

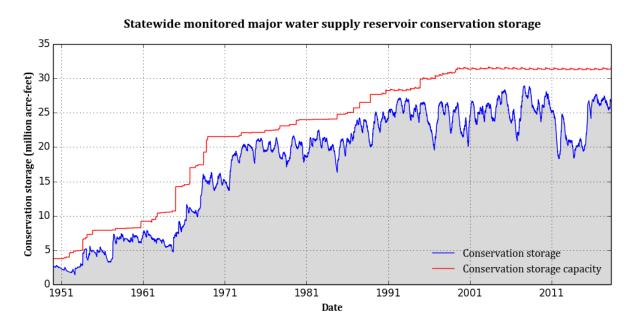


## March 2018 RESERVOIR STORAGE\*

At the end of March 2018, total conservation storage\* in 118 of the state's major water supply reservoirs was 26.99 million acre-feet or 84 percent of total conservation storage capacity. This is approximately 0.08 million acre-feet less than a month ago but 0.1 million acre-feet more than storage at this time last year.

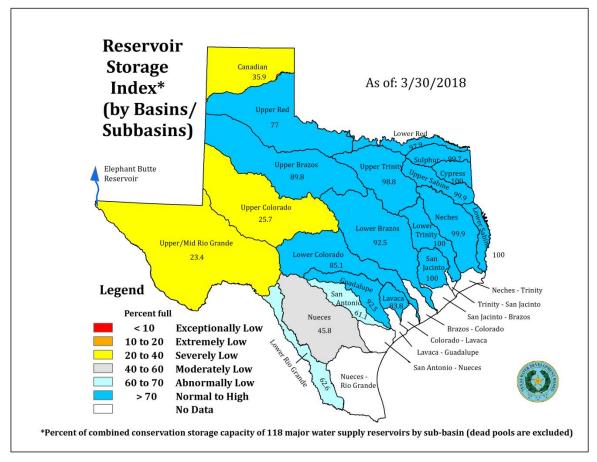
Fifty-one (51) reservoirs held 100 percent of conservation storage capacity, primarily in the North Central (29 reservoirs) and East (20 reservoirs) regions. Two reservoirs, Palo Duro (1 percent) and Twin Buttes (7 percent) remained below 10 percent full.

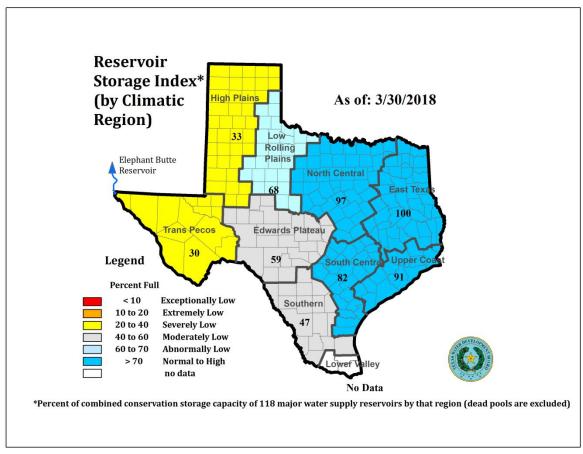
Total combined storage was at or above normal (storage ≥70 percent) in the East (100 percent), North Central (97 percent), Upper Coast (91 percent), and South Central (82 percent) regions. The High Plains (33 percent) and Trans-Pecos (30 percent) regions had the lowest percentage of storage. Overall, storage increased in two and decreased in seven regions over the past month.



\*Storage is based on end of the month data in 118 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.

## **MARCH 2018 RESERVOIR CONDITIONS**





<sup>\*</sup>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                                     | Conservation Conservation storage capacity end of Marc |             |     | Change since<br>end of February |          | Change since end of March 2017 |     |  |  |  |
|   | (acre-feet)  | (acre-feet) | (%) | (acre-feet)**                   | (%)      | (acre-feet)**                  | (%) |  |  |  |
| HIGH PLAINS   |  |             |     |                                 |          |                                |     |  |  |  |
| MacKenzie Reservoir   | 46,450   | 6,629       | 14  | -106                            | -0       | -208                           | -0  |  |  |  |
| Meredith, Lake  | 500,000  | 200,854     | 40  | -1,682                          | -0       | 80,523                         | 16  |  |  |  |
| Palo Duro Reservoir   | 61,066   | 452         | 1   | -63                             | -0       | -428                           | -1  |  |  |  |
| White River Lake  | 29,880   | 5,300       | 18  | -269                            | -1       | -2,112                         | -7  |  |  |  |
| TOTAL   | 637,396  | 213,235     | 33  | -2,120                          | -0       | 77,775                         | 12  |  |  |  |
| LOW ROLLING PLAINS  |  |             |     |                                 |          |                                |     |  |  |  |
| Abilene, Lake   | 7,900  | 4,146       | 52  | -183                            | -2       | -3,504                         | -44 |  |  |  |
| Alan Henry Reservoir  | 94,808   | 78,072      | 82  | -1,216                          | -1       | -11,816                        | -12 |  |  |  |
| Champion Creek Reservoir                                      | 41,580   | 18,929      | 46  | -254                            | -1<br>-0 | 3,231                          | 8   |  |  |  |
| Coleman, Lake   | 38,075   | 33,750      |     | 89 -139                         |          | -3,766                         | -10 |  |  |  |
| Colorado City, Lake   | 30,758   | 11,843      | 39  | -346                            | -1       | -2,581                         | -8  |  |  |  |
| Fort Phantom Hill, Lake                                       | 70,030   | 61,744      | 88  | -251                            | -0       | -8,286                         | -12 |  |  |  |
| Greenbelt Lake  | 59,968   | 14,920      | 25  | -130                            | -0       | -1,738                         | -3  |  |  |  |
| Hords Creek Lake  | 8,443  | 5,282       | 63  | -55                             | -1       | -1,919                         | -23 |  |  |  |
| J. B. Thomas, Lake  | 199,931  | 89,818      | 45  | -2,610                          | -1       | -34,315                        | -17 |  |  |  |
| Kemp, Lake  | 245,307  | 210,402     | 86  | -11,486                         | -5       | -34,905                        | -14 |  |  |  |
| Millers Creek Reservoir<br>North Fork Buffalo Creek           | 26,768   | 23,931      | 89  | -330                            | -1       | -2,837                         | -11 |  |  |  |
| Reservoir   | 15,400   | 11,098      | 72  | -176                            | -1       | -884                           | -6  |  |  |  |
| Stamford, Lake  | 51,570   | 46,359      | 90  | -1,053                          | -2       | -1,828                         | -4  |  |  |  |
| Sweetwater, Lake  | 12,267   | 2,306       | 19  | -56                             | -0       | -633                           | -5  |  |  |  |
| TOTAL   | 902,805  | 612,600     | 68  | -18,285                         | -2       | -105,781                       | -12 |  |  |  |
|   |  | NORTH CENTI | RAL |                                 |          |                                |     |  |  |  |
| Amon G Carter, Lake   | 19,266   | 19,266      | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| Aquilla Lake  | 43,243   | 43,243      | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| Arlington, Lake   | 40,188   | 40,188      | 100 | 0                               | 0        | 2,478                          | 6   |  |  |  |
| Arrowhead, Lake   | 230,359  | 211,247     | 92  | 10,481                          | 5        | -13,208                        | -6  |  |  |  |
| Bardwell Lake   | 46,122   | 46,122      | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| Belton Lake   | 435,225  | 409,207     | 94  | 4,903                           | 1        | -26,018                        | -6  |  |  |  |
| Benbrook Lake   | 85,648   | 85,648      | 100 | 0                               | 0        | 19,636                         | 23  |  |  |  |
| Bonham, Lake  | 11,027   | 11,027      | 100 | 0                               | 0        | 3,048                          | 28  |  |  |  |
| Bridgeport, Lake  | 366,236  | 358,115     | 98  | 10,000                          | 3        | -8,121                         | -2  |  |  |  |
| *Brownwood, Lake  | 128,839  | 105,356 82  |     | -1,642                          | -1       | -23,483                        | -18 |  |  |  |
| *Cisco, Lake  | 29,003   | 23,884 82   |     | -143                            | -0       | -1,929                         | -7  |  |  |  |
| Crook, Lake   | 9,195  | 9,195 100   |     | 0 0                             |          | 188                            | 2   |  |  |  |
| Eagle Mountain Lake   | 179,880  | 179,880     | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| Georgetown, Lake  | 36,823   | 24,553      | 67  | -647                            | -2       | -12,270                        | -33 |  |  |  |
| Graham, Lake  | 45,288   | 43,889      | 97  | 1,041                           | 2        | -980                           | -2  |  |  |  |
| Granbury, Lake  | 132,949  | 132,378     | 100 | 163                             | 0        | 163                            | 0   |  |  |  |
| Granger Lake  | 51,822   | 51,822      | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| Grapevine Lake  | 164,703  | 164,703     | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| *Halbert, Lake  | 6,033  | 5,539       | 92  | -45                             | -1       | 583                            | 10  |  |  |  |
| Hubbard Creek Reservoir                                       | 318,067  | 271,328     | 85  | -962                            | -0       | -42,467                        | -13 |  |  |  |
| Hubert H Moss Lake  | 24,058   | 23,928      | 99  | -130                            | -1       | 107                            | 0   |  |  |  |
| Jim Chapman Lake (Cooper)                                     | 260,332  | 260,332     | 100 | 0                               | 0        | 69,457                         | 27  |  |  |  |
| Joe Pool Lake   | 175,358  | 175,358     | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| Kickapoo, Lake  | 86,345   | 73,086      | 85  | 796                             | 1        | -4,995                         | -6  |  |  |  |
| Lavon Lake  | 406,388  | 406,388     | 100 | 0                               | 0        | 39,935                         | 10  |  |  |  |
| Leon, Lake  | 27,762   | 23,587      | 85  | -47                             | -0       | 62                             | 0   |  |  |  |
| Lewisville Lake   | 563,228  | 563,228     | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| Limestone, Lake   | 203,780  | 190,702     | 94  | 28,089                          | 14       | -13,078                        | -6  |  |  |  |
| *Lost Creek Reservoir   | 11,950   | 11,895      | 100 | -55                             | -0       | -21                            | -0  |  |  |  |
| *Mineral Wells, Lake  | 5,273  | 5,273       | 100 | 0                               | 0        | 0                              | 0   |  |  |  |
| Mountain Creek, Lake  | 22,850   | 22,850      | 100 | 0                               | 0        | 0                              | 0   |  |  |  |

| CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS |   |               |                 |                                      |     |                                   |     |  |  |  |
|---|---|---------------|-----------------|--------------------------------------|-----|-----------------------------------|-----|--|--|--|
| Name of lake or reservoir                                     | Conservation Conservation storage end of March 2018 |               |                 | Change since<br>end of February 2018 |     | Change since<br>end of March 2017 |     |  |  |  |
|   | (acre-feet)   | (acre-feet)   | (acre-feet) (%) |                                      | (%) | (acre-feet)**                     | (%) |  |  |  |
| (North Central continued)                                     |   |               |                 |                                      |     |                                   |     |  |  |  |
| Navarro Mills Lake  | 49,827  | 48,842        | 98              | 5,281                                | 11  | -985                              | -2  |  |  |  |
| New Terrell City Lake   | 8,583   | 8,583         | 100             | 0                                    | 0   | 43                                | 1   |  |  |  |
| Nocona, Lake (Farmers Crk)                                    | 21,444  | 21,444        | 100             | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Palo Pinto, Lake  | 26,766  | 24,654 92     |                 | 277                                  | 1   | 64                                | 0   |  |  |  |
| Pat Cleburne, Lake  | 26,008  | 26,008 100    |                 | 0                                    | 0   | 0                                 | 0   |  |  |  |
| *Pat Mayse Lake   | 113,683   | 113,683       | 100             | 0                                    | 0   | 12,938                            | 11  |  |  |  |
| Possum Kingdom Lake   | 538,139   | 523,606       | 97              | 4,894                                | 1   | -12,566                           | -2  |  |  |  |
| Proctor Lake  | 54,762  | 45,724        | 83              | 0                                    | 0   | -8,486                            | -15 |  |  |  |
| Ray Hubbard, Lake   | 439,559   | 438,306       | 100             | -1,253                               | -0  | 11,934                            | 3   |  |  |  |
| Ray Roberts, Lake   | 788,167   | 788,167       | 100             |                                      |     | 0                                 | 0   |  |  |  |
| Richland-Chambers Reservoir                                   | 1,087,839   | 1,085,699     | 100             | 50,734                               | 5   | -2,140                            | -0  |  |  |  |
| Squaw Creek, Lake   | 151,250   | 150,082       | 99              | -1,168                               | -1  | 1,098                             | 1   |  |  |  |
| Stillhouse Hollow Lake  | 227,771   | 204,190       | 90              | 119                                  | 0   | -23,581                           | -10 |  |  |  |
| Tawakoni, Lake  | 871,685   | 871,685       | 100             | 0                                    | 0   | 107,071                           | 12  |  |  |  |
| Texoma, Lake (Texas)  | 1,258,113   | 1,234,041     | 98              | -24,072                              | -2  | 74,545                            | 6   |  |  |  |
| Texoma, Lake (Texas &   | , ,   | , ,           |                 | ,                                    |     | ,                                 |     |  |  |  |
| Oklahoma)   | 2,525,281   | 2,468,089     | 98              | -151,902                             | -6  | 149,090                           | 6   |  |  |  |
| Waco, Lake  | 189,418   | 179,281       | 95              | 8,321                                | 4   | -10,137                           | -5  |  |  |  |
| Waxahachie, Lake  | 10,780  | 10,780        | 100             | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Weatherford, Lake   | 17,812  | 17,780        |                 |                                      | 1   | 379                               | 2   |  |  |  |
| Whitney, Lake   | 553,344   | 505,896       | 91              | 8,592                                | 2   | 21,859                            | 4   |  |  |  |
| Worth, Lake   | 33,495  | 33,495        | 100             | 0                                    | 0   | 2,403                             | 7   |  |  |  |
| TOTAL   | 10,635,685  | 10,325,163    | 97              | 103,777                              | 1   | 163,526                           | 2   |  |  |  |
|   |   | EAST          |                 |                                      |     |                                   |     |  |  |  |
| Athens, Lake  | 29,503  | 29,503        | 100             | 0                                    | 0   | 0                                 | 0   |  |  |  |
| B A Steinhagen Lake   | 66,961  | 56,253        | 84              | -6,037                               | -9  | -4,616                            | -7  |  |  |  |
| Bob Sandlin, Lake   | 190,822   | 190,822       | 100             | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Caddo, Lake   | 29,898  | 29,898        | 100             | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Cedar Creek Reservoir in Trinity                              | 644,686   | 644,686       | 100             | 0                                    | 0   | 981                               | 0   |  |  |  |
| Cherokee, Lake  | 40,094  | 40,094        | 100             | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Conroe, Lake  | 410,988   | 410,988       | 100             | 0                                    | 0   | 384                               | 0   |  |  |  |
| Cypress Springs, Lake   | 66,756  | 66,756        | 6,756 100       |                                      | 0   | 1,191                             | 2   |  |  |  |
| Fork Reservoir, Lake  | 605,061   | 601,358 99    |                 | -3,703                               | -1  | 49,375                            | 8   |  |  |  |
| Houston County Lake   | 17,113  | 17,113 100    |                 | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Jacksonville, Lake  | 25,670  | 25,670 100    |                 | 0                                    | 0   | 0                                 | 0   |  |  |  |
| *Livingston, Lake   | 1,785,348   | 1,785,348 100 |                 | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Martin, Lake  | 75,726  | 75,479 100    |                 | 1,671                                | 2   | 6,040                             | 8   |  |  |  |
| Monticello, Lake  | 34,740  | 30,930 89     |                 | -2,264                               | -7  | -3,810                            | -11 |  |  |  |
| Murvaul, Lake   | 38,285  | 38,285        | 100             | 0                                    | 0   | 1,971                             | 5   |  |  |  |
| Nacogdoches, Lake   | 39,522  | 39,522        | 100             | 88                                   | 0   | 1,124                             | 3   |  |  |  |
| O' the Pines, Lake  | 241,363   | 241,363       | 100             | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Palestine, Lake   | 367,303   | 367,303       | 100             | 0                                    | 0   | 0                                 | 0   |  |  |  |
| Sam Rayburn Reservoir   | 2,857,077   | 2,857,077     | 100             | 0                                    | 0   | 171,331                           | 6   |  |  |  |
| Striker, Lake   | 16,934  | 16,934        | 100             | 0                                    | 0   | 289                               | 2   |  |  |  |
| *Sulphur Springs, Lake  | 17,747  | 16,635        | 94              | -1,112                               | -6  | 1,771                             | 10  |  |  |  |
| Toledo Bend Reservoir (Texas)                                 | 2,236,450   | 2,236,450     | 100             | 0                                    | 0   | 204,022                           | 9   |  |  |  |
| Toledo Bend Reservoir (Texas & Louisiana)                     | 4,472,900   | 4,654,872     | 100             | 22 211                               | 1   | 585,917                           | 13  |  |  |  |
|   | 72,073  |               | 100             | 33,244 1<br>0 0                      |     | _                                 |     |  |  |  |
| Tyler, Lake   |   | 72,073        |                 |                                      |     | 0                                 | 0   |  |  |  |
| Wright Patman Lake  | 122,593   | 122,593       | 100             | 0<br>11 257                          | 0   | 0<br>420.052                      | 0   |  |  |  |
| TOTAL   | 10,032,713  | 10,013,133    | 100             | -11,357                              | -0  | 430,053                           | 4   |  |  |  |

| CONSERVATIO   | N STORAGE DA                  | TA FOR SELE                            | ECTED I | MAJOR TEXAS                          | RESER    | RVOIRS                         |           |
|---|-------------------------------|--|---------|--------------------------------------|----------|--------------------------------|-----------|
| Name of lake or reservoir   | Conservation storage capacity | Conservation storage end of March 2018 |         | Change since<br>end of February 2018 |          | Change since end of March 2017 |           |
|   | (acre-feet)                   | (acre-feet)                            | (%)     | (acre-feet)**                        | (%)      | (acre-feet)**                  | (%)       |
|   |                               | TRANS-PECC                             |         |                                      |          |                                |           |
| Elephant Butte Reservoir (Texas)<br>Elephant Butte Reservoir (Texas | 852,491                       | 188,431                                | 22      | -20,210                              | -2       | 54,222                         | 6         |
| & New Mexico)   | 1,973,358                     | 436,182                                | 22      | -46,782                              | -2       | 125,515                        | 6         |
| Red Bluff Reservoir   | 151,110                       | 111,661                                | 74      | -182                                 | -0       | -20,965                        | -14       |
| TOTAL   | 1,003,601                     | 300,092                                | 30      | -20,392                              | -2       | 33,257                         | 3         |
|   |                               | EDWARDS PLAT                           | ΓEAU    |                                      |          |                                |           |
| *Amistad Reservoir (Texas) *Amistad Reservoir (Texas &              | 1,840,849                     | 1,381,044                              | 75      | -8,635                               | -0       | -64,036                        | -3        |
| Mexico)   | 3,275,532                     | 2,011,221                              | 61      | -7,547                               | -0       | -61,318                        | -2        |
| Brady Creek Reservoir   | 28,808                        | 15,893                                 | 55      | -228                                 | -1       | -2,974                         | -10       |
| Buchanan, Lake  | 860,607                       | 774,708                                | 90      | 3,834                                | 0        | -42,414                        | -5        |
| E. V. Spence Reservoir  | 517,272                       | 62,667                                 | 12      | -1,011                               | -0       | -7,211                         | -1        |
| Inks, Lake  | 13,962                        | 13,066                                 | 94      | 219                                  | 2        | 181                            | 1         |
| Lyndon B Johnson, Lake  | 115,249                       | 110,453                                | 96      | -183                                 | -0       | 244                            | 0         |
| Marble Falls, Lake  | 6,901                         | 6,798                                  | 99      | 5                                    | 0        | 0                              | 0         |
| Nasworthy   | 9,615                         | 8,000                                  | 83      | -147                                 | -2       | 436                            | 5         |
| Oak Creek Reservoir   | 39,210                        | 18,625                                 | 48      | -310                                 | -1       | -4,631                         | -12       |
| O. C. Fisher Lake   | 119,445                       | 11,541                                 | 10      | -99                                  | -0       | -5,513                         | -5        |
| *O. H. Ivie Reservoir   | 554,340                       | 102,510                                | 18      | -2,794                               | -1       | -32,771                        | -6        |
| Twin Buttes Reservoir   | 182,454                       | 12,321                                 | 7       | -176                                 | -0       | -12,779                        | -7        |
| TOTAL   | 4,288,712                     | 2,517,626                              | 59      | -9,525                               | -0       | -171,468                       | -4        |
|   |                               | SOUTH CENTE                            | RAL     |                                      |          | ·                              |           |
| *Austin, Lake   | 23,972                        | 23,081                                 | 96      | 355                                  | 1        | 416                            | 2         |
| Canyon Lake   | 378,781                       | 351,757                                | 93      | 2,973                                | 1        | -27,024                        | -7        |
| *Coleto Creek Reservoir   | 31,040                        | 27,352                                 | 88      | -782                                 | -3       | -3,547                         | -11       |
| Medina Lake   | 254,823                       | 155,352                                | 61      | -3,932                               | -2       | -80,619                        | -32       |
| Somerville Lake   | 147,104                       | 147,104                                | 100     | 0                                    | 0        | 0                              | 0         |
| Travis, Lake  | 1,113,348                     | 893,385                                | 80      | -5,843                               | -1       | -219,963                       | -20       |
| TOTAL   | 1,949,068                     | 1,598,031                              | 82      | -7,229                               | -0       | -330,737                       | -17       |
|   | _,,,,,,,,,                    | UPPER COAS                             |         | .,,                                  |          |                                |           |
| Houston, Lake   | 120,686                       | 120,686                                | 100     | 0                                    | 0        | 0                              | 0         |
| Texana, Lake  | 159,566                       | 134,633                                | 84      | 2,459                                | 2        | -23,923                        | -15       |
| TOTAL   | 280,252                       | 255,319                                | 91      | 2,459                                | 1        | -23,923                        | -9        |
| 1011111   | 200,202                       | SOUTHERN                               |         | <b>2</b> ,107                        |          | 20,720                         |           |
| Choke Canyon Reservoir  | 662,820                       | 192,431                                | 29      | -3,924                               | -1       | -70,791                        | -11       |
| Corpus Christi, Lake  | 256,062                       | 228,427                                | 89      | -7,799                               | -1<br>-3 | -12,797                        | -11<br>-5 |
| *Falcon Reservoir (Texas)   | 1,551,007                     | 733,620                                | 47      | -108,251                             | -3<br>-7 | 119,917                        | 8         |
| *Falcon Reservoir (Texas &  | 2646017                       | 1 204 577                              | 16      | 206 675                              | O        | 421 E02                        | 1.6       |
| Mexico)   | 2,646,817                     | 1,204,577                              | 46      | -206,675                             | -8       | 421,503                        | 16        |
| TOTAL   | 2,469,889                     | 1,154,478                              | 47      | -119,974                             | -5       | 36,329                         | 1         |
| CT A TOTAL TO TO TO TO TO   | 00.000.101                    | STATEWIDE TO                           |         | 00.555                               |          | 400.004                        |           |
| STATEWIDE TOTAL   | 32,200,121                    | 26,989,677                             | 84      | -82,646                              | -0       | 109,031                        | 0         |

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

## Note:

Conservation storage capacity is the space available to store water above the lowest outlet and below the top of conservation pool (some may have seasonal variations), 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 pool 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.

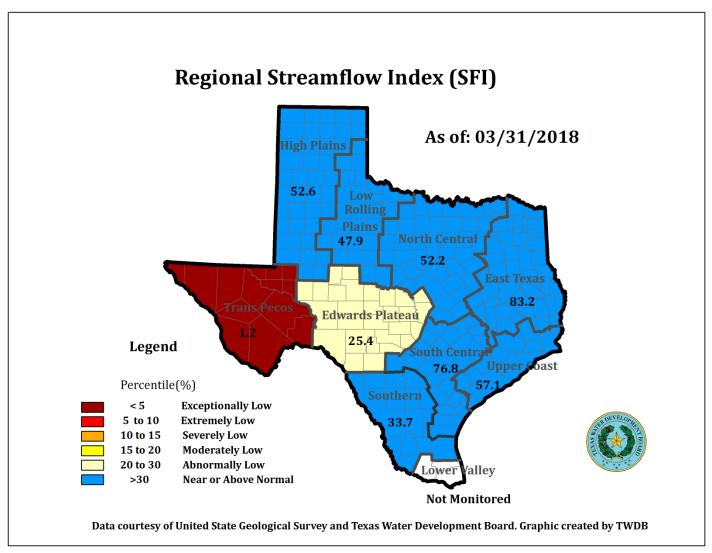
<sup>\*\*</sup>Monthly and yearly changes do not include reservoirs that did not have data in last month or last year, respectively.

# **MARCH 2018 STREAMFLOW CONDITIONS**

The computed 30-day mean flow status for 29 reporting index stations monitored this month is presented below. Mean flow increased at 16 index stations, decreased at 11 stations, and remained unchanged at two stations.

| Streamflow Status           | Number of Stations |
|-----------------------------|--------------------|
| Near or Above Normal (>30%) | 21                 |
| Abnormally Low (20-30%)     | 4                  |
| Moderately Low (15-20%)     | 2                  |
| Severely Low (10-15%)       | 0                  |
| Extremely Low (5-10%)       | 1                  |
| Exceptionally Low (<5%)     | 1                  |

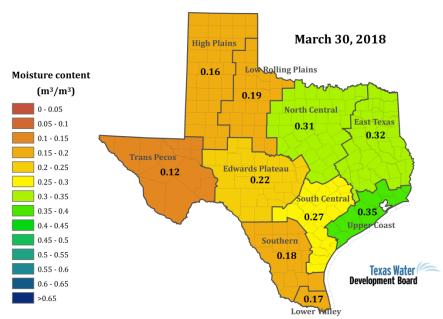
On a regional basis, as shown below, stream flows were exceptionally low in the Trans Pecos region, abnormally low in the Edwards Plateau region, but near or above normal in all other regions. Streamflow in the Lower Valley region is not monitored.



<sup>\*</sup>Streamflow Index is defined as the percentile flow that exceeds a given percent of observed flows.

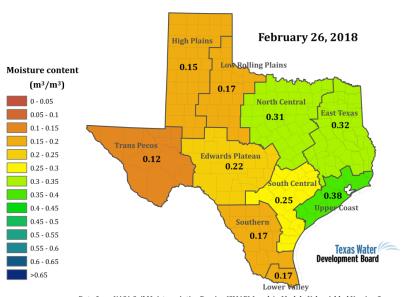
## MARCH 2018 SOIL MOISTURE CONDITIONS

## **Soil Moisture Condition**



Data from NASA Soil Moisture Active Passive (SMAP) Level 4 - Model - Value Added Version 2 Soil moisture content is shown as volume of water per unit volume of bulk soil. Root zone: 0 to 1 meter depth.

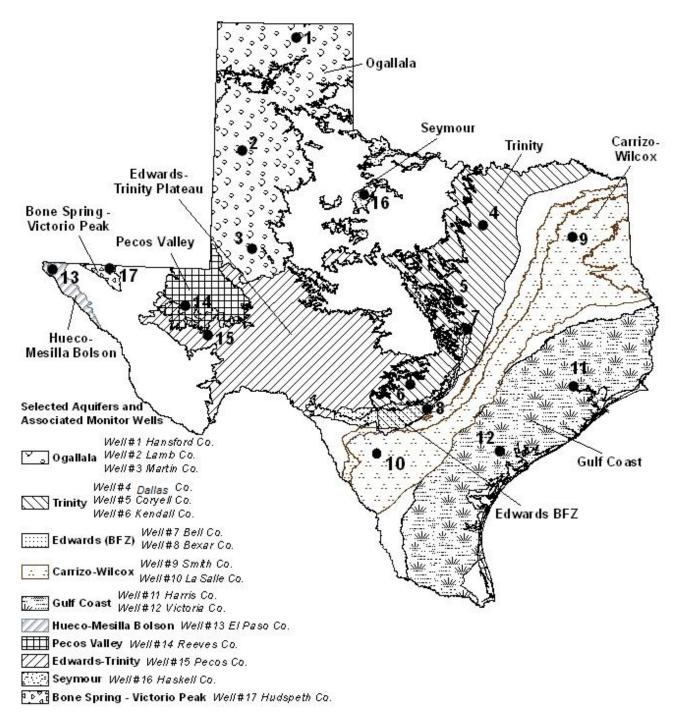
#### **Soil Moisture Condition**



Data from NASA Soil Moisture Active Passive (SMAP) Level 4 - Model - Value Added Version 2 Soil moisture content is shown as volume of water per unit volume of bulk soil. Root zone: 0 to 1 meter depth.

Soil moisture at the end of March 2018 (*top image*), as compared to soil moisture at the end of February 2018 (*bottom image*), increased in four climate regions ranging from 6 - 12 percent with the greatest increases in Low Rolling Plains and South Central regions, declined in the Upper Coast region by 8 percent, and remained unchanged in five other climate regions.

# March 2018 GROUNDWATER LEVELS IN OBSERVATION WELLS

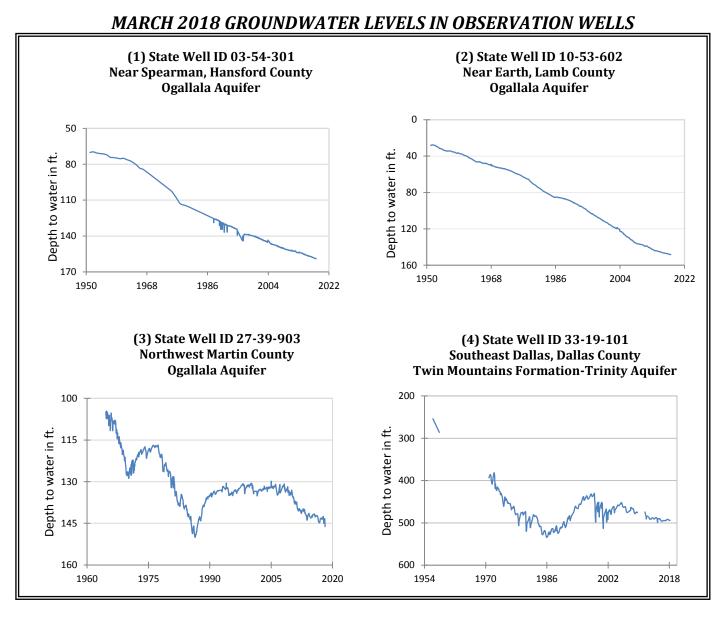


Water-level measurements were available for all 17 key monitoring wells in the state. Water levels rose in 7 monitoring wells since the beginning of March 2018, ranging from an increase of 0.02 feet in the Victoria County Gulf Coast Aquifer well (#12 on map) to 0.93 feet in the Coryell County Trinity Aquifer well (#5 on map). Water levels declined in 10 monitoring wells, ranging from a decline of 0.21 feet in the Lamb County Ogallala Aquifer well (#2 on map) to 5.24 feet in the Hudspeth County Bone Springs-Victorio Peak Aquifer well (#17 on map). The J-17 well (#8 on map) in San Antonio recorded a water level of 63.51 feet below land surface or 667.49 feet above mean sea level. There are no restrictions currently in place for the San Antonio portion of the Edwards (Balcones Fault Zone) Aquifer, with water levels at 7.49 feet above the Stage I critical management level.

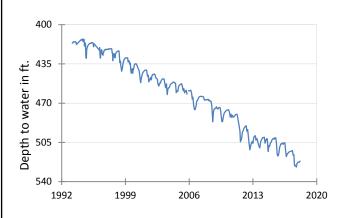
<sup>\*</sup>IDs used in this publication on the aquifer map to indicate the monitoring well location (IDs 1 - 17) are different than the TWDB's six- or seven-digit state well identification number.

| Monitoring Well       | March  | February | Month         | Year   | Historical     | First    |
|-----------------------|--------|----------|---------------|--------|----------------|----------|
|                       |        |          | Change        | Change | Change         | Measured |
| (1) Hansford 0354301  | 159.34 | 158.99   | -0.35         | -1.40  | -89.22         | 1951     |
| (2) Lamb 1053602      | 148.52 | 148.31   | -0.21         | -1.25  | -120.35        | 1951     |
| (3) Martin 2739903    | 143.91 | 143.19   | -0.72         | -0.83  | -39.02         | 1964     |
| (4) Dallas 3319101    | 493.67 | 493.78   | 0.11          | -0.36  | -271.67        | 1954     |
| (5) Coryell 4035404   | 520.80 | 521.73   | 0.93          | -8.16  | -228.80        | 1955     |
| (6) Kendall 6802609   | 130.46 | 125.52   | -4.94         | -23.15 | -70.46         | 1975     |
| (7) Bell 5804816      | 124.46 | 124.19   | -0.27         | -3.53  | -0.95          | 2008     |
| (8) Bexar 6837203     | 63.51  | 63.91    | 0.40          | -14.90 | -16.87         | 1932     |
| (9) Smith 3430907     | 431.22 | 431.81   | 0.59          | -0.20  | -131.22        | 1977     |
| (10) La Salle 7738103 | 498.94 | 497.74   | -1.20         | -28.74 | -245.87        | 2003     |
| (11) Harris 6514409   | 191.79 | 192.43   | 0.64          | 0.71   | <i>-56.29*</i> | 1947**   |
| (12) Victoria 8017502 | 32.35  | 32.37    | 0.02          | -0.65  | 1.65           | 1958     |
| (13) El Paso 4913301  | 294.68 | 294.52   | - <b>0.16</b> | 0.88   | -62.78         | 1964     |
| (14) Reeves 4644501   | 165.71 | 160.56   | -5.15         | -0.20  | <i>-73.62</i>  | 1952     |
| (15) Pecos 5216802    | 191.34 | 186.76   | -4.58         | -1.01  | 55.54          | 1976     |
| (16) Haskell 2135748  | 46.45  | 46.60    | 0.15          | -0.41  | -3.45          | 2002     |
| (17) Hudspeth 4807516 | 144.83 | 139.59   | -5.24         | -0.81  | -40.91         | 1966     |

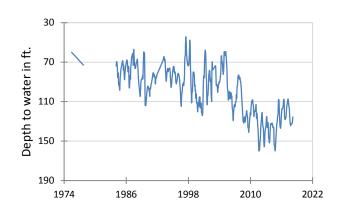
<sup>\*</sup>Change since the original measurement of 135.5 feet below land surface in 1947 (\*\*measurement not shown on the hydrograph)



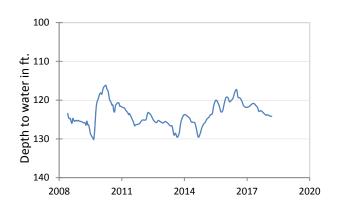
(5) State Well ID 40-35-404 Gatesville, Coryell County Hosston Formation-Trinity Aquifer



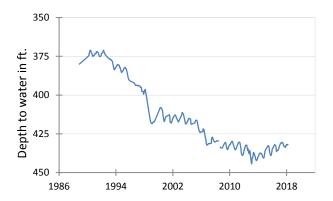
(6) State Well ID 68-02-609 Waring, Kendall County Cow Creek Formation-Trinity Aquifer



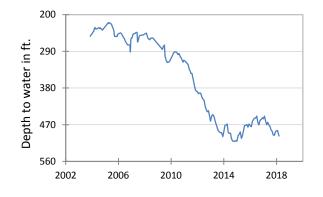
(7) State Well ID 58-04-816 Near Salado, Bell County Edwards (Balcones Fault Zone) Aquifer



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



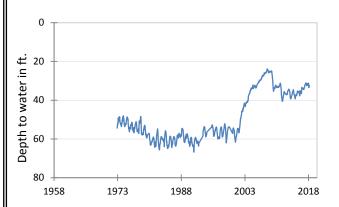
(10) State Well ID 77-38-103 Near Cotulla, La Salle County Carrizo-Wilcox Aquifer



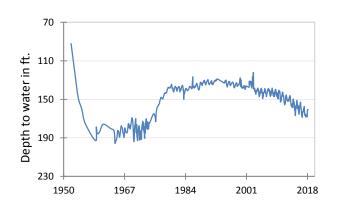
(11) State Well ID 65-14-409 Alief, Harris County Evangeline Formation-Gulf Coast Aquifer



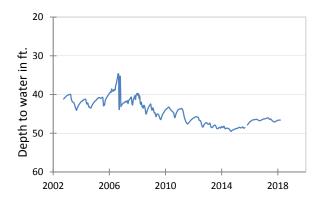
(12) State Well ID 80-17-502 Near Bloomington, Victoria County Lissie Formation-Gulf Coast Aquifer



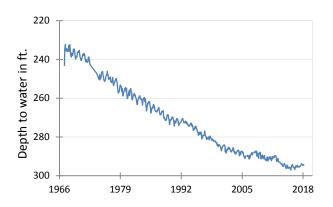
(14) State Well ID 46-44-501 Near Pecos, Reeves County Pecos Valley Aquifer



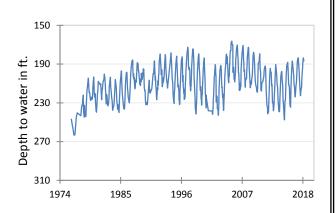
(16) State Well ID 21-35-748 Near O'Brien, Haskell County Seymour Aquifer



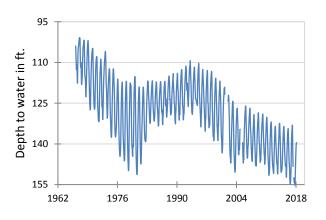
(13) State Well ID 49-13-301 El Paso, El Paso County Hueco-Mesilla Bolson Aquifer



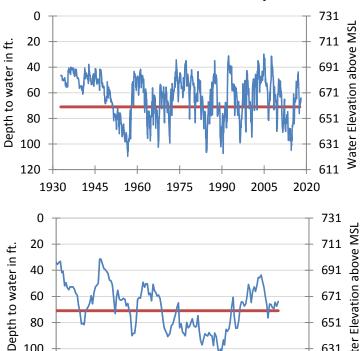
(15) State Well ID 52-16-802 Fort Stockton, Pecos County Edwards-Trinity (Plateau) Aquifer



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



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



The late March water-level measurement in this Edwards (Balcones Fault Zone) Aquifer well, elevation 731 feet above mean sea level, was 63.51 feet below land surface, or 667.49 feet above mean sea level. This was 0.40 feet above last month's measurement, 14.90 feet below last year's measurement, and 16.87 feet below the initial measurement recorded in 1932.

\*\*\* Water levels below the red line indicate periods in which Edwards Aquifer Authority Stage I drought restrictions are in effect. \*\*\*



60

80

100 120

2005

2008

2011

2014

2017

# HYDROGRAPH OF THE MONTH

2020

651

611

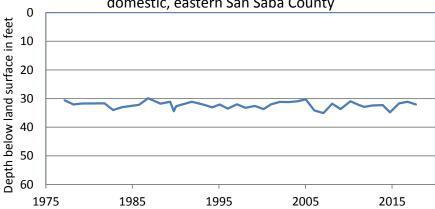
Each month this space features a new hydrograph (marked with the ● symbol on the map) depicting different aquifers and their conditions in Texas.

The Marble Falls Aquifer is a minor aquifer that is present in several separated outcrops along the northern and eastern flanks of the Llano Uplift region of Central Texas. Groundwater occurs in fractures, solution cavities, and channels in the limestone of the Marble Falls Formation of the Bend Group. Maximum thickness of the formation is 600 feet. Because the limestone beds composing the aguifer are relatively shallow, the aguifer is susceptible to pollution by surface uses and activities.

The groundwater contains less than 1,000 milligrams per liter of total dissolved solids. Water from the aguifer is used for municipal, agricultural, and industrial uses, and no significant water-level declines have occurred in wells measured by the TWDB.

# Marble Falls Aquifer

Well # 4160303, 170 feet deep domestic, eastern San Saba County



The initial measurement in this domestic well was 25 feet below land surface as recorded in 1967 by the driller (not shown). The TWDB has measured this well every year since 1977. The water level has remained relatively stable throughout the period of record with no more than an overall decline of 10 feet in the last 39 years. The lowest water level measurement of 34.8 feet below land surface was recorded in 2014 during drought conditions.