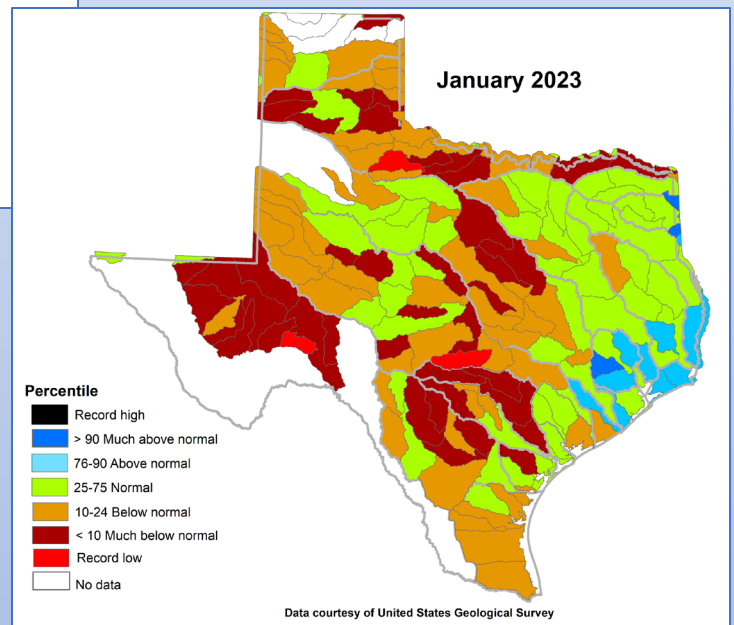
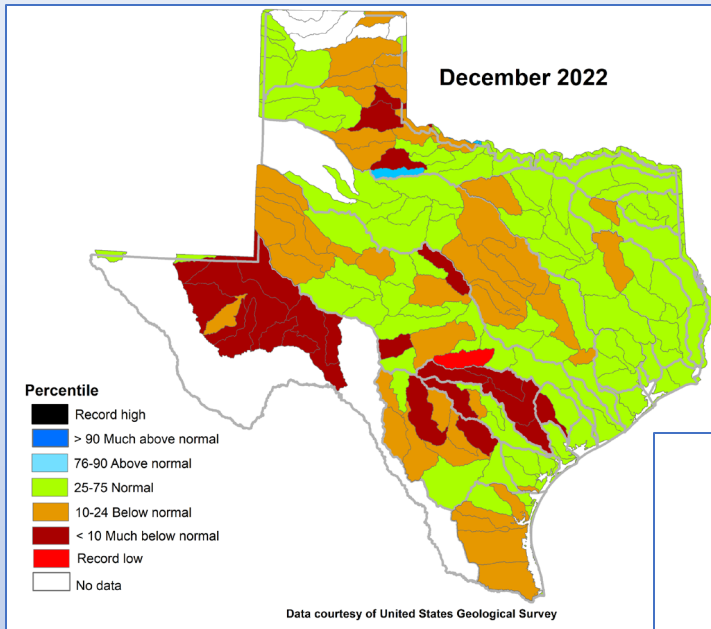


# Texas Water Conditions Report

## January 2023



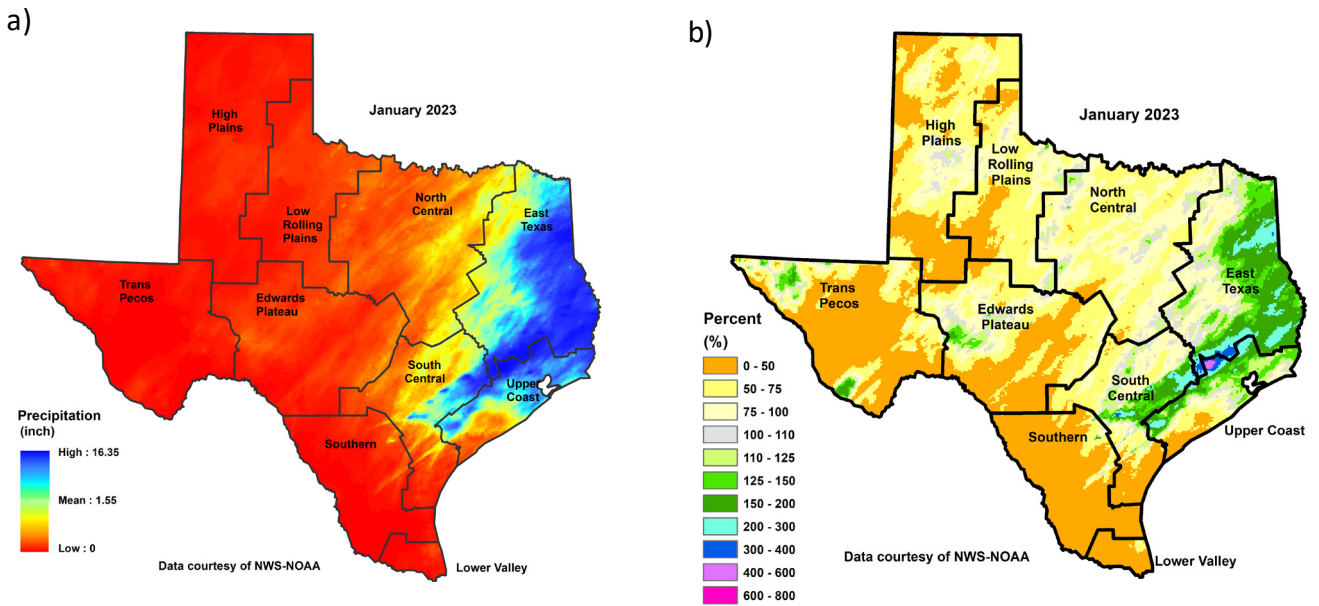
### Water News:

Above is a one month comparison of streamflow across Texas from December 2022 to January 2023. This shows where normal flows (green shading) in some areas have given way to low flows (orange and brown shading), or high flows (light and dark blue shading) in other areas. This also shows low flows that have continued to intensify (red shading). See more details for January 2023 streamflow on page 9, Figure 6.

# RAINFALL

Little to no rain [yellow, orange, and red shading, Figure 1(a)] fell in the High Plains, Low Rolling Plains, Trans Pecos, Edwards Plateau, Southern, Lower Valley, North Central, much of South Central, southwestern Upper Coast, and western East Coast climate divisions. Some rainfall [light blue and dark blue shading, Figure 1(a)] was seen in East Texas, northeastern South Central, and much of the Upper Coast climate divisions, with accumulations reaching 16.35 inches.

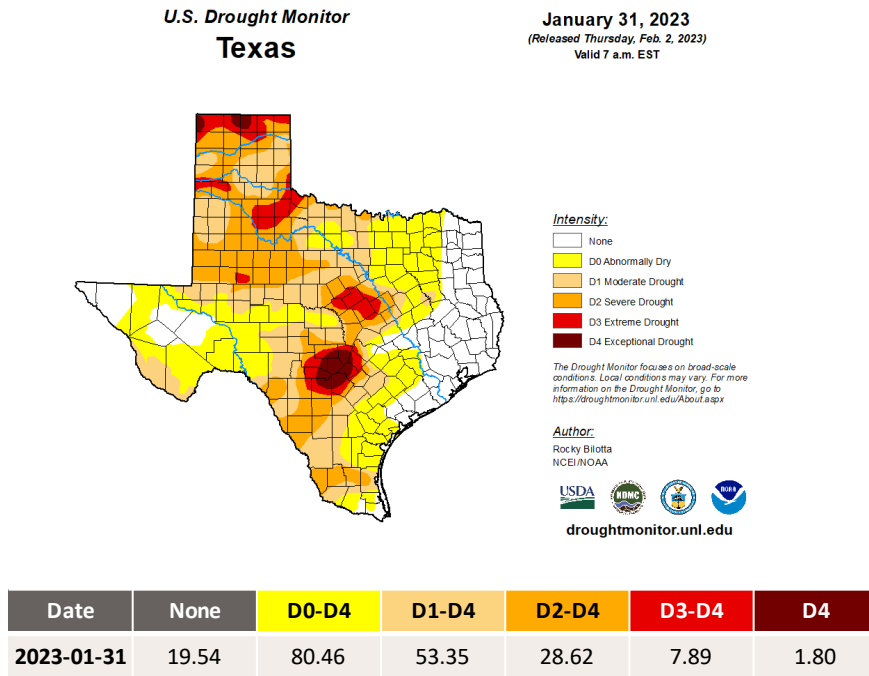
Compared to historical data from 1991–2020, much of the state received below average rainfall [yellow and orange shading, Figure 1(b)]. Northwestern and southern Trans Pecos, western Edwards Plateau, central and eastern South Central, northern and eastern Upper Coast, and much of East Texas climate divisions received 125–200 percent of normal rainfall [light green, dark green shading, Figure 1(b)]. 200–300 percent of normal rainfall [light blue shading, Figure 1(b)] was seen in central and northeastern South Central, northern Upper Coast, and southern and eastern East Texas climate divisions. The northern Upper Coast and southern East Texas climate divisions received 300–400 percent of normal rainfall [(dark blue shading, Figure 1 (b))].



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

# DROUGHT

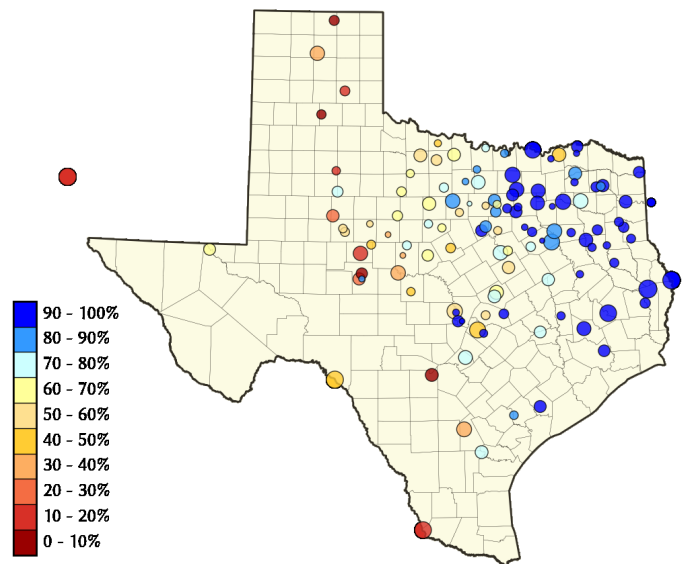
At the end of January, 80.46% of the state was in the D0 (abnormally dry) through D4 (exceptional drought) categories (**Figure 2**). That is a decrease of 8.03 % from the end of December.



**Figure 2.** The percentage of drought in Texas according to the U.S. Drought Monitor map as of January 31, 2023.

## RESERVOIR STORAGE

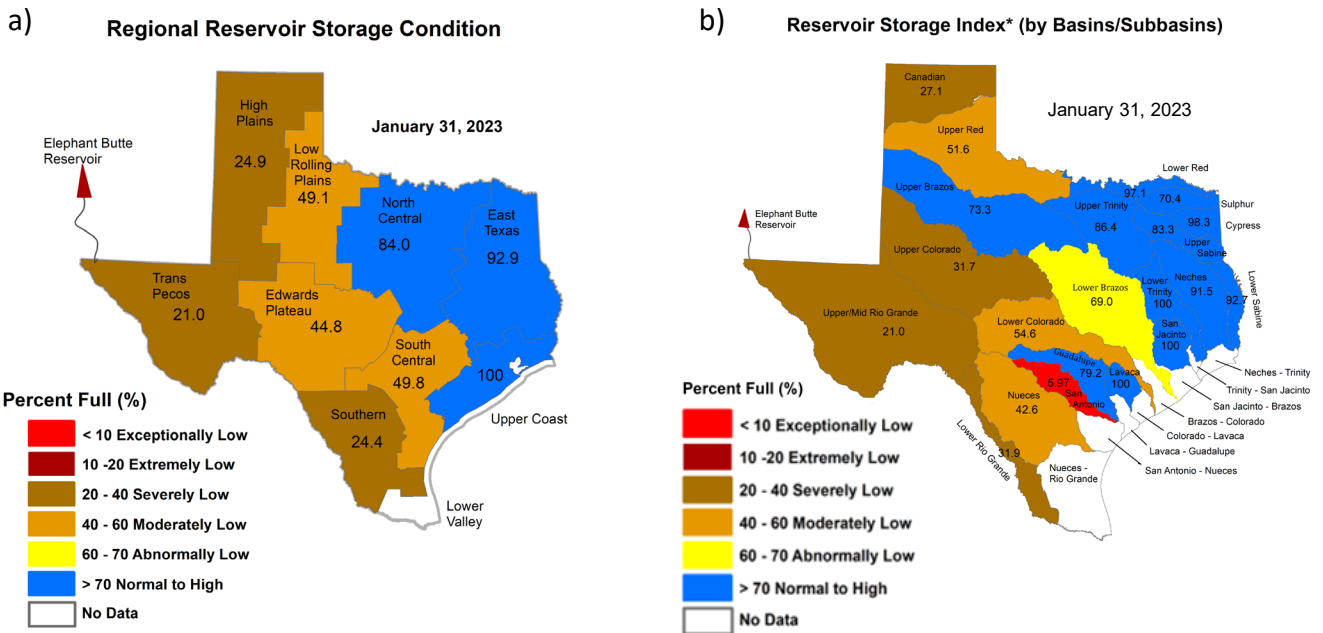
Out of 119 reservoirs in the state, 22 reservoirs held 100 percent conservation storage capacity (Figure 3). Additionally, 26 reservoirs were at or above 90 percent full. Ten reservoirs remained below 30 percent full: E.V. Spence (18.1 percent full), O. C. Fisher (3.1 percent full), J.B. Thomas (23.4 percent full), Falcon (13.7 percent full), Greenbelt (11.7 percent full), Mackenzie (6.2 percent full), Medina Lake (6.0 percent full), Palo Duro Reservoir (0.3 percent full), Twin Buttes (28.8 percent full), and the White River Lake (13.6 percent full). Elephant Butte Reservoir (New Mexico) was 13.2 percent full (Figure 3).



**Figure 3.** Reservoir conservation storage at end-January expressed as percent full (%)

Reservoir conservation storage by climate division was at or above normal [storage  $\geq 70$  percent full, Figure 4(a)] for East Texas (92.9 percent full), North Central (84.0 percent full), and the Upper Coast (100 percent full) climate divisions. Conservation storage was moderately low (Figure 4(a)) for the Low Rolling Plains (49.1 percent full), Edwards Plateau (44.8 percent full), and South Central (49.8 percent full) climate divisions. The High Plains (24.9 percent full) and Southern (24.4 percent full), and the Trans Pecos (21.1 percent full) climate divisions had severely low conservation storage (Figure 4(a)).

Combined conservation storage by river basin or sub-basin was exceptionally low (<10 percent full, red shading, Figure 4(b)) in the San Antonio river basin and severely low (20–40 percent full, brown shading, Figure 4(b)) in the Upper/Mid Rio Grande, Lower Rio Grande, Upper Colorado, and Canadian river basins. The Lower Colorado, Upper Red, and Nueces river basins had moderately low conservation storage (40–60 percent full, orange shading, Figure 4(b)). The Lower Brazos river basin had abnormally low conservation storage (60-70 percent full, yellow shading, Figure 4(b)). Normal to high conservation storage (>70 percent full, blue shading, Figure 4(b)) was observed in the Lower Red, Sulphur, Cypress, Upper and Lower Sabine, Upper and Lower Trinity, Upper Brazos, Neches, San Jacinto, Lavaca, and Guadalupe river basins.



**Figure 4:** (a) Reservoir Storage Index\* by climate division, and (b) Reservoir Storage Index\* by basin/sub-basin.

\*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-January 2023		Storage change from end-Dec 2022		Storage change from end-Jan 2022	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
Abilene, Lake	7,900	2,606	33.0	-158	-2.0	-3,106	-39.3
Alan Henry Reservoir	96,207	70,808	73.6	-917	0.0	-14,236	-14.8
*Amistad Reservoir (Texas & Mexico)	3,275,532	1,505,422	46.0	13,065	0.4	404,014	12.3
*Amistad Reservoir (Texas)	1,840,849	870,919	47.3	6,196	0.3	-17,182	0.0
Amon G Carter, Lake	19,266	16,188	84.0	-175	0.0	-2,294	-11.9
Aquilla Lake	43,243	27,916	64.6	-113	0.0	-10,175	-23.5
Arlington, Lake	40,157	39,179	97.6	-631	-1.6	10,354	25.8
Arrowhead, Lake	230,359	150,336	65.3	-2,272	0.0	-45,106	-19.6
Athens, Lake	29,503	29,503	100.0	1,251	4.2	0	0.0
*Austin, Lake	23,972	22,880	95.4	-92	0.0	-108	0.0
B A Steinhagen Lake	69,186	69,186	100.0	5,002	7.2	4,609	6.7
Bardwell Lake	43,856	43,856	100.0	525	1.2	3,006	6.9
Belton Lake	432,631	281,521	65.1	-4,164	0.0	-117,057	-27.1
Benbrook Lake	85,648	70,247	82.0	1,440	1.7	3,831	4.5
Bob Sandlin, Lake	192,417	190,289	98.9	4,134	2.1	11,843	6.2
Bois d'Arc Lake	367,609	180,199	49.0	1,690	0.5	83,889	22.8
Bonham, Lake	11,027	10,661	96.7	-187	-1.7	2,666	24.2
Brady Creek Reservoir	28,808	12,686	44.0	-216	0.0	-3,558	-12.4
Bridgeport, Lake	372,183	270,351	72.6	-2,150	0.0	-53,320	-14.3
*Brownwood, Lake	130,868	79,432	60.7	-1,357	-1.0	-39,027	-29.8
Buchanan, Lake	866,694	514,059	59.3	-10,622	-1.2	-245,231	-28.3
Caddo, Lake	29,898	29,898	100.0	0	0.0	0	0.0
Canyon Lake	378,781	297,201	78.5	-4,502	-1.2	-74,377	-19.6
Cedar Creek Reservoir in Trinity	644,686	545,467	84.6	0	0.0	-37,158	-5.8
Champion Creek Reservoir	41,580	24,777	59.6	-184	0.0	-3,975	-9.6
Cherokee, Lake	40,094	40,094	100.0	0	0.0	0	0.0
Choke Canyon Reservoir	662,820	205,496	31.0	-4,345	0.0	-76,672	-11.6
*Cisco, Lake	29,003	20,635	71.1	-216	0.0	-4,288	-14.8
Coleman, Lake	38,075	28,805	75.7	-368	0.0	-6,308	-16.6
Colorado City, Lake	31,040	27,426	88.4	2,092	6.7	-2,629	-8.5
*Coleto Creek Reservoir	30,758	16,927	55.0	-242	0.0	-5,515	-17.9
Conroe, Lake	417,577	417,577	100.0	15,742	3.8	16,520	4.0
Corpus Christi, Lake	256,062	186,456	72.8	-5,227	-2.0	-7,869	-3.1
Crook, Lake	9,195	9,153	99.5	146	1.6	1,264	13.7
Cypress Springs, Lake	66,756	65,085	97.5	-512	0.0	4,714	7.1
E. V. Spence Reservoir	517,272	93,696	18.1	-1,210	0.0	-32,542	-6.3
Eagle Mountain Lake	179,880	145,315	80.8	-877	0.0	-14,955	-8.3
Elephant Butte Reservoir (Texas)	852,491	112,769	13.2	15,437	1.8	28,521	3.3
Elephant Butte Reservoir (Total Storage)	1,985,900	261,040	13.1	35,733	1.8	66,021	3.3
*Falcon Reservoir (Texas & Mexico)	2,646,817	456,677	17.3	-29,708	-1.1	29,755	1.1
*Falcon Reservoir (Texas)	1,551,007	212,035	13.7	-16,592	-1.1	-148,039	-9.5
Fork Reservoir, Lake	605,061	478,764	79.1	460	0.1	27,685	4.6
Fort Phantom Hill, Lake	70,030	46,329	66.2	-833	-1.2	-18,290	-26.1
Georgetown, Lake	38,005	21,500	56.6	1,037	2.7	-7,047	-18.5
Gibbons Creek Reservoir	25,721	23,444	91.1	-2,073	-8.1	1,429	5.6
Graham, Lake	45,288	34,731	76.7	-470	-1.0	-3,669	-8.1
Granbury, Lake	132,949	114,898	86.4	-2,362	-1.8	-12,579	-9.5

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of lake or reservoir	Storage capacity	Storage at end-January 2023		Storage change from end-Dec 2022		Storage change from end-Jan 2022	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
<i>Continued</i>							
Granger Lake	51,822	51,290	99.0	1,573	3.0	-532	-1.0
Grapevine Lake	163,064	163,064	100.0	0	0.0	9,693	5.9
Greenbelt Lake	59,968	7,028	11.7	-40	0.0	-2,689	-4.5
*Halbert, Lake	6,033	5,628	93.3	16	0.3	619	10.3
Hords Creek Lake	8,109	2,473	30.5	-45	0.0	-927	-11.4
Houston County Lake	17,113	17,113	100.0	1,120	6.5	0	0.0
Houston, Lake	132,318	132,318	100.0	0	0.0	0	0.0
Hubbard Creek Reservoir	313,298	207,803	66.3	-3,233	-1.0	-62,780	-20.0
Hubert H Moss Lake	24,058	21,099	87.7	-91	0.0	-1,460	-6.1
Inks, Lake	13,729	13,131	95.6	-16	0.0	188	1.4
J. B. Thomas, Lake	199,931	46,871	23.4	-1,527	0.0	-30,962	-15.5
Jacksonville, Lake	25,670	25,670	100.0	1,235	4.8	0	0.0
Jim Chapman Lake (Cooper)	260,332	222,004	85.3	-5,582	-2.1	28,161	10.8
Joe Pool Lake	175,800	175,800	100.0	0	0.0	12,708	7.2
Kemp, Lake	245,307	135,907	55.4	-217	0.0	-69,432	-28.3
Kickapoo, Lake	86,345	50,016	57.9	-936	-1.1	-13,951	-16.2
Lavon Lake	409,757	388,950	94.9	3,428	0.8	60,701	14.8
Leon, Lake	27,762	16,724	60.2	-250	0.0	-6,941	-25.0
Lewisville Lake	563,228	516,973	91.8	0	0.0	7,487	1.3
Limestone, Lake	203,780	145,478	71.4	1,137	0.6	-37,345	-18.3
*Livingston, Lake	1,603,504	1,603,504	100.0	0	0.0	5,431	0.3
*Lost Creek Reservoir	11,950	10,531	88.1	13	0.1	-912	-7.6
Lyndon B Johnson, Lake	112,778	110,404	97.9	-449	0.0	-449	0.0
Mackenzie Reservoir	46,450	2,858	6.2	-27	0.0	-660	-1.4
Marble Falls, Lake	7,597	7,167	94.3	2,745	36.1	-48	0.0
Martin, Lake	75,726	75,677	99.9	12,440	16.4	12,664	16.7
Medina Lake	254,823	15,229	6.0	-864	0.0	-48,317	-19.0
Meredith, Lake	500,000	151,840	30.4	-1,370	0.0	-20,319	-4.1
Millers Creek Reservoir	26,768	16,173	60.4	-360	-1.3	-6,491	-24.2
*Mineral Wells, Lake	5,273	4,109	77.9	-55	-1.0	-897	-17.0
Monticello, Lake	34,740	29,252	84.2	845	2.4	2,305	6.6
Mountain Creek, Lake	22,850	22,850	100.0	0	0.0	0	0.0
Murvail, Lake	38,285	38,285	100.0	0	0.0	1,296	3.4
Nacogdoches, Lake	39,522	37,994	96.1	4,989	12.6	3,925	9.9
Nasworthy	9,615	8,196	85.2	-172	-1.8	-511	-5.3
Navarro Mills Lake	49,827	36,681	73.6	-336	0.0	-6,391	-12.8
New Terrell City Lake	8,583	8,129	94.7	-454	-5.3	598	7.0
Nocona, Lake (Farmers Crk)	21,444	15,822	73.8	-176	0.0	-2,697	-12.6
North Fork Buffalo Creek Reservoir	15,400	6,746	43.8	-56	0.0	-5,323	-34.6
O' the Pines, Lake	241,363	241,363	100.0	0	0.0	16,614	6.9
O. C. Fisher Lake	115,742	3,535	3.1	-137	0.0	-3,389	-2.9
*O. H. Ivie Reservoir	554,340	217,005	39.1	-4,169	0.0	-79,547	-14.3
Oak Creek Reservoir	39,210	18,728	47.8	-365	0.0	-7,735	-19.7

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of lake or reservoir	Storage capacity	Storage at end-January 2023		Storage change from end-Dec 2022		Storage change from end-Jan 2022	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
<i>Continued</i>							
Palestine, Lake	367,303	367,303	100.0	28,190	7.7	2,307	0.6
Palo Duro Reservoir	61,066	213	0.3	0	0.0	-187	0.0
Palo Pinto, Lake	26,766	14,845	55.5	-707	-2.6	-10,409	-38.9
Pat Cleburne, Lake	26,008	15,386	59.2	0	0.0	-4,490	-17.3
*Pat Mayse Lake	113,683	113,683	100.0	0	0.0	13,624	12.0
Poosum Kingdom Lake	538,139	439,682	81.7	-2,344	0.0	-71,928	-13.4
Proctor Lake	54,762	22,750	41.5	-617	-1.1	-23,751	-43.4
Ray Hubbard, Lake	439,559	439,559	100.0	4,578	1.0	40,498	9.2
Ray Roberts, Lake	788,167	750,461	95.2	-1,928	0.0	-9,113	-1.2
Red Bluff Reservoir	151,110	98,039	64.9	2,136	1.4	-14,834	-9.8
Richland-Chambers Reservoir	1,087,839	901,006	82.8	396	0.0	-86,339	-7.9
Sam Rayburn Reservoir	2,857,077	2,567,982	89.9	306,689	10.7	91,121	3.2
Somerville Lake	150,293	107,253	71.4	6,385	4.2	-43,040	-28.6
Squaw Creek, Lake	151,250	151,250	100.0	0	0.0	0	0.0
Stamford, Lake	51,570	31,701	61.5	-821	-1.6	-12,090	-23.4
Stillhouse Hollow Lake	229,796	162,871	70.9	-3,587	-1.6	-49,706	-21.6
Striker, Lake	16,934	16,934	100.0	231	1.4	0	0.0
Sweetwater, Lake	12,267	7,306	59.6	-96	0.0	-2,409	-19.6
*Sulphur Springs, Lake	17,747	16,143	91.0	737	4.2	6,352	35.8
Tawakoni, Lake	871,685	836,318	95.9	-2,520	0.3	51,982	5.9
Texana, Lake	158,975	158,975	100.0	14,084	8.9	11,155	7.0
Texoma, Lake (Texas & Oklahoma)	2,487,601	2,424,299	97.5	7,447	0.3	15,472	0.6
Texoma, Lake (Texas)	1,243,801	1,212,149	97.5	3,723	0.3	7,736	0.6
Toledo Bend Reservoir (Texas & Louisiana)	4,472,900	4,151,552	92.8	169,846	3.8	232,742	5.2
Toledo Bend Reservoir (Texas)	2,236,450	2,073,726	92.7	84,923	3.8	116,371	5.2
Travis, Lake	1,098,044	495,651	45.1	-7,292	0.0	-268,731	-24.5
Twin Buttes Reservoir	182,454	52,525	28.8	-571	0.0	-41,290	-22.6
Tyler, Lake	72,073	67,785	94.1	5,107	7.1	-4,005	-5.6
Waco, Lake	189,418	104,748	55.3	-2,194	-1.2	-56,340	-29.7
Waxahachie, Lake	11,060	9,974	90.2	431	3.9	1,155	10.4
Weatherford, Lake	17,812	10,383	58.3	-403	-2.3	-4,137	-23.2
White River Lake	29,880	4,071	13.6	-115	0.0	-1,512	-5.1
Whitney, Lake	564,808	427,511	75.7	2,978	0.5	-85,449	-15.1
Worth, Lake	24,419	15,336	62.8	-552	-2.3	-2,786	-11.4
Wright Patman Lake	122,593	122,593	100.0	0	0.0	0	0.0
<b>STATEWIDE TOTAL</b>							
<b>STATEWIDE TOTAL</b>	<b>31,504,744</b>	<b>22,137,012</b>	<b>70.3</b>	<b>-357,086</b>	<b>-1.1</b>	<b>-2,300,255</b>	<b>-7.3</b>

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

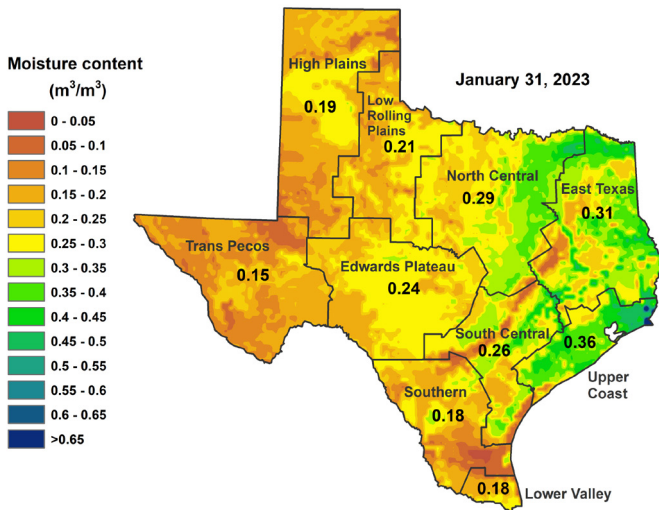
\*\*Monthly and yearly changes do not include reservoirs that did not have data in the last month or last year, respectively.

## SOIL MOISTURE

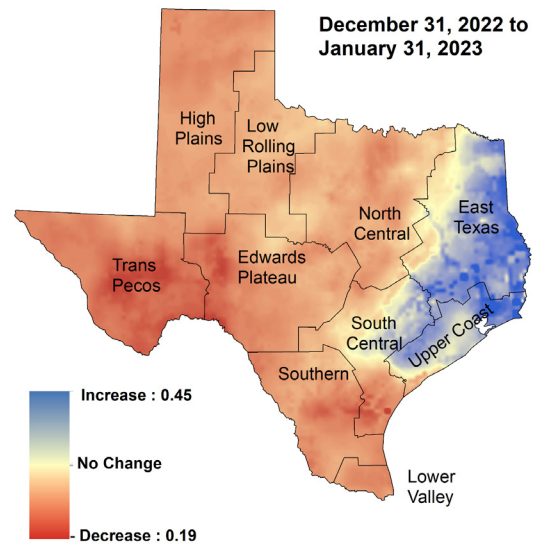
At the end of January 2023, root zone soil moisture was low [yellow, orange shading, Figure 5(a)] in some portion of each of the climate divisions. Areas of more severe dryness [brown shading, Figure 5(a)] were the High Plains, Trans Pecos, Low Rolling Plains, Southern, northern and southern South Central, and western East Texas climate divisions. Average to slightly above average soil moisture [green shading, Figure 5(a)] was seen in the eastern North Central, areas of East Texas, small portions of the Edwards Plateau, northern and southeastern Southern, northern and southern South Central, and the Upper Coast climate divisions.

Compared to conditions at the end of December 2022, soil moisture decreased [red shading in Figure 5(b)] across much of the state in some portion of all climate divisions. Soil moisture increased [blue shading in Figure 5(b)] in East Texas, northeastern South Central, and the Upper Coast climate divisions.

a)



b)



**Figure 5:** (a) Root zone soil moisture conditions in January 2023 and (b) the difference in root zone soil moisture between end-December 2022 and end-January 2023

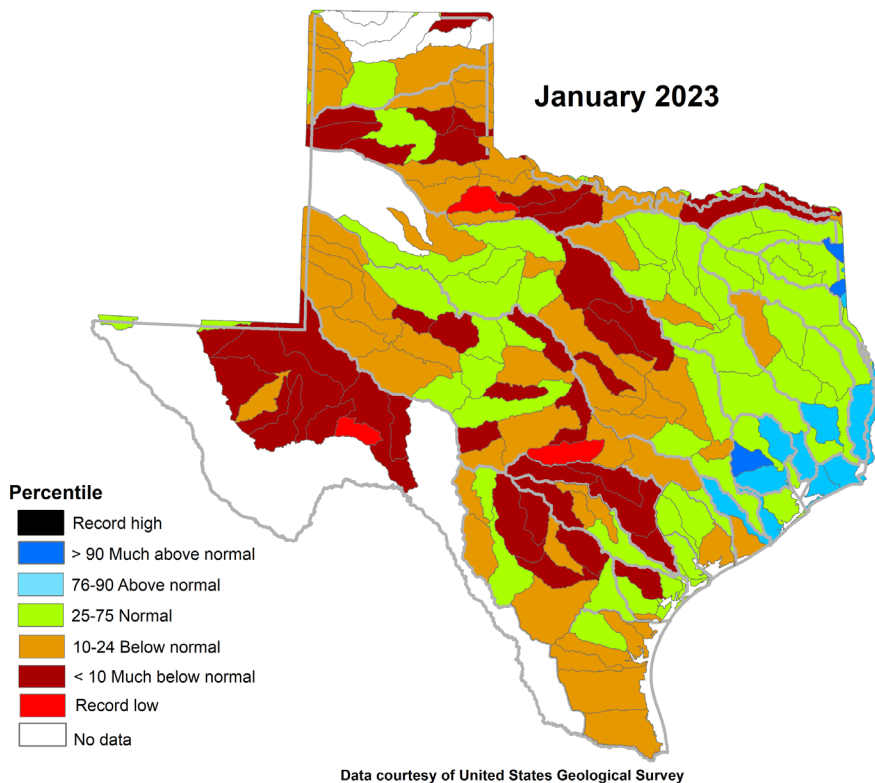


## STREAMFLOW CONDITIONS

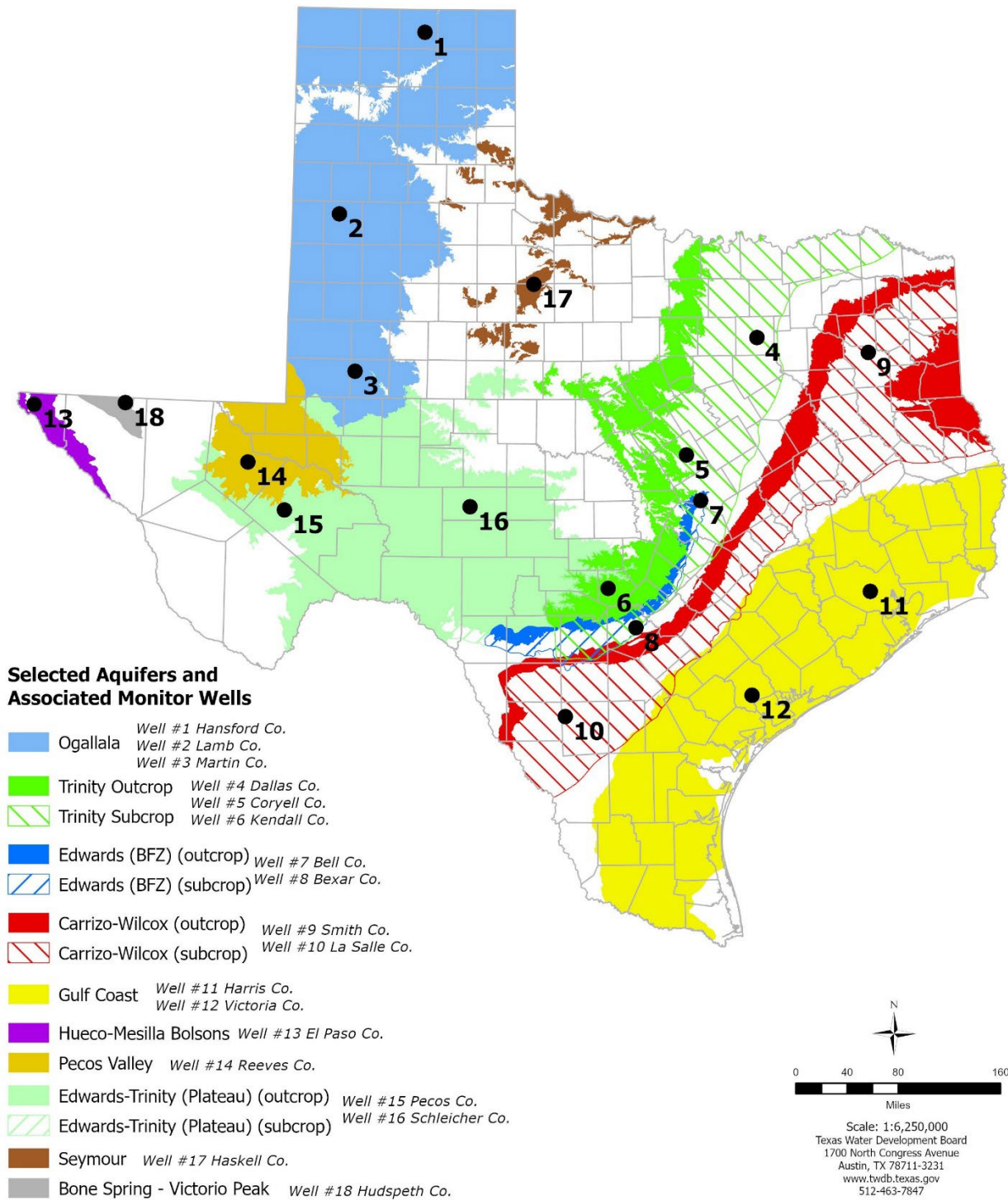
Normal streamflow (25–75<sup>th</sup> percentile, green shading, Figure 6) was recorded in parts of the panhandle, central, east, and coastal regions of Texas this month. Above normal (76–90<sup>th</sup> percentile, light blue shading, Figure 6) streamflow was seen in the Brazos-Colorado (San Bernard watershed), San Jacinto, San Jacinto-Brazos (Austin- Oyster watershed), Lower Trinity, Neches-Trinity, Neches (Village watershed), and Lower Sabine river basins. Much above normal stream flow (>90<sup>th</sup> percentile, dark blue shading, Figure 6) was seen in San Jacinto (Spring watershed), and Cypress (Cross Bayou watershed) river basins.

Below normal streamflow (10–24<sup>th</sup> percentile, orange shading, Figure 6) was recorded in the Canadian, Upper and Lower Red, Upper Trinity, Upper Neches, Brazos-Colorado (East Matagorda Bay watershed), Colorado Lavaca, Upper and Lower Brazos, Upper and Lower Colorado, San Antonio (Upper San Antonio and Cibolo watersheds), Nueces, Nueces-Rio Grande, and the Pecos (Toyha watershed) river basin.

Much below normal stream flow (< 10<sup>th</sup> percentile, dark red shading, Figure 6) was seen in the Guadalupe, San Antonio (Medina watershed), Nueces (Upper and Lower Frio, Hondo, and Atascosa watersheds), San Antonio-Nueces (Mission watershed), Upper and Lower Red, Middle Brazos, Upper and Mid Colorado, and Pecos river basins. Record lows (bright red shading, Figure 6) were seen in the Colorado (Pedernales watershed), Pecos (Independence watershed), and Upper Red (North Wichita water shed) river basins.



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



## JANUARY 2023 GROUNDWATER LEVELS IN MONITORING WELLS

Water-level measurements were available for all 18 key monitoring wells in the state. Water levels rose in 11 monitoring wells since the beginning of January, ranging from an increase of 0.10 feet in the Bexar County Edwards (Balcones Fault Zone) Aquifer well (#8 on map) to 6.64 feet in the Hudspeth County Bone Spring-Victorio Peak Aquifer well (#18 on map). Water levels declined in five monitoring wells, ranging from a decline of -0.07 feet in the Martin County Ogallala Aquifer well (#3 on map) to -0.58 feet in the La Salle County Carrizo-Wilcox Aquifer well (#10 on map). The J-17 well (#8 on map) in San Antonio recorded a water level of 94.00 feet below land surface or 637.00 feet above mean sea level. Water levels are 3.00 feet below the Stage 3 critical management level for the San Antonio portion of the Edwards (Balcones Fault Zone) Aquifer. Stage 3 water restrictions have been in effect since June 13, 2022.

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

Monitoring Well	January (depth to water, feet)	December (depth to water, feet)	Month Change	Year Change	Historical Change*	First Measured (year)
(1) Hansford 0354301	164.06	163.73	-0.33	-1.15	-93.94	1951
(2) Lamb 1053602	153.60	153.47	-0.13	-1.07	-125.43	1951
(3) Martin 2739903	145.88	145.81	-0.07	-1.34	-40.99	1964
(4) Dallas 3319101	496.65	NA	NA	0.19	-274.65	1954
(5) Coryell 4035404	543.84	544.50	0.66	-9.54	-251.84	1955**
(6) Kendall 6802609	159.17	160.57	1.40	6.76	-99.17	1975
(7) Bell 5804816	125.58	125.31	-0.27	-4.16	-2.07	2008
(8) Bexar 6837203	94.00	94.10	0.10	-25.40	-47.36	1932
(9) Smith 3430907	441.96	442.57	0.61	-3.45	-141.96	1977**
(10) La Salle 7738103	534.07	533.49	-0.58	-36.85	-281.00	2003
(11) Harris 6514409	193.05	193.55	0.50	-8.29	-57.55	1947**
(12) Victoria 8017502	34.30	35.77	1.47	-3.52	-0.30	1958**
(13) El Paso 4913301	299.88	300.22	0.34	-1.59	-67.98	1964**
(14) Reeves 4644501	151.55	NA	NA	NA	-59.46	1952
(15) Pecos 5216802	188.12	191.14	3.02	4.53	58.76	1976
(16) Schleicher 5512134	310.18	311.35	1.17	-6.34	-8.28	2003
(17) Haskell 2135748	46.35	46.53	0.18	-1.61	-3.35	2002
(18) Hudspeth 4807516	144.50	151.14	6.64	NA	-40.58	1966

\* Change since the original measurement taken on the date indicated in the last column.

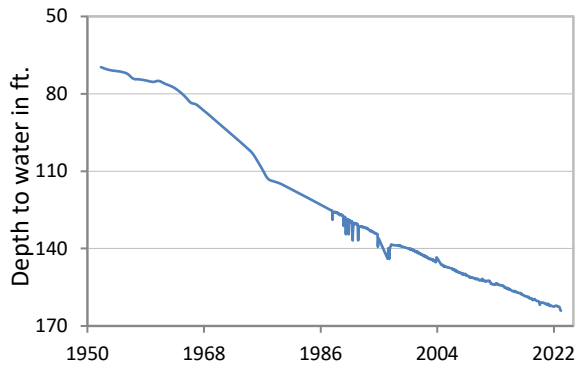
\*\* Measurement not shown on the hydrograph.

NA (not available)

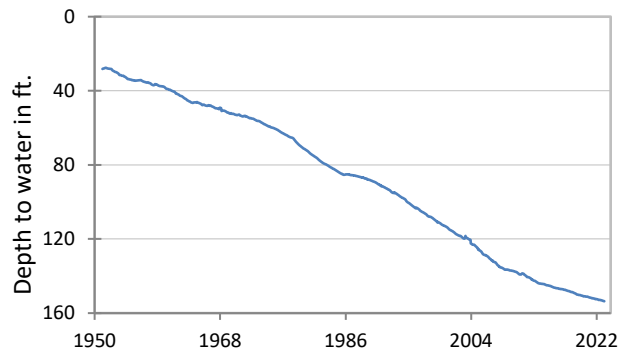
All data are provisional and subject to revision

# JANUARY 2023 MONITORING WELL HYDROGRAPHS

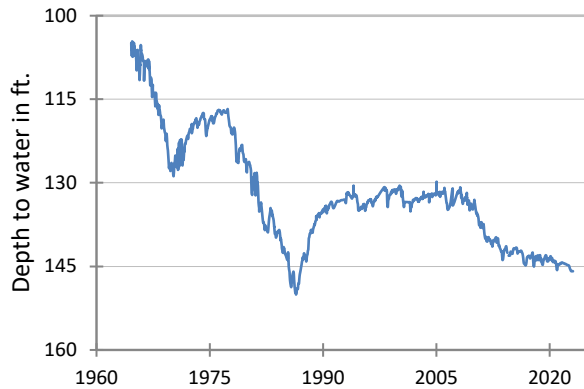
**(1) State Well #03-54-301**  
Near Spearman, Hansford County  
Ogallala Aquifer



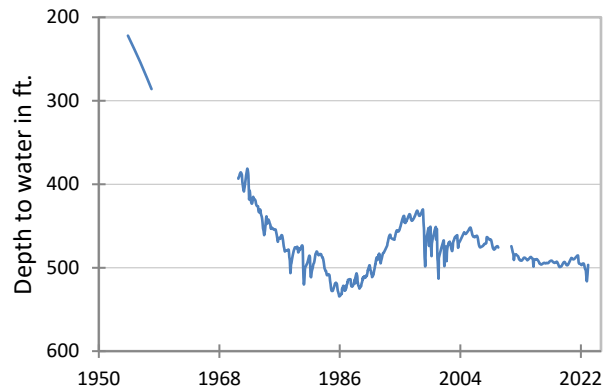
**(2) State Well #10-53-602**  
Near Earth, Lamb County  
Ogallala Aquifer



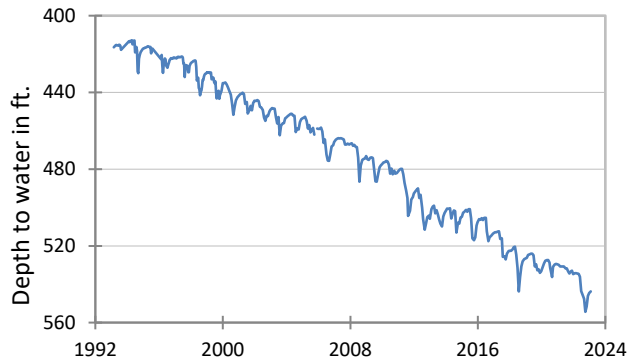
**(3) State Well #27-39-903**  
Northwest Martin County  
Ogallala Aquifer



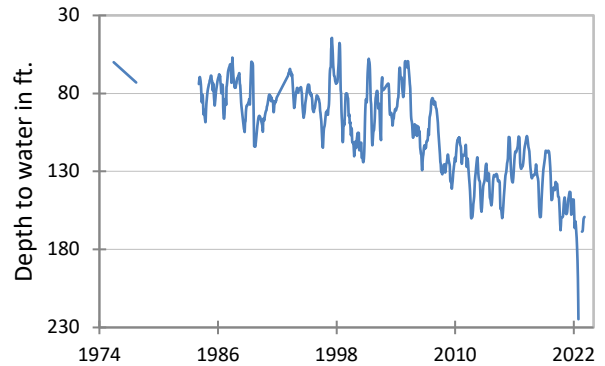
**(4) State Well #33-19-101**  
Southeast Dallas, Dallas County  
Twin Mountains Formation-Trinity Aquifer



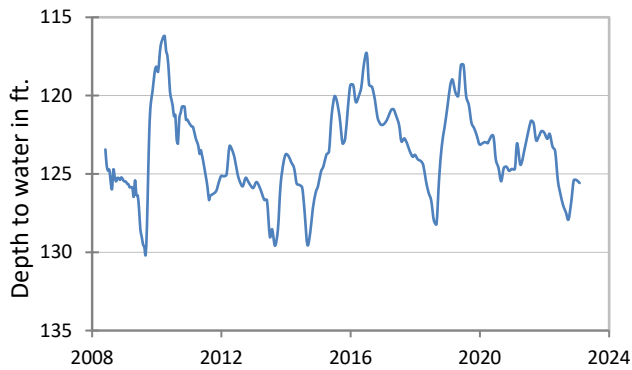
**(5) State Well #40-35-404**  
**Gatesville, Coryell County**  
**Hosston Formation-Trinity Aquifer**



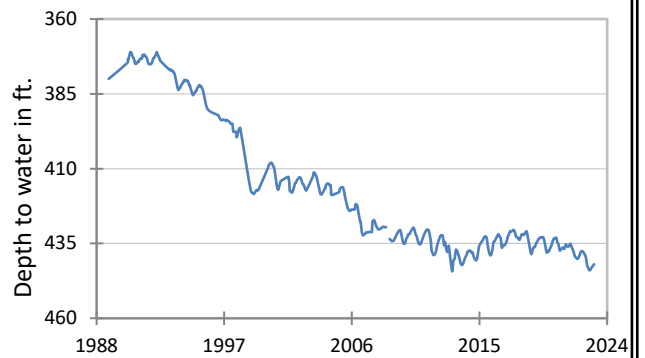
**(6) State Well #68-02-609**  
**Waring, Kendall County**  
**Travis Peak Formation-Trinity Aquifer**



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



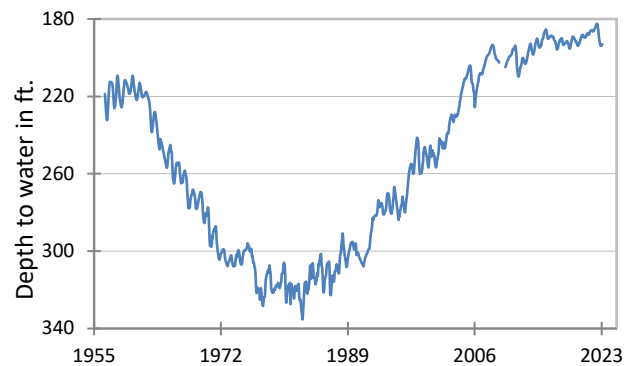
**(9) State Well #34-30-907**  
**Red Springs, Smith County**  
**Carrizo-Wilcox Aquifer**



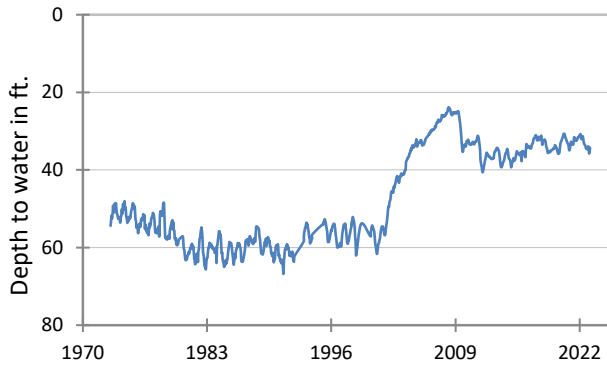
**(10) State Well #77-38-103**  
**Near Cotulla, La Salle County**  
**Carrizo-Wilcox Aquifer**



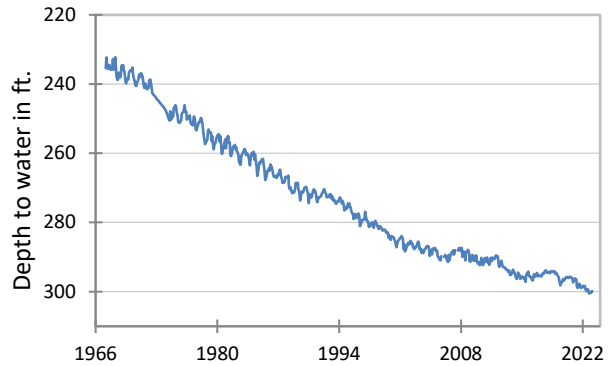
**(11) State Well #65-14-409**  
**North Houston, Harris County**  
**Evangeline Formation-Gulf Coast Aquifer**



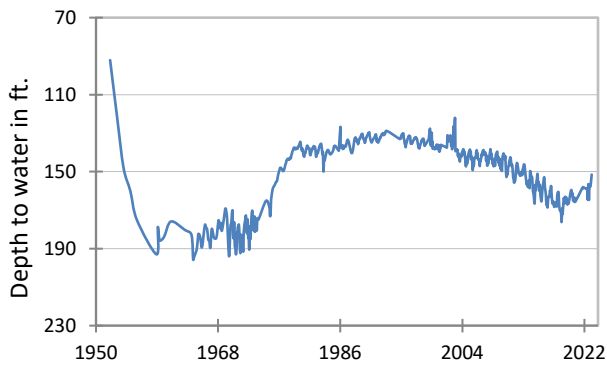
**(12) State Well #80-17-502**  
Near Bloomington, Victoria County  
Lissie Formation-Gulf Coast Aquifer



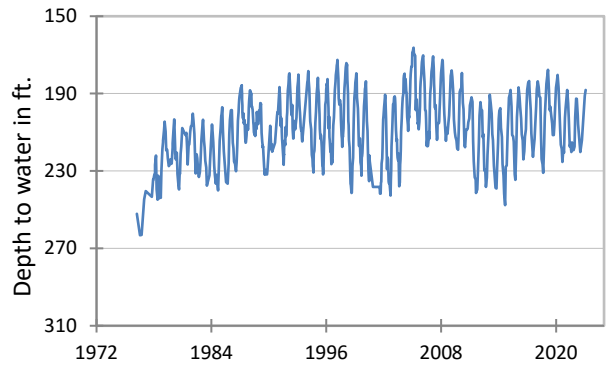
**(13) State Well #49-13-301**  
El Paso, El Paso County  
Hueco-Mesilla Bolsons Aquifer



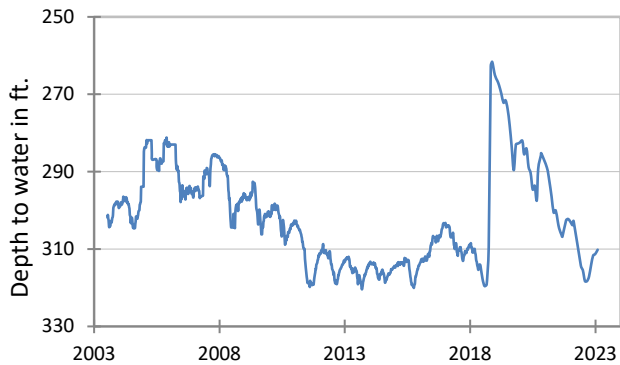
**(14) State Well #46-44-501**  
Near Pecos, Reeves County  
Pecos Valley Aquifer



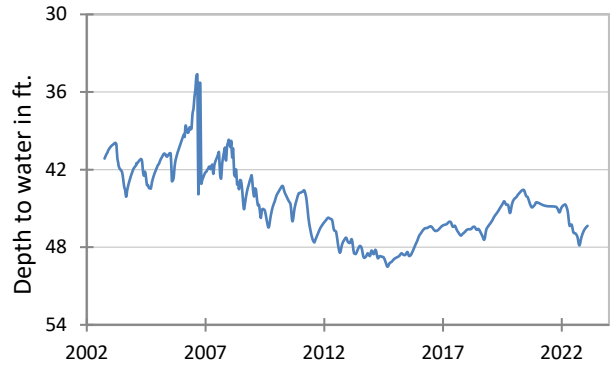
**(15) State Well #52-16-802**  
Fort Stockton, Pecos County  
Edwards-Trinity (Plateau) Aquifer



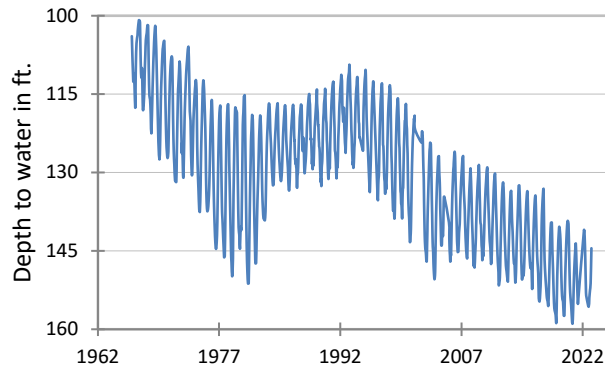
**(16) State Well #55-12-134**  
Eldorado, Schleicher County  
Edwards-Trinity (Plateau) Aquifer



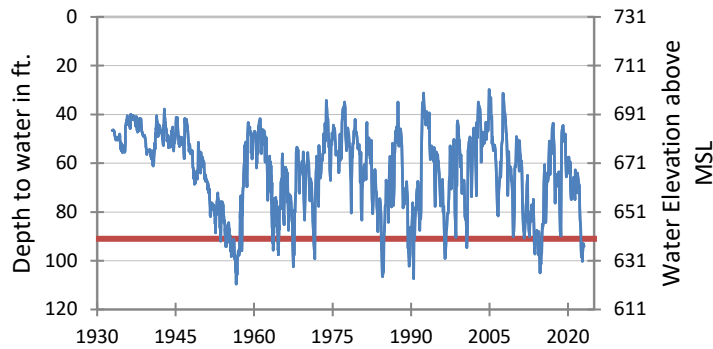
**(17) State Well #21-35-748**  
Near O'Brien, Haskell County  
Seymour Aquifer



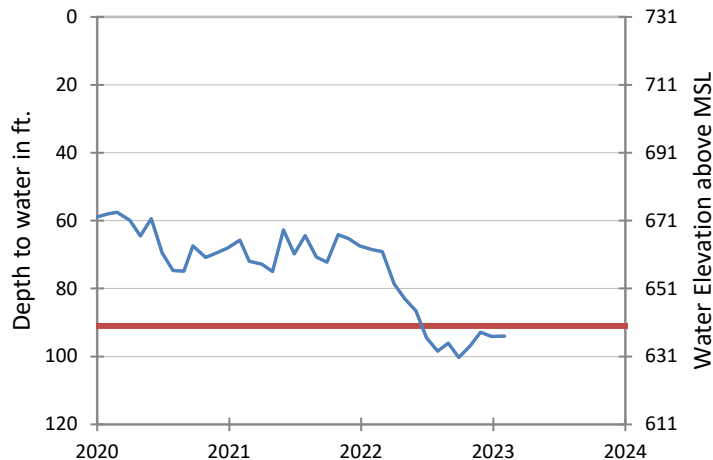
**(18) State Well #48-07-516  
Dell City, Hudspeth County  
Bone Spring-Victorio Peak Aquifer**



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

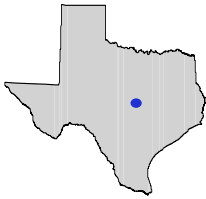


The late January water-level measurement in this Edwards (Balcones Fault Zone) Aquifer well, located at an elevation of 731 feet above mean sea level, was 94.00 feet below land surface, or 637.00 feet above mean sea level. This was 0.10 feet above last month's measurement, 25.40 feet below last year's measurement, and 47.36 feet below the initial measurement recorded in 1932.



**Water levels below the red line indicate periods in which Edwards Aquifer Authority Stage 3 drought restrictions are in effect. In January 2023, Stage 3 drought restrictions were in effect because the aquifer remained below the Stage 3 critical management level.**

## HYDROGRAPH OF THE MONTH



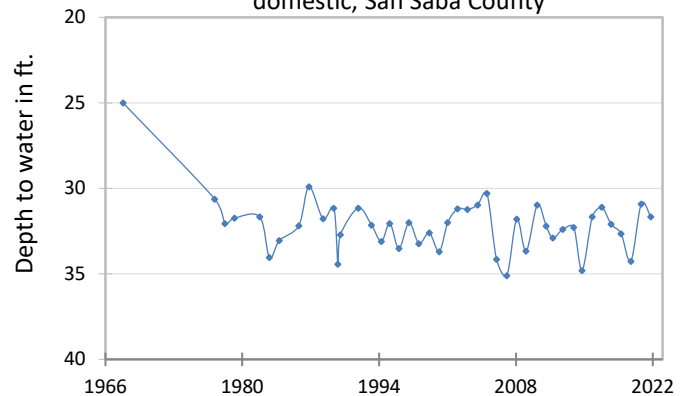
Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and their conditions in Texas.

The Marble Falls Aquifer is a minor aquifer that occurs in several separated outcrops along the northern and eastern edges of the Llano Uplift in Central Texas. The subsurface extent of the aquifer is largely unknown. Water occurs in the Marble Falls Limestone in voids and fractures, and the formation is very permeable in some areas. Wells may produce up to 2,000 gallons per minute and the formation measures up to 600 feet thick, with an average estimated thickness of 160 feet.

Numerous large springs originate from the Marble Falls Aquifer and provide a significant part of the baseflow to the San Saba River in McCulloch and San Saba counties and to the Colorado River in San Saba and Lampasas counties. Where underlying beds are thin or absent, the Marble Falls Aquifer may be hydraulically connected to the Ellenburger-San Saba Aquifer. The water quality in the Marble Falls Aquifer is variable, with the total dissolved solids content increasing down-dip to the north, away from the Llano Uplift. Because the limestone beds composing this aquifer are relatively shallow, the aquifer is susceptible to pollution by surface uses and activities. For example, some wells in Blanco County have produced water with high nitrate concentrations. In the subsurface, groundwater becomes highly mineralized; however, the water produced from this aquifer is suitable for most purposes and generally contains less than 1,000 milligrams per liter of total dissolved solids. Water from the aquifer is used for municipal, agricultural, and industrial uses.

### Marble Falls Aquifer

Well #41-60-303, 170 feet deep  
domestic, San Saba County



The initial measurement of 25 feet below land surface was recorded by a registered water well driller in October 1967. Roughly ten years later, the TWDB began taking near-annual measurements in the domestic well. The period of record reveals a relatively stable water level that fluctuates between 30 and 35 feet below land surface. The lowest measurement of 35.10 feet below land surface was recorded in January 2007 during drought conditions.



Far away (left), and close-up (right) images of well #41-60-303.