



DROUGHT PREPAREDNESS COUNCIL

RICK PERRY
Governor

5805 N. Lamar Blvd.
P.O. Box 4087
Austin, Texas 78773-0220
Phone: (512) 424-2138

W. NIM KIDD
Council Chairperson

March 20, 2013

TO: The Honorable Rick Perry, Governor, State of Texas
The Honorable David Dewhurst, Lieutenant Governor, State of Texas
Mr. John Steen, Secretary of State, State of Texas
The Honorable Leticia R. Van de Putte, President Pro-Tempore of the Senate, State of Texas
The Honorable Joe Straus, Speaker of the House, State of Texas
The Honorable Tommy Williams, Chairman, Senate Finance Committee, State of Texas
The Honorable Troy Fraser, Chairman, Senate Natural Resources Committee, State of Texas
The Honorable Craig Estes, Chairman, Senate Committee on Agriculture, Rural Affairs & Homeland Security, State of Texas
The Honorable Joseph Pickett, Chairman, House Committee on Homeland Security & Public Safety, State of Texas
The Honorable Jim Pitts, Chairman, House Appropriations Committee, State of Texas
The Honorable Allan Ritter, Chairman, House Natural Resources Committee, State of Texas
The Honorable Tracy O. King, Chairman, House Agriculture & Livestock Committee, State of Texas
The Honorable Abel Herrero, Chairman, House Criminal Jurisprudence Committee, State of Texas
Mr. Jeff Boyd, Chief of Staff, Office of the Governor
Mr. Steven McCraw, Director, Texas Department of Public Safety

FROM: Assistant Director Nim Kidd, Texas Division of Emergency Management

SUBJECT: Statewide Drought Situation Report

Nim Kidd, Chairman
Texas Division of Emergency Mgmt

Brenner Brown, Member
Texas Water Development Board

Richard Egg, Member
State Soil & Water Conservation Board

Lance Williams, Member
Texas Department of Agriculture

Dr. Travis Miller, Member
Texas A&M AgriLife Extension Service

David Bradsby, Member
Texas Parks & Wildlife Department

Gilbert Jordan, Member
Texas Department of Transportation

David A. Van Dresar, Member
Texas Alliance of Groundwater Districts

Suzanne Burnham, Member
Texas Department of State Health Services

Chris Loft, Member
Texas Commission on Environmental
Quality

Tad Curtis, Member
Office of the Governor
Economic Development & Tourism

Dr. John W. Nielsen-Gammon, Member
Office of the State Climatologist

Michael Dunivan, Member
Texas Forest Service

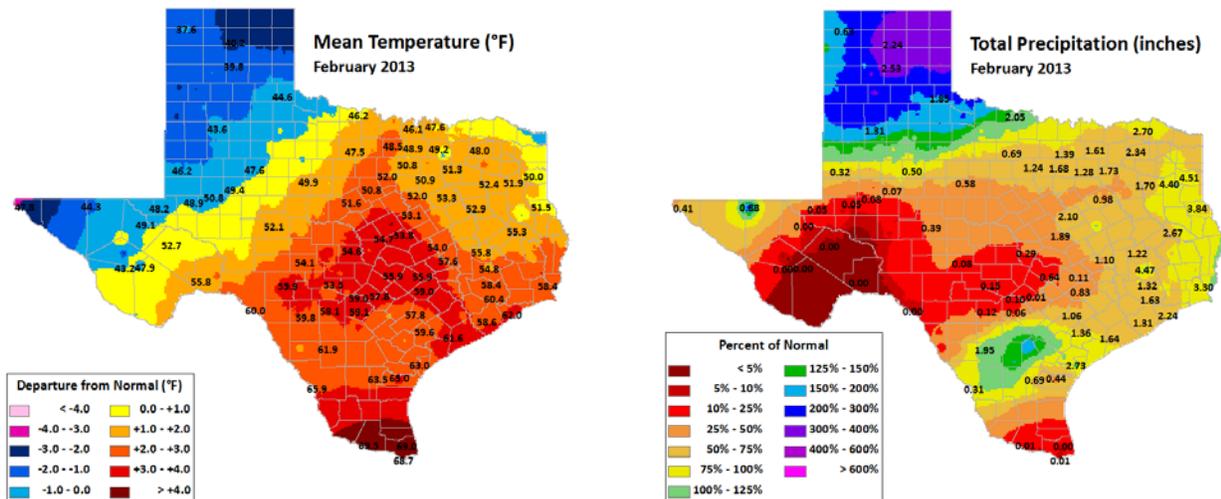
Marisa Callan, Member
Texas Department of Housing and
Community Affairs

1. Next Council Meeting

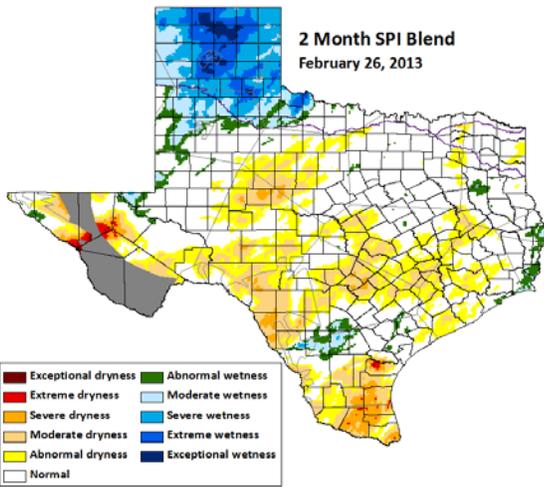
April 11, 2013 at 2:00pm

2. General Conditions

February was generally above average in temperature for most of the state, with the highest anomalies in the lower Rio Grande River Valley and in central Texas, but below average in the Panhandle, west and far west Texas. Precipitation, meanwhile, was below average, with much of the Big Bend region receiving no measureable rainfall at all; the Panhandle, however, saw well-above average precipitation due to several snowstorms, and some convection during the middle of the month helped buoy rainfall totals in south Texas and isolated regions in the southeast. The rest of the state saw varying accumulations, but most were still below average.



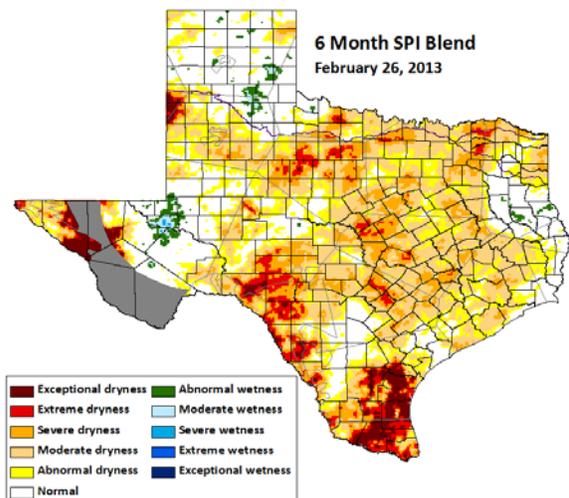
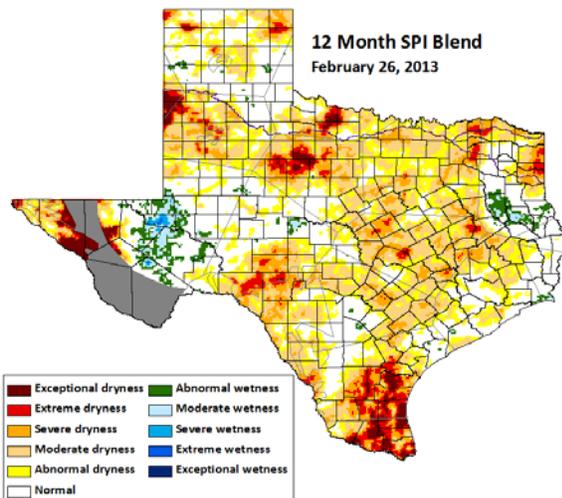
The most significant change from January came in the Panhandle. Due to the aforementioned snowfall, some locations in the region saw over 2.5 inches of liquid equivalent and almost the entire region saw at least 1 inch. Cooler temperatures kept melt run-off slow, helping upper-level soil moisture to recover significantly. Accumulations were high enough to cause improvements to 6 and 12-month timescales, warranting removal of almost all D4 from the area. The Low Rolling Plains and parts of North Central Texas along the Red River also saw rain and snowfall, helping improve short-term conditions there as well.

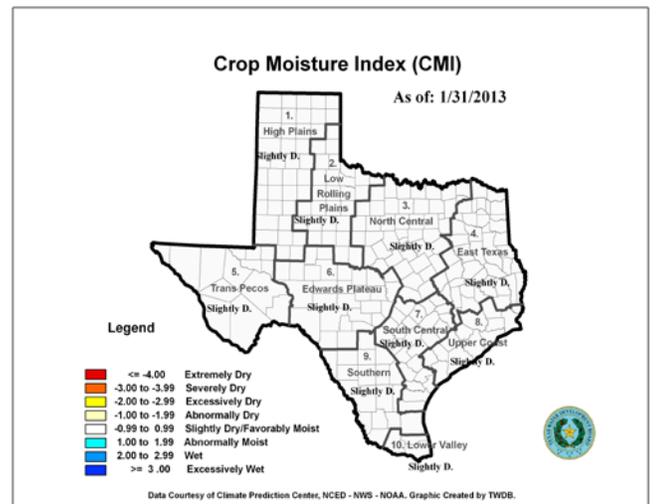
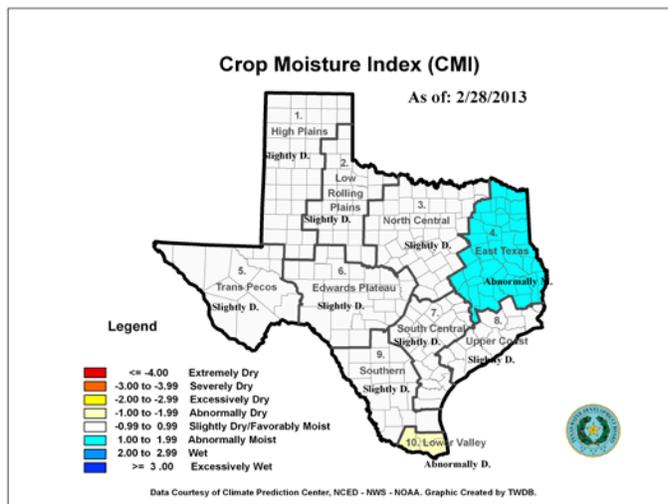
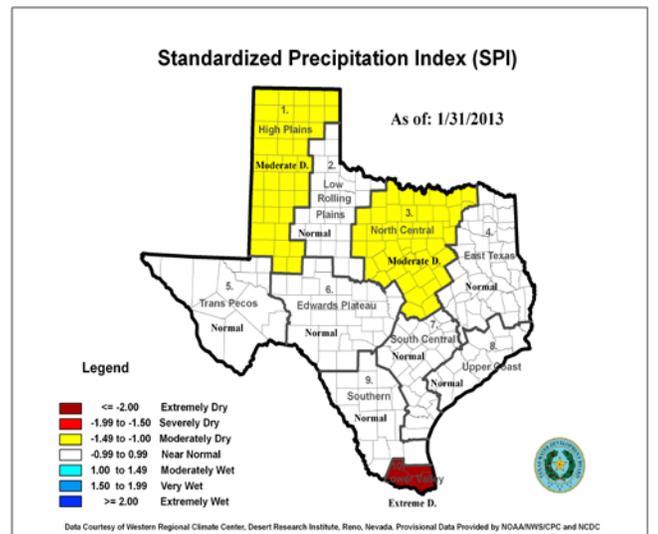
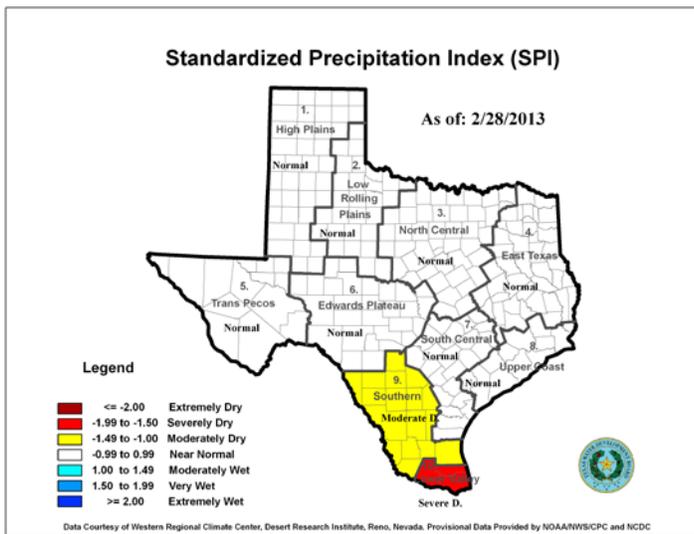
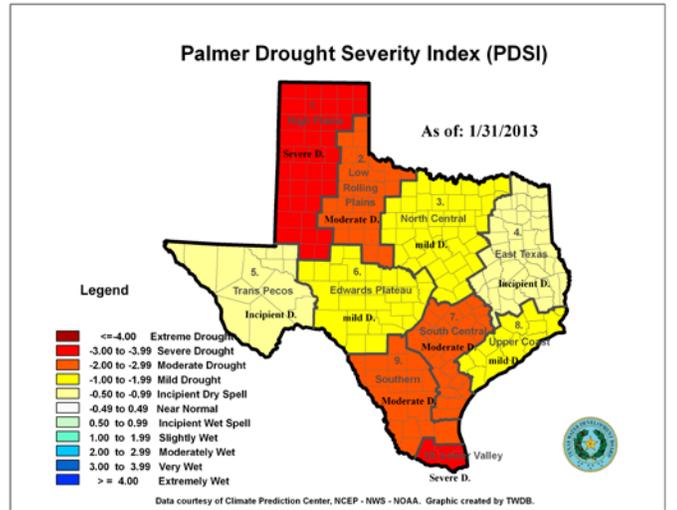
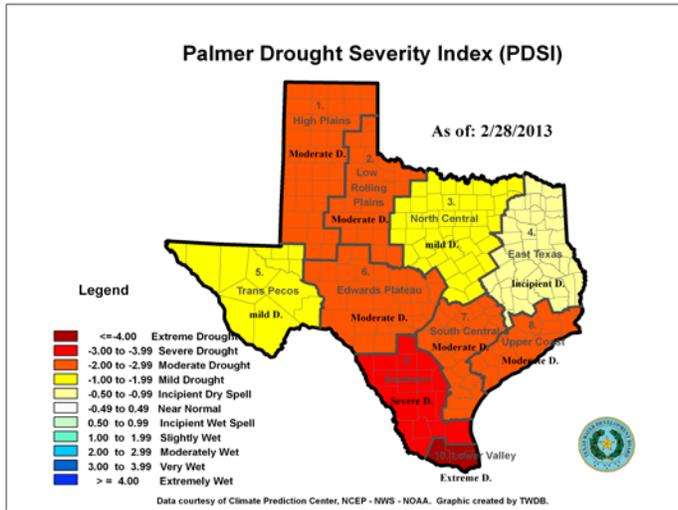


The rest of the state was not so lucky. Southern and south-central Texas saw many days with high winds, low dew points and high temperatures, driving rapid surface moisture evaporation; conditions were notably poor along the Rio Grande River Valley, where conditions are dry even during their drier season. Soil moisture is still low for much of the central portions of the state; low short-term SPI blend values between San Antonio and Houston, as well as across much of the Edwards Plateau and southern Low Rolling Plains, support this. Longer time scale deficits are still a

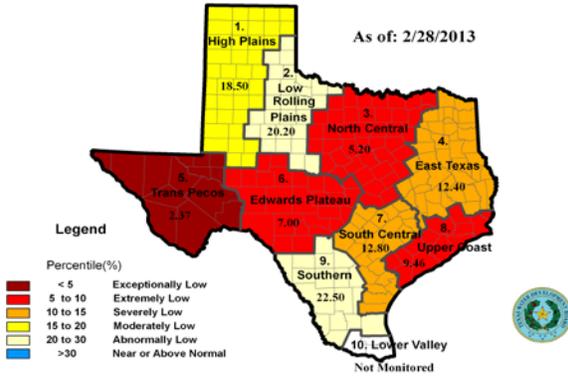
problem for most of the state, particularly in the south, along the Rio Grande, and central Texas, evidenced by poor streamflow and steadily declining reservoir storage in these regions.

Overall, much of the state is still dealing with hydrological problems. Many reservoirs in west Texas are setting low records for storage, while east Texas, while better off than the west, is still below normal. Statewide records for low reservoir storage are still being set every day, and total storage is largely unchanged since the end of last month. Temperature outlooks show equal chances of above or below normal temperatures, while everywhere but the eastern border has a higher chance of seeing below average precipitation for the next month. It seems likely that conditions in these regions will continue to degrade, especially as the climatologically wetter months approach.

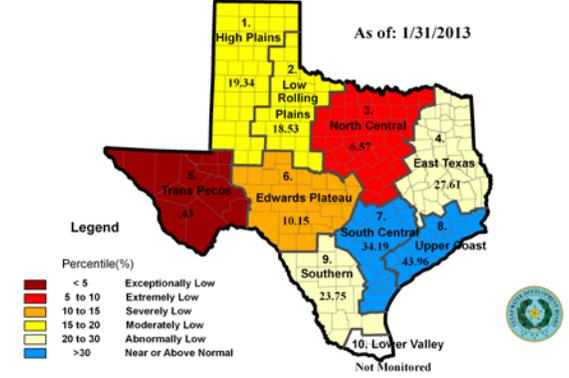




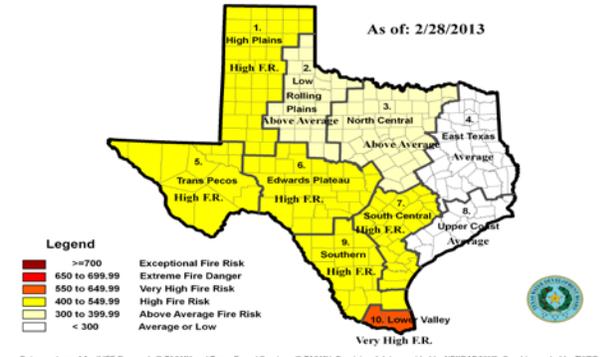
Streamflow Index (SFI)



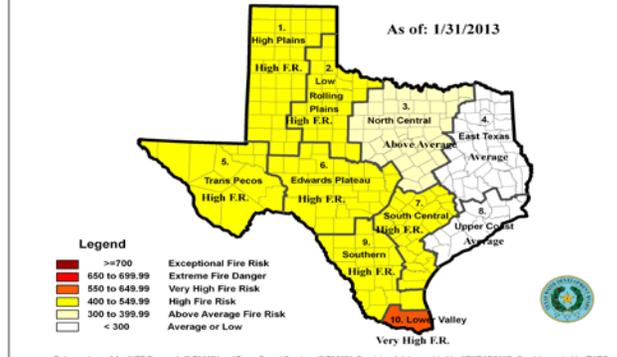
Streamflow Index (SFI)



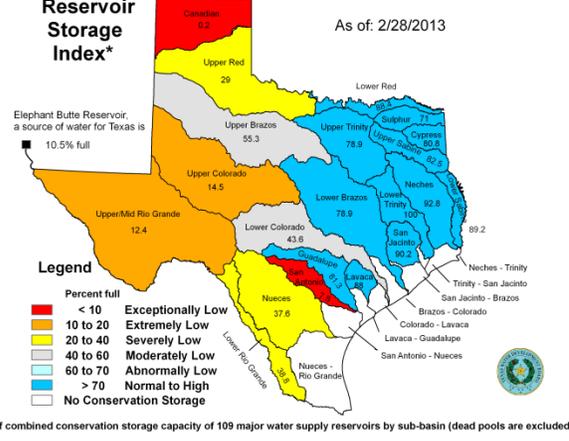
Keetch-Byram Drought Index (KBDI)



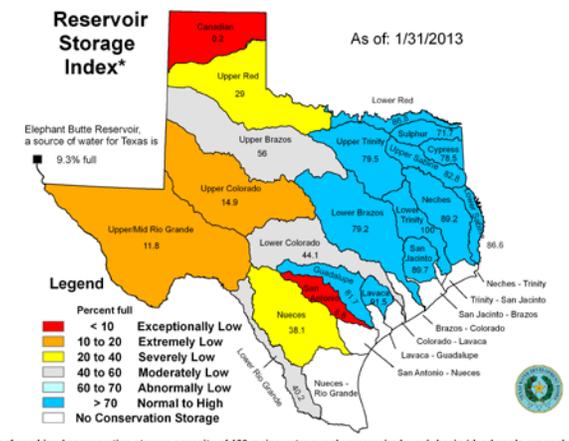
Keetch-Byram Drought Index (KBDI)



Reservoir Storage Index*



Reservoir Storage Index*



2a. Drought Status Summary

Drought has come back, indicated by all except SPI. The drought status is summarized below:

Number of Regions In Drought Category						
Drought Index	High Drought			Lower Drought		Not in Drought
	Exceptional Dry / Drought ----- Exceptional High Fire Risk	Extreme Dry / Drought ----- Extreme High Fire Risk	Severe Dry / Drought ----- Very High Fire Risk	Moderate or Excessive Dry / Drought ----- High Fire Risk	Abnormal or Mild Dry / Drought ----- Above Average Fire Risk	Near or Above Normal Condition
PDSI (10)	N/A	1	1	5	2	1
SFI (9)	1	3	2	1	2	0
SPI (10)	N/A	0	1	1	0	8
CMI (10)	N/A	0	0	0	1	9
KBDI (10)	0	0	1	5	2	2
RSI (9)	1	1	3	1	0	3
Number of River Basins / Sub-Basins In Drought Category						
RSI (21)	2	2	3	2	0	12

3. Drought Index Data

Region ID	Region Name	Crop Moisture Index	Palmer Drought Severity Index	Standardized Precipitation Index	Keetch-Byram Drought Index	Reservoir Storage Index	Streamflow Index
1	High Plains	0.09	-2.51	-0.70	491.00	0.85	18.50
2	Low Rolling Plains	0.16	-2.16	-0.42	391.00	25.35	20.20
3	North Central	0.17	-2.00	-0.54	345.00	76.00	5.20
4	East Texas	1.02	-0.79	-0.45	149.00	91.43	12.40
5	Trans Pecos	0.01	-1.35	0.13	423.00	12.40	2.37
6	Edwards Plateau	0.01	-2.11	-0.53	435.00	35.52	7.00
7	South Central	-0.01	-2.89	-0.94	448.00	47.81	12.80
8	Upper Coast	0.24	-2.10	-0.84	249.00	93.35	9.46
9	Southern	-0.55	-3.26	-1.04	410.00	33.13	22.50
10	Lower Valley	0.09	-2.51	-0.70	491.00	0.85	18.50

The comparison of index values with last month is summarized below:

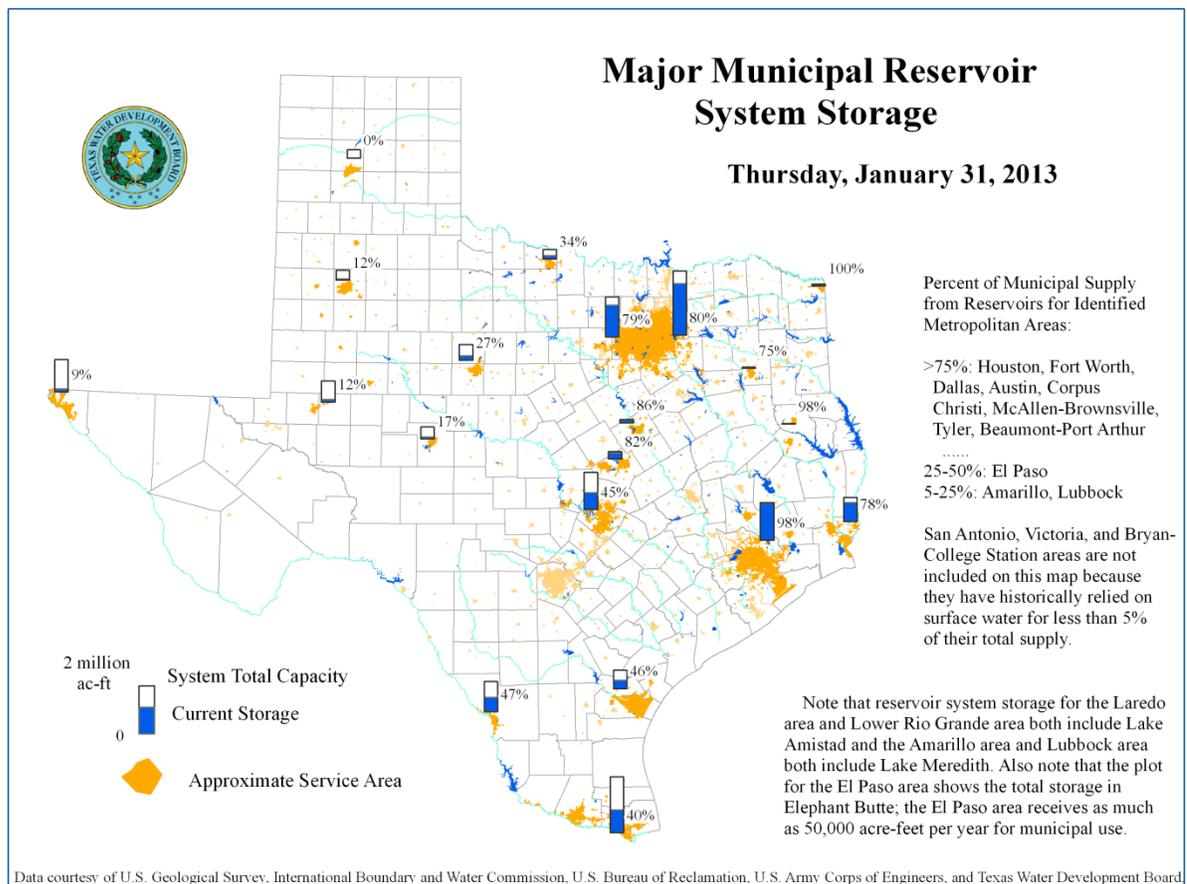
Drought Index	Index Value Improved in # Regions (Bold in table above)	Index Value Deteriorated in # Regions (Italic in table above)	Index Value Unchanged in # Regions
PDSI (10)	3	7	0
SFI (9)	2	7	0
SPI (10)	7	3	0
CMI (10)	7	3	0
KBDI (10)	6	4	0
RSI (9)	2	7	0

4. Reservoir Storage Condition

Water storage conditions are summarized below by river basins for the 115 of Texas major reservoirs at the end of the month:

- The statewide combined storage was 67% full, 53,800 more than a month ago.
- According to the river basins, storage was lower than normal in 9 basins or sub-basins, but at Near or Above Normal in all other 12 basins or sub-basins
- Exceptionally low storage conditions in the Canadian River and San Antonio sub-basins
- Extremely low in Upper Colorado and Upper-Mid Rio Grande sub-basins,
- Severely low in Upper Red River sub-basin and Nueces river basin,
- Moderately low in Upper Brazos and Lower Colorado sub-basins
- Near or above Normal in all other 12 basin or sub-basins.
- Elephant Butte Reservoir was 10% full by the month end. (up 1% from last month)

Reservoir Status for Major Metropolitan Centers



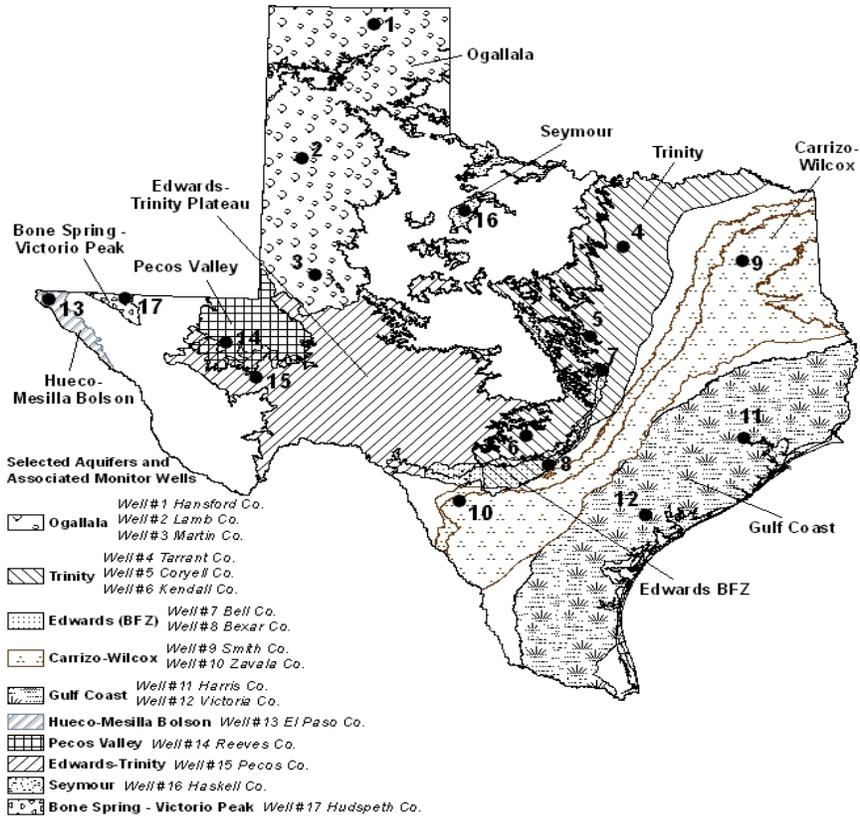
5. Groundwater Condition

Water level measurements were available from all 17 key monitoring wells in the state.

- Water levels rose in 8 of the monitoring wells since the beginning of February, ranging from 0.02 feet in the Dallas County Trinity Aquifer well (well #4) to 3.42 feet in the La Salle County Carrizo-Wilcox Aquifer well (well #10).
- Water levels declined in 9 monitoring wells, from 0.11 feet in the Lamb County Ogallala Aquifer well (well #2) to 10.46 feet in the Smith County Carrizo-Wilcox Aquifer well (well #9).
- The J-17 well in San Antonio recorded a water level of 82.17 feet below land surface or 648.83 feet above mean sea level. This water level is 1.17 feet below the Stage I critical management level in that segment of the Edwards Aquifer. Stage I restrictions were declared by the EAA when the ten-day average fell below the 660-foot elevation, or 71 feet below land surface.

Monitoring Well	Jan	Dec	Month Change	Year Change	Historical Change
(1) Hansford 0354301	153.80	153.4	-0.4	NA	-83.68
(2) Lamb 1053602	142.64	142.53	-0.11	-2.06	-114.49
(3) Martin 2739903	139.97	140.44	0.47	0.34	-35.08
(4) Dallas 3319101	491.50	491.52	0.02	-6.66	-269.5
(5) Coryell 4035404	499.60	500.83	1.23	-8.91	-207.6
(6) Kendall 6802609	125.26	126.69	1.43	0.75	-65.26
(7) Bell 5804816	125.74	125.52	-0.22	-0.7	-2.61
(8) Bexar 6837203	82.17	77.1	-5.07	-13.29	-35.53
(9) Smith 3430907	454.78	444.32	-10.46	-21.34	-88.78
(10) La Salle 7738103	445.04	448.06	3.02	-53.01	-191.97
(11) Harris 6514409	207.39	205.89	-1.5	-3.02	-71.89
(12) Victoria 8017502	35.30	35.37	0.07	1.5	-1.3
(13) El Paso 4913301	293.56	293.22	-0.34	-3.9	-61.66
(14) Reeves 4644501	146.43	146.25	-0.18	0.49	-54.34
(15) Pecos 5216802	195.11	190.67	-4.44	2.98	51.77
(16) Haskell 2135748	47.40	47.67	0.27	-1.68	-6.07
(17) Hudspeth 4807516	133.55	133.75	0.2	-1.6	-29.63

Groundwater Observation Wells Location Map



6. Water Utility Status

1. Water Utility Status

Overall, there are **1,019** water systems that are asking their customers to restrict water use, compared with **1,014** a month ago. Of these systems, **646** are asking customers to follow a mandatory watering schedule and **373** are asking customers to follow a voluntary watering schedule. There are currently **32** PWSs that have prohibited all outside watering by their customers. A total of **1,269** water systems have reported to the TCEQ regarding their status using the online form on the TCEQ public website. Recent rains in parts of the state have allowed some water systems to relax their water use restrictions. The seasonal forecasts show ongoing drought areas will continue to persist and intensify while new development is likely in other areas throughout the state.

2. Water Rights – Statewide

New temporary water use permit applications are being reviewed on a site-specific basis and issued if there is sufficient surplus water at the requested source. The number of applications for new water use permits and amendments to existing permits was high for the month.

The availability of unappropriated water for new water use permits continues to decrease in all river basins in the State, and the search for long-term, dependable alternate sources of water remains a high priority issue.

3. Water Rights – Lower Rio Grande / Rio Grande Watermaster (RGWM)

Current Conditions: On February 23, 2013, the U.S. combined ownership at Amistad/Falcon stood at 38.79% of normal conservation capacity, impounding 1,315,782 acre-feet, down from 62.60% (2,123,249 AF) of normal conservation a year ago at this time. Overall the system is holding 32.68% of normal conservation capacity, impounding 1,935,165 acre-feet with Amistad at 31.43% of conservation capacity, impounding 1,029,602 acre-feet and Falcon at 34.21% of conservation capacity, impounding 905,563 acre-feet. Mexico has 24.48% of normal conservation capacity, impounding 619,382 acre-feet at Amistad/Falcon.

Allocations: As of printing of the February, 2013 ownership report, we have allocated 273,000.9184 acre-feet to Class A & B water rights, which include irrigation, mining and recreation.

Storage & Loss Amistad vs. Falcon: The U.S. is currently storing approximately 844 thousand acre-feet at Amistad (45.9%); and approximately 471 thousand acre-feet (30.4%) of normal conservation capacity at Falcon.

Evaporation and seepage losses at Amistad, as of 2/23/13, are 30,101 acre-feet. For the same period, the U.S. has lost 32,558 acre-feet at Falcon.

Releases to meet demands: In 2013, (through 2/23/13), Mexico has released 414,137 acre-feet from Amistad and 188,454 acre-feet from Falcon Mexico needs. The U.S. has released 137,089 acre-feet from Falcon and 126,777 acre-feet from Amistad for U.S. needs. Combined with gains between Amistad and Falcon, U.S. inflows to Falcon have totaled 134,608 acre-feet. The U.S. demand in the lower Rio Grande has been met at a rate of 98% by direct Rio Grande inflows and Amistad releases this year.

Upper Rio Grande (New Mexico): Currently, Elephant Butte in New Mexico is storing 205,199 (10.14%) acre feet and Caballo Dam in New Mexico, downstream of Elephant Butte is storing 9,728 (4.29%) acre-feet. This water storage in part is used to meet water needs in the El Paso area.

Outlook: 41% of all accounts began 2013 at 0% water available, 17% of all accounts began 2013 with 0-50% of their usable balance and 42% of all accounts began 2013 with 50-100% of their usable balance available. When compared to last year we are starting off 2013 with about 60% less water over all. The National Weather Service continues to report that moderate to severe drought conditions are affecting much of Rio Grande Basin counties.

4. RIVER BASIN REPORTS

Stream flow conditions vary widely across the state. When considering drought conditions, United State Geological Survey (USGS) streamflow data are commonly used as a metric for comparison. This report uses monthly mean river flows in cubic feet per second (cfs) to represent average monthly conditions within each river basin. The historical median flow value for the month (the discharge which is equaled or exceeded 50% of the time) is used to prevent the inclusion of high flow values that would skew the data.

Red River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
Red River near Burkburnett	49	284
Red River near De Kalb	851	8,430

Drought Condition: As of February 26, 93% of the Red River Basin is experiencing at least moderate drought conditions; with 4% of the basin experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits.

Sulphur River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
Sulphur River near Talco	92	206

Drought Conditions: As of February 26, 91% of the Sulphur River Basin is experiencing at least moderate drought conditions; however, 0% of the basin is experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits.

Cypress Creek Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
Little Cypress Creek near Jefferson	237	690

Drought Conditions: As of February 26, 12% of the Cypress Creek Basin is experiencing at least moderate drought conditions; however, 0% of the basin is experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits.

Sabine River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
Sabine River near Beckville	1,282	2,720
Sabine River near Ruliff	6,861	12,800

Drought Conditions: As of February 26, 18% of the Sabine River Basin is experiencing at least moderate drought conditions; however, 0% of the basin is experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits.

Neches River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
Angelina River near Alto	935	1,055
Neches River at Evadale	2,854	8,385

Drought Conditions: As of February 26, 0% of the Neches River Basin is experiencing drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits.

Trinity River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
Trinity River at Dallas	745	496
Trinity River near Oakwood	1,583	2,575
Trinity River at Romayor	2,319	5,560

Drought Conditions: As of February 26, 61% of the Trinity River Basin is experiencing at least moderate drought conditions; however, 0% of the basin is experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits.

Brazos River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
Double Mountain Fork Brazos River near Aspermont	1	5
Brazos River near Glen Rose	29	220
Little River at Cameron	134	573
Navasota near Easterly	55	75
Brazos near Hempstead	725	3,980
Brazos near Rosharon	714	6,180

Drought Conditions: As of February 26, 95% of the Brazos River Basin is experiencing at least moderate drought conditions; with 10% of the basin experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits

Colorado River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February median (cfs)	historical
Colorado River at Ballinger	.12	11	
San Saba River at San Saba	36	103	
Llano River at Llano	63	181	
Pedernales River near Johnson City	20	73	
Colorado River at Columbus	247	1,060	

Drought Conditions: As of February 26, 97% of the Colorado River Basin is experiencing at least moderate drought conditions; with 1% of the basin experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits however, the Concho Watermaster continues to monitor the streamflow conditions and modify diversion requests as needed.

Guadalupe River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February median (cfs)	historical
Guadalupe River near Spring Branch	49	182	
San Marcos River at Luling	137	234	
Guadalupe River at Cuero	456	1,165	
Guadalupe River at Victoria	400	1,110	

Drought Conditions: As of February 26, 95% of the Guadalupe River Basin is experiencing at least moderate drought conditions; however, 0% of the basin is experiencing exceptional drought conditions

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits however, some water rights in the upper Guadalupe River Basin can only divert on a limited schedule. The South Texas

Watermaster continues to monitor the streamflow conditions and modify diversion requests as needed. All temporary permits are being reviewed on a case by case basis.

San Antonio River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
San Antonio River at Falls City	205	293
Cibolo Creek at Falls City	31	34

Drought Conditions: As of February 26, 81% of the San Antonio River Basin is experiencing at least moderate drought conditions; however, 0% of the basin is experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits however, the South Texas Watermaster continues to monitor the streamflows conditions and modify diversion requests as needed. All temporary permits are being reviewed on a case by case basis.

Nueces River Basin:

Streamflow Conditions:

Site	February mean (cfs)	February historical median (cfs)
Nueces River at Tilden	13	1.3
Frio River near Derby	0	11
Atascosa River at Whitsett	5	13

Drought Conditions: As of February 26, 74% of the Nueces River Basin is experiencing at least moderate drought conditions; with 8% of the basin experiencing exceptional drought conditions.

Drought Restrictions: Water rights in this area are eligible to impound or divert according to the terms of their permits however, the South Texas Watermaster continues to monitor the streamflow conditions and modify diversion requests as needed. All temporary permits have been suspended.

Statewide Rainfall Totals

February 1 - 28, 2013

City/Station	Rainfall Totals (in)
Brazos River Basin	
Lubbock	1.31
Abilene	.58
Waco	2.10
College Station	1.10
Colorado River Basin	
Midland	1.45
San Angelo	.39
Austin Mabry	.64
Austin Bergstrom	.38
Neches River Basin	
Tyler	1.70
Lufkin	2.67
Sabine River Basin	
Longview	4.40
Trinity River Basin	
Dallas/ Fort Worth	1.68

10. Agriculture Concerns

Drought still dominates conditions for most of Texas agriculture. Spring crop planting time is here in the Rio Grande Valley, Southwest Texas and the Gulf Coast but dry soil conditions are limiting planting progress. Most of South Texas and the Rio Grande Valley remain in extreme or exceptional drought conditions. Soil profiles are depleted of water and there is little or no planting moisture. Irrigation water supplies are very limited for the Rio Grande Valley and farmers are assessing the best time to use the meager allocation available. While some rain has fallen, vast areas of South Texas and the Rolling Plains remain critically dry. Much of the northern High Plains received excellent snowfall on February 25, with rains extending across Central and North Texas, but this pattern did not give the south Plains, the trans Pecos or the Rolling Plains any significant precipitation.

Texas A&M AgriLife Extension district reporters compiled the following summaries for the week of Feb. 18-25:

Central: Conditions were dry with unseasonably warm weather. Winter wheat looked good after January and February rains. Cherry oat aphids were causing some issues, transmitting barley yellow dwarf viruses. Otherwise, oats were doing well. Growers were planting corn and sunflowers. Livestock were in good condition with producers continuing to supplement with hay.

Coastal Bend: The eastern part of the region received some rain, but the western counties continued to suffer from drought. All counties reported livestock producers were continuing supplemental feeding of cattle with hay and protein cubes. Warmer temperatures and light rains in the eastern counties caused ryegrass and oat pastures to show additional growth. Some counties reported that producers were just beginning to plant corn and grain sorghum.

East: After substantial rains, soil-moisture levels and pond levels were up, and winter forages were in good shape. Cattle were in good condition. Winter wheat was in good condition. Producers were taking soil-test samples in preparation for spring planting of pastures and gardens. Ryegrass began to grow.

Far West: Warm, dry and very windy conditions continued, and most of the region remained on high alert for wildfires. Some counties had rain, from a trace to 0.3 inches. Overall, rain or any form of precipitation was still badly needed. Land preparation for spring planning was ongoing.

North: Thanks to good rains, soil-moisture levels were adequate to surplus. Winter wheat looked weak in December, but rain in January and early February stimulated growth. Ryegrass also started to show growth, and it appeared most counties will have sufficient grazing from the last of winter and into spring. Livestock were in fair to good condition. Producers were still supplying supplemental feed and hay, waiting for the winter pastures to become available for grazing. Stock ponds remained low.

Panhandle: On Feb. 25, a blizzard brought heavy snows and high winds to the region, with accumulations forecast to be as much as 18 inches. Previous snows had dumped as much as 6 to 8 inches to some counties. Before activities ceased due to the blizzard, producers were preparing fields for spring plantings and irrigating wheat, hoping to get more grazing from the crop. Supplemental feeding of livestock continued. Most herds remained in fair to good condition.

Rolling Plains: The region received scattered rains, the most winter precipitation some counties had received in several years. Winter wheat broke dormancy and was responding very well to the rains. With a few sunny days, the wheat crop was expected to quickly green up and start growing, but if it stops raining and the weather turns windy, soils will dry out and growth will stop. Wheat producers were applying fertilizer and herbicides and deciding whether to pull cattle off wheat for grain production. Some counties reported extremely dry conditions, and cotton producers were strip-tilling seed beds on last year's wheat ground. Livestock producers were selling cattle or providing full supplemental feed. Spring foaling and calving began.

South: Throughout the region, daytime temperatures were mild with cool nights. There was no rainfall, and high evaporation rates and strong winds dried out soils. Soil moisture levels were short to very short, stymieing forage growth on rangeland and pastures. Ranchers increased supplemental feeding. In Webb County, ranchers were very lightly stocked or totally de-stocked. In Frio County, potatoes emerged, and wheat and oats were in fair to good condition. In Zavala County, wheat and oats were stressed by the extremely dry weather. Also in that county, growers were actively irrigating cabbage, carrots, spinach and onions. Harvesting of processing and fresh market spinach continued, while the cabbage harvesting slowed. In Starr County, spring vegetable and row-crop planting was under way. In Willacy County, sorghum planting halted.

South Plains: Floyd and Hale counties reported snow, from a trace to about 2 inches, which was expected to help dryland winter wheat that was not in very good shape. Irrigated wheat was in fair condition there. Crosby, Lynn, Lubbock and Garza counties received rain, from 0.2 to 1 inch. This moisture was expected to improve wheat and promote field preparation for spring planting. Some producers were applying pre-plant fertilizer to cotton fields. Rangeland and pastures were in fair to poor condition. Stocking rates were reduced on most ranches in the past couple of years and were expected to continue to decline without rain before spring. Stock-tank water is critical in some areas. Livestock were in mostly fair to good condition with continued supplemental feeding.

Southeast: Montgomery County had moderate temperatures that promoted good growth of winter annuals. Rains there have been moderate as well, with less than 1 inch for the week, but that was enough to promote grass growth. Trees were budding out. Waller County had unusually warm weather. In Burleson County, the cool season grasses and legumes were also growing. Fort Bend County had scattered showers, with accumulations of as much as 0.5 inch. Temperatures there ranged from lows in the 30s to highs in the 70s. In Orange County, soils were saturated due to heavy rainfall.

West Central: Conditions remained very dry and windy, with mild daytime temperatures and cold nights. A few counties reported showers but without significant accumulations. Wheat was in poor to fair condition. All crops needed moisture soon to survive. Farmers were wondering whether to plant cotton or grain sorghum because of price variances and soil-moisture requirements between the crops. Rangeland and pasture conditions continued to decline, with very little winter grass and vegetation remaining. Stock-water tanks were at critically low levels. Producers continued supplemental feeding of livestock.

11. Parks & Wildlife Impacts

According to the March 12, 2013 U.S. Drought Monitor, approximately 88% of the state is experiencing some form of drought with over 8% in exceptional drought. Statewide reservoirs are currently 66% full with the norm being 83% for this time of year. Low lake levels are reducing or eliminating boater and bank angler access by making public boat ramps unusable. Low lake levels also threaten the recreationally and ecologically important Texas white bass fishery. White bass are active early spring spawners. Schools of males migrate from reservoirs where they occur upstream to spawning areas as much as a month before females. With low

lake levels, the connection between reservoirs and upstream stream habitat can be lost and the fish are unable to swim upstream to spawn, reducing the numbers of fish available for recruitment into the adult population and future fishing. If drought conditions continue for years, the white bass fishery may decline to the point that anglers lose interest resulting in a significant loss to local economies. Texas Parks and Wildlife Department (TPWD) has launched studies on the importance of maintaining river-to-reservoir transition zones from biological, recreational and economic standpoints.

In the past two months, there have been a few golden alga outbreaks in the Brazos, Red, and Rio Grande river basins. Algal counts have been low to moderate for the most part. However, in the upper Rio Grande at El Paso's Ascarate Lake, samples collected February 20 contained moderate concentrations of *Prymnesium parvum*, the causative organism for golden alga blooms in Texas, and the water was found to be moderately to highly toxic. Due to the toxic bloom, TPWD decided not to stock 2000 rainbow trout into Ascarate Lake as planned. Those fish were instead sent to the lake at Comanche Trails Park in Odessa.

The Drought Preparedness Council is comprised of state agencies concerned with the effects of drought and fire on the citizens of the State of Texas.

The attached information was compiled and provided by representatives listed below. Points of contact, telephone numbers, and web site addresses are also provided.

Nim Kidd, Texas Division of Emergency Management, (512) 424-2436, fax (512) 424-2444, website: <http://www.txdps.state.tx.us/dem>

Brenner Brown, Texas Water Development Board, (512) 475-1128, fax (512) 475-2053, website: <http://www.twdb.state.tx.us>

Chris Loft, Texas Commission on Environmental Quality, (512) 239-4715, fax (512) 239-4770, website: <http://www.tceq.state.tx.us>

Richard Egg, Texas State Soil & Water Conservation Board, (254) 773-2250, fax (254) 773-3311, website: <http://www.tsswcb.state.tx.us>

Lance Williams, Texas Department of Agriculture, (512) 463-3285, fax (800) 835-2981, website: <http://agr.state.tx.us>

Dr. Travis Miller, Texas A&M AgriLife Extension Service, (979) 845-4808, fax (979) 845-0456, website: <http://texasextension.tamu.edu>

David Bradsby, Texas Parks & Wildlife Department, (512) 912-7015, fax (512) 707-1358, website: <http://www.tpwd.state.tx.us>

Gilbert Jordan, Texas Department of Transportation, (512) 416-3270, fax (512) 416-2941, website: <http://www.txdot.state.tx.us>

Michael Dunivan, Texas Forest Service, (830) 997-5426, website: <http://txforestsERVICE.tamu.edu>

Suzanne Burnham, Texas Department of State Health Services, (512) 801-9816, fax (512) 458-7111, website: <http://www.dshs.state.tx.us/>

Tad Curtis, Office of the Governor, Economic Development & Tourism, (512) 936-0047, website: <http://www.governor.state.tx.us/divisions/ecodev>

David A. Van Dresar, Texas Alliance of Groundwater Districts, (979) 968-3135, fax (979) 968-3194, website: <http://www.texasgroundwater.org/>

Dr. John W. Nielsen-Gammon, Office of the State Climatologist, (979) 862-2248, fax (979) 862-4466, website: <http://www.met.tamu.edu/osc/>

Marisa Callan, Texas Department of Housing and Community Affairs, (512) 475-3964, website: <http://www.tdhca.state.tx.us>

