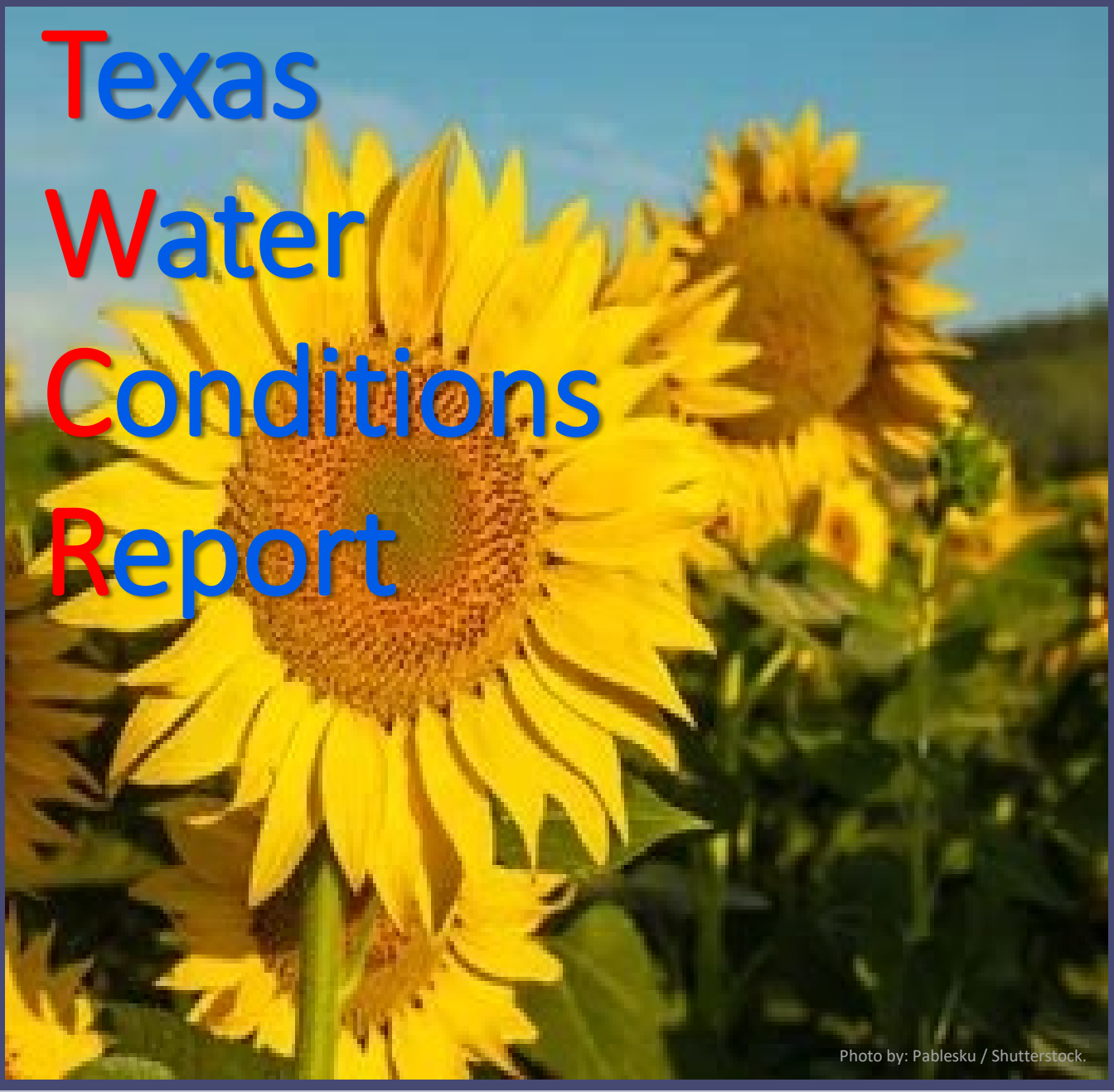
Texas Water Conditions Report



May 2022

Water News:

Schools, libraries, businesses, and utilities across Texas are implementing innovative rainwater harvesting methods to divert and store rainwater on a big scale.
To learn more about these projects and the Texas Rain Catcher Award visit:
https://texaswaternewsroom.org/articles/modern_rainwater_harvesting_efforts_evolve_beyond_backyard_barrels_to_large-scale_water_solutions.html

RAINFALL

Little to no rain [yellow, orange, and red shading, Figure 1(a)] fell over portions of the High Plains, southern Low Rolling Plains, Trans Pecos, portions of the Edwards Plateau, central and southern North Central, much of South Central, portions of Southern, south and western Upper Coast, and portions of western and northern East Texas climate divisions. Some rainfall [light blue and dark blue shading, Figure 1(a)] was recorded in central and northern High Plains, much of the Low Rolling Plains, eastern Trans Pecos, northeastern and southern Edwards Plateau, western and eastern Southern, Lower Valley, much of North Central, East Texas, and northeastern Upper Coast climate divisions. Rainfall accumulations reached 13.91 inches in portions of the state [dark blue shading, Figure 1(a)].

Areas of northern and southern High Plains, southern Low Rolling Plains, much of the Trans Pecos, much of the Edwards Plateau, South Central, northern and central Southern, portions of central North Central, western East Texas, and western Upper Coast received 0 to 50 percent of normal rainfall in May (orange shading, Figure 1(b)] compared to historical data from 1991–2020. Average rainfall [green shading, Figure 1(b)] was seen in central and northern High Plains, portions of the Low Rolling Plains, eastern Trans Pecos, northern and southwestern Edwards Plateau, areas of Southern, much of the Lower Valley, northern and southern North Central, southern South Central, and eastern East Texas climate divisions. The central High Plains, northern Low Rolling Plains, eastern Trans Pecos, western Southern, and portions of the Lower Valley climate divisions received 200–300 percent of normal rainfall [light blue shading, Figure 1(b)]. Western Lower Valley, and western and southern Southern climate divisions received 300–600 percent of normal rainfall [dark blue and purple shading, Figure 1(b)].

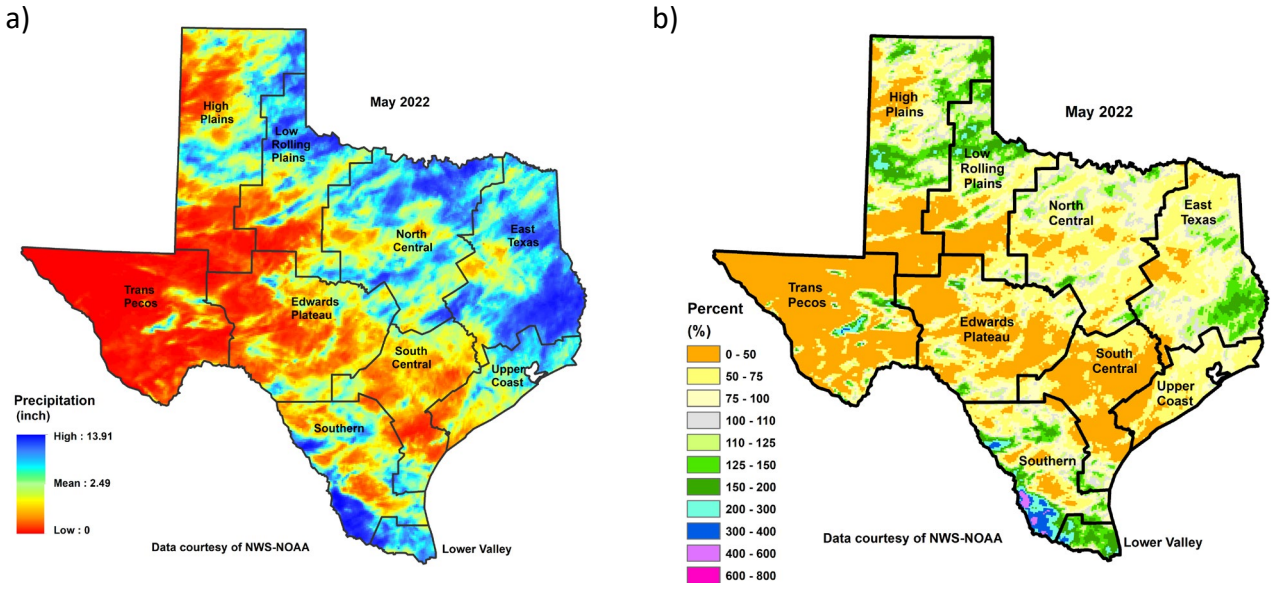


Figure 1: (a) Monthly accumulated rainfall and (b) Percent of normal rainfall

RESERVOIR STORAGE

At the end of May 2022, total conservation storage* in 123 of the state's major water supply reservoirs was 25.1 million acre-feet or 76.7 percent of total conservation storage capacity (Figure 2). This is approximately 0.19 million-acre-feet less than a month ago and approximately 1.80 million acre-feet less than at the end of May 2021.

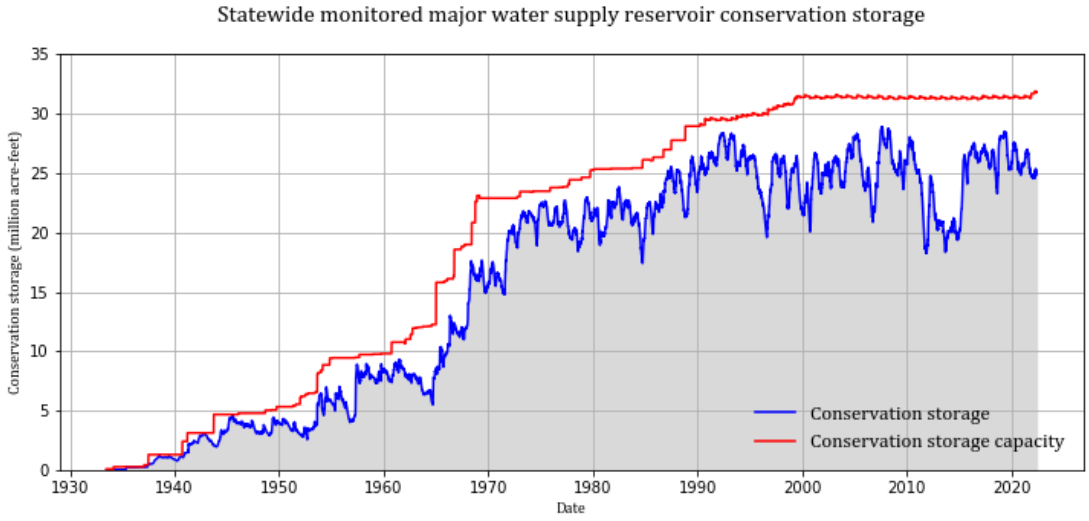


Figure 2: Statewide reservoir conservation storage

Out of 123 reservoirs in the state, 17 reservoirs held 100 percent of conservation storage capacity (Figure 3). Additionally, 39 were at or above 90 percent full. Eight reservoirs remained below 30 percent full: E.V. Spence (22.4 percent full), Falcon (20.8 percent full), Greenbelt (15.3 percent full), Mackenzie (7.0 percent full), Medina Lake (16.5 percent full), O. C. Fisher (4.9 percent full), Palo Duro Reservoir (0.5 percent full), and White River (16.8 percent full). Elephant Butte Reservoir (located in New Mexico) was 12.9 percent full.

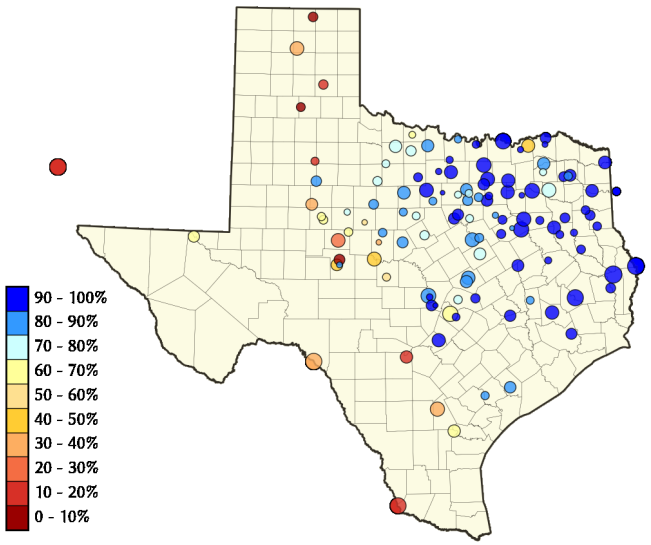


Figure 3: Reservoir conservation storage at end-May expressed as percent full (%)

*Storage is based on end of the month data in 123 major reservoirs that represent 96 percent of the total conservation storage capacity of 188 major water supply reservoirs in Texas plus Elephant Butte Reservoir in New Mexico. Major reservoirs are defined as having a conservation storage capacity of 5,000 acre-feet or greater. Only the Texas share of storage in border reservoirs is counted.

Total regionally combined conservation storage was at or above normal (storage ≥70 percent full) in East Texas (95.8 percent full), North Central (93.2 percent full), and the Upper Coast (92.9 percent full) climate divisions (Figure 4). Conservation storage for the Low Rolling Plains (62.0 percent full), and South Central (65.3 percent full) climate divisions were abnormally low (Figure 4). The Edwards Plateau climate division had moderately low conservation storage (48.3 percent full, Figure 4). The High Plains (26.8 percent full), Southern (29.5 percent full), and the Trans Pecos (21.3 percent full) climate divisions had severely low conservation storage (Figure 4).

Combined conservation storage by river basin or sub-basin was normal to high (>70 percent full, Figure 5) in the Lower Red, Sulphur, Cypress, Upper and Lower Brazos, Upper and Lower Trinity, Upper and Lower Sabine, Neches, San Jacinto, Lower Colorado, Guadalupe, and Lavaca river basins. The Upper Red river basin had abnormally low conservation storage (60–70 percent full, Figure 5). The Upper Colorado and Nueces river basins had moderately low conservation storage (40–60 percent full, Figure 5). The Canadian, Upper/Mid Rio Grande, and Lower Rio Grande, had severely low conservation storage (20–40 percent full, Figure 5), and the San Antonio river basin had extremely low conservation storage (10–20 percent full, Figure 5).

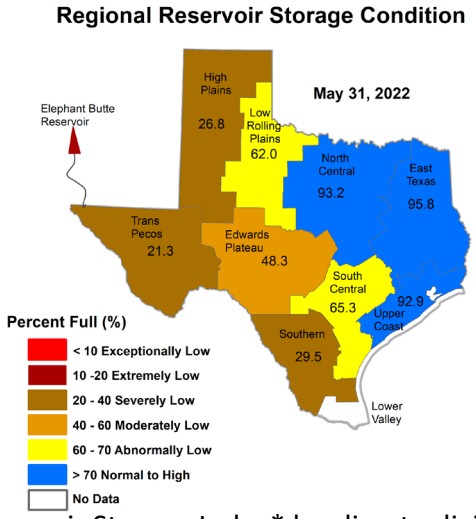


Figure 4: Reservoir Storage Index* by climate division at 5/31/2022

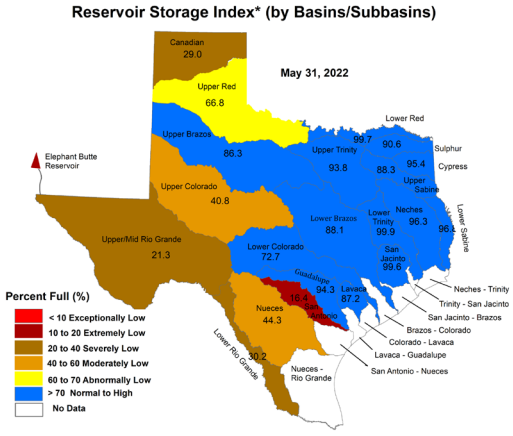


Figure 5: Reservoir Storage Index* by river basin/sub-basin at 5/31/2022

*Reservoir Storage Index is defined as the percent full of conservation storage capacity.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS							
Name of lake or reservoir	Storage capacity	Storage at end-May 2022		Storage change from end-Apr 2022		Storage change from end-May 2021	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
Abilene, Lake	7,900	4,629	58.6	-377	-4.8	-1,109	-14.0
Alan Henry Reservoir	96,207	78,571	81.7	-2,607	-2.7	-15,831	-16.5
*Amistad Reservoir (Texas & Mexico)	3,275,532	856,155	26.1	-64,693	-2.0	-206,495	-6.3
*Amistad Reservoir (Texas)	1,840,849	702,932	38.2	-73,882	-4.0	-247,817	-13.5
Amon G Carter, Lake	19,266	19,266	100.0	0	0.0	0	0.0
Aquilla Lake	43,243	35,897	83.0	-354	0.0	-7,346	-17.0
Arlington, Lake	40,157	36,248	90.3	-1,714	-4.3	-3,909	-9.7
Arrowhead, Lake	230,359	189,162	82.1	-1,560	0.0	-41,197	-17.9
Athens, Lake	29,503	29,503	100.0	0	0.0	0	0.0
*Austin, Lake	23,972	23,081	96.3	170	0.7	-77	0.0
B A Steinhagen Lake	69,186	65,166	94.2	-1,992	-2.9	4,157	6.0
Bardwell Lake	46,122	45,185	98.0	-499	-1.1	-937	-2.0
Belton Lake	435,225	383,579	88.1	-6,231	-1.4	-51,646	-11.9
Benbrook Lake	85,648	73,391	85.7	1,780	2.1	-12,257	-14.3
Bob Sandlin, Lake	192,417	188,437	97.9	-881	0.0	-3,980	-2.1
Bois d'Arc Lake	367,609	147,388	40.1	24,190	6.6	no data	
Bonham, Lake	11,027	11,027	100.0	664	6.0	0	0.0
Brady Creek Reservoir	28,808	14,681	51.0	-431	-1.5	-4,053	-14.1
Bridgeport, Lake	366,236	333,589	91.1	8,743	2.4	-29,507	-8.1
*Brownwood, Lake	130,868	107,985	82.5	-3,551	-2.0	-22,883	-17.5
Buchanan, Lake	816,904	696,652	85.3	-53,486	-6.5	-44,884	-5.5
Caddo, Lake	29,898	29,898	100.0	0	0.0	0	0
Canyon Lake	378,781	360,540	95.2	-5,855	-1.5	16,028	4.2
Cedar Creek Reservoir in Trinity	644,686	592,192	91.9	4,641	0.7	-52,494	-8.1
Champion Creek Reservoir	41,580	26,936	64.8	-820	-2.0	1,757	4.2
Cherokee, Lake	40,094	40,094	100.0	0	0.0	0	0.0
Choke Canyon Reservoir	662,820	254,501	38.4	-9,169	-1.4	-27,823	-4.2
*Cisco, Lake	29,003	23,595	81.4	-683	-2.4	-2,115	-7.3
Coleman, Lake	38,075	32,870	86.3	-776	-2.0	85	0.2
Colorado City, Lake	31,040	25,932	83.5	-1,347	-4.3	-5,108	-16.5
*Coleto Creek Reservoir	30,758	20,168	65.6	-934	-3.0	9,282	30.2
Conroe, Lake	410,988	409,262	99.6	-1,726	0.0	-1,726	0.0
Corpus Christi, Lake	256,062	153,242	59.8	-13,884	-5.4	-3,453	-1.3
Crook, Lake	9,195	9,059	98.5	-136	-1.5	-136	-1.5
Cypress Springs, Lake	66,756	61,926	92.8	468	0.7	-4,830	-7.2
E. V. Spence Reservoir	517,272	115,649	22.4	-3,608	0.0	279	0.1
Eagle Mountain Lake	179,880	162,160	90.1	5,730	3.2	-17,720	-9.9
Elephant Butte Reservoir (Texas)	852,491	109,821	12.9	-578	0.0	7,821	0.9
Elephant Butte Reservoir (Total Stora	1,960,900	254,216	13.0	-1,338	0.0	18,104	0.9
*Falcon Reservoir (Texas & Mexico)	2,646,817	476,482	18.0	36,685	1.4	30,926	1.2
*Falcon Reservoir (Texas)	1,551,007	322,436	20.8	14,192	0.9	-78,439	-5.1
Fork Reservoir, Lake	605,061	467,090	77.2	5,445	0.9	-137,971	-22.8
Fort Phantom Hill, Lake	70,030	57,190	81.7	-2,922	-4.2	-12,840	-18.3
Georgetown, Lake	36,823	26,537	72.1	-927	-2.5	-466	-1.3
Gibbons Creek Reservoir	25,721	22,790	88.6	-2,473	-9.6	-1,469	-5.7
Graham, Lake	45,288	42,105	93.0	1,792	4.0	-3,183	-7.0
Granbury, Lake	132,949	129,709	97.6	0	0.0	-2,181	-1.6

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS							
Name of lake or reservoir	Storage capacity	Storage at end-May 2022		Storage change from end-Apr 2022		Storage change from end-May 2021	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
Continued							
Granger Lake	51,822	51,822	100.0	0	0.0	0	0.0
Grapevine Lake	163,064	163,064	100.0	0	0.0	0	0.0
Greenbelt Lake	59,968	9,166	15.3	-133	0.0	-1,484	-2.5
*Halbert, Lake	6,033	5,274	87.4	-49	0.0	-55	0.0
Hords Creek Lake	8,109	3,038	37.5	-106	-1.3	-1,130	-13.9
Houston County Lake	17,113	17,100	99.9	-13	0.0	-13	0.0
Houston, Lake	130,147	130,147	100.0	0	0.0	0	0.0
Hubbard Creek Reservoir	313,298	253,789	81.0	-6,633	-2.1	-55,136	-17.6
Hubert H Moss Lake	24,058	24,014	99.8	-44	0.0	-44	0.0
Inks, Lake	13,962	12,907	92.4	-811	-5.8	7	0.1
J. B. Thomas, Lake	199,931	65,872	32.9	-4,092	-2.0	38,560	19.3
Jacksonville, Lake	25,670	25,670	100.0	0	0.0	0	0.0
Jim Chapman Lake (Cooper)	260,332	227,092	87.2	3,780	1.5	-33,240	-12.8
Joe Pool Lake	175,800	160,027	91.0	-1,985	-1.1	-15,773	-9.0
Kemp, Lake	245,307	183,011	74.6	-17,538	-7.1	-51,257	-20.9
Kickapoo, Lake	86,345	62,259	72.1	-388	0.0	-12,381	-14.3
Lavon Lake	406,388	406,388	100.0	411	0.1	0	0.0
Leon, Lake	27,762	21,307	76.7	-885	-3.2	-6,455	-23.3
Lewisville Lake	563,228	563,228	100.0	0	0.0	0	0.0
Limestone, Lake	203,780	198,110	97.2	-5,670	-2.8	-5,670	-2.8
*Livingston, Lake	1,741,867	1,741,867	100.0	0	0.0	0	0.0
*Lost Creek Reservoir	11,950	11,577	96.9	118	1.0	-373	-3.1
Lyndon B Johnson, Lake	115,249	111,064	96.4	672	0.6	489	0.4
Mackenzie Reservoir	46,450	3,261	7.0	-71	0.0	-668	-1.4
Marble Falls, Lake	6,901	6,869	99.5	17	0.2	-32	0.0
Martin, Lake	75,726	74,592	98.5	-1,085	-1.4	-1,134	-1.5
Medina Lake	254,823	42,022	16.5	-6,096	-2.4	-48,406	-19.0
Meredith, Lake	500,000	162,784	32.6	-4,494	0.0	-16,381	-3.3
Millers Creek Reservoir	26,768	20,449	76.4	-740	-2.8	-6,319	-23.6
*Mineral Wells, Lake	5,273	5,273	100.0	424	8.0	0	0.0
Monticello, Lake	34,740	28,862	83.1	-159	0.0	-2,087	-6.0
Mountain Creek, Lake	22,850	22,850	100.0	0	0.0	0	0.0
Murvaul, Lake	38,285	37,908	99.0	-377	0.0	-377	0.0
Nacogdoches, Lake	39,522	38,036	96.2	-1,007	-2.5	-1,486	-3.8
Nasworthy	9,615	8,208	85.4	98	1.0	no data	
Navarro Mills Lake	49,827	46,217	92.8	4,731	9.5	-3,610	-7.2
New Terrell City Lake	8,583	7,902	92.1	273	3.2	-681	-7.9
Nocona, Lake (Farmers Crk)	21,444	17,721	82.6	-86	0.0	-3,723	-17.4
North Fork Buffalo Creek Reservoir	15,400	10,202	66.2	-734	-4.8	-5,198	-33.8
O' the Pines, Lake	268,566	256,594	95.5	15,231	5.7	-11,972	-4.5
O. C. Fisher Lake	115,742	5,701	4.9	-443	0.0	-778	0.0
*O. H. Ivie Reservoir	554,340	270,564	48.8	-8,815	-1.6	-64,178	-11.6
Oak Creek Reservoir	39,210	23,916	61.0	-1,068	-2.7	-5,665	-14.4

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS							
Name of lake or reservoir	Storage capacity	Storage at end-May 2022		Storage change from end-Apr 2022		Storage change from end-May 2021	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
Continued							
Palestine, Lake	367,303	365,227	99.4	-2,076	0.0	-2,076	0.0
Palo Duro Reservoir	61,066	275	0.5	-2	0.0	-333	0.0
Palo Pinto, Lake	26,766	23,232	86.8	-592	-2.2	-3,534	-13.2
Pat Cleburne, Lake	26,008	18,287	70.3	-839	-3.2	-7,721	-29.7
*Pat Mayse Lake	113,683	113,683	100.0	0	0.0	0	0.0
Possum Kingdom Lake	538,139	503,737	93.6	-1,362	0.0	-29,939	-5.6
Proctor Lake	54,762	40,850	74.6	-3,556	-6.5	-13,912	-25.4
Ray Hubbard, Lake	439,559	438,515	99.8	3,534	0.8	-209	0.0
Ray Roberts, Lake	788,167	788,167	100.0	0	0.0	0	0.0
Red Bluff Reservoir	151,110	104,567	69.2	-4,729	-3.1	33,450	22.1
Richland-Chambers Reservoir	1,087,839	988,987	90.9	-3,697	0.0	-98,852	-9.1
Sam Rayburn Reservoir	2,857,077	2,739,767	95.9	16,574	0.6	-117,310	-4.1
Somerville Lake	150,293	147,714	98.3	-2,579	-1.7	-2,579	-1.7
Squaw Creek, Lake	151,250	150,586	99.6	2,383	1.6	-664	0.0
Stamford, Lake	51,570	39,334	76.3	-1,480	-2.9	-12,236	-23.7
Stillhouse Hollow Lake	227,771	199,740	87.7	-2,794	-1.2	-28,031	-12.3
Striker, Lake	16,934	16,934	100.0	0	0.0	0	0.0
Sweetwater, Lake	12,267	9,017	73.5	-402	-3.3	-1,051	-8.6
*Sulphur Springs, Lake	17,747	13,434	75.7	1,011	5.7	-4,313	-24.3
Tawakoni, Lake	871,685	821,287	94.2	7,460	0.9	-50,398	-5.8
Texana, Lake	159,566	139,263	87.3	-8,926	-5.6	-19,843	-12.4
Texoma, Lake (Texas & Oklahoma)	2,487,601	2,498,365	100.0	73,321	2.9	-258,762	-10.4
Texoma, Lake (Texas)	1,243,801	1,243,801	100.0	31,279	2.5	0	0.0
Toledo Bend Reservoir (Texas & Louis	4,472,900	4,335,475	96.9	-22,601	0.0	-230,583	-5.2
Toledo Bend Reservoir (Texas)	2,236,450	2,165,688	96.8	-11,300	0.0	-70,762	-3.2
Travis, Lake	1,113,348	676,753	60.8	-32,933	-3.0	-111,132	-10.0
Twin Buttes Reservoir	182,454	82,697	45.3	-6,515	-3.6	-11,794	-6.5
Tyler, Lake	72,073	71,743	99.5	-330	0.0	-330	0.0
Waco, Lake	189,418	145,725	76.9	-3,402	-1.8	-43,693	-23.1
Waxahachie, Lake	10,780	9,244	85.8	66	0.6	-1,536	-14.2
Weatherford, Lake	17,812	13,238	74.3	-582	-3.3	-4,574	-25.7
White River Lake	29,880	5,028	16.8	440	1.5	662	2.2
Whitney, Lake	553,344	493,790	89.2	-7,265	-1.3	-59,554	-10.8
Worth, Lake	24,419	18,186	74.5	-449	-1.8	-6,233	-25.5
Wright Patman Lake	310,382	292,640	94.3	6,228	2.0	-17,742	-5.7
STATEWIDE TOTAL							
STATEWIDE TOTAL	**32,707,735**	**25,100,931**	**76.7**	**-190,190**	**-0.6**	**-1,802,867**	**-5.5**

*Total volume below elevation of conservation pool top is used as conservation storage capacity, because the dead pool storage is unknown.

**Monthly and yearly changes do not include reservoirs that did not have data in the last month or last year, respectively.

STREAMFLOW CONDITIONS

Below normal streamflow (10–24th percentile, orange shading in Figure 6) was recorded in the Canadian, Upper and Lower Red, Upper and Lower Brazos, Upper and Lower Colorado, Upper and Lower Trinity, Upper Sabine, San Jacinto-Brazos, Brazos-Colorado, Lavaca, Lavaca-Guadalupe, Nueces, San Antonio, San Antonio-Nueces, Guadalupe, and Nueces-Rio Grande river basins.

Much below normal stream flow (< 10th percentile, dark red shading in Figure 6) was seen in the Canadian, Upper and Lower Red, Upper and Lower Brazos, Upper and Lower Trinity, Lavaca, Lavaca-Guadalupe, Guadalupe, San Antonio, Nueces, Nueces-San Antonio, and Trans Pecos river basins. A record low (bright red shading in Figure 6) was seen in the Pecos river basin.

Above normal (76–90th percentile, light blue shading in Figure 6) was observed in a sub-watershed of the Upper Brazos river basin.

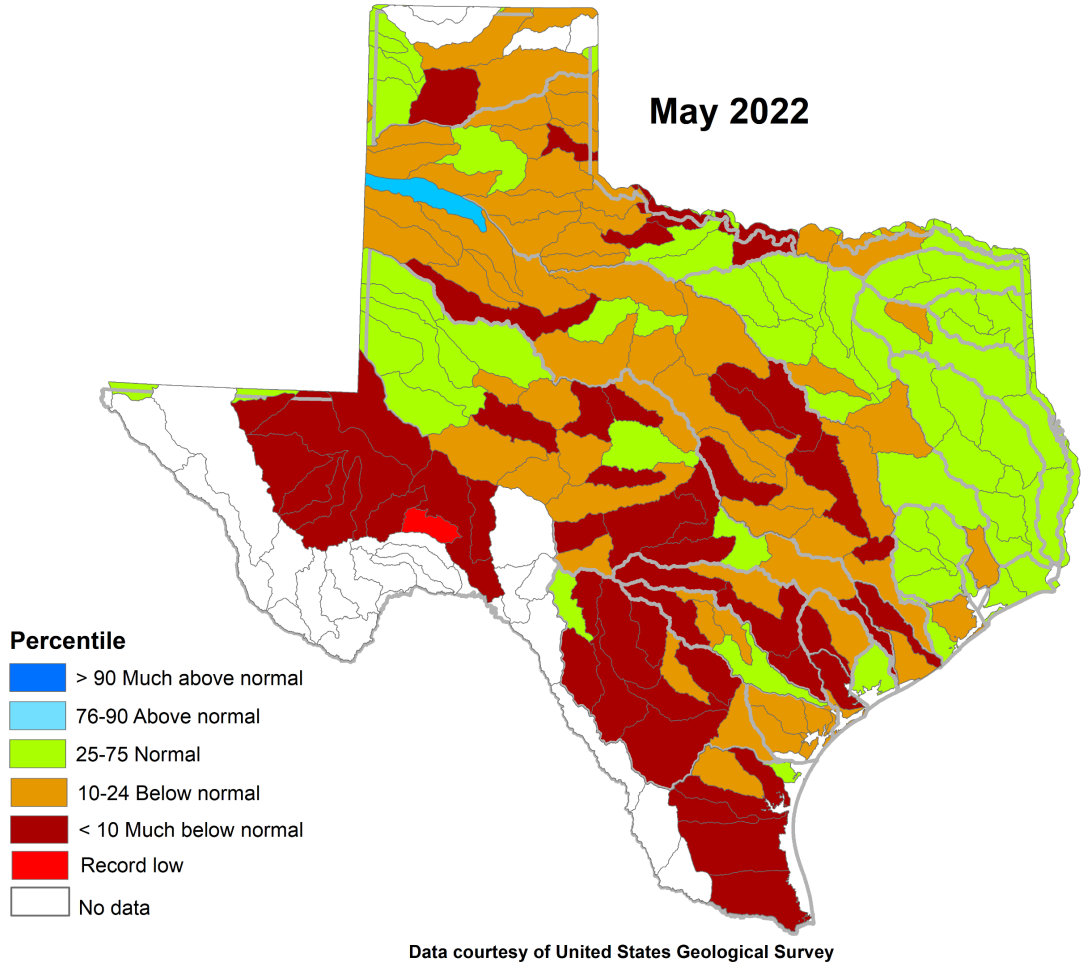


Figure 6: Runoff percentiles by the U.S. Geological Survey's Hydrologic Unit Code

SOIL MOISTURE

At the end of May 2022, root zone soil moisture was below average [< 0.3 cubic meters of water per bulk cubic meter soil (m^3/m^3), Figure 7(a)] across most of the state. Low soil moisture [< 0.15 cubic meters of water per bulk cubic meter soil (m^3/m^3)] was seen in portions of the High Plains, Low Rolling Plains, Trans Pecos, Edwards Plateau, Southern, Lower Valley, East Texas, western North Central, portions of the Upper Coast, and South Central, particularly in the southern portions of the climate division and reaching across from the northwest to the northeast.

Average soil moisture [0.3 cubic meters of water per bulk cubic meter soil (m^3/m^3), Figure 7(a)] was seen in the eastern High Plains, northern Low Rolling Plains, northwestern and eastern North Central, central Edwards Plateau, southern and northeastern South Central, central and southeastern Southern, southern Lower Valley, northern and western East Texas, and portions of the Upper Coast climate divisions.

Compared to conditions at the end of April 2022, soil moisture content increased [blue shading in Figure 7(b)] by a maximum of 0.19 m^3/m^3, in the High Plains, northern Low Rolling Plains, central and northeastern Trans Pecos, northern Edwards Plateau, central and western North Central, southern South Central, and northern and western Southern climate divisions. Soil moisture content decreased [yellow, and orange shading in Figure 7(b)] in northern High Plains, Trans Pecos, southern Edwards Plateau, southeastern Southern, North Central, South Central, East Texas, Lower Valley, and the Upper Coast climate divisions.

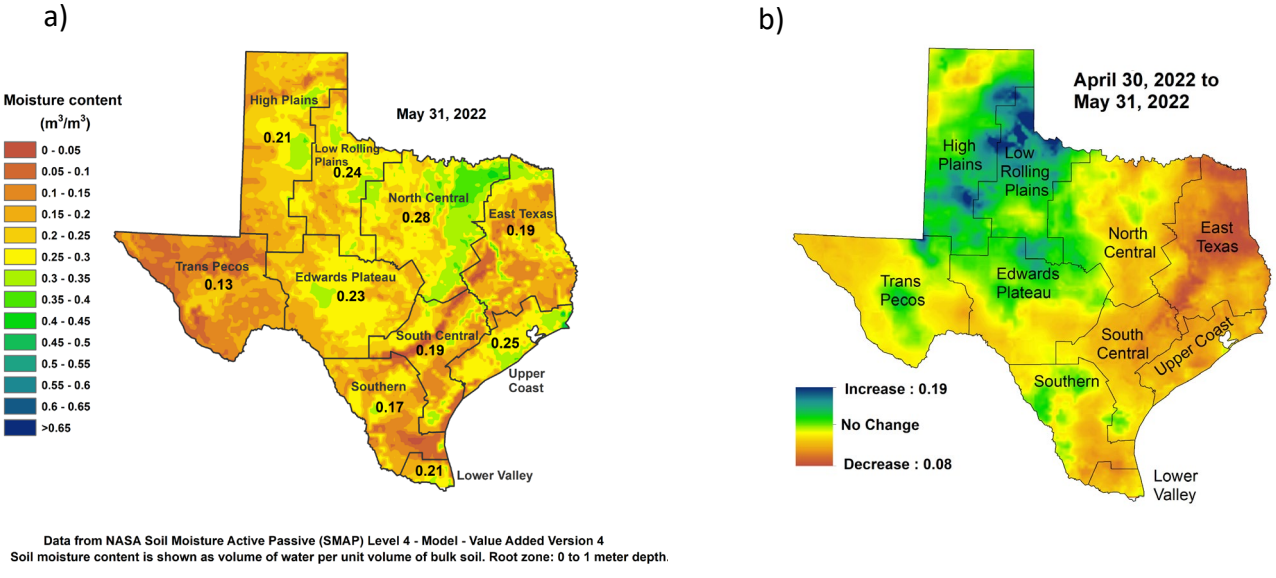
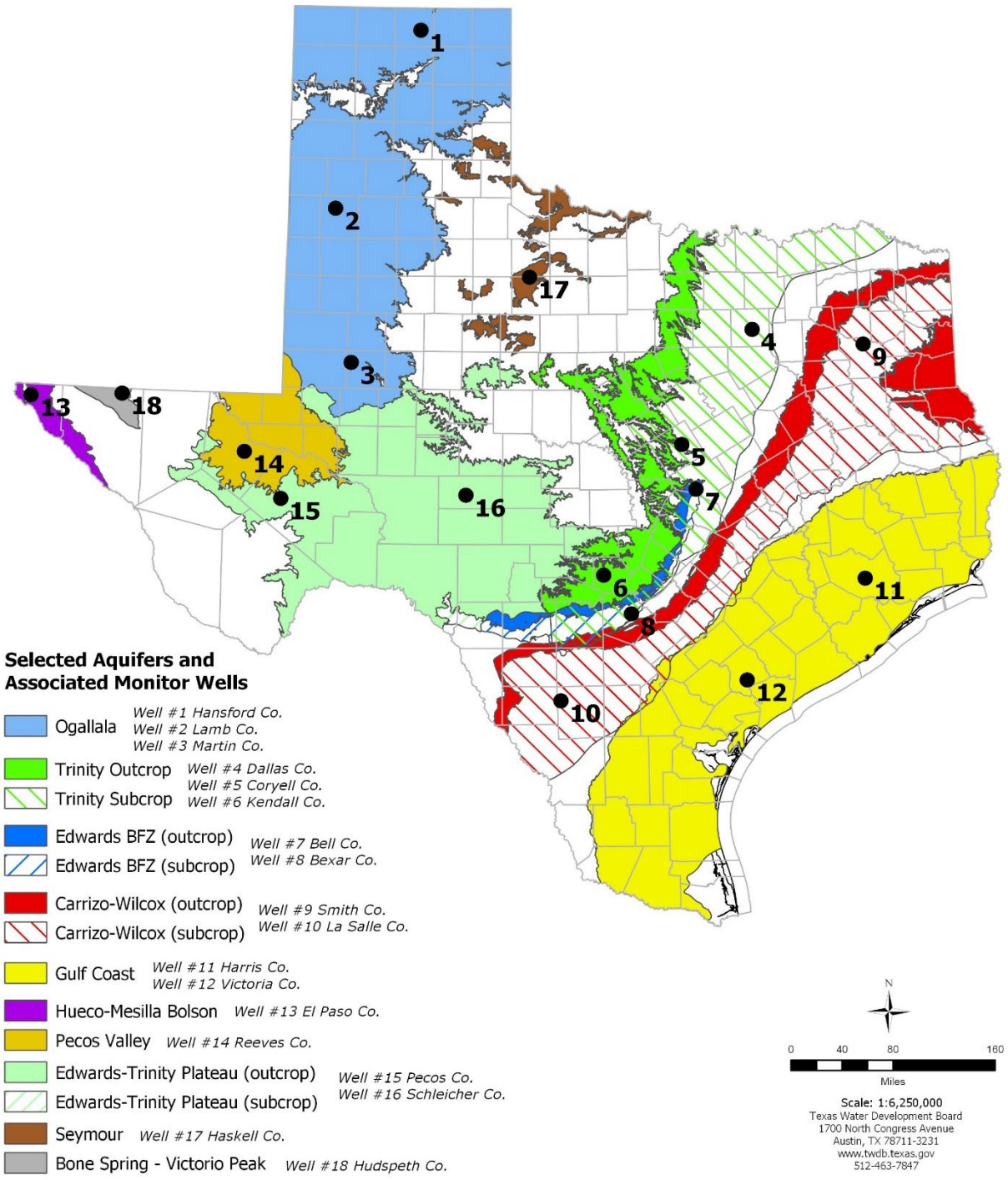


Figure 7: (a) Root zone soil moisture conditions in May 2022 and (b) the difference in root zone soil moisture between end-April 2022 and end-May 2022



MAY 2022 GROUNDWATER LEVELS IN MONITORING WELLS

Water-level measurements were available for 17 key monitoring wells in the state. The recorder in one well (#15 on map) was offline during the reporting period. Water levels rose in five monitoring wells since the beginning of May, ranging from an increase of 0.04 feet in the Lamb County Ogallala Aquifer well (#2 on map) and Harris County Gulf Coast Aquifer well (#11 on map) to 1.89 feet in the Bell County Edwards (Balcones Fault Zone) Aquifer well (#7 on map). Water levels declined in 11 monitoring wells, ranging from a decline of -0.01 feet in the Martin County Ogallala Aquifer well (#3 on map) to -19.71 feet in the Kendall County Trinity Aquifer well (#6 on map). The J-17 well (#8 on map) in San Antonio recorded a water level of 86.60 feet below land surface or 644.40 feet above mean sea level. Water levels are 5.60 feet below the Stage 2 critical management level for the San Antonio portion of the Edwards (Balcones Fault Zone) Aquifer. Stage 2 water restrictions have been in effect since April 11, 2022.

*** Well numbers used in this publication on the aquifer map to indicate the monitoring well location (numbers 1 to 18) are different than the TWDB's seven-digit state well number.**

Monitoring Well	May (depth to water, feet)	April (depth to water, feet)	Month Change	Year Change	Historical Change*	First Measured (year)
(1) Hansford 0354301	162.25	162.18	-0.07	-0.39	-92.13	1951
(2) Lamb 1053602	152.83	152.87	0.04	-0.90	-124.66	1951
(3) Martin 2739903	144.77	144.76	-0.01	-0.37	-39.88	1964
(4) Dallas 3319101	495.10	494.98	-0.12	-9.10	-273.1	1954
(5) Coryell 4035404	536.04	534.66	-1.38	-5.36	-244.04	1955**
(6) Kendall 6802609	198.43	178.72	-19.71	-49.13	-138.43	1975
(7) Bell 5804816	118.75	120.64	1.89	6.78	4.76	2008
(8) Bexar 6837203	86.60	83.00	-3.60	-23.9	-39.96	1932
(9) Smith 3430907	438.64	437.95	-0.69	-3.52	-138.64	1977**
(10) La Salle 7738103	510.16	501.94	-8.22	-10.67	-257.09	2003
(11) Harris 6514409	182.51	182.55	0.04	4.26	-47.01	1947**
(12) Victoria 8017502	32.83	31.37	-1.46	-1.24	1.17	1958**
(13) El Paso 4913301	299.84	299.42	-0.42	-0.95	-67.94	1964**
(14) Reeves 4644501	158.65	159.12	0.47	NA	-66.56	1952
(15) Pecos 5216802	NA	205.78	NA	NA	-41.1	1976
(16) Schleicher 5512134	314.27	NA	NA	-14.26	-12.37	2003
(17) Haskell 2135748	46.25	46.34	0.09	NA	-3.25	2002
(18) Hudspeth 4807516	152.98	146.89	-6.09	2.17	-49.06	1966

*** Change since the original measurement taken on the date indicated in the last column. The historical change shown for recorder well #15 is based off the most recent water level records from April 2022.**

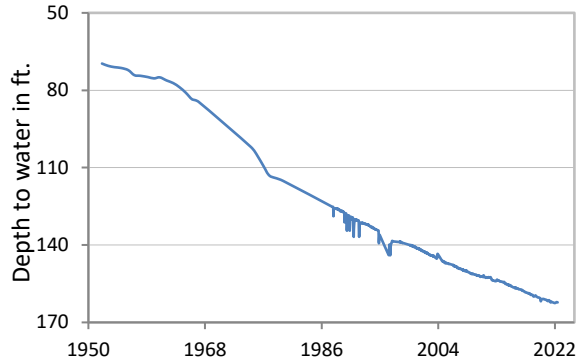
**** Measurement not shown on the hydrograph.**

NA (not available)

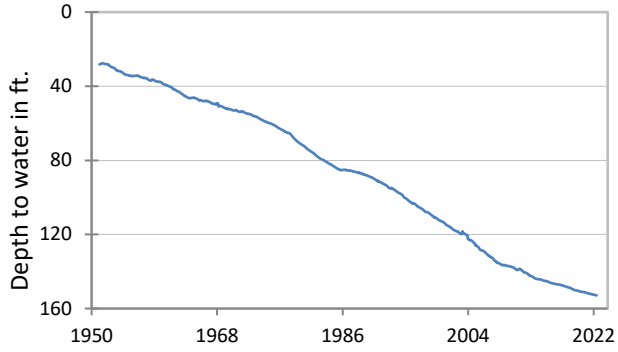
All data are provisional and subject to revision

MAY 2022 MONITORING WELL HYDROGRAPHS

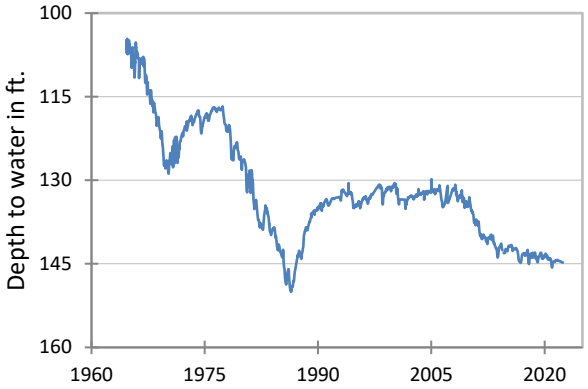
(1) State Well #03-54-301
Near Spearman, Hansford County
Ogallala Aquifer



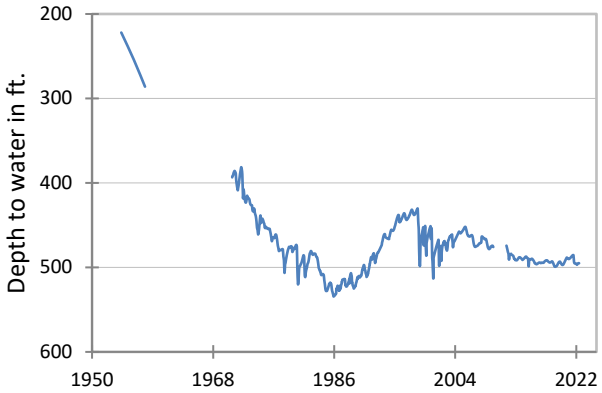
(2) State Well #10-53-602
Near Earth, Lamb County
Ogallala Aquifer



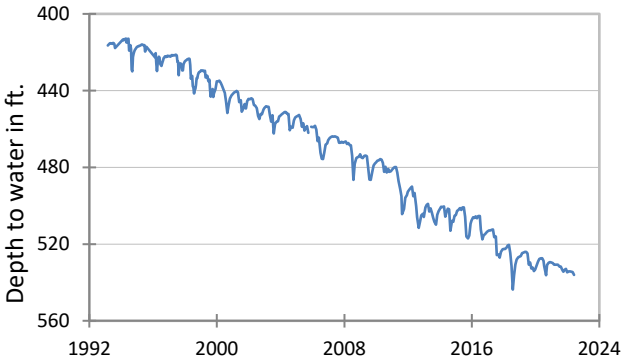
(3) State Well #27-39-903
Northwest Martin County
Ogallala Aquifer



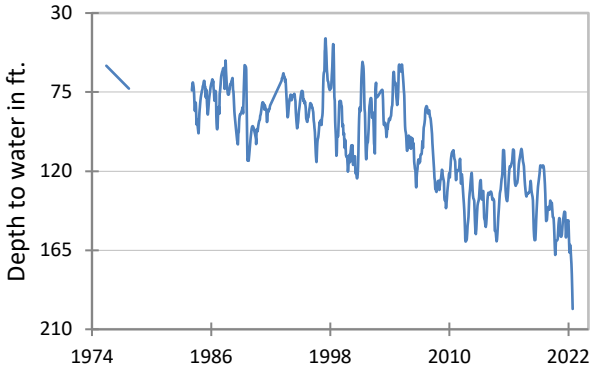
(4) State Well #33-19-101
Southeast Dallas, Dallas County
Twin Mountains Formation-Trinity Aquifer



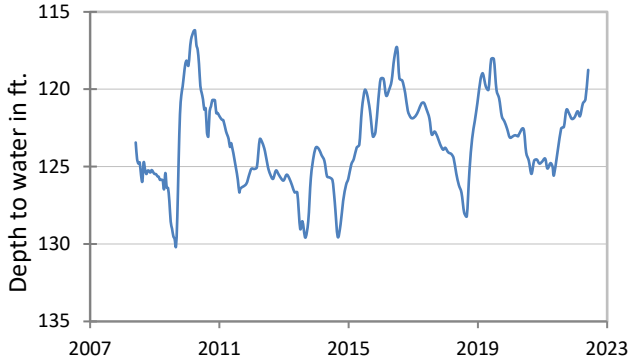
(5) State Well #40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer



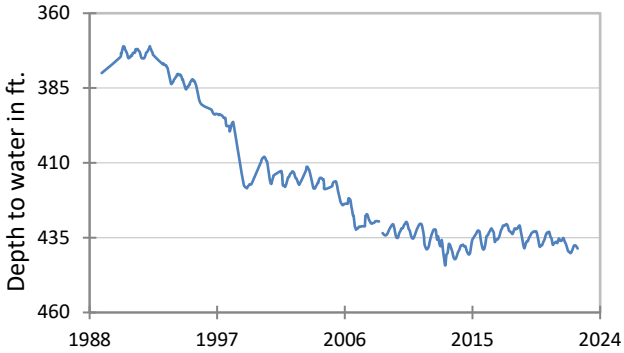
(6) State Well #68-02-609
Waring, Kendall County
Travis Peak Formation-Trinity Aquifer



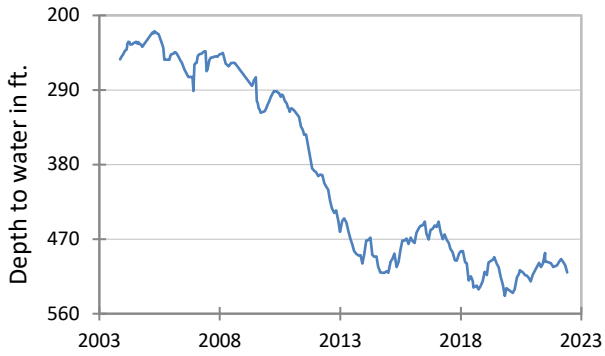
(7) State Well #58-04-816
Near Salado, Bell County
Edwards (Balcones Fault Zone) Aquifer



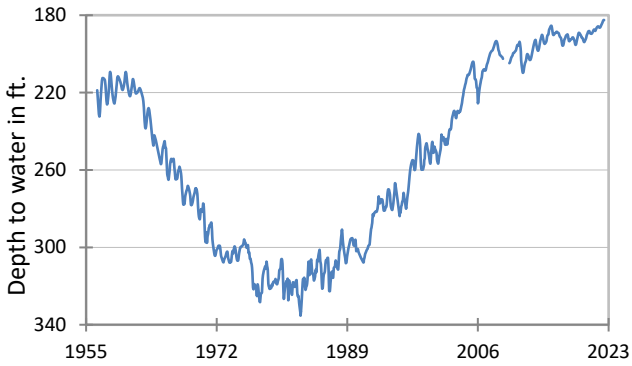
(9) State Well #34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer



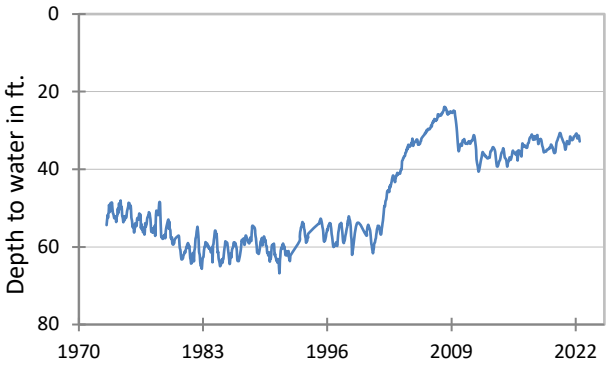
(10) State Well #77-38-103
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer



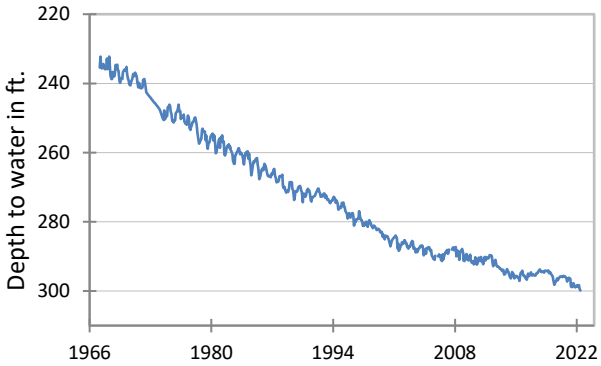
(11) State Well #65-14-409
North Houston, Harris County
Evangeline Formation-Gulf Coast Aquifer



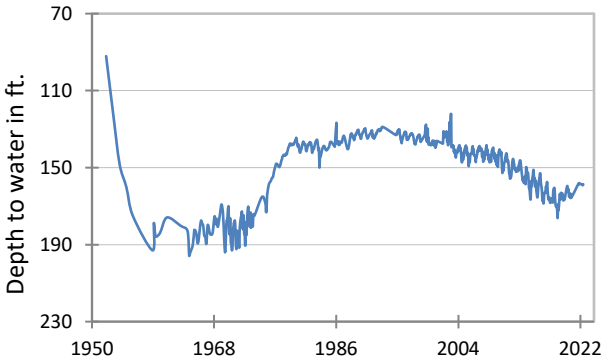
(12) State Well #80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



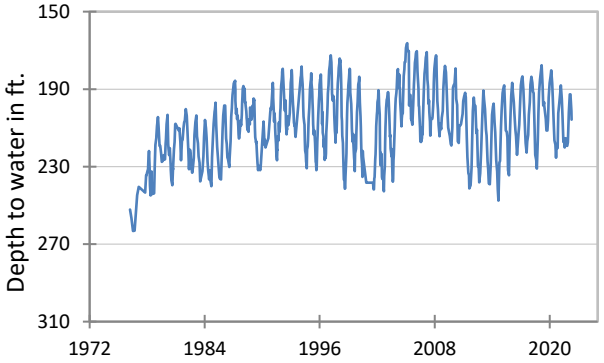
(13) State Well #49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolsons Aquifer



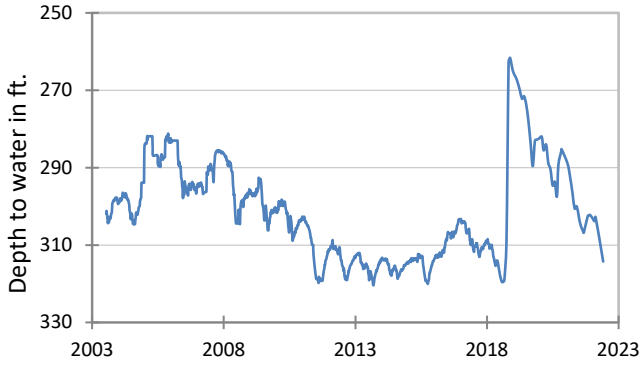
(14) State Well #46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



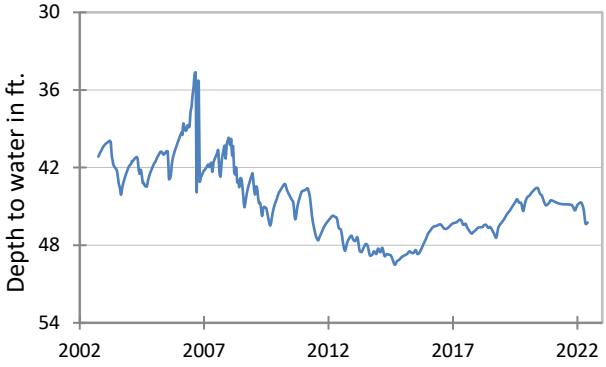
***(15) State Well #52-16-802**
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



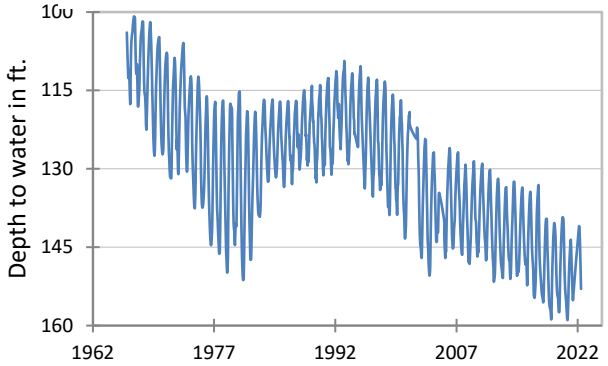
(16) State Well #55-12-134
Eldorado, Schleicher County
Edwards-Trinity (Plateau) Aquifer



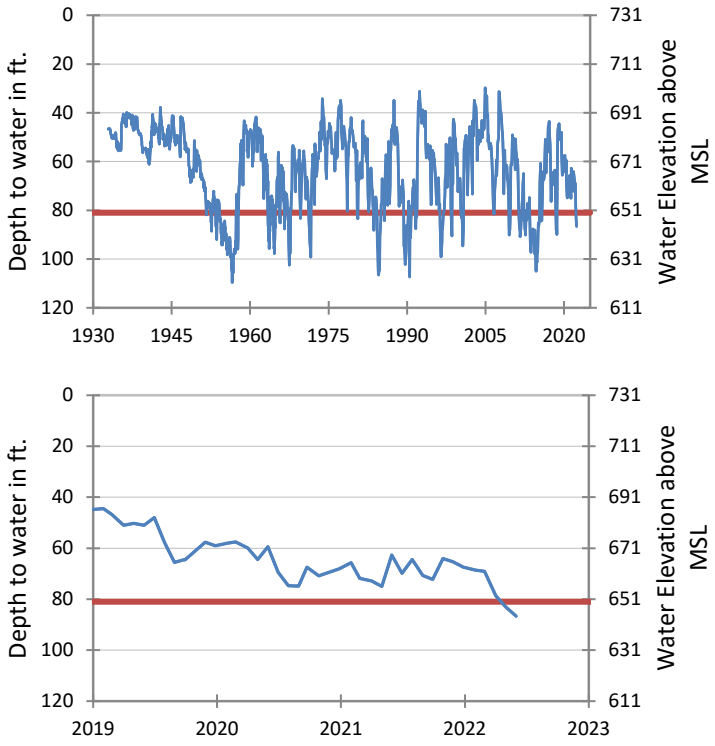
(17) State Well #21-35-748
Near O'Brien, Haskell County
Seymour Aquifer



(18) State Well #48-07-516
Dell City, Hudspeth County
Bone Spring - Victorio Peak Aquifer



(8) State Well #68-37-203 (J-17)
San Antonio, Bexar County
Edwards (Balcones Fault Zone) Aquifer

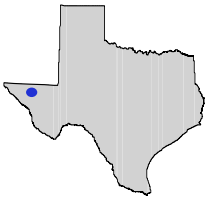


The late May water-level measurement in this Edwards (Balcones Fault Zone) Aquifer well, located at an elevation of 731 feet above mean sea level, was 86.60 feet below land surface, or 644.40 feet above mean sea level. This was 3.60 feet below last month's measurement, 23.90 feet below last year's measurement, and 39.96 feet below the initial measurement recorded in 1932.

Water levels below the red line indicate periods in which Edwards Aquifer Authority Stage 2 drought restrictions are in effect. In May 2022, Stage 2 drought restrictions were in effect because the aquifer remained below the Stage 2 critical management level.

***Recorder well #15 was offline in May 2022 and did not record data.**

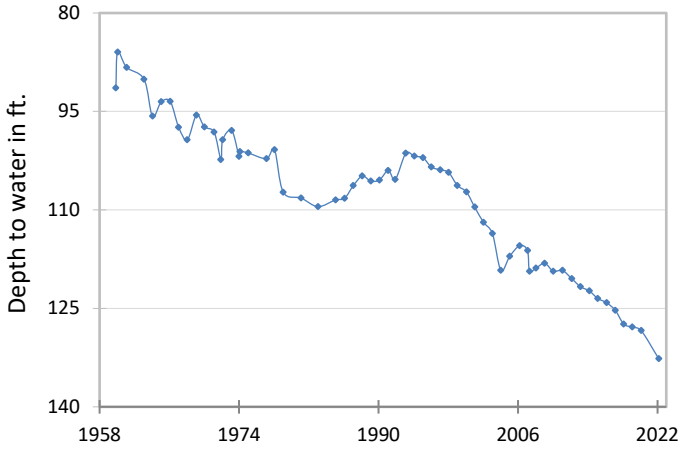
HYDROGRAPH OF THE MONTH



Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and their conditions in Texas.

Capitan Reef Complex Aquifer

Well #47-17-206, 750 feet deep
unused, Hudspeth County



The Capitan Reef Complex Aquifer is a minor aquifer located in Culberson, Hudspeth, Jeff Davis, Brewster, Pecos, Reeves, Ward, and Winkler counties. It is exposed in mountain ranges of Far West Texas; elsewhere it occurs in the subsurface. The aquifer is composed of as much as 2,360 feet of massive, cavernous dolomite and limestone. Water-bearing formations include the Capitan Limestone, Goat Seep Dolomite, and most of the Carlsbad facies of the Artesia Group, including the Grayburg, Queen, Seven Rivers, Yates, and Tansill formations. Water is contained in solution cavities and fractures that are unevenly distributed within these formations. Water from the Capitan Reef Complex Aquifer is thought to contribute to the baseflow of San Solomon Springs in Reeves County. Overall, the aquifer contains water of marginal quality, yielding small to large quantities of slightly saline to saline groundwater containing 1,000 to greater than 5,000 milligrams per liter of total dissolved solids. Water of the freshest quality, with total dissolved solids between 300 and 1,000 milligrams per liter, is present in the west near areas of recharge where the reef rock is exposed in several mountain ranges. Although most of the groundwater pumped from the aquifer is used for oil reservoir flooding in Ward and Winkler counties, a small amount is used to irrigate salt-tolerant crops in Pecos, Culberson, and Hudspeth counties.

The initial measurement of 91.42 feet below land surface was recorded by the USGS in November of 1959. Since then, the TWDB has continued to collect near-annual measurements in the unused well. From 1959 to 1983, water levels declined at a rate approximately equal to -0.75 feet per year, followed by an increase in water levels of approximately 8 feet over the following 10 years. From 1993 to present, water levels have continued to drop at a rate of -1.08 feet per year. The steady decline in water levels may be the result of nearby pumping for irrigation.

Far away (left), and close-up (right) images of well #47-17-206.