



# **RESERVOIR STORAGE**

### May 2012

At the end of the month, total storage in 109 of the state's major water supply reservoirs was at 24.1 million acrefeet\*, or 77% of their total conservation storage capacity. This is 211,000 acre-feet less than a month ago and 93,400 acre-feet more than storage at this time last year.

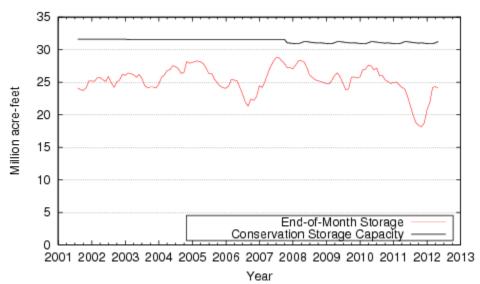
Eleven reservoirs, located primarily in the North Central and East regions of the state, held 100% of conservation storage capacity. Ten reservoirs were at or below 10% full: E.V. Spence, O. C. Fisher, Twin Buttes, Hords Creek Lake, J. B. Thomas, and Meredith were effectively empty, Electra at 1%, Palo Duro at 5%, Mackenzie at 8%, Red Bluff at 9%, and White River at 10% full.

Total combined storage was greater than 70% in the North Central (92%), East (95%), and Upper Coast (97%) regions. The regions with the lowest percentage storage were the High Plains (2%) and Trans-Pecos regions (9%). Storage over the last month declined in 6 regions and increased in 3 regions.

Elephant Butte reservoir held 368,062 acre-feet, or 19% of storage capacity. This is 12,000 acre-ft less than a month ago.

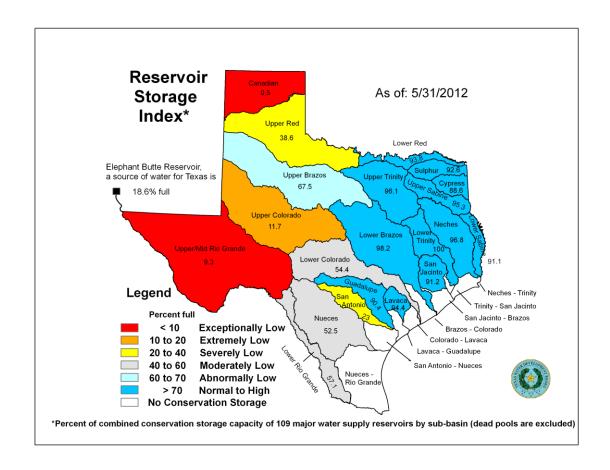
\* Only the Texas share of storage in border reservoirs is counted.

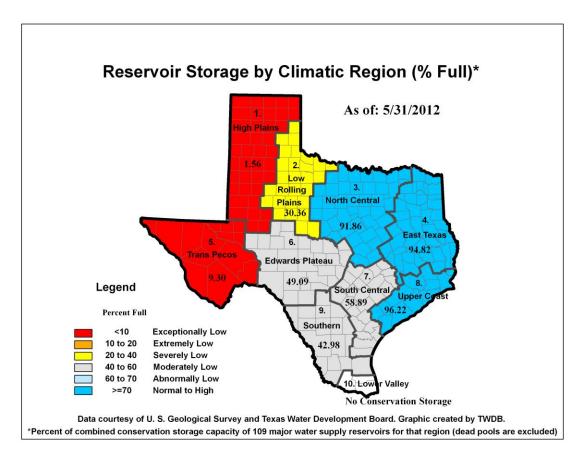
# CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



Figures are based on the end of the month data at 109 major reservoirs that represent 96 percent of the total conservation storage capacity of the 175 major water supply reservoirs in Texas. Major reservoirs are defined as having a conservation storage capacity of 5,000 acre-feet or greater.

# MAY RESERVOIR CONDITIONS

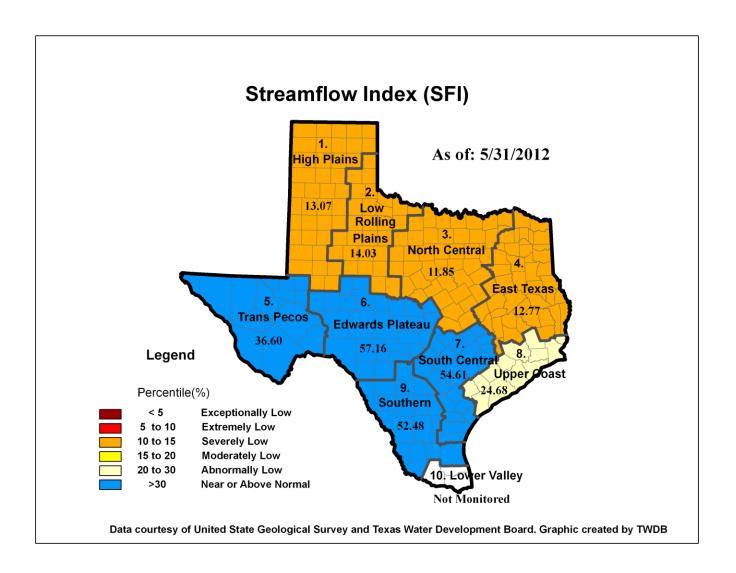




### MAY STREAMFLOW CONDITIONS

Of 29 reporting index stations monitored this month, computed 30-day mean flows were exceptionally low (<5%) at 2 stations, extremely low (5-10%) at 6 stations, severely low (10-15%) at 3 stations, moderately low (15-20%) at 2 stations, abnormally low at 5 stations (20% - 30%), and near normal (30% - 70%) at the remaining 11 stations. Compared to last month, flows have increased at 14 index stations and decreased at 15 stations.

On a regional basis, flows in this month were severely low in the High Plains, Low Rolling Plains, North Central, and East regions, abnormally low in the Upper Coast region, and near normal in all other regions. Streamflow in the Lower Valley region is not monitored.



### CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

CONSERVATION STOR								
Name of Lake	No.	Conservation	Conservat	ion	Change sir	ce	Change sir	ıce
or Reservoir	on	Storage	Storage	€	Late Apri	.1	Late May	ζ,
	Map	Capacity	Late May	2012	2012		2011	
		(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)
		HIGH PL	AINS					
Palo Duro Reservoir	1	60,897	3,042	5	-450	-1	-4,906	-8
Meredith, Lake (Texas)	2	500,000	0	0	0	0	0	0
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	0	0	0	0	0	0
MacKenzie Reservoir	3	46,429	3,881	8	-136	0	-1,504	-3
White River Lake	4	29,880	3,026	10	-457	-2	-5,207	-17
TOTAL		637,206	9,949	2	-1,043	0	-11,617	-2
		·	•		·		·	
		LOW ROLLING	G PLAINS					
Greenbelt Lake	5	59,500	10,180	17	-192	0	-4,578	-8
*Electra, Lake	6	5,626	60	1	-15	0	-119	-2
N. Fork Buffalo Crk Reservoir	7	15,400	2,074	13	-289	-2	-2,433	-16
Kemp, Lake	8	245,308	84,705	35	50	0	-100,075	-41
Millers Creek Reservoir	9	27,888	8,727	31	-503	-2	-7,096	-25
Alan Henry Reservoir	10	94,808	75,548	80	2,151	2	-8,780	-9
Stamford, Lake	11	51,570	22,463	44	-1,824	-4	-18,915	-37
J B Thomas, Lake	12	199,931	943	0	-173	0	-5,894	-3
Fort Phantom Hill, Lake	13	70,030	35,909	51	-715	-1	-15,083	-22
Sweetwater, Lake	14	10,006	2,666	27	-96	-1	-2,152	-22
Colorado City, Lake	15	31,793	9,551	30	190	1	-3,274	-10
Champion Creek Reservoir	16	41,618	4,725	11	23	0	-1,244	-3
Abilene, Lake	17	6,099	1,093	18	-68	-1	-2,606	-43
Coleman, Lake	18	38,076	15,269	40	-465	-1	-3,859	-10
Hords Creek Lake	19	5,684	13,209	0	0	0	-98	-2
TOTAL	19	903,337	273,913	30	-1,926	0	-176,206	-20
IOIAL		903,337	273,913	30	1,320	Ū	170,200	20
		NORTH CE	NITE A T					
Nogona Tako (Farmona Crk)	20	21,445		63	-664	-3	-3,464	-16
Nocona, Lake (Farmers Crk)	21		13,535	99	-64	-3	-3,404	-10
Hubert H Moss Lake	22	24,058	23,855			5		
Texoma, Lake (Texas)		1,334,295	1,249,639	94	63,951	_	30,856	2
Texoma, Lake (Texas & Oklahoma)	(22) 23	2,668,590	2,499,279	9 <u>4</u> 100	127,903 -56	5 0	61,713 -56	2 0
*Pat Mayse Lake	24	117,844	117,788	49		-2	-18,968	-22
Kickapoo, Lake	25	85,825	41,826 125,676	53	-1,650	- <u>2</u> -4		-20
Arrowhead, Lake		235,997	•		-8,746		-46,071	
Bonham, Lake	26	11,026	9,978	90	-605	-5 2	-1,048	
Crook, Lake	27	9,195	8,719	95 94	-155 -677	-2	-331 581	-4
Amon G Carter, Lake	28	19,903	16,759	84		-3 1		3
Ray Roberts, Lake	29	798,758	789,728	99	-6,991	-1	19,214	2
Jim Chapman Lake (Cooper)	30	260,332	244,877	94	1,390	1	68,143	26
Graham, Lake	31	45,260	42,772	95	-1,438	-3	4,121	9
*Lost Creek Reservoir	32 33	11,950	11,572	97 92	-247	-2 -1	1,001	8
Bridgeport, Lake		366,236	302,536	83	-4,450	-1	-5,101	-1
Lewisville Lake	34	563,228	545,895	97	-15,733	-3	-16,533	-3
Lavon Lake	35	443,844	432,287	97	-11,557	-3	29,576	7
Hubbard Creek Reservoir	36	318,067	134,087	42	-5,670	-2 1	-40,366	-13
Possum Kingdom Lake	37	540,340	444,355	82	-7,053	-1	-43,460	-8
*Mineral Wells, Lake	38	7,065	6,537	93	-205 -907	-3 -5	747	11
Weatherford, Lake	39	17,789	16,357	92	-907 -10 183	-5 -6	3,376	19
Eagle Mountain Lake	40	179,880	167,139	93 77	-10,183	-6 _11	10,043	6
Worth, Lake	41	24,500	18,825	77	-2,643	-11	941	4
Grapevine Lake	42	164,702	157,529	96	-6,774	-4	-7,173	-4
Ray Hubbard, Lake	43	452,040	438,840	97	-5,967	-1	11,469	3
New Terrell City Lake	44	8,583	8,583	100	0	0	1,081	13
Daniel, Lake	45	9,435	4,722	50	-402	-4	1,255	13
Palo Pinto, Lake	46	26,827	25,921	97	-345	-1	237	1
Benbrook Lake	47	85,648	77,327	90	-4,318	-5 -6	-7,127 -1 247	-8
Arlington, Lake	48	40,156	37,491	93	-2,435	-6	-1,347	-3

### CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake	No.	Conservation	Conservation Storage		Change since Late April		Change since Late May	
or Reservoir	on	Storage						
	Map	Capacity	Late May	2012	2012		2011	
		(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)
	NORT	H CENTRAL (C	Continue)					
Joe Pool Lake	49	142,861	141,384	99	-1,477	-1	-738	-1
*Cisco, Lake	50	26,000	11,031	42	-183	-1	-2,115	-8
Leon, Lake	51	26,421	22,263	84	-310	-1	7,493	28
Granbury, Lake	52	128,046	117,717	92	-5,873	-5	-4,288	-3
Pat Cleburne, Lake	53	26,008	24,906	96	-977	-4	1,469	6
Waxahachie, Lake	54	10,779	10,254	95	-525	-5	746	7
Bardwell Lake	55	46,122	45,750	99	-372	-1	1,640	4
Proctor Lake	56	55,457	52,120	94	-2,936	-5	19,111	34
Whitney, Lake	57	553,349	545,957	99	-7,392	-1	191,803	35
Aquilla Lake	58	44,460	43,395	98	-1,034	-2	1,964	4
Navarro Mills Lake	59	49,826	49,826	100	186	0	2,868	6
*Halbert, Lake	60	6,033	5,070	84	0	0	1,769	29
Richland-Chambers Reservoir	61	1,087,839	1,068,759	98	-14,415	-1	105,502	10
*Brownwood, Lake	62	131,429	73,252	56	-2,181	-2	3,191	2
Waco, Lake	62	198,943	198,943	100	0	0	13,617	7
Limestone, Lake	64	208,015	196,915	95	-7,928	-4	25,600	12
Belton Lake	65	435,225	435,225	100	0	0	40,480	9
Stillhouse Hollow Lake	66	227,771	218,884	96	4,121	2	2,440	1
Georgetown, Lake	67	36,823	34,813	95	-1,933	-5	10,177	28
Granger Lake	68	50,779	50,779	100	0	0	3,104	6
Tawakoni, Lake	69	888,126	862,363	97	-5,219	-1	65,311	7
TOTAL		10,604,540	9,724,761	92	-82,914	-1	482,623	5
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	=-	EAST			10 515	_	06.455	•
Wright Patman Lake	70	307,973	281,816	92	10,517	3	-26,157	-8
*Sulphur Springs, Lake	71	17,838	17,838	100	0	0	6,052	34
Cypress Springs, Lake	72	66,756	66,148	99	-608	-1	2,995	4
Bob Sandlin, Lake	73	200,579	176,661	88	1,096	1	10,600	5
Fork Reservoir, Lake	74	604,927	554,057	92	2,292	0	38,812	6
O the Pines, Lake	75	267,672	213,752	80	-21,577	-8	-27,609	-10
Cedar Creek Reservoir in Trinity	76	644,686	628,932	98	-9,967	-2	85,456	13
Athens, Lake	77	29,435	26,765	91	-421	-1	-286	-1
Palestine, Lake	78	370,907	365,039	98	-2,825	-1	39,995	11
Tyler, Lake	79	73,256	61,743	84	-911	-1	1,415	2
Murvaul, Lake	80	38,284	38,284	100	0	0	6,810	18
Jacksonville, Lake	81	25,670	25,383	99	-287	-1	1,651	6
Nacogdoches, Lake	82	39,521	33,218	84	-151	0	6,688	17
Houston County Lake	83	17,113	16,592	97	-368	-2	-139	-1
Sam Rayburn Reservoir	84	2,857,077	2,774,418	97	-63,574	-2	769,115	27
Toledo Bend Reservoir (Texas)	85	2,236,450	2,041,852	91	-84,935	-4	477,607	21
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	4,083,704	91	-169,871	-4	955,214	21
*Livingston, Lake	86	1,741,867	1,741,867	100	0	0	0	0
B A Steinhagen Lake	87	66,966	62,228	93	1,310	2	202	0
Conroe, Lake	88	416,188	369,749	89	-4,171	-1	725	0
TOTAL		10,023,165	9,496,342	95	-174,580	-2	1,393,932	14
		TRANS-P	ECOS					
Red Bluff Reservoir	89	130,170	12,084	9	1,139	1	-15,728	-12
TOTAL		130,170	12,084	9	1,139	1	-15,728	-12

#### CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake	No.	Conservation	Conservati	lon	Change sin	ce	Change sin	ce
or Reservoir	on	Storage	Storage		Late Apri	1	Late May	,
	Map	Capacity	Late May	2012	2012		2011	
		(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)
		EDWARDS P	LATEAU					
Oak Creek Reservoir	90	39,260	13,609	35	-361	-1	-6,512	-17
E V Spence Reservoir	91	517,272	2,039	0	-89	0	-5,050	-1
O C Fisher Lake	92	79,483	0	0	0	0	0	0
*O H Ivie Reservoir	93	554,335	91,521	17	583	0	-58,281	-11
Twin Buttes Reservoir	94	177,850	546	0	546	0	-12,754	-7
Brady Creek Reservoir	95	29,110	7,306	25	110	0	-3,560	-12
Buchanan, Lake	96	824,519	458,714	56	16,970	2	-168,231	-20
Lyndon B Johnson, Lake	97	113,323	111,258	98	851	1	-60	0
*Amistad Reservoir (Texas)	98	1,840,849	1,367,000	74	5,000	0	-417,000	-23
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	2,012,000	61	-102,000	-3	-1,189,000	-36
TOTAL		4,176,001	2,051,993	49	23,610	1	-671,448	-16
		SOUTH CE	NTRAL					
Travis, Lake	99	1,113,255	549,019	49	46,494	4	-87,857	-8
*Austin, Lake	100	21,804	20,669	95	60	0	193	1
Somerville Lake	101	147,104	147,104	100	0	0	36,342	25
Canyon Lake	102	378,781	343,136	91	18,767	5	-6,755	-2
Medina Lake	103	254,823	58,703	23	6,167	2	-67,074	-26
*Coleto Creek Reservoir	104	31,040	27,352	88	-98	0	244	1
TOTAL		1,946,807	1,145,983	59	71,390	4	-124,907	-6
		UPPER C	OAST					
Houston, Lake	105	128,863	128,863	100	0	0	15,963	12
Texana, Lake	106	159,640	150,839	94	-2,065	-1	52,083	33
TOTAL		288,503	279,702	97	-2,065	-1	68,046	24
		SOUTHE	ERN					
Choke Canyon Reservoir	107	695,262	408,990	59	2,281	0	-105,030	-15
Corpus Christi, Lake	108	256,961	91,645	36	16,064	6	-90,250	-35
*Falcon Reservoir (Texas)	109	1,551,034	591,000	38	-63,000	-4	-656,000	-42
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	829,000	31	-247,000	-9	-867,000	-33
TOTAL	(===,	2,503,257	1,091,635	44	-44,655	-2	-851,280	-34
STATE TOTAL		31,212,986	24,086,362	77	-211,044	-1	93,415	0

<sup>\*</sup> Conservation volume is used as conservation storage capacity because the dead storage is unknown.

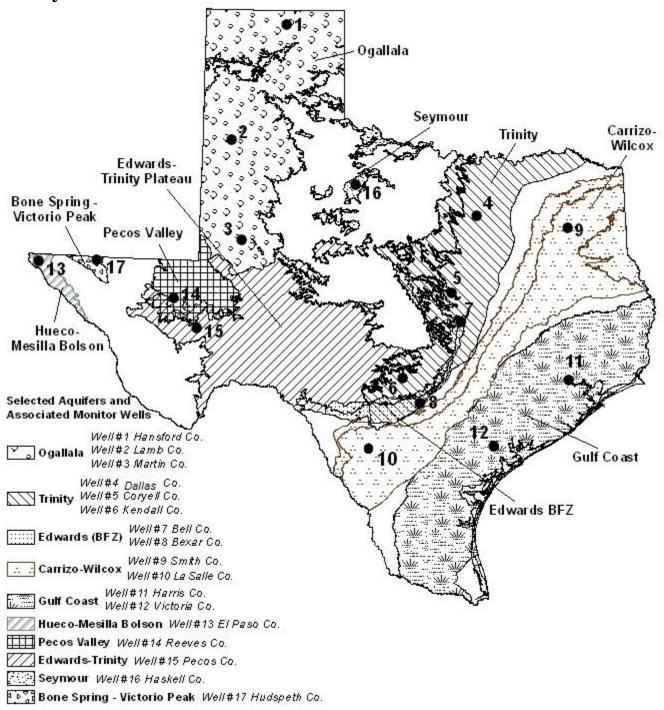
In Addition

Elephant Butte Reservoir 1,975,000 368,062 19 -12,160 -1 8,742

#### Note:

Conservation storage capacity is the space available to store water above the lowest outlet and below the top of conservation pool, or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included is any water in flood control storage (above the top of conservation pool or normal maximum operating level), or any water in the dead storage. Conservation storage percentage is based on the conservation storage capacity of the reservoir and the conservation storage in the reservoir on date shown. Percent change is given by 100\*(current conservation storage - past conservation storage)/conservation storage capacity. Figures shown are for the Texas share of conservation storage in all reservoirs.

# May 2012 GROUNDWATER LEVELS IN OBSERVATION WELLS



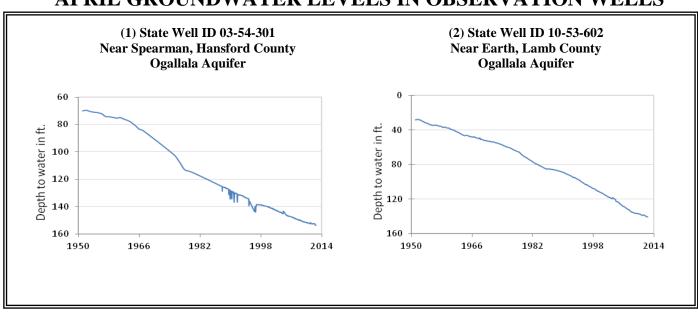
May, 2012

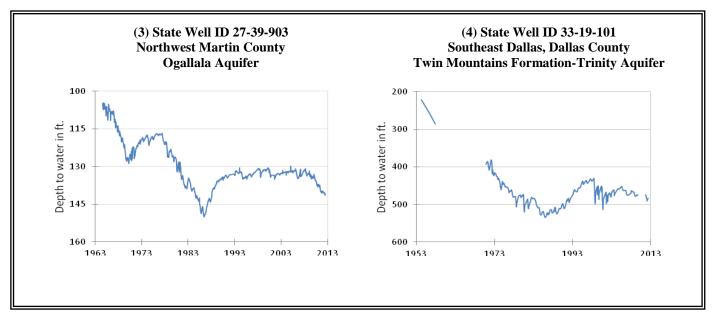
Water level measurements were available for sixteen of seventeen key monitoring wells in the state. Water levels rose in five of the monitoring wells since the beginning of May, ranging from 0.67 feet in the Reeves Pecos Valley Aquifer well to 3.2 feet in the Bexar County Edwards (BFZ) Aquifer well. Water levels declined in the remaining eleven monitoring wells, ranging from 0.14 feet in the Victoria County Gulf Coast Aquifer to 4.83 feet in the Kendall County Trinity Aquifer well. The J-17 well in San Antonio recorded a water level of 80.88 feet below land surface or 650.12 feet above mean sea level. This water level is 9.88 feet below the Stage I critical management level in that segment of the Edwards Aquifer. Stage I restrictions were declared by the E.A.A. on April 18, 2012, when the ten-day average fell below 660-foot elevation or 71 feet below land surface.

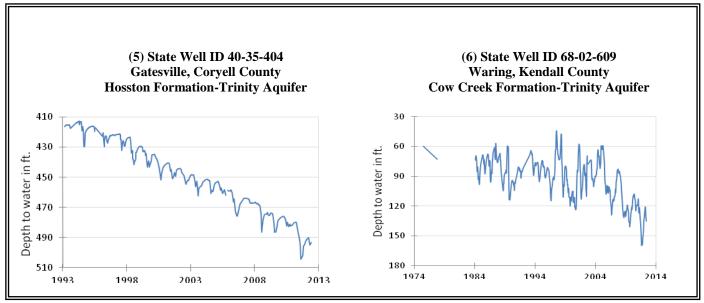
<sup>\*</sup> ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.

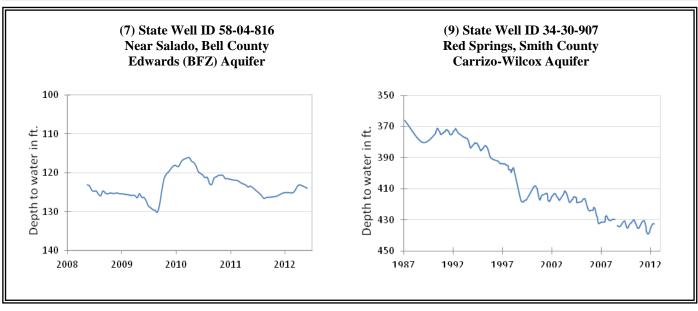
Monitoring Well	May 2012	April 2012	Month Change	Year Change	Historical Change
(1) Hansford 0354301	153.8	153.52	-0.28	-1.33	-83.68
(2) Lamb 1053602	140.97	140.79	-0.18	-2.31	-112.82
(3) Martin 2739903	141.45	140.52	-0.93	-1.85	-36.56
(4) Dallas 3319101	NA	483.91	NA	NA	-261.91
(5) Coryell 4035404	493.41	495.01	1.6	-6.28	-201.41
(6) Kendall 6802609	135.44	130.61	-4.83	-0.56	-75.44
(7) Bell 5804816	124	123.46	-0.54	0.38	-0.87
(8) Bexar 6837203	80.88	84.08	3.2	3.09	-34.24
(9) Smith 3430907	432.47	432.25	-0.22	-1.89	-66.47
(10) La Salle 7738103	406.64	402.43	-4.21	-69.55	-153.57
(11) Harris 6514409	200.09	201.25	1.16	-6.37	-64.59
(12) Victoria 8017502	36.05	35.91	-0.14	-4.42	-2.05
(13) El Paso 4913301	292.85	291.87	-0.98	-2.65	-60.95
(14) Reeves 4644501	150.45	151.12	0.67	-1.68	-58.36
(15) Pecos 5216802	210.97	212.60	1.63	14.09	35.91
(16) Haskell 2135748	46.67	45.90	-0.77	-0.05	-5.34
(17) Hudspeth 4807516	144.45	140.97	-3.48	-0.88	-40.53

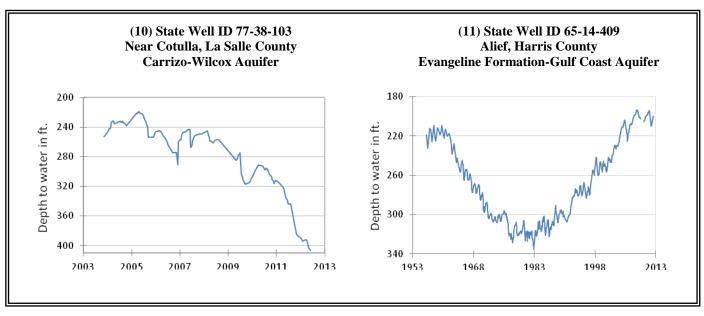
# APRIL GROUNDWATER LEVELS IN OBSERVATION WELLS

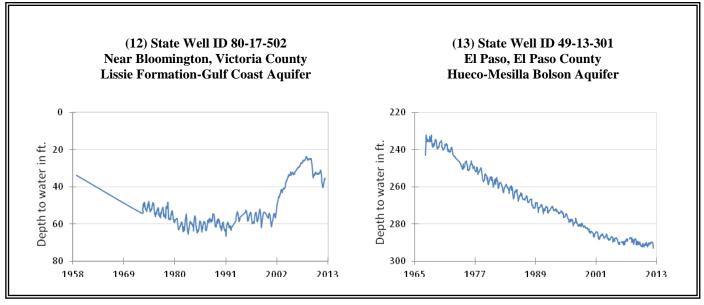


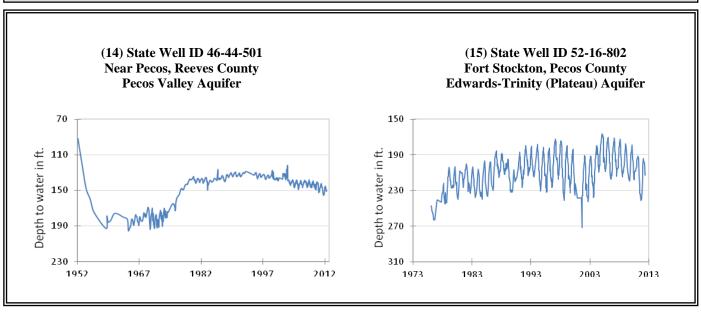


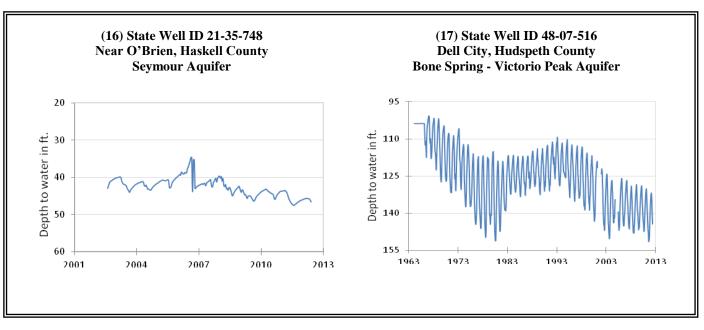


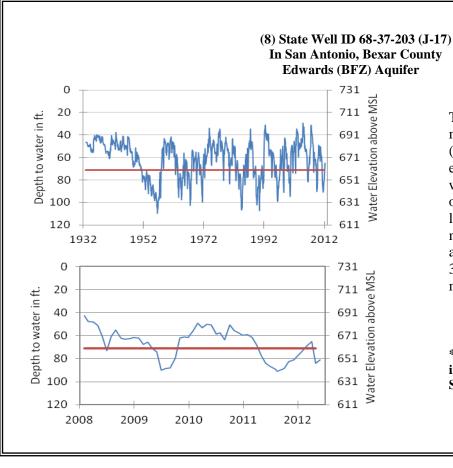












The May late water level measurement in this **Edwards** (BFZ) Aquifer well, reference elevation 731.0 feet above sea level, was 80.88 feet below land surface, or 650.12 feet above mean sea level. This was 3.2 feet above last month's measurement, 3.09 feet above last year's measurement, and feet below the initial measurement recorded in 1932.

\*\*\* Water levels below the red line indicate Edwards Aquifer Authority Stage I drought restrictions. \*\*\*

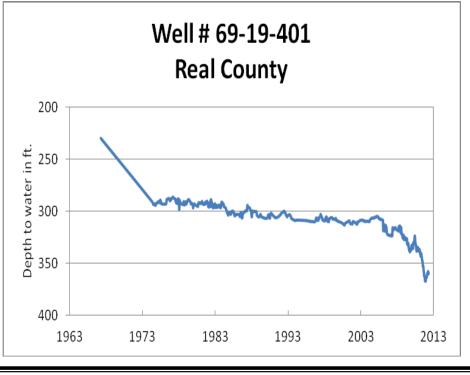
### HYDROGRAPH OF THE MONTH



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

# **Edwards Trinity Aquifer**

#### The Edwards-Trinity (Plateau) Aquifer is a major aquifer extending across much of the southwestern part of the state. The rocks of the Edwards Trinity suite were deposited in the shallow seas of the Cretaceous during a period when global sea level was very high and large continental areas were covered by the oceans. The period of consistent deposition during the Cretaceous blanketed most of Texas with a contiguous sheet of limestone and dolomite forming the rocks that host the Aquifer. The rocks are soluble and, where exposed at the surface, tend to form karstic terrains and caves as well as springs. Water quality ranges from fresh to slightly saline, with total dissolved solids ranging from 100 to 3,000 milligrams per liter, and is characterized as hard. Of groundwater pumped from this aquifer, more than twothirds is used for irrigation, with the remainder used for municipal and livestock supplies. Water levels remained relatively stable until about 2005 because recharge (rainfall) has generally kept pace with pumping over the extent of the aquifer.



TEXAS WATER DEVELOPMENT BOARD 1700 N. CONGRESS AVE. P.O. BOX 13231 AUSTIN TX 78711-3231