423	2010	-89.6	-103.7	-105.1	-15.5	-1.4
1203508	2012	-83.5	-80.1	-81.0	2.5	-0.9
1203512	2010	-111.0	-112.3	-113.0	-2.0	-0.7
1203550	2010	-93.1	-92.0	-92.5	0.6	-0.5
1203551	2010	-112.8	-114.2	-115.0	-2.2	-0.8
1203601	1968	-103.7	-104.0	-103.7	0.0	0.3
1203602	2010	-111.8	-119.8	-120.9	-9.1	-1.1
1203609	2010	-115.7	-123.5	-124.4	-8.7	-0.9
1203629	2017	-95.2	-97.3	-98.8	-3.6	-1.5
1203734	2009	-34.9	-36.0	-35.6	-0.7	0.4
1203739	2015	-27.1	-28.1	-28.8	-1.7	-0.7
1203805	2010	-67.7	-76.9	-75.3	-7.6	1.6
1203807	2018	-125.8	-126.9	-127.8	-2.0	-0.9
1203809	2009	-55.3	-62.4	-62.8	-7.5	-0.4
1203812	2012	-81.7	-93.3	-93.5	-11.8	-0.2
1203820	2010	-70.5	-76.5	-77.6	-7.1	-1.1
1203821	2010	-62.7	-66.3	-67.2	-4.5	-0.9
1203904	1978	-69.8	-73.4	-74.4	-4.6	-1.0
1203908	2010	-76.1	-85.8	-86.5	-10.4	-0.7
1203909	2010	-83.8	-90.0	-94.8	-11.0	-4.8
1203911	2007	-46.8	-53.4	-54.8	-8.0	-1.4
1203913	2010	-99.9	-104.0	-105.4	-5.5	-1.4
1203914	2010	-96.6	-107.0	-107.0	-10.4	0.0
1203915	2009	-90.4	-90.6	-91.9	-1.5	-1.3
1203917	2010	-46.2	-51.0	-52.1	-5.9	-1.1
1203918	2010	-78.6	-80.2	-80.5	-1.9	-0.3
1203920	2014	-51.9	-51.8	-54.1	-2.2	-2.3
1204402	2010	-115.2	-126.7	-129.7	-14.5	-3.0
1204408	2010	-113.7	-126.6	-128.1	-14.4	-1.5
1204415	2010	-97.0	-106.0	-107.6	-10.6	-1.6
1204423	2017	-125.6	-128.4	-130.4	-4.8	-2.0

Donley County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
1204451	2008	-121.7	-137.7	-140.9	-19.2	-3.2
1204711	2009	-52.4	-37.0	-38.8	13.6	-1.8
1204805	1980	-40.4	-37.1	-40.0	0.4	-2.9
1209102	2001	-99.7	-101.6	-101.7	-2.0	-0.1
1209304	1977	-25.5	-27.6	-27.2	-1.7	0.4
1210121	2006	-129.3	-137.4	-136.9	-7.6	0.5
1210218	1977	-63.7	-66.8	-67.7	-4.0	-0.9
1210301	2000	-9.2	-22.6	-24.3	-15.1	-1.7
1210305	1968	-32.6	-46.6	-48.0	-15.4	-1.4
1210310	2000	-19.8	-36.4	-37.4	-17.6	-1.0
1210327	2015	-47.0	-47.0	-48.1	-1.1	-1.1
1210353	2000	-17.3	-28.0	-31.2	-13.9	-3.2
1210401	1958	-111.6	-113.9	-114.2	-2.6	-0.3
1210513	2004	-116.2	-117.7	-118.4	-2.2	-0.7
1210651	2011	-67.8	-69.3	-69.1	-1.3	0.2
1211116	2010	-112.4	-118.3	-119.6	-7.2	-1.3
1211122	2009	-114.4	-116.0	-116.8	-2.4	-0.8
1211124	2009	-183.2	-188.5	-189.5	-6.3	-1.0
1211128	2021	-131.2		-131.2	0.0	
1211129	2009	-183.9	-166.5	-169.9	14.0	-3.4
1211131	2009	-76.3	-82.6	-83.5	-7.2	-0.9
1211137	2017	-113.1	-114.0	-114.2	-1.1	-0.2
1211202	2015	-56.6	-54.8	-55.1	1.5	-0.3
1211207	1961	-82.4	-107.1	-111.5	-29.1	-4.4
1211212	2010	-90.7	-85.1	-91.4	-0.7	-6.3
1211217	2017	-143.7	-144.1	-145.4	-1.7	-1.3
1211232	2010	-165.5		-196.8	-31.3	
1211310	1977	-88.3	-79.6	-81.9	6.4	-2.3
1211312	2010	-57.4	-64.8	-66.8	-9.4	-2
1211313	2010	-147.1	-154.7	-156.4	-9.3	-1.7
1211320	2009	-83.3	-89.5	-91.4	-8.1	-1.9
1211327	2010	-119.0	-127.6	-126.7	-7.7	0.9
1211353	1997	-104.1	-111.7	-112.4	-8.3	-0.7
1211404	1977	-193.0		-200.7	-7.7	
1211607	2009	-133.4	-136.9	-136.1	-2.7	0.8
1212104	1999	-189.9	-131.3	-130.4	59.5	0.9
1212111	2009	-59.8	-63.5	-64.1	-4.3	-0.6
1212112	2007	-85.2	-87.6	-88.4	-3.2	-0.8
1212114	2009	-87.2	-92.4	-93.5	-6.3	-1.1
1212115	2009	-125.1	-130.9	-130.4	-5.3	0.5
1212118	2009	-72.9	-91.1	-91.8	-18.9	-0.7
1212152	2009	-95.3	-99.5	-101.4	-6.1	-1.9
1212202	1977	-90.9	-88.5	-87.1	3.8	1.4
1212232	2009	-109.3	-107.6	-108.3	1.0	-0.7

Gray County Ogallala Aquifer
1-Year Change



Legend

Ogallala 1 Year Change

-8 to -6	-0.5 to 0.5
-6 to -4	0.5 to 2
-4 to -2	2 to 4
-2 to -0.5	4 to 6

Ogallala Outlier
Town
PGCD Boundary
Aquifer
Ogallala

N

Gray County Ogallala Aquifer

Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
525102	2014	-393.7	-393.3	-393.8	-0.1	-0.5
525502	1969	-352.1	-354.5	-354.8	-2.7	-0.3
525601	2002	-369.0	-372.3	-372.1	-3.1	0.2
525843	2014	-377.8	-379.7	-379.1	-1.3	0.6

Gray County Ogallala Aquifer

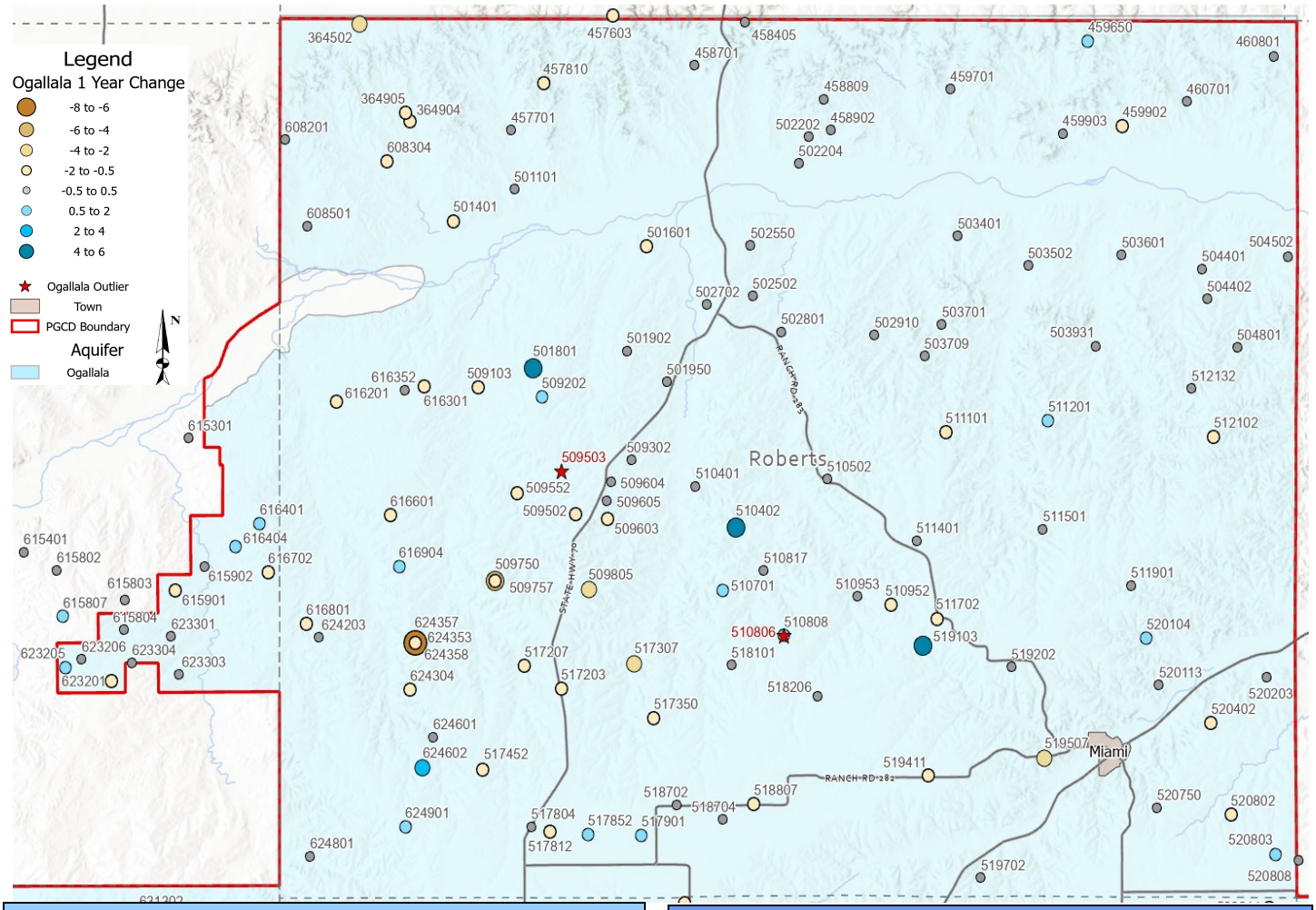
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
525904	1958	-347.9	-372.7	-372.0	-24.1	0.7
526102	2006	-370.0	-359.1	-360.2	9.8	-1.1
526401	1973	-365.0	-378.0	-377.4	-12.4	0.6
526424	2019	-380.9	-381.7	-381.2	-0.3	0.5
526501	1958	-346.0	-371.1	-372.2	-26.2	-1.1
526615	2014	-377.6	-383.2	-385.4	-7.8	-2.2
526703	2014	-378.1	-370.0	-371.1	7.0	-1.1
526802	1999	-355.2	-362.2	-362.3	-7.1	-0.1
526853	1999	-364.7	-372.8	-371.7	-7.0	1.1

Gray County Wells Continued on Next Page

Gray County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
527102	1961	-343.1	-370.8	-372.2	-29.1	-1.4
527152	2009	-344.3	-350.5	-352.3	-8.0	-1.8
527501	1974	-339.0	-354.9	-356.7	-17.7	-1.8
527602	1975	-324.0	-335.7	-336.6	-12.6	-0.9
527651	2009	-348.1	-347.1	-347.6	0.5	-0.5
527703	1980	-360.2	-376.3	-379.5	-19.3	-3.2
527801	1968	-118.4	-136.9	-137.1	-18.7	-0.2
527802	1975	-342.0	-346.9	-346.8	-4.8	0.1
527901	1958	-331.5	-342.1	-343.6	-12.1	-1.5
528203	1994	-340.6	-344.1	-345.3	-4.7	-1.2
528214	2012	-348.2	-349.7	-350.5	-2.3	-0.8
528401	1958	-321.4	-337.6	-336.3	-14.9	1.3
528501	1974	-297.0	-286.5	-286.9	10.1	-0.4
528701	1972	-112.0	-114.2	-113.8	-1.8	0.4
533401	1958	-324.8	-355.8	-352.8	-28.0	3.0
533604	1999	-76.7	-79.8	-80.1	-3.4	-0.3
533802	1971	-210.0	-212.1	-212.2	-2.2	-0.1
533805	2010	-342.9	-345.2	-345.9	-3.0	-0.7
534101	1966	-150.0	-144.0	-143.9	6.1	0.1
534204	1965	-180.0	-196.9	-197.1	-17.1	-0.2
534401	1963	-116.0	-120.5	-120.8	-4.8	-0.3
534451	2002	-108.8	-112.1	-111.6	-2.8	0.5
534507	1977	-34.8	-35.2	-35.4	-0.6	-0.2
534522	2016	-54.0	-76.5	-76.9	-22.9	-0.4
534606	1977	-74.0	-75.5	-75.1	-1.1	0.4
534703	1962	-85.0	-75.9	-76.2	8.8	-0.3
534902	1977	-73.0	-71.8	-72.1	0.9	-0.3
535201	1968	-109.9	-123.0	-123.8	-13.9	-0.8
535302	1969	-14.0	-17.1	-17.6	-3.6	-0.5
535403	1968	-120.0	-126.1	-127.3	-7.3	-1.2
535503	1978	-77.0	-76.9	-76.8	0.2	0.1
535603	1977	-78.5	-77.1	-77.2	1.3	-0.1
535802	1968	-116.2	-120.3	-120.2	-4.0	0.1
536102	1979	-163.0	-168.1	-168.7	-5.7	-0.6
536201	1968	-144.6	-153.3	-153.9	-9.3	-0.6
536402	1977	-9.6	-8.7	-8.6	1.0	0.1
541101	1958	-339.6	-378.1	-378.8	-39.2	-0.7
541354	2012	-354.8	-362.9	-362.7	-7.9	0.2
541402	2015	-318.8	-320.8	-320.9	-2.1	-0.1
541403	1981	-290.4	-297.5	-297.5	-7.1	0.0
541703	2019	-260.6	-261.2	-260.9	-0.3	0.3
541805	2018	-269.8	-269.1	-266.8	3.0	2.3
542101	1968	-252.2	-264.9	-264.1	-11.9	0.8

Gray County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
542201	1968	-128.7	-133.0	-133.1	-4.4	-0.1
542202	1977	-262.5	-262.2	-263.1	-0.6	-0.9
542301	1968	-136.4	-140.7	-141.8	-5.4	-1.1
542401	1968	-193.9	-202.9	-203.9	-10.0	-1.0
542702	1978	-144.7	-146.0	-145.9	-1.2	0.1
542801	1968	-78.1	-83.1	-82.7	-4.6	0.4
543202	1977	-111.3	-113.1	-112.9	-1.6	0.2
543703	1968	-15.3	-15.9	-16.3	-1.0	-0.4
543705	1967	-105.0	-107.8	-107.2	-2.2	0.6
544102	1977	-141.9	-141.9	-141.6	0.3	0.3
544401	1968	-64.0	-63.5	-63.4	0.6	0.1
544610	1967	-178.0	-187.7	-187.8	-9.8	-0.1
544703	1977	-132.6	-131.2	-132.6	0.0	-1.4
544705	1977	-66.0	-66.3	-65.8	0.2	0.5
544714	2006	-109.8	-115.9	-116.8	-7.0	-0.9
544801	1968	-116.1	-115.2	-115.1	1.0	0.1
549302	2005	-214.0	-197.6	-197.7	16.3	-0.1
550202	1977	-26.0	-23.6	-23.8	2.2	-0.2
550203	1977	-58.7	-57.3	-57.2	1.5	0.1
550204	1977	-52.9	-53.6	-53.2	-0.3	0.4
550302	1968	-88.0	-87.7	-87.1	0.9	0.6
551101	1968	-216.0	-216.1	-216.6	-0.6	-0.5
551103	1991	-138.7	-139.6	-138.8	-0.1	0.8
551202	1977	-193.9	-196.0	-195.8	-1.9	0.2
551304	1977	-75.6	-79.2	-79.3	-3.7	-0.1
552111	1977	-113.2	-111.9	-111.6	1.6	0.3
552308	1967	-107.0	-105.2	-106.2	0.8	-1.0
552401	1968	-85.8	-73.9	-73.9	11.9	0.0
552452	2001	-105.7	-113.8	-113.2	-7.5	0.6
552603	1967	-21.0	-21.8	-21.5	-0.5	0.3
632606	1980	-378.8	-367.2	-368.6	10.2	-1.4
632803	1967	-375.0	-397.1	-397.6	-22.6	-0.5
632820	2015	-369.2	-369.6	-370.1	-0.9	-0.5
640205	1982	-384.3	-389.4	-389.9	-5.6	-0.5
640306	1965	-317.5	-392.5	-391.6	-74.1	0.9
640501	1980	-362.7	-379.5	-379.4	-16.7	0.1
640802	1968	-326.5	-377.1	-377.1	-50.6	0.0
648205	2014	-378.8	-382.8	-383.4	-4.6	-0.6
648253	1974	-340.0	-361.1	-361.3	-21.3	-0.2
648804	2013	-289.8	-293.0	-293.9	-4.1	-0.9
656306	1980	-273.6	-294.3	-293.4	-19.8	0.9
656526	2013	-304.4	-316.5	-318.8	-14.4	-2.3

Hutchinson and Roberts Ogallala Aquifer 1-Year Change



Hutchinson County Ogallala Aquifer

Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
615301	1999	-131.2	-116.2	-115.9	15.3	0.3
615401	2008	-137.2	-133.5	-133.8	3.4	-0.3
615802	1982	-166.5		-160.2		
615803	1999	-79.1	-83.6	-83.1	-4.0	0.5
615804	1999	-111.4	-112.3	-111.8	-0.4	0.5
615807	2019	-146.6	-147.2	-146.2	0.4	1.0
615901	1999	-73.3	-75.1	-75.7	-2.4	-0.6
615902	2004	-25.7	-25.7	-25.3	0.4	0.4
616401	2001	-294.6	-291.7	-290.7	3.9	1.0
616404	1999	-101.8	-102.8	-101.9	-0.1	0.9
616702	2004	-237.4	-246.2	-247.0	-9.6	-0.8
623201	1955	-190.0	-206.4	-206.9	-16.9	-0.5
623205	2004	-154.6	-159.2	-158.3	-3.7	0.9
623206	2016	-197.1	-197.9	-198.1	-1.0	-0.2
623301	1999	-116.2	-117.0	-116.8	-0.6	0.2
623303	2003	-103.8	-98.0	-98.2	5.6	-0.2
623304	2004	-190.8	-191.2	-191.4	-0.6	-0.2

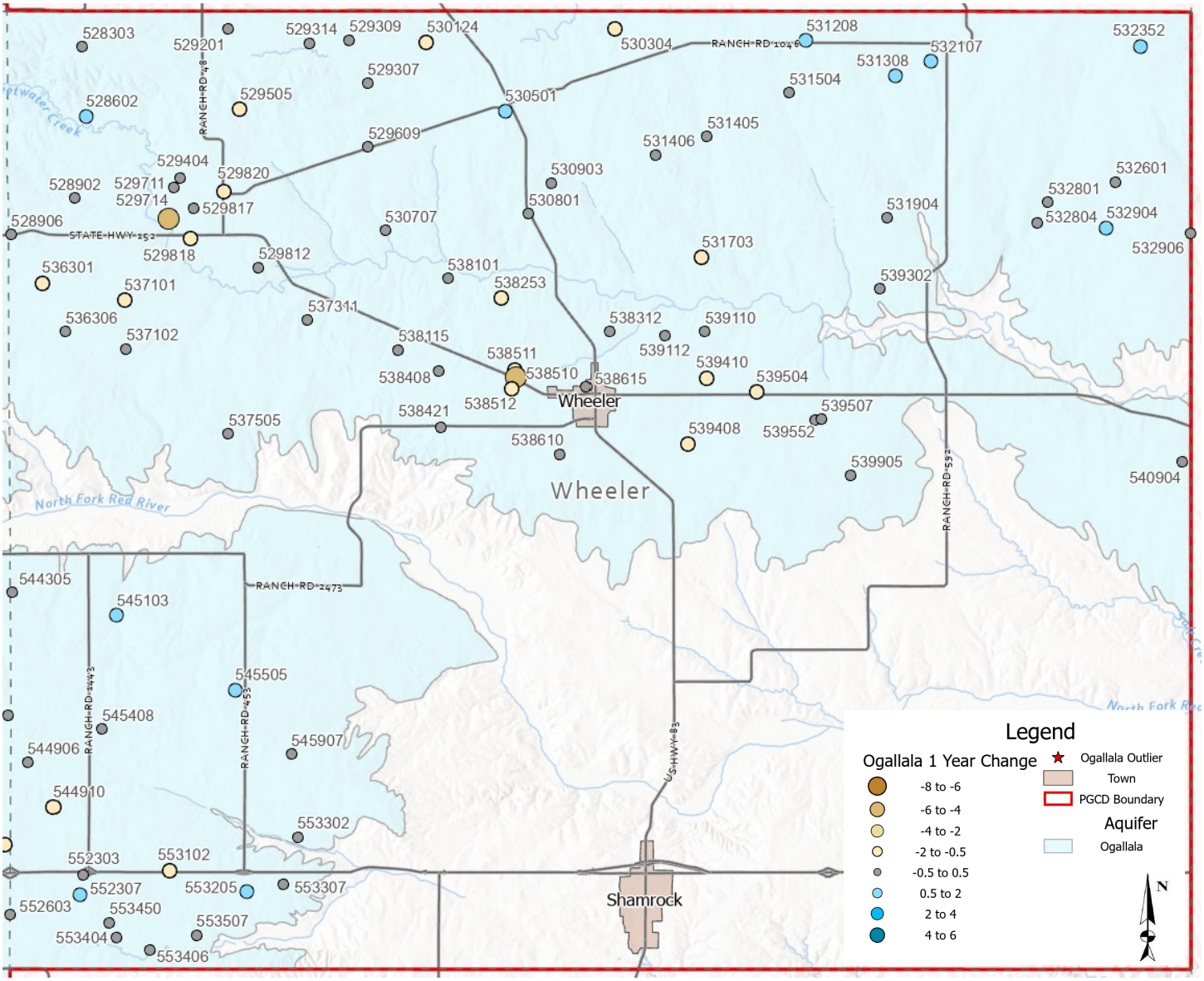
Roberts County Ogallala Aquifer

Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
364502	1977	-412.0	-460.4	-463.1	-51.1	-2.7
364904	2000	-108.6	-120.6	-121.4	-12.8	-0.8
364905	2007	-94.8	-104.0	-104.7	-9.9	-0.7
457603	2006	-401.6	-413.9	-414.5	-12.9	-0.6
457701	2003	-22.0	-30.2	-30.2	-8.2	0.0
457810	1999	-253.4	-261.3	-261.8	-8.4	-0.5
458405	2000	-337.8	-347.6	-348.0	-10.2	-0.4
458701	1980	-73.8	-96.3	-96.1	-22.3	0.2
458809	2014	-161.4	-162.4	-162.6	-1.2	-0.2
458902	2004	-117.4	-120.9	-121.1	-3.7	-0.2
459650	2000	-275.8	-273.0	-271.2	4.6	1.8
459701	1980	-48.4	-56.2	-55.9	-7.5	0.3
459902	1999	-46.6	-47.8	-48.4	-1.8	-0.6
459903	1999	-39.7	-41.3	-41.4	-1.7	-0.1
460701	1996	-96.9	-97.8	-97.9	-1.0	-0.1
460801	1980	-189.3	-186.5	-186.3	3.0	0.2

Roberts County Wells Continued on Next Page

Roberts County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
501101	1977	-65.0	-60.4	-60.5	4.5	-0.1
501401	1980	-49.2	-55.4	-55.9	-6.7	-0.5
501601	2008	-88.0	-83.9	-84.8	3.2	-0.9
501801	1969	-240.0	-243.2	-237.9	2.1	5.3
501902	1998	-188.6	-210.6	-210.7	-22.1	-0.1
501950	2003	-127.8	-132.8	-132.7	-4.9	0.1
502202	1980	-67.2	-71.2	-71.4	-4.2	-0.2
502204	2007	-18.4	-12.9	-13.3	5.1	-0.4
502502	1975	-112.0	-108.6	-108.3	3.7	0.3
502550	2000	-101.1	-102.8	-102.7	-1.6	0.1
502702	1980	-57.5	-60.7	-61.1	-3.6	-0.4
502801	1974	-11.0	-8.3	-8.1	2.9	0.2
502910	2012	-166.9	-168.7	-168.8	-1.9	-0.1
503401	1970	-95.0	-100.6	-100.8	-5.8	-0.2
503502	1999	-29.5	-32.5	-32.8	-3.3	-0.3
503601	1980	-85.0	-87.1	-86.9	-1.9	0.2
503701	1975	-85.4	-87.4	-87.7	-2.3	-0.3
503709	2005	-276.7	-279.1	-279.2	-2.5	-0.1
503931	2011	-50.3	-52.0	-51.7	-1.4	0.3
504401	1976	-99.1	-100.8	-100.9	-1.8	-0.1
504402	1996	-167.0	-169.0	-169.2	-2.2	-0.2
504502	1977	-116.7	-116.6	-116.4	0.3	0.2
504801	1980	-221.9	-162.3	-161.9	60.0	0.4
509103	2015	-51.0	-56.5	-57.8	-6.8	-1.3
509202	1975	-236.2	-271.8	-270.6	-34.4	1.2
509502	2000	-278.9	-323.1	-324.9	-46.0	-1.8
★ **509503**	2002	-250.7	-282.8			
509552	2002	-80.4	-134.3	-135.9	-55.5	-1.6
509603	1980	-181.3	-220.3	-221.9	-40.6	-1.6
509604	2003	-180.4	-207.0	-207.1	-26.7	-0.1
509605	2004	-233.1	-262.1	-262.2	-29.1	-0.1
509750	1999	-283.5	-481.0	-486.9	-203.4	-5.9
509757	1999	-283.3	-484.7	-486.6	-203.3	-1.9
509805	1999	-302.2	-330.3	-332.3	-30.1	-2.0
510401	1976	-166.1	-173.0	-172.9	-6.8	0.1
510402	2004	-251.8	-298.2	-292.4	-40.6	5.8
510502	1977	-240.2	-263.8	-263.3	-23.1	0.5
510701	2004	-279.6	-370.7	-369.6	-90.0	1.1
★ **510806**	2010	-416.4	-463.8	-434.4	-18.0	29.4
510808	2010	-373.2	-415.7	-414.2	-41.0	1.5
510817	2011	-187.1	-204.9	-205.3	-18.2	-0.4
510952	2001	-345.4	-417.5	-418.1	-72.7	-0.6
511101	1977	-281.6	-294.9	-295.5	-13.9	-0.6
511201	1977	-292.2	-296.9	-296.1	-3.9	0.8
511401	1976	-344.1	-329.4	-329.0	15.1	0.4
511501	1980	-310.9	-323.1	-323.4	-12.5	-0.3
511702	1977	-358.4	-458.1	-458.8	-100.4	-0.7
511901	1980	-274.8	-283.7	-284.1	-9.3	-0.4
512102	1999	-281.7	-280.3	-280.8	0.9	-0.5
512132	2019	-329.6	-330.0	-329.6	0.0	0.4
517203	1999	-319.9	-334.7	-336.1	-16.2	-1.4
517207	2012	-195.9	-207.7	-209.6	-13.7	-1.9
517307	2010	-122.8	-140.7	-143.5	-20.7	-2.8
517350	2002	-341.0	-357.9	-358.7	-17.7	-0.8
517452	2002	-355.5	-365.7	-366.8	-11.3	-1.1
517804	1980	-396.6	-407.1	-406.9	-10.3	0.2
517812	2017	-402.1	-403.5	-404.6	-2.5	-1.1
517852	2001	-405.7	-411.8	-411.2	-5.5	0.6
517901	1996	-390.3	-399.5	-398.6	-8.3	0.9
518206	2009	-393.1	-454.0	-454.3	-61.2	-0.3
518250	2002	-333.6	-478.5	-471.7	-138.1	6.8
518702	1975	-387.3	-396.9	-396.6	-9.3	0.3
518704	1996	-381.2	-389.5	-389.7	-8.5	-0.2
518807	2010	-372.6	-380.3	-381.9	-9.3	-1.6
519103	2012	-424.6	-425.8	-421.7	2.9	4.1
519202	1975	-372.7	-387.3	-387.7	-15.0	-0.4
519411	2014	-364.0	-366.0	-366.7	-2.7	-0.7
519507	2017	-295.5	-293.7	-296.0	-0.5	-2.3
519702	1972	-294.0	-266.0	-265.7	28.3	0.3
520104	1976	-150.0	-152.7	-151.8	-1.8	0.9
520113	2009	-65.5	-74.2	-73.9	-8.4	0.3
520203	1977	-112.2	-113.5	-113.5	-1.3	0.0
520402	1970	-302.0	-297.2	-297.7	4.3	-0.5
520750	2000	-291.1	-294.0	-293.6	-2.5	0.4
520802	1980	-249.9	-245.6	-246.1	3.8	-0.5
520803	2011	-327.8	-327.4	-326.6	1.2	0.8
520808	2012	-315.3	-316.2	-315.8	-0.5	0.4
608201	1980	-159.6	-181.5	-181.3	-21.7	0.2
608304	2009	-79.8	-85.9	-87.0	-7.2	-1.1
608501	1980	-56.2	-67.7	-68.1	-11.9	-0.4
616201	2003	-144.5	-148.2	-149.2	-4.7	-1.0
616301	1975	-198.0	-189.6	-190.1	7.9	-0.5
616352	2003	-180.8	-191.1	-190.6	-9.8	0.5
616601	1999	-215.9	-284.6	-285.7	-69.8	-1.1
616801	1977	-212.6	-230.2	-231.4	-18.8	-1.2
616904	1998	-224.3	-332.7	-331.9	-107.6	0.8
624203	1999	-240.4	-255.4	-255.1	-14.7	0.3
624304	1999	-279.3	-314.9	-315.9	-36.6	-1.0
624353	1999	-295.1	-364.5	-366.3	-71.2	-1.8
624357	1999	-295.0	-358.9	-365.8	-70.8	-6.9
624358	1999	-292.5	-348.3	-349.2	-56.7	-0.9
624601	1996	-200.4	-214.1	-214.3	-13.9	-0.2
624602	2001	-327.1	-331.4	-328.7	-1.6	2.7
624801	1977	-77.5	-113.1	-112.8	-35.3	0.3
624901	1976	-350.5	-361.1	-360.3	-9.8	0.8

Wheeler County Ogallala Aquifer
1-Year Change



Wheeler County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
528303	2000	-297.4	-299.5	-299.8	-2.4	-0.3
528602	1979	-111.0	-119.3	-117.7	-6.7	1.6
528902	1978	-24.7	-40.6	-40.3	-15.6	0.3
528906	2003	-167.0	-179.2	-178.7	-11.7	0.5
529201	1956	-140.2	-140.8	-141.1	-0.9	-0.3
529307	1975	-135.0	-117.9	-118.2	16.8	-0.3
529309	2018	-93.1	-92.0	-92.2	0.9	-0.2
529314	2018	-66.2	-67.0	-66.8	-0.6	0.2
529404	2003	-60.7	-67.6	-67.4	-6.7	0.2

Wheeler County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
529505	2013	-151.6	-148.5	-149.1	2.5	-0.6
529609	1999	-57.9	-59.0	-59.2	-1.3	-0.2
529711	1967	-60.0	-72.0	-72.3	-12.3	-0.3
529714	1999	-2.9	-9.7	-15.1	-12.2	-5.4
529812	1967	-24.0	-25.1	-25.2	-1.2	-0.1
529817	1979	-73.3	-72.1	-72.3	1.0	-0.2
529818	1979	-51.2	-58.2	-59.1	-7.9	-0.9
529820	1987	-64.0	-75.5	-76.7	-12.7	-1.2
530124	2006	-26.3	-26.7	-27.9	-1.6	-1.2

Wheeler County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
530304	1975	-110.0	-85.5	-86.2	23.8	-0.7
530501	1953	-97.6	-110.8	-109.8	-12.2	1.0
530707	1980	-13.8	-14.0	-13.9	-0.1	0.1
530801	1960	-60.9	-68.5	-68.3	-7.4	0.2
530903	1978	-80.9	-81.4	-81.1	-0.2	0.3
531208	2012	-155.9	-156.5	-155.3	0.6	1.2
531308	2019	-55.0	-55.1	-54.2	0.8	0.9
531405	2000	-11.7	-15.8	-15.3	-3.6	0.5
531406	1976	-95.0	-83.0	-82.8	12.2	0.2
531504	1980	-38.6	-35.7	-35.2	3.4	0.5
531703	1971	-104.0	-90.4	-91.3	12.7	-0.9
531904	2007	-78.8	-78.1	-77.9	0.9	0.2
532107	1972	-65.0	-54.8	-54.1	10.9	0.7
532352	2003	-98.4	-95.5	-94.8	3.6	0.7
532601	1980	-97.8	-71.1	-70.7	27.1	0.4
532801	1980	-20.8	-1.5	-1.1	19.7	0.4
532804	1999	-18.0	-17.3	-17.1	0.9	0.2
532904	2001	-62.4	-65.6	-64.7	-2.3	0.9
532906	2005	-18.0	-17.3	-17.2	0.8	0.1
536301	2001	-121.0	-147.5	-148.2	-27.2	-0.7
536306	2012	-61.5	-68.0	-67.8	-6.3	0.2
537101	2000	-81.8	-89.5	-90.2	-8.4	-0.7
537102	2001	-52.7	-60.5	-60.7	-8.0	-0.2
537311	1980	-24.2	-27.5	-27.1	-2.9	0.4
537505	1975	-71.0	-64.4	-64.1	6.9	0.3
538101	1956	-1.9	-7.7	-7.5	-5.6	0.2
538115	2020	-138.8	-138.8	-139.2	-0.4	-0.4
538253	2002	-92.5	-99.7	-100.2	-7.7	-0.5
538312	2014	-60.6	-59.8	-59.3	1.3	0.5
538408	1979	-88.8	-107.8	-107.4	-18.6	0.4
538421	2018	-102.5	-102.8	-102.9	-0.4	-0.1
538510	1979	-26.4	-42.2	-43.1	-16.7	-0.9
538511	1977	-28.0	-47.0	-48.6	-20.6	-1.6
538512	1977	-29.0	-48.0	-53.6	-24.6	-5.6
538610	1978	-69.3	-71.2	-71.5	-2.2	-0.3
538615	2006	-39.0	-36.6	-36.4	2.6	0.2
539110	2007	-75.5	-76.7	-76.5	-1.0	0.2
539112	2011	-38.3	-41.3	-40.8	-2.5	0.5
539302	1999	-36.3	-49.5	-49.3	-13.0	0.2
539408	1978	-5.4	-5.8	-6.7	-1.3	-0.9
539410	2011	-28.9	-29.6	-30.2	-1.3	-0.6
539504	1986	-62.0	-46.0	-46.6	15.4	-0.6
539507	2008	-26.2	-32.6	-32.4	-6.2	0.2
539552	2000	-23.6	-30.8	-30.7	-7.1	0.1

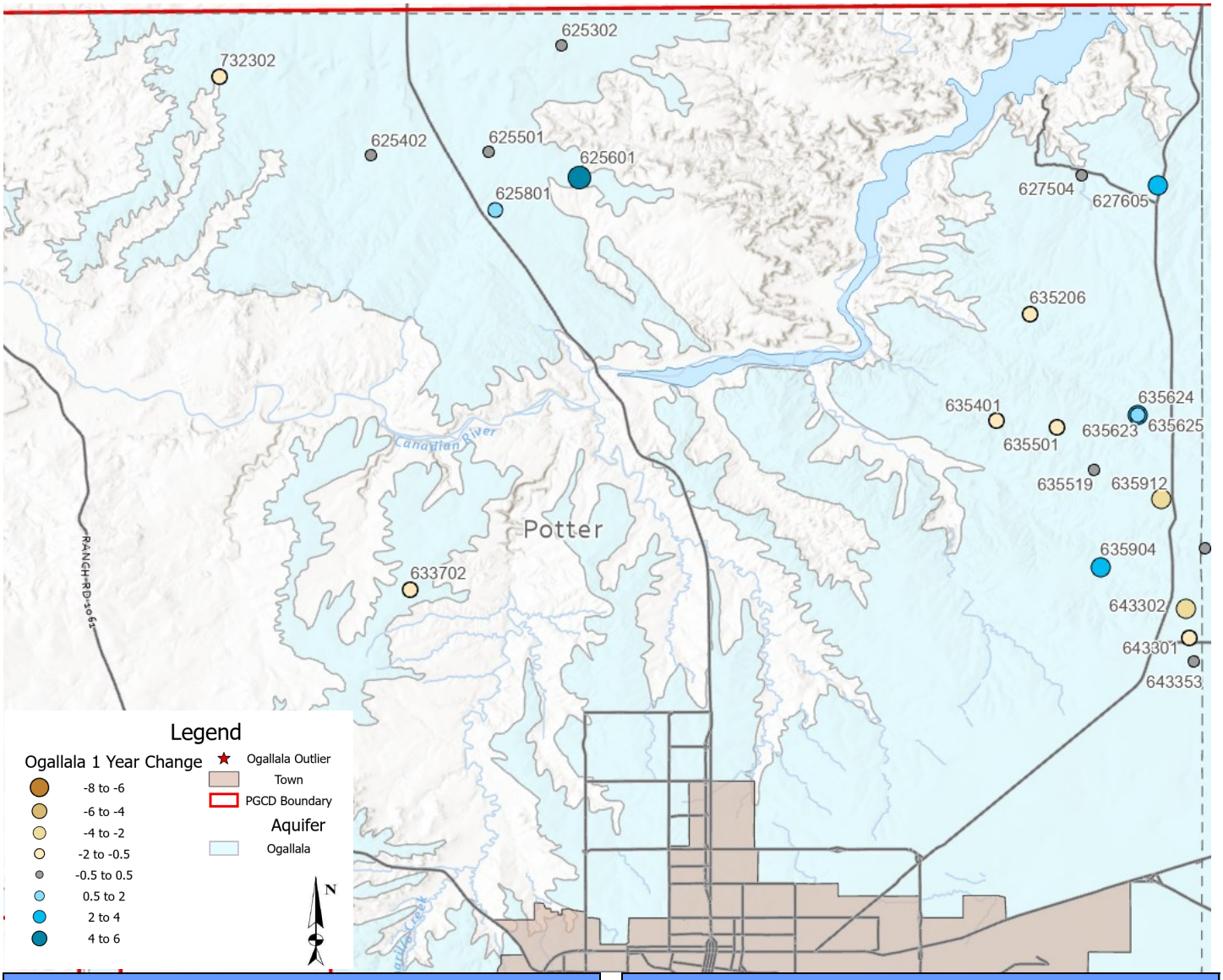
Wheeler County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
539905	1977	-35.0	-41.8	-42.2	-7.2	-0.4
540904	2017	-90.4	-92.5	-92.8	-2.4	-0.3
544305	1980	-87.4	-89.0	-89.2	-1.8	-0.2
544906	1974	-100.0	-111.2	-110.9	-10.9	0.3
544910	2010	-91.5	-95.3	-95.8	-4.3	-0.5
545103	1979	-8.9	-7.6	-6.8	2.1	0.8
545408	1980	-111.0	-110.1	-109.8	1.2	0.3
545505	1979	-109.5	-107.7	-106.9	2.6	0.8
545907	1980	-53.0	-50.1	-49.8	3.2	0.3
552303	1980	-44.5	-48.0	-48.2	-3.7	-0.2
552307	1980	-79.8	-79.4	-78.4	1.4	1.0
553102	1979	-65.3	-74.6	-75.2	-9.9	-0.6
553205	2010	-29.5	-32.5	-31.8	-2.3	0.7
553302	1999	-16.6	-28.4	-28.7	-12.1	-0.3
553307	2011	-38.7	-40.9	-41.3	-2.6	-0.4
553404	1999	-36.4	-10.5	-10.2	26.2	0.3
553406	2010	-7.8	-10.6	-10.7	-2.9	-0.1
553450	2001	-38.8	-43.8	-43.4	-4.6	0.4
553507	2010	-37.9	-41.0	-40.8	-2.9	0.2

2021 Summer Education

PGCD staff presented at the Groom Library Summer Reading Program on June 25. Summer is always an appropriate time to incorporate water conservation conversations with children of all ages, and PGCD was excited to take advantage of this opportunity. PGCD's Meteorologist Corey Clay did a short demonstration about rainfall and talked to the attendees briefly about the District's Precipitation Enhancement Program. Dillon Demmon, the District's summer intern, taught the attendees about aquifers and even had a fun experiment involving ice cream. The District is available to attend group meetings of any kind to talk about the importance of water conservation. For more information, please call PGCD at 806-883-2501.

Attendees participating with District staff at the City Park in Groom.

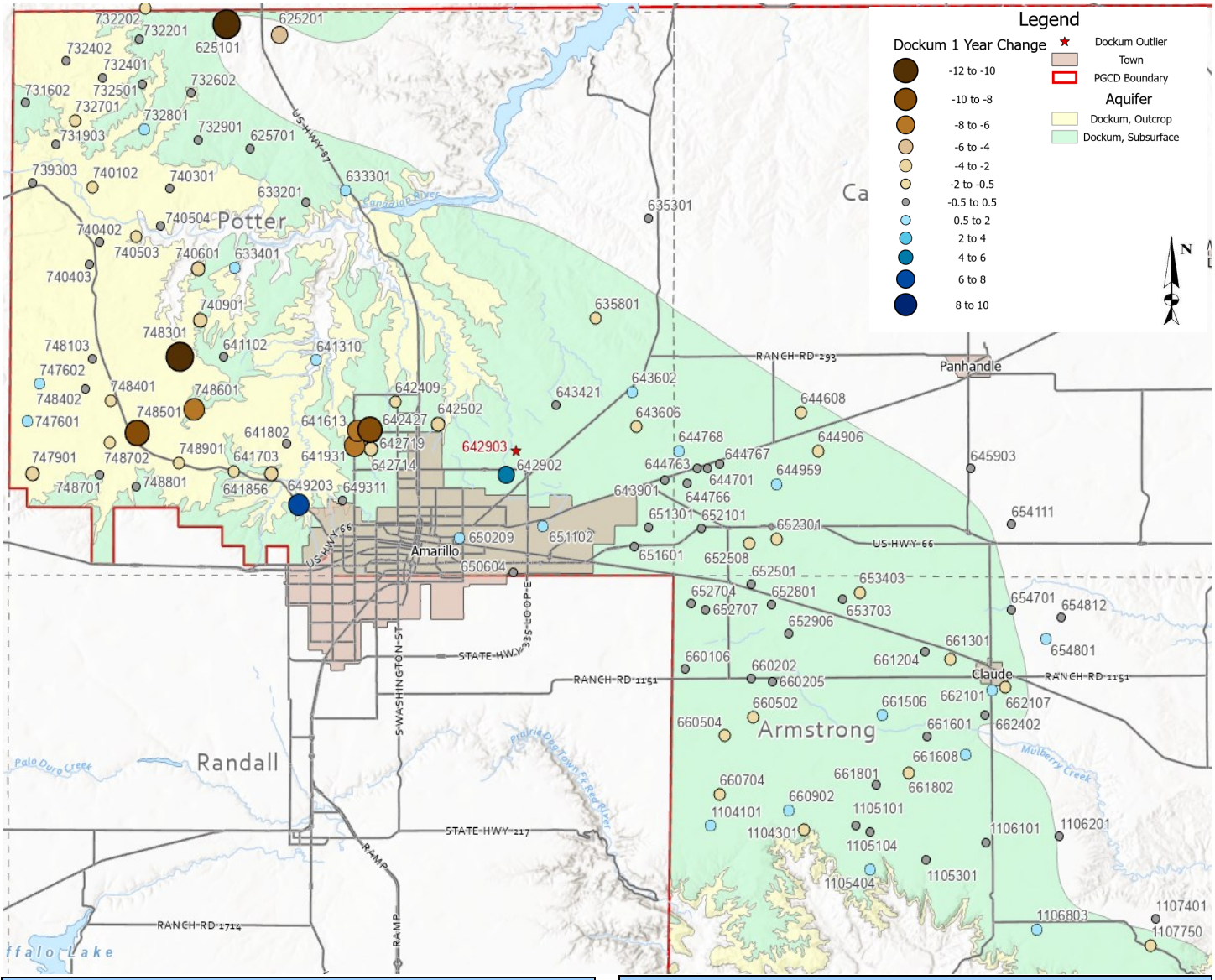
Potter County Ogallala Aquifer
1-Year Change



Potter County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
625302	2002	-90.0	-91.6	-91.8	-1.8	-0.2
625402	2001	-95.9	-97.1	-96.8	-0.9	0.3
625501	1980	-63.9	-84.4	-84.4	-20.5	0.0
625601	2002	-236.5	-262.9	-257.2	-20.7	5.7
625801	1980	-97.9	-84.0	-83.4	14.5	0.6
627504	1980	-61.9	-31.2	-31.5	30.4	-0.3
627605	2001	-121.7	-117.2	-114.6	7.1	2.6
633702	2001	-109.2	-100.1	-100.7	8.5	-0.6
635206	2011	-224.2	-231.6	-232.3	-8.1	-0.7
635401	2001	-281.6	-295.0	-296.7	-15.1	-1.7
635501	1993	-307.6	-336.6	-337.4	-29.8	-0.8

Potter County Ogallala Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
635519	2011	-276.3	-291.2	-291.6	-15.3	-0.4
635623	2011	-230.0	-253.7	-254.0	-24.0	-0.3
635624	2011	-232.5	-272.8	-269.8	-37.3	3.0
635625	2011	-235.6	-284.0	-282.6	-47.0	1.4
635904	1977	-219.5	-272.6	-269.5	-50.0	3.1
635912	2006	-360.0	-358.5	-360.9	-0.9	-2.4
643301	1965	-414.1	-507.0	-508.1	-94.0	-1.1
643302	1966	-415.1	-498.0	-500.7	-85.6	-2.7
643353	2015	-438.5	-444.8	-444.6	-6.1	0.2
732302	2002	-52.2	-145.9	-146.6	-94.4	-0.7

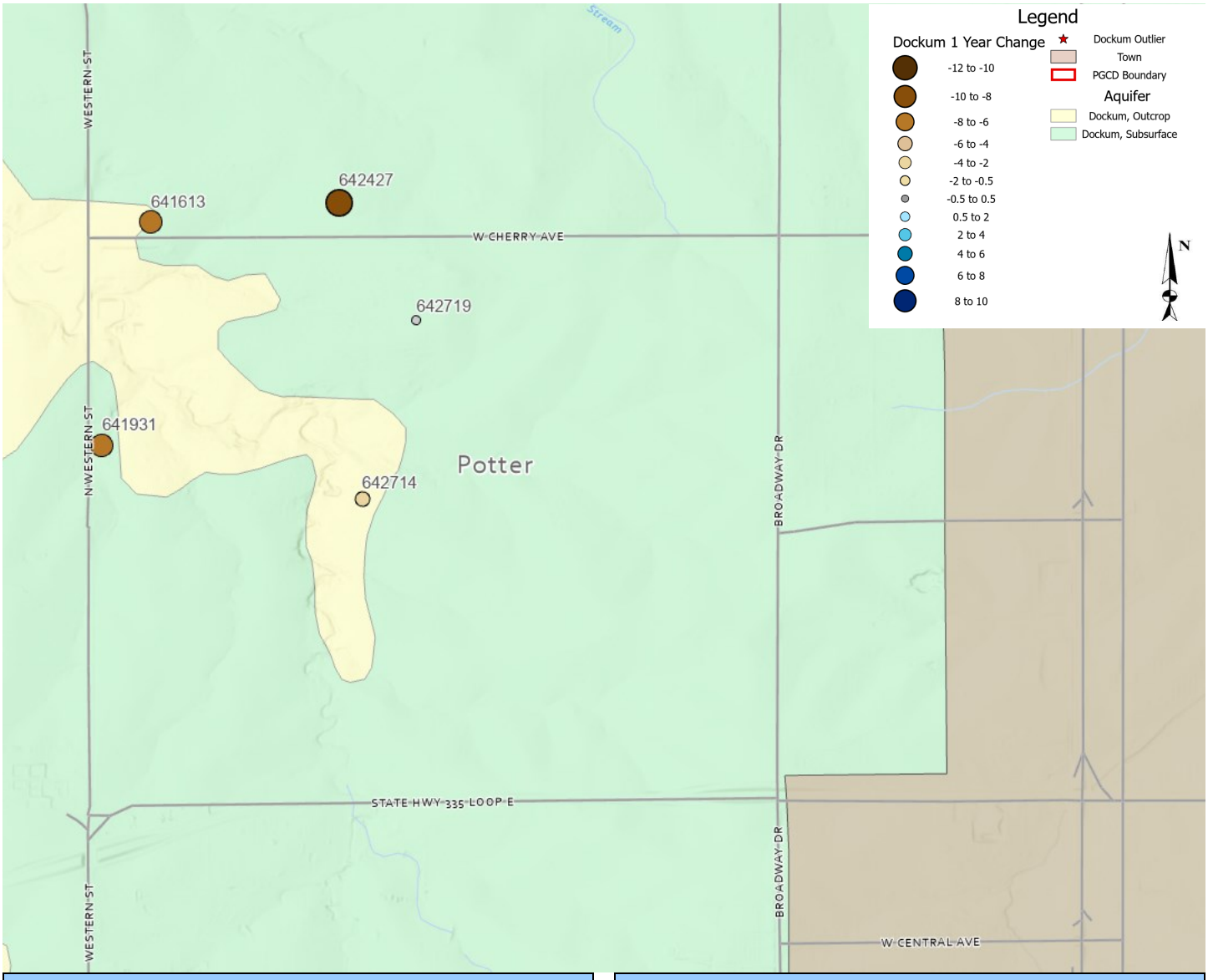
Armstrong, Carson and Potter Counties Dockum Aquifer Well Locations



Armstrong, Carson and Potter Counties Dockum Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
625101	2002	-284.8	-283.0	-293.7	-8.9	-10.7
625201	2002	-211.0	-184.9	-189.8	21.2	-4.9
625701	2002	-153.2	-155.5	-155.5	-2.3	0.0
633201	2002	-84.5	-85.4	-85.1	-0.6	0.3
633301	2001	-61.2	-65.9	-65.1	-3.9	0.8
633401	2001	-63.4	-66.7	-66.0	-2.6	0.7
635301	1993	-293.8	-326.2	-326.3	-32.5	-0.1
635801	1981	-94.7	-130.2	-130.8	-36.1	-0.6

Armstrong, Carson and Potter Counties Dockum Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
641102	2001	-102.7	-97.1	-97.5	5.2	-0.4
641310	2001	-37.2	-35.2	-34.6	2.6	0.6
641613	1980	-92.4	-98.6	-104.9	-12.5	-6.3
641703	2001	-305.2	-296.6	-297.6	7.6	-1.0
641802	2001	-85.6	-91.1	-91.2	-5.6	-0.1
641856	2014	-142.9	-129	-132.8	10.1	-3.8
641931	2003	-57.1	-60.5	-67.3	-10.2	-6.8
642409	2003	-64.2	-73.5	-74.2	-10.0	-0.7

Potter County Inset
Dockum Aquifer Well Locations



Armstrong, Carson and Potter Counties Dockum Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
642427	2013	-159.9	-153.2	-161.4	-1.5	-8.2
642502	2001	-83.6	-80.7	-84.4	-0.8	-3.7
642714	2003	-77.5	-82.4	-85.4	-7.9	-3.0
642719	2003	-126.2	-139.3	-139.5	-13.3	-0.2
642902	1986	-220.3	-226.0	-221.6	-1.3	4.4
★ **642903**	1979	-65.0	-184.8	-149.0	35.8	
643421	2005	-179.6	-179.2	-179.1	0.5	0.1
643602	2001	-320.3	-317.2	-316.6	3.7	0.6

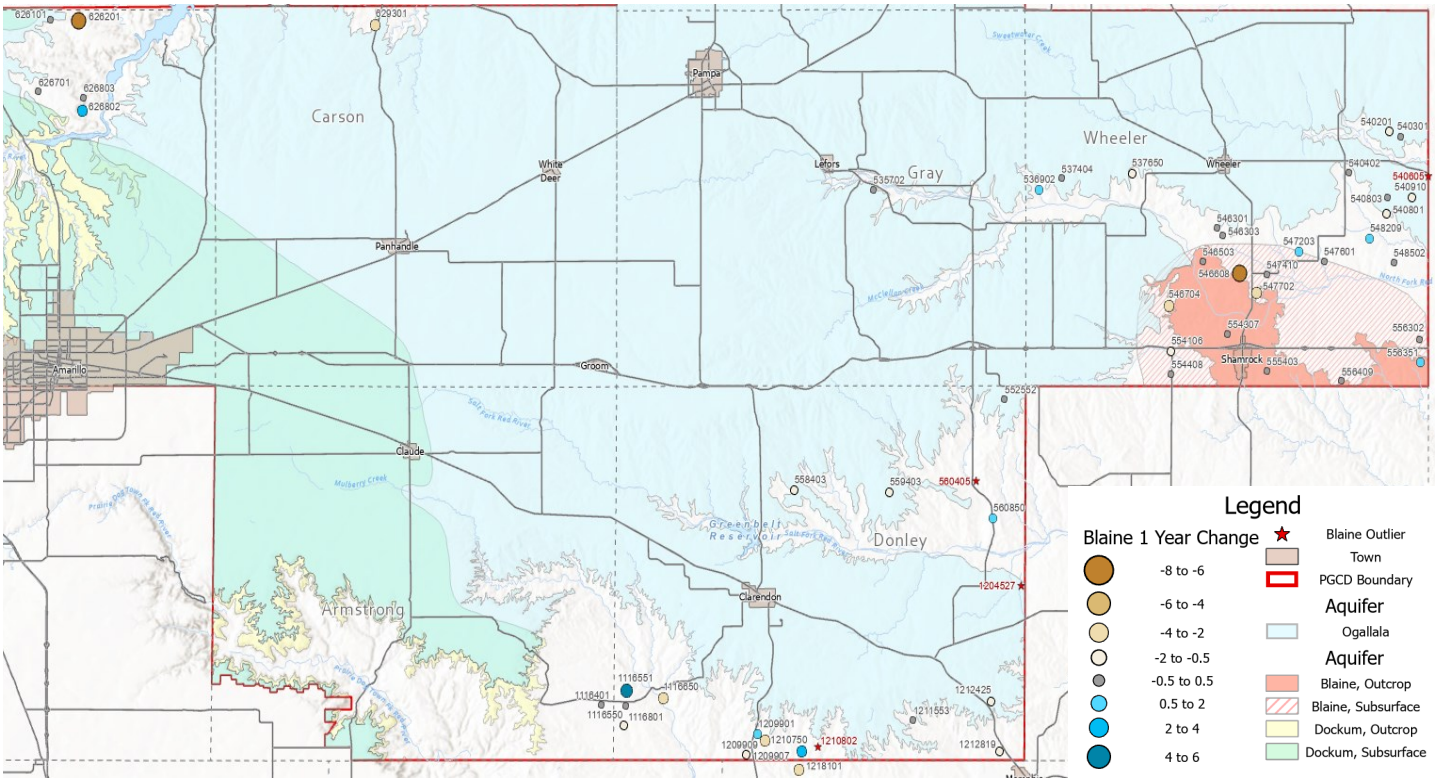
Armstrong, Carson and Potter Counties Dockum Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
643606	2004	-278.8	-264.9	-265.8	13.0	-0.9
643901	2001	-217.0	-202.8	-202.3	14.7	0.5
644608	1980	-369.9	-476.3	-477.1	-107.2	-0.8
644701	1980	-261.2	-246.6	-246.1	15.1	0.5
644763	2000	-233.1	-232.4	-232.2	0.9	0.2
644766	2000	-226.2	-224.8	-224.3	1.9	0.5
644767	2001	-264.7	-258.2	-257.8	6.9	0.4
644768	2002	-272.9	-263.5	-262.6	10.3	0.9

Dockum Wells Continued on Next Page

Armstrong, Carson and Potter Counties Dockum Aquifer Continued						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
644906	2001	-348.9	-350.1	-350.6	-1.7	-0.5
644959	2000	-221.5	-219.3	-218.7	2.8	0.6
645903	1999	-367.2	-416.1	-415.8	-48.6	0.3
649203	2004	-112.0	-106.3	-99.6	12.4	6.7
649204	2004	-130.5	-125.9	-115.2	15.3	10.7
649311	2001	-51.5	-51.9	-52.3	-0.8	-0.4
650209	2001	-235.6	-193.1	-192.0	43.6	1.1
650604	2001	-208.5	-194.6	-194.5	14.0	0.1
651102	2001	-177.9	-168.3	-167.3	10.6	1.0
651301	2001	-225.0	-206.7	-206.5	18.5	0.2
651601	2001	-196.8	-191.1	-191.1	5.7	0.0
652101	1982	-194.6	-192.5	-192.5	2.1	0.0
652301	1956	-192.7	-199.0	-199.7	-7.0	-0.7
652501	1958	-188.4	-201.2	-201.4	-13.0	-0.2
652508	1982	-200.7	-201.7	-202.3	-1.6	-0.6
652704	2006	-170.9	-177.0	-176.6	-5.7	0.4
652707	2002	-220.0	-225.5	-225.1	-5.1	0.4
652801	1958	-154.1	-176.7	-176.3	-22.2	0.4
652906	1976	-106.8	-126.4	-126.7	-19.9	-0.3
653403	1975	-187.2	-180.7	-181.2	6.0	-0.5
653703	1966	-191.0	-179.5	-179.9	11.1	-0.4
654111	2012	-344.0	-343.6	-343.1	0.9	0.5
654701	1975	-260.3	-252.2	-251.9	8.4	0.3
654801	1958	-296.8	-292.1	-291.3	5.5	0.8
654812	2015	-255.9	-255.1	-254.6	1.3	0.5
660106	1993	-214.4	-208.2	-208.4	6.0	-0.2
660202	1992	-163.1	-162.2	-162.3	0.8	-0.1
660205	2005	-163.1	-163.3	-163.4	-0.3	-0.1
660502	1993	-154.5	-151.7	-152.3	2.2	-0.6
660504	2017	-184.0	-186.2	-187.8	-3.8	-1.6
660704	2015	-191.0	-190.6	-191.2	-0.2	-0.6
660902	1975	-212.3	-213.3	-211.3	1.0	2.0
661204	2000	-167.0	-164.3	-164.6	2.4	-0.3
661301	1954	-154.9	-156.4	-157.1	-2.2	-0.7
661506	2011	-156.7	-162.7	-161.9	-5.2	0.8
661601	1975	-170.7	-172.2	-171.7	-1.0	0.5
661608	1976	-165.8	-166.9	-165.1	0.7	1.8
661801	1976	-165.7	-162.2	-162.0	3.7	0.2
661802	1980	-162.5	-156.3	-156.8	5.7	-0.5
662101	1955	-170.9	-205.9	-204.2	-33.3	1.7
662107	2005	-175.0	-184.5	-185.3	-10.3	-0.8
662301	1975	-230.0	-284.9	-285.2	-55.2	-0.3
662402	1999	-146.1	-151.7	-151.9	-5.8	-0.2
731602	2002	-191.7	-147.9	-147.5	44.2	0.4

Armstrong, Carson and Potter Counties Dockum Aquifer Continued						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
731903	2002	-20.8	-24.6	-24.5	-3.7	0.1
732201	2002	-160.1	-164.4	-164.3	-4.2	0.1
732202	2002	-65.5	-64.5	-65.8	-0.3	-1.3
732401	2002	-28.4	-31.8	-31.3	-2.9	0.5
732402	2002	-17.5	-16.3	-16.1	1.4	0.2
732501	2001	-60.2	-60.9	-61.0	-0.8	-0.1
732602	2002	-41.6	-39.6	-39.8	1.8	-0.2
732701	2002	-28.0	-30.9	-32.0	-4.0	-1.1
732801	2002	-132.5	-136.7	-134.7	-2.2	2.0
732901	2002	-171.1	-172.3	-172.3	-1.2	0.0
739303	2015	-98.5	-98.8	-99.2	-0.7	-0.4
740102	2002	-25.6	-27.0	-27.8	-2.2	-0.8
740301	2002	-164.8	-166.7	-166.8	-2.0	-0.1
740402	2001	-84.1	-86.5	-86.4	-2.3	0.1
740403	2002	-59.7	-59.4	-59.5	0.2	-0.1
740503	2001	-30.4	-30.7	-31.5	-1.1	-0.8
740504	2002	-26.0	-27.1	-27.3	-1.3	-0.2
740601	2002	-70.6	-73.9	-76.8	-6.2	-2.9
740901	2002	-132.0	-131.4	-135.2	-3.2	-3.8
747601	2002	-40.1	-40.5	-39.4	0.7	1.1
747602	2002	-96.2	-78.3	-77.5	18.7	0.8
747901	2002	-115.1	-114.0	-116.6	-1.5	-2.6
748103	2002	-42.4	-40.6	-41.0	1.4	-0.4
748301	2002	-78.0	-67.0	-78.8	-0.8	-11.8
748401	2002	-42.2	-53.4	-53.9	-11.7	-0.5
748402	2002	-25.0	-24.0	-24.1	0.9	-0.1
748501	2001	-44.0	-32.9	-41.9	2.1	-9.0
748601	2002	-142.5	-135.4	-142.0	0.5	-6.6
748701	2002	-82.8	-82.9	-83.2	-0.4	-0.3
748702	2002	-42.2	-48.9	-50.0	-7.8	-1.1
748801	2001	-40.2	-43.8	-44.1	-3.9	-0.3
748901	2001	-96.0	-75.6	-76.7	19.3	-1.1
1104101	1975	-197.8	-204.8	-203.6	-5.8	1.2
1104301	1980	-319.9	-300.0	-301.1	18.8	-1.1
1105101	1975	-190.0	-183.0	-183.2	6.8	-0.2
1105104	2004	-174.6	-173.8	-174.1	0.5	-0.3
1105301	1980	-162.9	-158.0	-157.9	5.0	0.1
1105404	2017	-227.8	-227.4	-226.1	1.7	1.3
1106101	1975	-179.6	-173.3	-172.8	6.8	0.5
1106201	1976	-162.7	-159.8	-159.7	3.0	0.1
1106803	2017	-233.8	-261.0	-259.8	-26.0	1.2
1107401	1976	-122.8	-122.6	-122.1	0.7	0.5
1107750	2005	-120.0	-123.5	-124.3	-4.3	-0.8

Armstrong, Carson, Donley, Gray, Potter and Wheeler Counties Blaine Aquifer Well Locations



Armstrong, Carson, Donley, Gray, Potter and Wheeler Counties Blaine Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
535702	1974	-21.0	-23.1	-22.9	-1.9	0.2
536902	2001	-28.6	-11.6	-10.7	17.9	0.9
537404	2019	-58.2	-59.0	-58.8	-0.6	0.2
537650	1999	-7.0	-12.6	-13.1	-6.1	-0.5
540201	1999	-7.3	-7.2	-8.6	-1.3	-1.4
540301	1999	-34.7	-37.3	-37.4	-2.7	-0.1
540402	2001	-33.0	-36.5	-36.4	-3.4	0.1
★ 540605	1967	-53.0				
540801	2000	-20.2	-17.6	-19.2	1.0	-1.6
540803	2000	-10.4	-4.2	-4.3	6.1	-0.1
540910	1999	-17.2	-47.5	-48.1	-30.9	-0.6
546301	1999	-7.5	-19.6	-19.7	-12.2	-0.1
546303	1999	-8.9	-10.3	-10.7	-1.8	-0.4
546503	2001	-34.2	-37.8	-38.1	-3.9	-0.3
546608	1999	-19.5	-35.9	-42.9	-23.4	-7.0
546704	1997	-98.1	-106.6	-109.1	-11.0	-2.5
547203	1956	-25.1	-31.5	-30.9	-5.8	0.6

Armstrong, Carson, Donley, Gray, Potter and Wheeler Counties Blaine Aquifer						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
547410	1999	-21.1	-25.8	-25.8	-4.7	0.0
547601	2000	-47.3	-54.1	-53.9	-6.6	0.2
547702	1999	-30.3	-33.8	-36.9	-6.6	-3.1
548209	2019	-34.8	-32.4	-31.8	3.0	0.6
548502	1999	-31.1	-34.8	-35.2	-4.1	-0.4
552552	2002	-95.6	-100.7	-101.1	-5.5	-0.4
554106	1966	-60.0	-58.9	-60.4	-0.4	-1.5
554307	2002	-40.8	-52.7	-52.3	-11.5	0.4
554408	1999	-85.0	-89.2	-88.7	-3.7	0.5
555403	1999	-74.0	-81.3	-81.4	-7.4	-0.1
556302	2000	-30.6	-9.5	-9.7	20.9	-0.2
556351	2002	-54.1	-60.0	-59.2	-5.1	0.8
556409	2000	-40.6	-55.9	-55.8	-15.2	0.1
558403	1999	-177.0	-129.5	-130.4	46.6	-0.9
559403	1977	-73.0	-77.4	-78.8	-5.8	-1.4
★ 560405	1992	-45.6		-27.3	18.3	
560850	2000	-117.3	-106	-104.2	13.1	1.8

Blaine Wells Continued on Back Page

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Armstrong, Carson, Donley, Gray, Potter and Wheeler Counties Blaine Aquifer Continued						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
626101	2002	-30.4	-31.3	-31.2	-0.8	0.1
626201	2002	-107.0	-126.8	-133.0	-26.0	-6.2
626701	2002	-36.9	-40.4	-40.3	-3.4	0.1
626802	2002	-44.2	-47.2	-44.4	-0.2	2.8
626803	2002	-32.7	-41.0	-41.2	-8.5	-0.2
629301	1977	-180.1	-183.3	-185.4	-5.3	-2.1
1116401	2001	-72.1	-65.0	-65.1	7.0	-0.1
1116550	2001	-121.4	-121.7	-121.2	0.2	0.5
1116551	2001	-131.9	-135.2	-130.4	1.5	4.8
1116650	2001	-5.5	-9.3	-13.2	-7.7	-3.9
1116801	2001	-46.5	-48.6	-49.4	-2.9	-0.8
★**1204527**	2019	-30.2		-31.1	-0.9	
1209901	1993	-46.0	-62.5	-60.7	-14.7	1.8
1209907	2008	-32.3	-30.5	-32.2	0.1	-1.7
1209909	2001	-50.5	-153.1	-156.5	-106.0	-3.4
1210750	2003	-70.4	-55.1	-51.5	18.9	3.6
★ **1210802**	2001	-93.4		-123	-29.6	

Armstrong, Carson, Donley, Gray, Potter and Wheeler Counties Blaine Aquifer Continued						
Well Number	First Year	Depth to Water, in feet			Water Level Difference	Data for Maps
		Initial Year	2020	2021	Initial to Current	1-Year Change
1211553	2001	-22.3	-23.6	-23.2	-0.9	0.4
1212425	2009	-31.0	-37.1	-38.0	-7.0	-0.9
1212819	2011	-27.6	-34.1	-34.8	-7.2	-0.7
1218101	2012	-30.0	-28.0	-30.6	-0.6	-2.6

Ag Loans Available

Panhandle Groundwater Conservation District is accepting loan applications from District producers for center pivot sprinklers, drip irrigation systems, soil moisture probes, and other water-saving equipment.

The loan is available to producers at an interest rate of 3.03 percent with an eight year payback term. Approximate funds available are $83,134.20.

For more information about our ag loan program contact Katie Hodges or Britney Britten at the District office at 806-883-2501.