Oklahoma Water Resources Bulletin
& Summary of Current Conditions

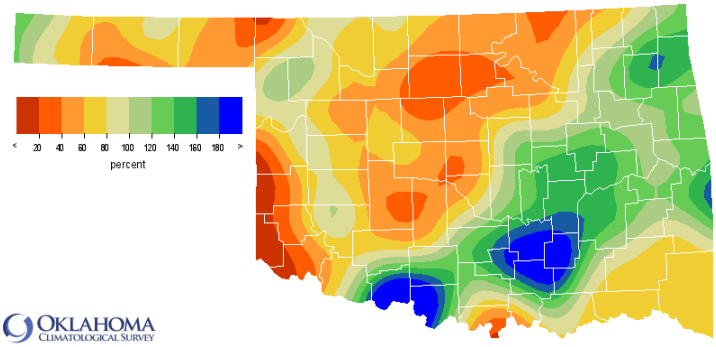
OWRB the water agency

June 16, 2017

Precipitation

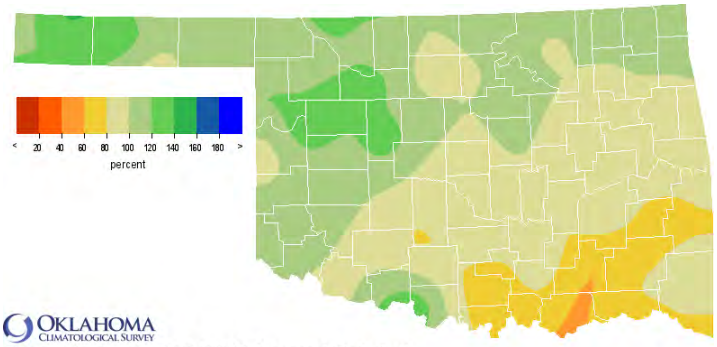
Statewide Precipitation

Climate Division	Last 30 Days May 17, 2017 – June 15, 2017 Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Last 365 Days June 16, 2016 – June 15, 2017 Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921
PANHANDLE	2.07"	-1.01"	67%	25th driest	23.39"	+2.81"	114%	19th wettest
NORTH CENTRAL	2.83"	-1.80"	61%	25th driest	34.56"	+3.14"	110%	22nd wettest
NORTHEAST	5.15"	-0.50"	91%	48th driest	44.58"	+1.91"	104%	26th wettest
WEST CENTRAL	2.92"	-1.65"	64%	28th driest	33.44"	+5.04"	118%	13th wettest
CENTRAL	3.45"	-1.72"	67%	25th driest	35.61"	-2.02"	95%	42nd wettest
EAST CENTRAL	7.12"	+1.58"	129%	20th wettest	40.66"	-5.48"	88%	39th driest
SOUTHWEST	3.12"	-1.33"	70%	27th driest	31.61"	+1.34"	104%	33rd wettest
SOUTH CENTRAL	7.43"	+2.07"	139%	21st wettest	32.68"	-8.03"	80%	28th driest
SOUTHEAST	4.68"	-0.78"	86%	48th driest	40.08"	-10.51"	79%	15th driest
STATEWIDE	4.31"	-0.58"	88%	44th driest	35.16"	-1.31"	96%	43rd wettest



Percentage of 1981-2010 Normal Rainfall
Last 30 Days

May 17, 2017 through Jun 15, 2017

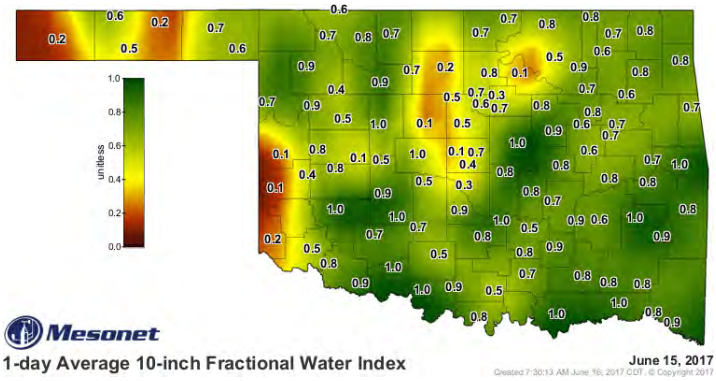


Percentage of 1981-2010 Normal Rainfall
Last 365 Days

Jun 16, 2016 through Jun 15, 2017

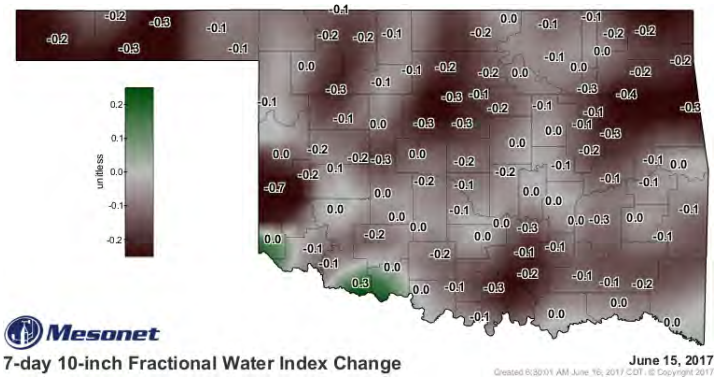
Soil Moisture

Fractional Water Index
June 16, 2017



1-day Average 10-inch Fractional Water Index

June 15, 2017



7-day 10-inch Fractional Water Index Change

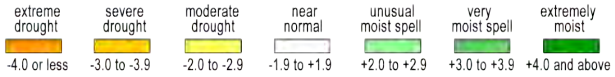
June 15, 2017

The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1.
[1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]

Drought Indices

Palmer Drought Severity Index (PDSI)

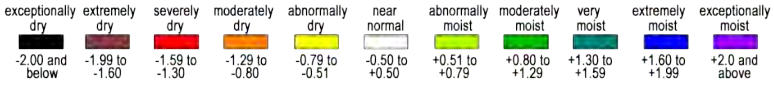
Climate Division	Status 6/10/17	Value 5/6	Value 6/10	Change in Value
NORTHWEST	Near Normal	2.78	1.63	1.15
NORTH CENTRAL	Near Normal	2.19	1.35	0.84
NORTHEAST	Near Normal	2.66	1.56	1.1
WEST CENTRAL	Near Normal	1.76	1.28	0.48
CENTRAL	Near Normal	1.74	0.29	1.45
EAST CENTRAL	Near Normal	1.47	0.97	0.5
SOUTHWEST	Near Normal	2.24	1.84	0.4
SOUTH CENTRAL	Near Normal	-1.15	-0.17	-0.98
SOUTHEAST	Near Normal	-0.56	-1.14	0.58



The PDSI is based upon precipitation, temperature, and soil moisture, and is considered most effective for unirrigated cropland. According to the latest PDSI, all climate regions in the state are experiencing near normal conditions.

Standardized Precipitation Index (SPI)
Through May 2017

Climate Division	3-month	12-month	24-month
NORTHWEST	Extremely Moist	Moderately Moist	Extremely Moist
NORTH CENTRAL	Moderately Moist	Moderately Moist	Moderately Moist
NORTHEAST	Extremely Moist	Abnormally Moist	Moderately Moist
WEST CENTRAL	Abnormally Moist	Moderately Moist	Moderately Moist
CENTRAL	Moderately Moist	Near Normal	Moderately Moist
EAST CENTRAL	Moderately Moist	Near Normal	Moderately Moist
SOUTHWEST	Near Normal	Moderately Moist	Moderately Moist
SOUTH CENTRAL	Near Normal	Abnormally Dry	Very Moist
SOUTHEAST	Near Normal	Moderately Dry	Abnormally Moist



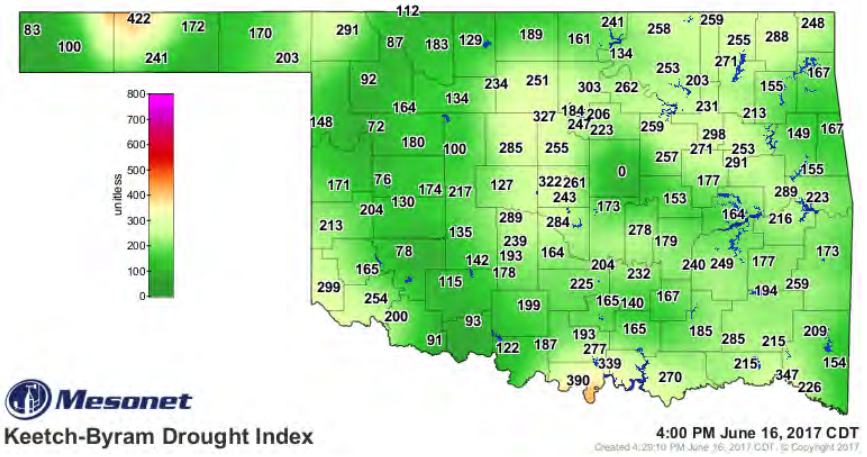
The SPI provides a comparison of precipitation over several specified periods with totals from the same periods for all years included in the historical record. For the 12-month time period, the South Central region had abnormally dry conditions, and the Southeast region had moderately dry conditions. For all other periods, all regions had near normal conditions or wetter.

Keetch-Byram Drought Fire Index

June 16, 4:00 p.m.--0 stations are above 600.

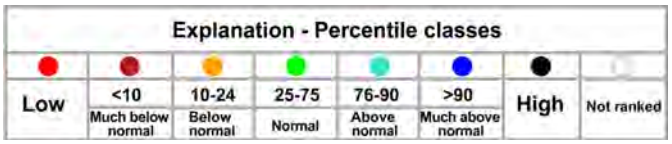
Zero stations were above 600 on May 15, 2017.

The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values of 600 and above are often associated with more severe drought and increased wildfire occurrence.

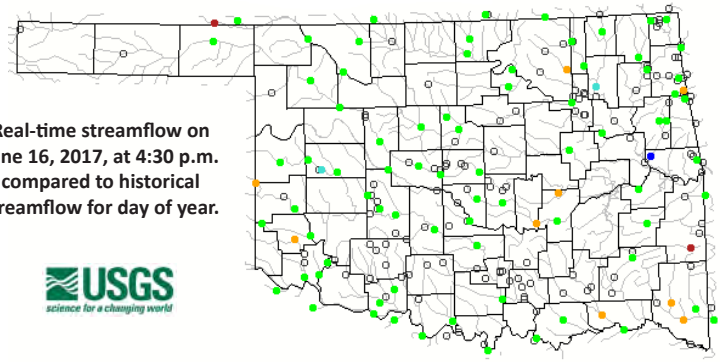


Streamflow Conditions

June 16, 2017



Visit waterwatch.usgs.gov for real-time streamflow information.



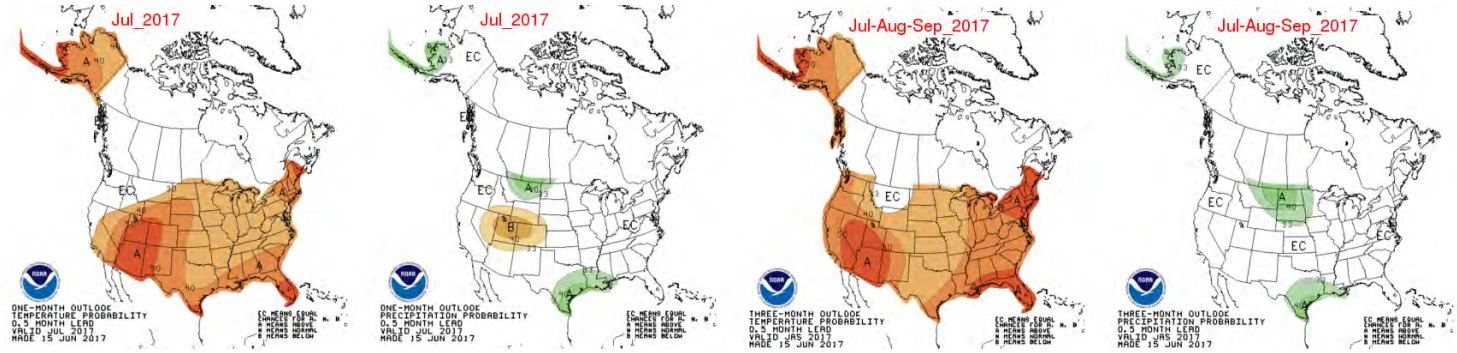
Real-time streamflow on June 16, 2017, at 4:30 p.m. compared to historical streamflow for day of year.

USGS science for a changing world

Weather/Drought Forecast

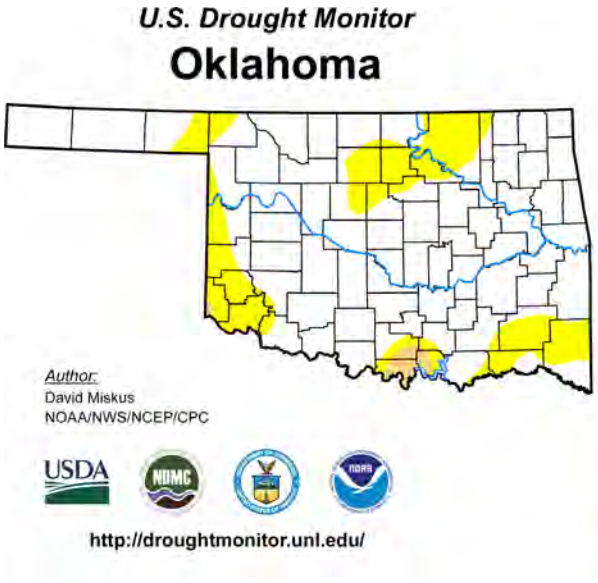
Seasonal Outlook

Temperature | Precipitation | Temperature | Precipitation



The contours on the maps show the total probability of three categories—above, indicated by the letter "A"; and below, indicated by the letter "B". "EC" indicates "Equal Chances" for A or B. For April-June, the probability for precipitation in all areas of the state has equal chances of being above or below normal.

Drought Summary & Outlook



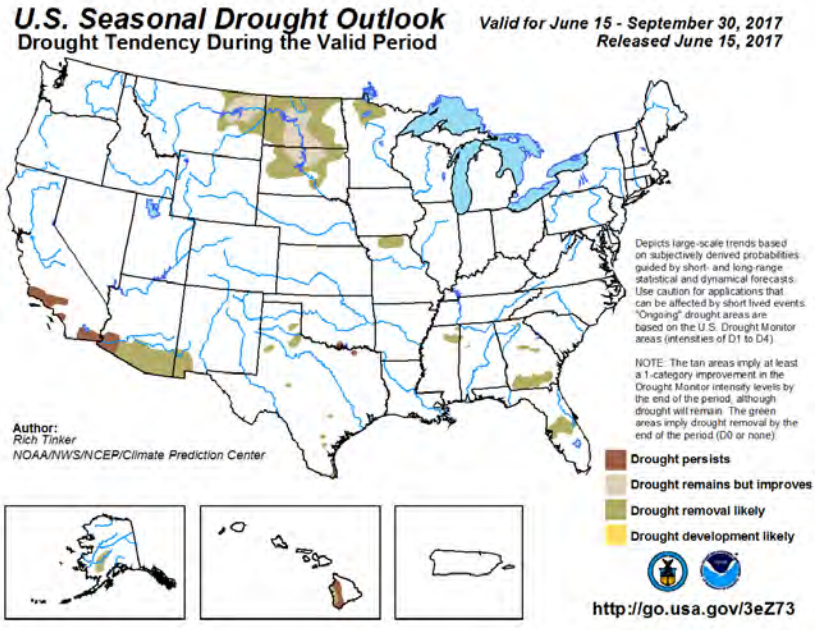
June 13, 2017
(Released Thursday, Jun. 15, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	79.33	20.67	1.26	0.00	0.00	0.00
Last Week 06-06-2017	94.36	5.64	0.00	0.00	0.00	0.00
3 Months Ago 03-14-2017	9.91	90.09	74.21	41.16	3.17	0.00
Start of Calendar Year 01-03-2017	5.61	94.39	83.21	55.75	5.55	0.00
Start of Water Year 09-27-2016	57.82	42.18	19.04	3.05	0.00	0.00
One Year Ago 06-14-2016	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



According to the latest *U.S. Drought Monitor*, the number of Oklahomans currently affected by drought is 25,618, down by more than 35,600 from this time last month.

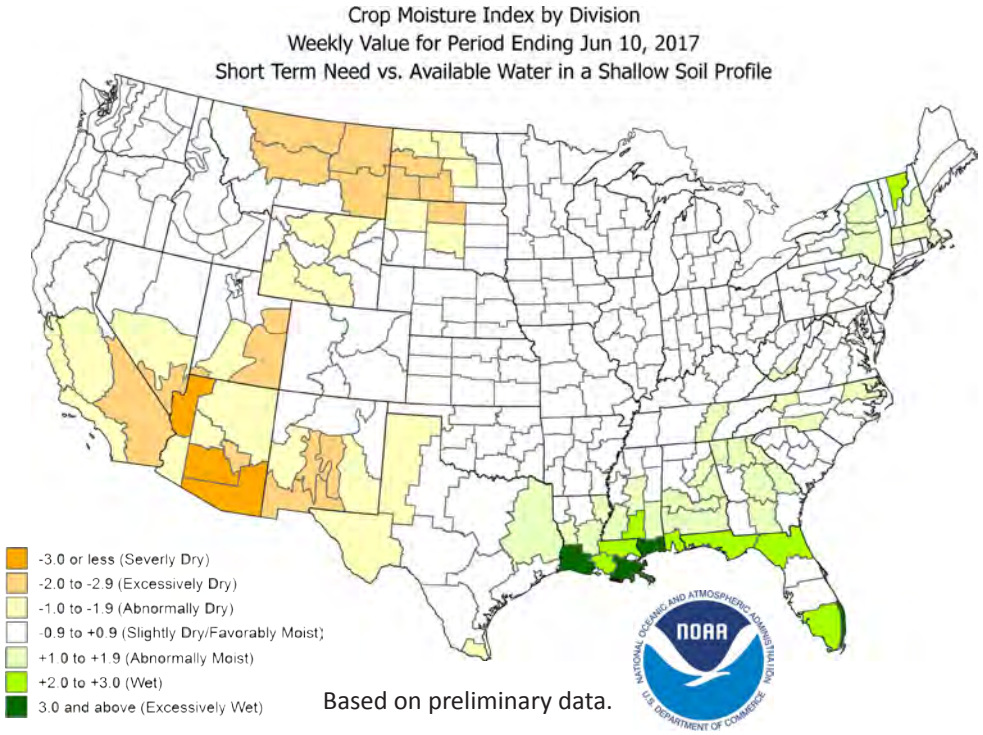
No areas of the state are suffering from exceptional, extreme, or severe drought (D4-D2). However, about 1.26% of the state (in area) is in moderate drought (D1). This includes portions of Carter, Love, and Marshall counties, as well as a tiny area in the southwest corner of Harmon county.

According to the latest seasonal drought outlook for the period of June 15 through September 30, drought will persist in a very small area in south central Oklahoma. Most of the contiguous United States is expected to be either free of drought or improving for this time period. There are a few areas in southern California and Arizona where drought is expected to persist.

Crop Moisture Index

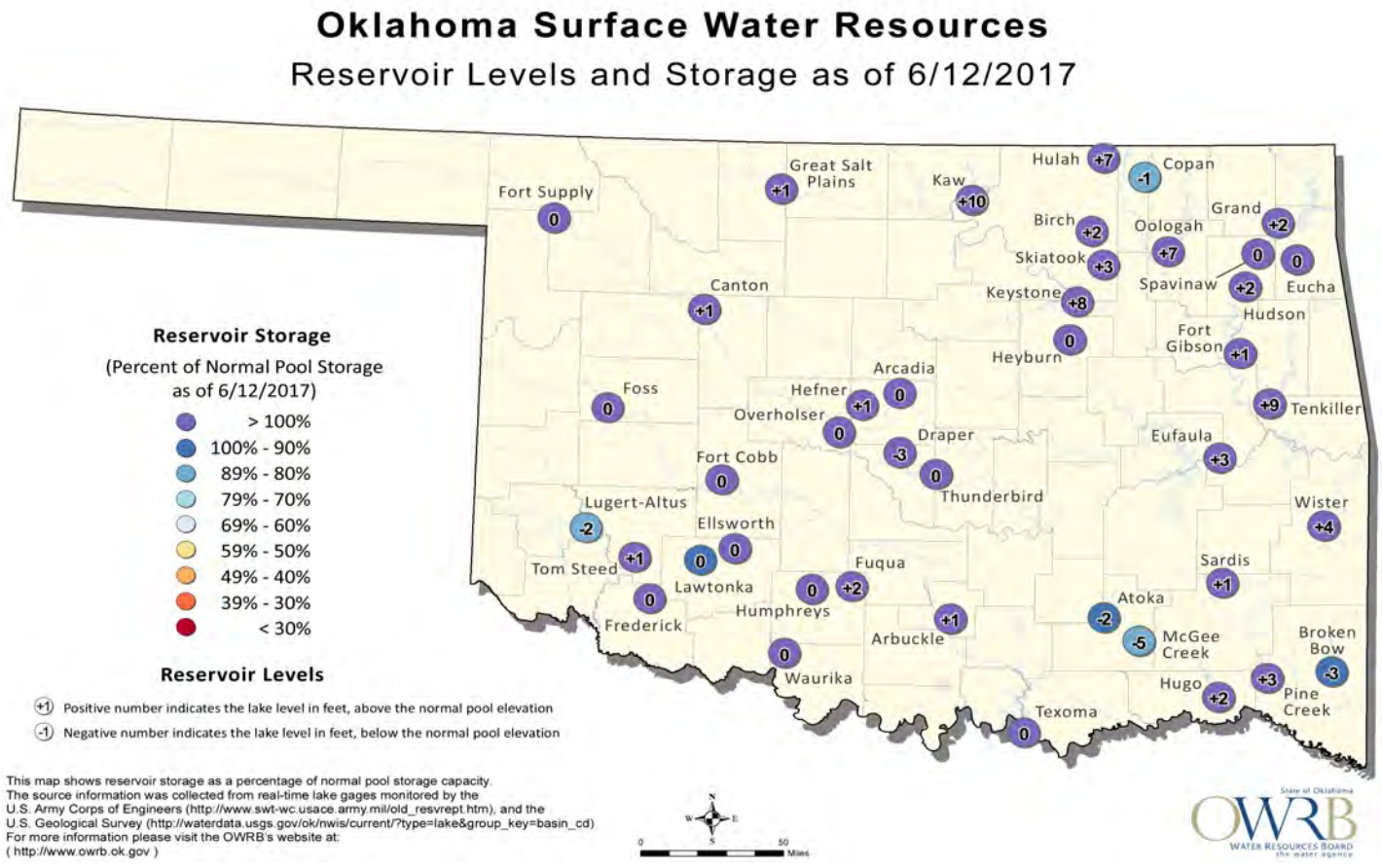
According to the NOAA Crop Moisture Index by Division, for the period ending June 10, 2017, all regions of the state are Slightly Dry/Favorably Moist.

Derived from the Palmer Drought Severity Index (PDSI), the Crop Moisture Index reflects moisture supply in the short-term across major crop-producing regions. It identifies potential agricultural droughts. It is not intended to assess long-term droughts.



Based on preliminary data.

Reservoir Storage



The Oklahoma Water Resources Bulletin is compiled and distributed monthly by the Oklahoma Water Resources Board utilizing products and information developed by the Oklahoma Climatological Survey, Oklahoma Mesonet, National Oceanic and Atmospheric Administration, National Drought Mitigation Center, US Geological Survey, US Army Corps of Engineers, and US Department of Agriculture. For questions or comments contact Darla Whitley, Editor.