



Natural Resources Conservation Service
P.O. Box 2890
Washington, D.C. 20013

Weekly Report - Snowpack / Drought (& Flood) Monitor Update Date: 4 August 2011

SNOTEL SNOWPACK AND PRECIPITATION SUMMARY

Snow: The snow summary portion of this report will return in the late fall.

Temperature: SNOTEL and ACIS 7-day temperature anomaly shows +5°F departures east of the Continental Divide and -5°F departures west of the Divide (Fig. 1). ACIS 14-day average temperature anomalies show the greatest positive temperature departures across eastern New Mexico (>+6°F) and the greatest negative departures over portions of the Northern Cascades of Washington (<-6°F) (Fig. 1a).

Precipitation: ACIS 14-day average precipitation amounts for the period ending yesterday shows the bulk of the heaviest precipitation scattered across the Southwest and eastern Montana (Fig. 2). In terms of percent of normal, the precipitation was highest over Washington, eastern Montana, and scattered across the Intermountain West (Fig 2a).

The Summer Southwest Monsoon is suggested in this week's map (Fig 2a). Click on the hyperlink for the latest information on the [Southwest Monsoon](#). For the 2011 Water-Year that began on 1 October 2010, the greatest deficits are found over the extreme southern reaches of the Southwest. Areas with the highest values are found over the Great Basin, Cascades, Sierra, and parts of Northern and Central Rockies. These values are more or less locked in (static) for the remainder of the summer with the possible exception of Arizona and New Mexico due to the influence of the Southwest Monsoon. The monsoon in New Mexico is not contributing much to water deficits thus far this season (Fig 2b).

Weekly Weather Summary: Despite scattered, locally heavy showers across the Midwest and Southeast, hot weather continued to have a detrimental impact on summer crops. The heat's effects were amplified in areas largely bypassed by showers, including a broad arc of farmland stretching from southern Iowa into western Ohio. Meanwhile, an already dire situation continued to worsen across the south-central U.S., where the combination of an historic 10-month drought and a relentless summer heat wave left little hope for rain-fed commodities and placed significant stress on livestock and irrigated crops. Farther west, an active monsoon circulation contributed to beneficial showers in the Four Corners States. Elsewhere, Southeastern showers helped to offset the effects of hot weather, especially in the central Gulf Coast region and parts of the southern Atlantic States, while Tropical Storm Don—which made landfall in Deep South Texas on July 29—was a tremendous disappointment with minimal rainfall.

The Southwest: An active monsoon circulation continued to generate scattered showers and thunderstorms across the Four Corners States. July ended wetter than normal at many Southwestern locations, including Douglas, Arizona (3.57 inches, or 114% of normal), and Grand Junction, Colorado (1.71 inches, or 259%). However, recovery in drought-affected areas was slow, with rangeland and pastures struggling to rebound. At the end of July, USDA rated 88% of New Mexico's rangeland and pastures in very poor to poor condition, along with 64% in Arizona. Author: Brad Rippey, U.S. Department of Agriculture

Weekly Snowpack and Drought Monitor Update Report



Remnants of once tropical depression Don moved through northern New Mexico on the afternoon of 2 August triggering quite a lot of lightning activity but little in the way of heavy precipitation. Photo: J. Curtis.

A comprehensive narrative describing drought conditions for the nation can be found at the end of this document.

Drought Impacts Definitions

The possible impacts associated with **D4 (H, A)** drought include widespread crop/pasture losses and shortages of water in reservoirs, streams, and wells creating water emergencies. The possible impacts associated with **D3 (H, A)** drought include major crop/pasture losses and widespread water shortages or restrictions. Possible impacts from **D2 (H, A)** drought are focused on water shortages common and water restrictions imposed and crop or pasture losses likely. The possible impacts associated with **D1 (H, A)** drought are focused on water shortages developing in streams, reservoirs, or wells, and some damage to crops and pastures (Figs. 3 through 3d).

Soil Moisture

Soil moisture (Figs. 4a and 4b), is simulated by the [VIC macroscale hydrologic model](#). The detailed, physically-based VIC model is driven by observed daily precipitation and temperature maxima and minima from approximately 2130 stations, selected for reporting reliably in real-time and for having records of longer than 45 years (and various other criteria). Another good resource can be found at: <http://www.emc.ncep.noaa.gov/mmb/nldas/drought/>.

Soil Climate Analysis Network (SCAN)

Figure 5 provides supplemental data on soil conditions (moisture and temperatures at various depths from 2 inches to 80 inches. For more information about SCAN see ([brochure](#)).

Weekly Snowpack and Drought Monitor Update Report

U.S. Historical Streamflow

This map, (Fig. 7) shows the 7-day average streamflow conditions in hydrologic units of the United States and Puerto Rico for the day of year. The colors represent 7-day average streamflow percentiles based on historical streamflow for the day of the year. Thus, the map shows conditions adjusted for this time of the year. Only stations having at least 30 years of record are used. Sub-regions shaded gray indicate that insufficient data were available to compute a reliable 7-day average streamflow value. During winter months, this situation frequently arises due to ice effects. The data used to produce this map are provisional and have not been reviewed or edited. They may be subject to significant change.

State Activities

State government drought activities can be tracked at the following URL: <http://drought.unl.edu/mitigate/mitigate.htm>. NRCS SS/WSF State Office personnel are participating in state drought committee meetings and providing the committees and media with appropriate SS/WSF information - <http://www.wcc.nrcs.usda.gov/cqibin/bor.pl>. Additional information describing the products available from the Drought Monitor can be found at the following URL: <http://drought.unl.edu/dm/> and <http://www.drought.gov>.

For More Information

The National Water and Climate Center Homepage provide the latest available snowpack and water supply information. Please visit us at <http://www.wcc.nrcs.usda.gov>. This document is available from the following location on the NWCC homepage - <http://www.wcc.nrcs.usda.gov/water/drought/wdr.pl>. Reports from 2007 are available on-line while ones from 2001-2006 can be acquired upon request.

This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

/s/

Douglas Lawrence
Deputy Chief, Soil Survey and Resource Assessment

Weekly Snowpack and Drought Monitor Update Report

SNOTEL (solid) and ACIS (dot-filled) Networks 7-Day Average Temperature Anomaly (Degrees F)

Aug 03, 2011

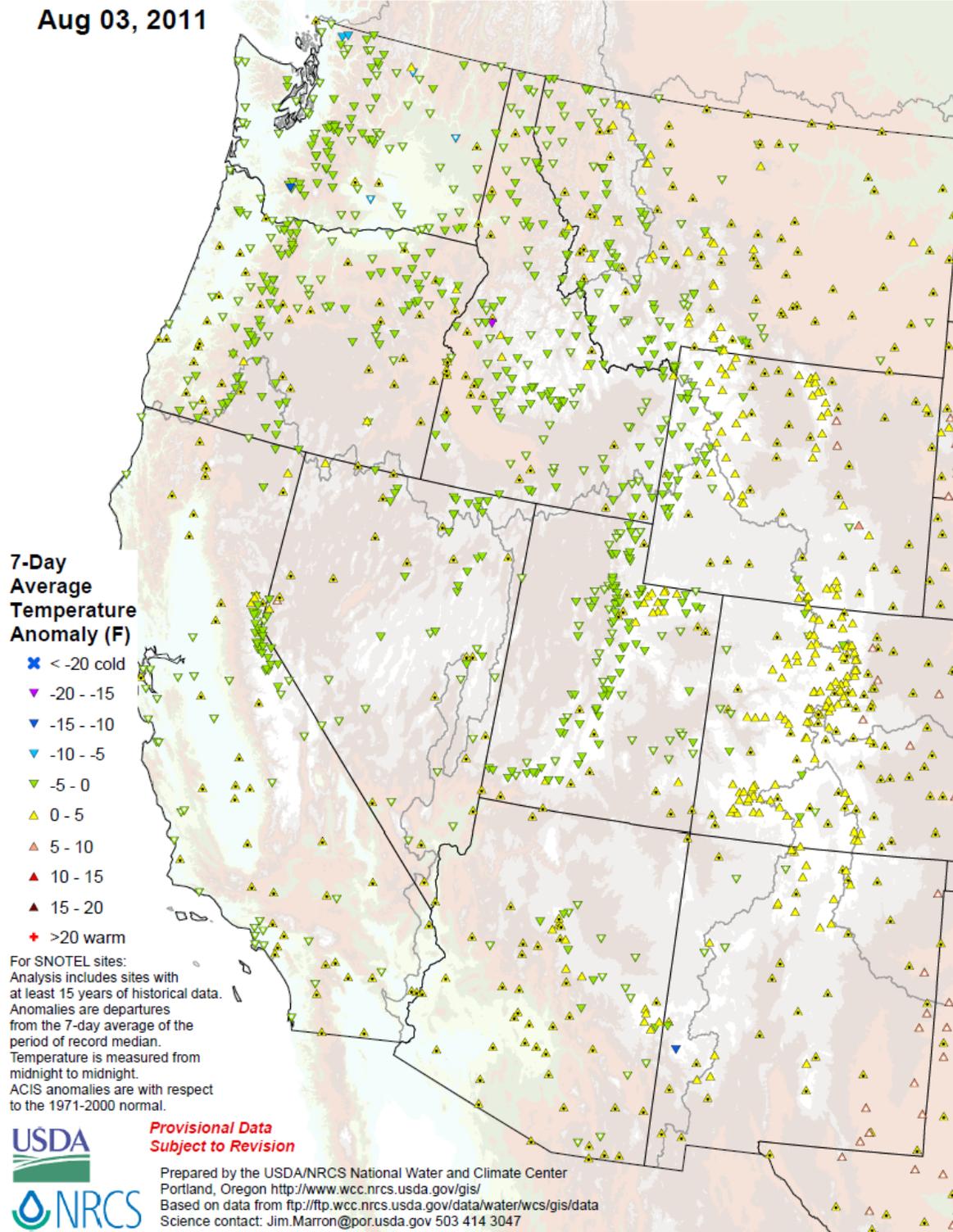
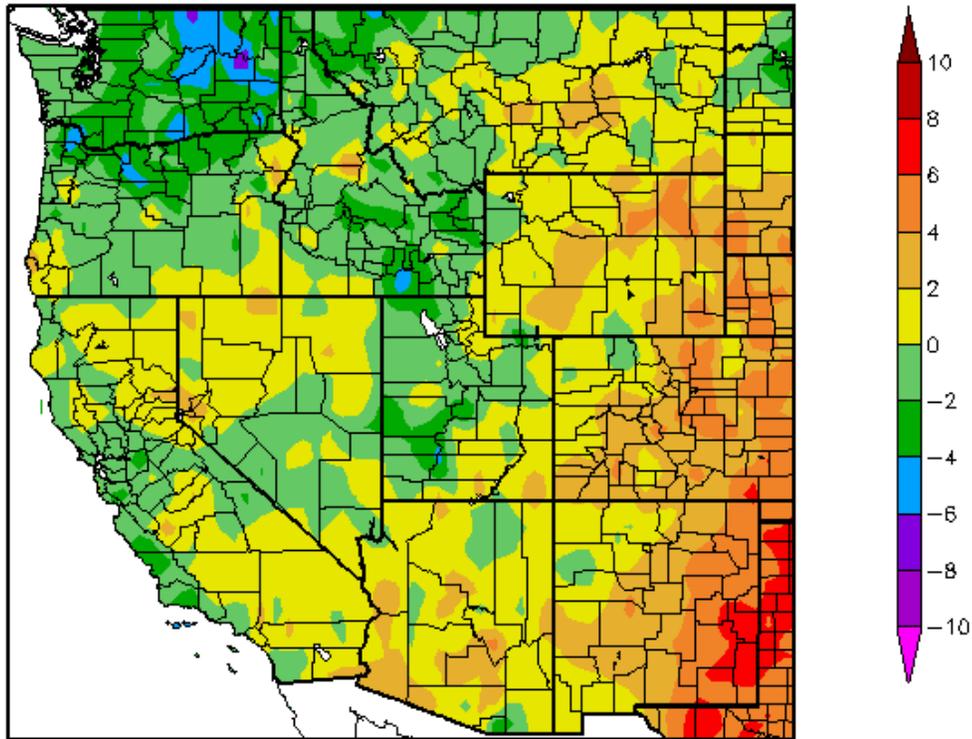


Fig. 1: SNOTEL and ACIS 7-day temperature anomaly shows +5°F departures east of the Continental Divide and -5°F departures west of the Divide.

Ref: <http://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/WestwideTavg7dAnomalyAcis.pdf>

Weekly Snowpack and Drought Monitor Update Report

Departure from Normal Temperature (F)
7/21/2011 – 8/3/2011



Generated 8/4/2011 at HPRCC using provisional data.

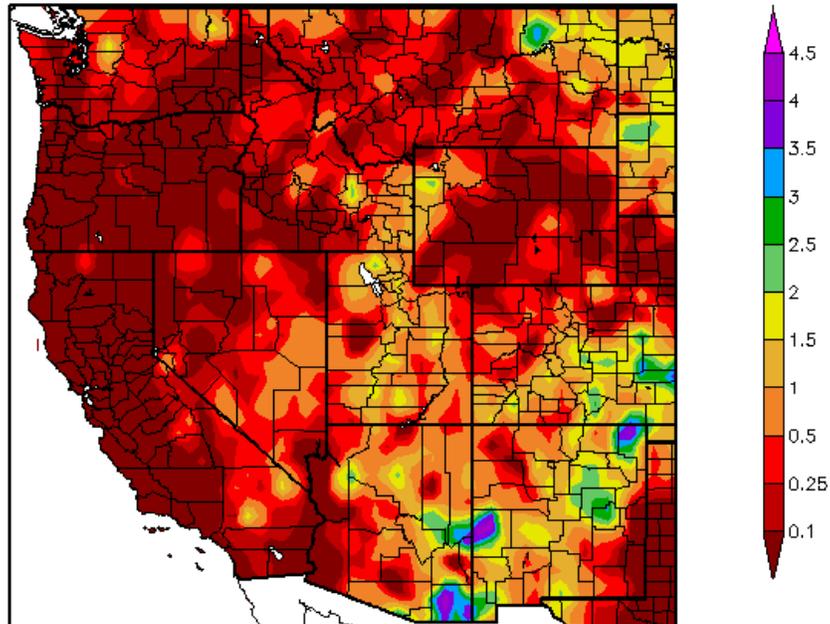
Regional Climate Centers

Fig. 1a: ACIS 14-day average temperature anomalies show the greatest positive temperature departures across eastern New Mexico ($>+6^{\circ}\text{F}$) and the greatest negative departures over portions of the Northern Cascades of Washington ($<-6^{\circ}\text{F}$).

Ref: http://www.hprcc.unl.edu/maps/current/index.php?action=update_daterange&daterange=14d

Weekly Snowpack and Drought Monitor Update Report

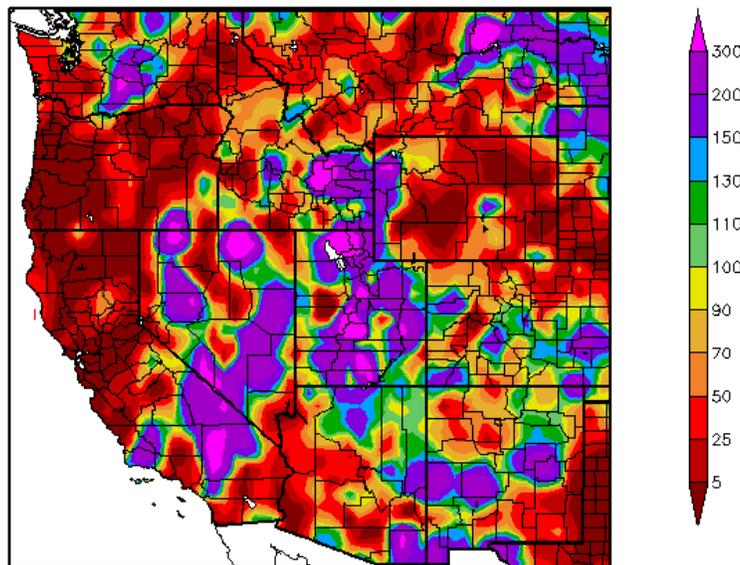
Precipitation (in)
7/21/2011 – 8/3/2011



Generated 8/4/2011 at HPRCC using provisional data.

Regional Climate Centers

Percent of Normal Precipitation (%)
7/21/2011 – 8/3/2011



Generated 8/4/2011 at HPRCC using provisional data.

Regional Climate Centers

Fig. 2 and 2a: ACIS 14-day average precipitation amounts for the period ending yesterday shows the bulk of the heaviest precipitation scattered across the Southwest and eastern Montana (Fig. 2). In terms of percent of normal, the precipitation was highest over Washington, eastern Montana, and scattered across the Intermountain West (Fig 2a). The Summer Southwest Monsoon is clearly depicted during the past two weeks.

Ref: <http://www.hprcc.unl.edu/maps/current/>

Weekly Snowpack and Drought Monitor Update Report

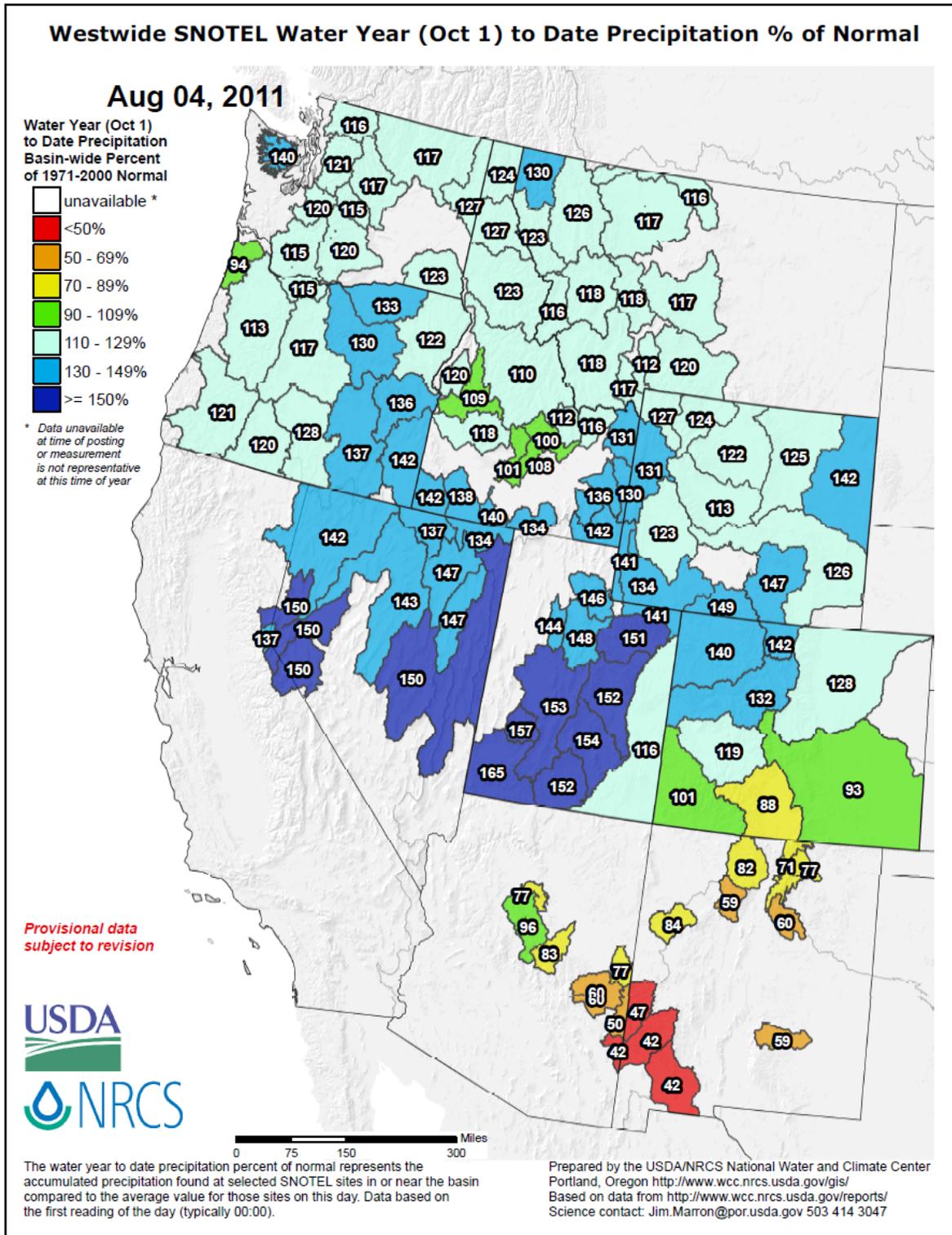


Fig 2b: For the 2011 Water-Year that began on 1 October 2010, the greatest deficits are found over the extreme southern reaches of the Southwest. Areas with the highest values are found over the Great Basin, Cascades, Sierra, and parts of Northern and Central Rockies. These values are more or less locked in (static) for the remainder of the summer with the possible exception of Arizona and New Mexico due to the influence of the Southwest Monsoon. The monsoon in New Mexico is not contributing much to water deficits thus far this season.

Ref: http://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/west_wytdprecpcnormal_update.pdf

U.S. Drought Monitor

August 2, 2011
Valid 8 a.m. EDT

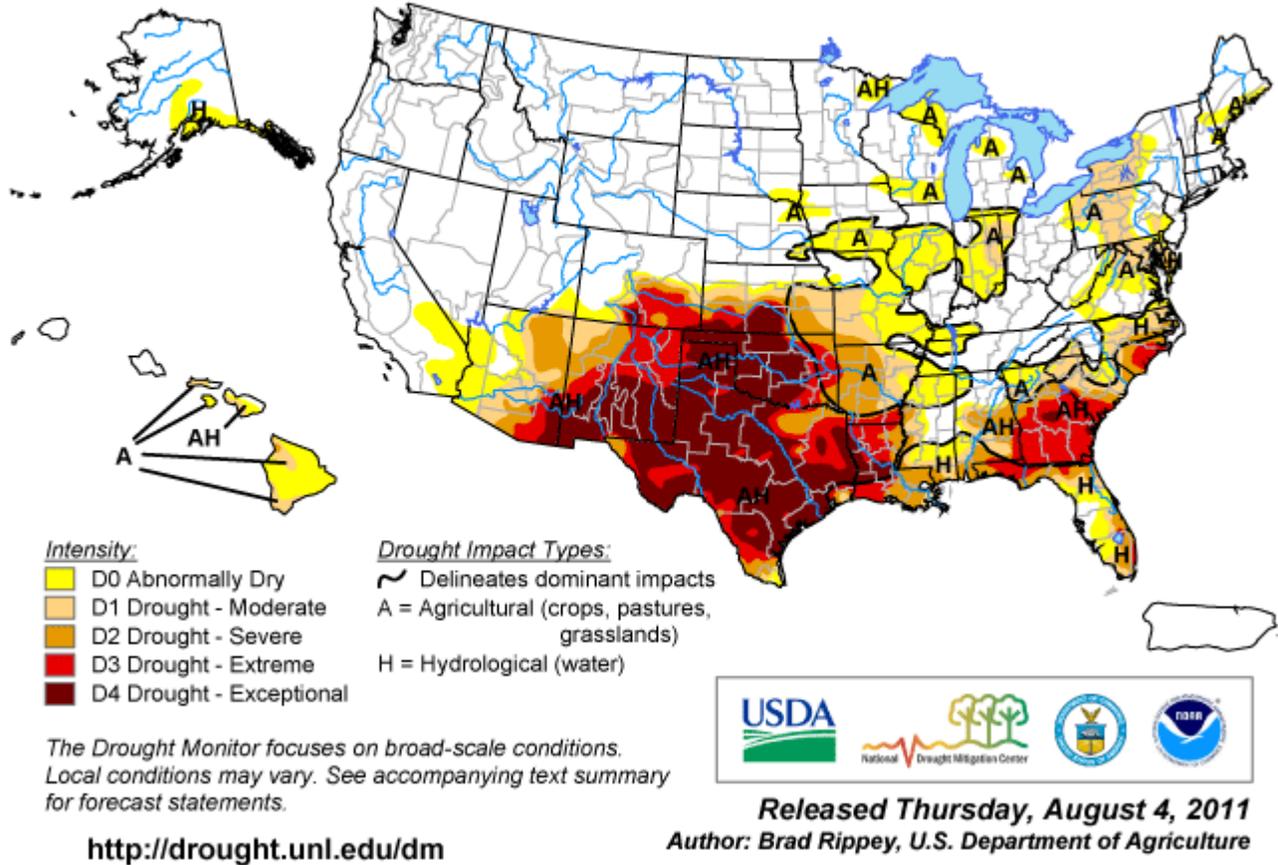


Fig. 3: Current Drought Monitor weekly summary. The exceptional D4 levels of drought are found over southeast Arizona, New Mexico, extreme southeast Colorado, Texas, Oklahoma, Louisiana, and Georgia. Ref: <http://www.drought.unl.edu/dm/monitor.html>.

Agriculture Drought News

July 26, [Texas](#). The yard foreman at the Abilene Livestock Auction estimated that 2,800 cattle were to be auctioned on July 26, up from the average of 1,200 animals.

July 22, [National](#). The number of beef and dairy cattle in the country fell 1.1 percent to 100 million. Analysts expect the number to fall even further.

July 28, [Texas](#). Unwanted donkeys are being abandoned across Texas since hay is scarce and water supplies are dwindling.

July 23, [Gillespie County in central Texas](#). Ranchers brought 2,725 livestock to auction at Gillespie Livestock Co. in Fredericksburg for a sale that began at noon and ended at 1:45 a.m.

July 24, [Eastern Pennsylvania](#). Corn was curling and beginning to turn brown in parts of Schuylkill County.

July 27, [Kansas](#). The Kansas Agricultural Statistics Service reported that cattle sales were triple the usual number in some locales across the state as drought, dry pastures and diminished water supplies drove ranchers to cull their herds.

July 27, [Texas](#). Drought has cost Texas farmers and ranchers at least \$2.6 billion since November 2010, according to an estimate made by an economist with the Texas AgriLife Extension Service. More than 2 million acres of dryland cotton died without adequate rainfall, increasing the drought loss by an additional \$1.1 billion from the previous estimate of \$1.5 billion made in mid-May. The estimate includes losses to livestock, wheat, corn and sorghum. The cost of drought could be twice the \$4.1 billion in drought damage that Texas sustained in 2006.

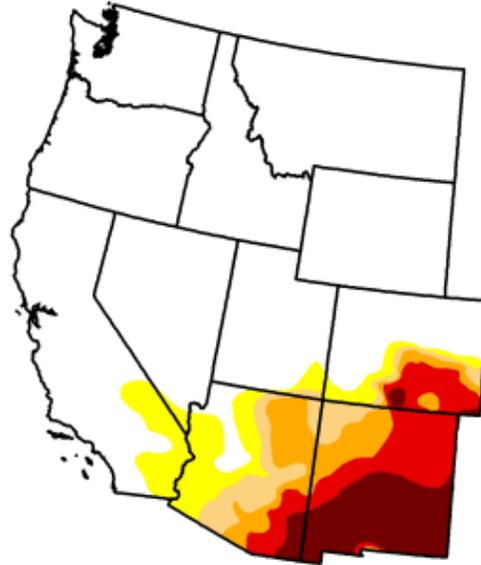
U.S. Drought Monitor

West

August 2, 2011
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	74.90	25.10	18.98	15.44	11.10	5.52
Last Week (07/26/2011 map)	74.71	25.29	19.01	15.46	11.11	5.55
3 Months Ago (05/03/2011 map)	75.92	24.08	20.07	15.56	8.04	1.40
Start of Calendar Year (12/28/2010 map)	73.26	26.74	11.98	0.89	0.00	0.00
Start of Water Year (09/28/2010 map)	62.50	37.50	8.14	0.56	0.00	0.00
One Year Ago (07/27/2010 map)	71.29	28.71	9.20	0.73	0.00	0.00



Intensity:

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

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

<http://drought.unl.edu/dm>



Released Thursday, August 4, 2011
Brad Rippey, U.S. Department of Agriculture

Fig. 3a: Drought Monitor for the Western States with statistics over various time periods. Regionally there were no significant changes this week.

Ref: http://www.drought.unl.edu/dm/DM_west.htm

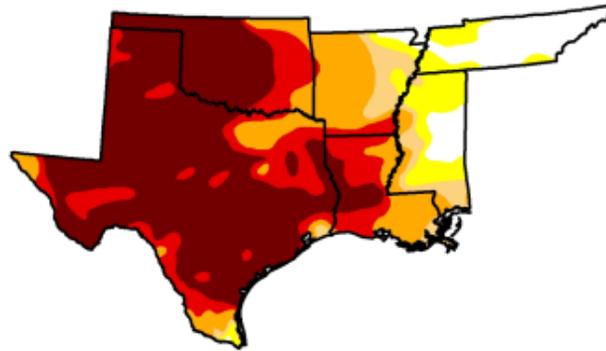
U.S. Drought Monitor

South

August 2, 2011
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.30	91.70	84.47	79.33	64.10	47.32
Last Week (07/26/2011 map)	9.44	90.56	85.25	73.95	63.56	47.93
3 Months Ago (05/03/2011 map)	22.71	77.29	71.52	64.13	46.58	14.68
Start of Calendar Year (12/28/2010 map)	8.86	91.14	67.65	35.21	10.17	0.00
Start of Water Year (09/28/2010 map)	54.23	45.77	20.04	6.79	0.83	0.00
One Year Ago (07/27/2010 map)	74.63	25.37	11.64	4.90	1.63	0.00



Intensity:

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

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



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Brad Rippey, U.S. Department of Agriculture

<http://drought.unl.edu/dm>

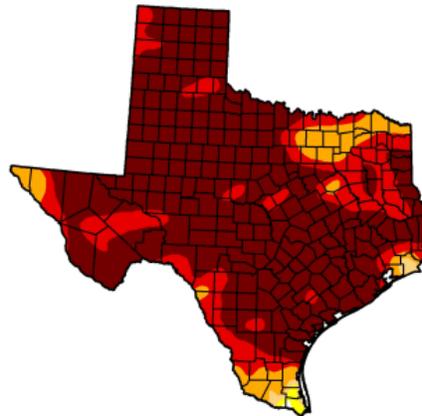
Fig. 3b: Drought Monitor for the South-Central States with statistics over various time periods. This region has shown some deterioration in all drought categories (especially D2-D4) over the past week. Ref: http://www.drought.unl.edu/dm/DM_south.htm

Weekly Snowpack and Drought Monitor Update Report

U.S. Drought Monitor
Texas

August 2, 2011
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.07	99.93	99.48	98.67	91.73	73.49
Last Week (07/26/2011 map)	0.00	100.00	99.85	96.88	91.65	75.23
3 Months Ago (05/03/2011 map)	0.00	100.00	98.86	93.99	73.73	25.96
Start of Calendar Year (12/28/2010 map)	7.89	92.11	69.43	37.46	9.59	0.00
Start of Water Year (09/28/2010 map)	75.57	24.43	2.43	0.99	0.00	0.00
One Year Ago (07/27/2010 map)	89.01	10.99	2.74	0.44	0.00	0.00



Intensity:



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

<http://drought.unl.edu/dm>



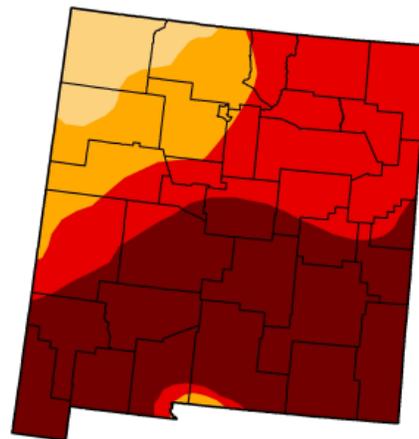
Released Thursday, August 4, 2011
Brad Rippey, U.S. Department of Agriculture

Fig. 3c: Currently, 73% of Texas is experiencing “Exceptional” D4 drought. Almost 92% of the state is in D3 and D4 drought! Ref: http://www.drought.unl.edu/dm/DM_state.htm?TX.S

U.S. Drought Monitor
New Mexico

August 2, 2011
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	93.24	79.05	47.47
Last Week (07/26/2011 map)	0.00	100.00	100.00	93.24	79.34	47.76
3 Months Ago (05/03/2011 map)	0.00	100.00	96.54	87.36	61.02	13.63
Start of Calendar Year (12/28/2010 map)	6.16	93.84	40.40	0.00	0.00	0.00
Start of Water Year (09/28/2010 map)	76.66	23.34	0.00	0.00	0.00	0.00
One Year Ago (07/27/2010 map)	65.81	34.19	12.10	0.00	0.00	0.00



Intensity:



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

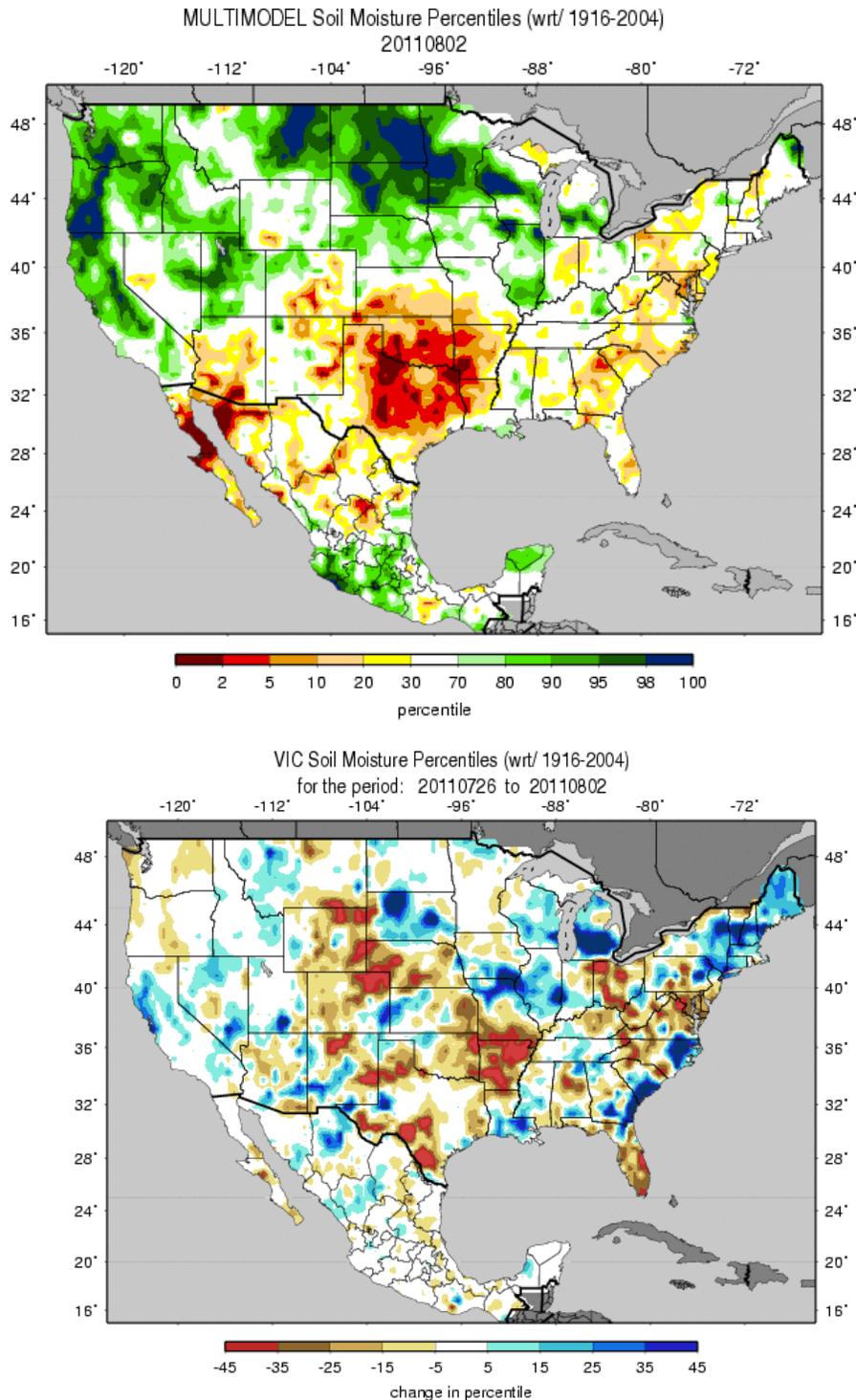
<http://drought.unl.edu/dm>



Released Thursday, August 4, 2011
Brad Rippey, U.S. Department of Agriculture

Fig. 3d: Drought Monitor for New Mexico with statistics over various time periods. Thus far, the impacts of the Southwest Monsoon have been negligible. Ref: http://www.drought.unl.edu/dm/DM_state.htm?NM.W

Weekly Snowpack and Drought Monitor Update Report



Figs. 4a and 4b: Soil Moisture ranking in percentile as of 2 August (top) shows moist conditions over much of the Northern Tier States east of the Mississippi River with dryness over the Southern Plains. A rather complex pattern of moistening and drying occurred this week across the nation (bottom).

http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/CONUS.MEXICO.multimodel.sm_qnt.gif
http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/CONUS.MEXICO.vic.sm_qnt.1wk.gif

Weekly Snowpack and Drought Monitor Update Report

Soil Climate Analysis Network (SCAN)

Station (2008) MONTH=2011-07-05 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision
Thu Aug 04 07:10:05 PDT 2011

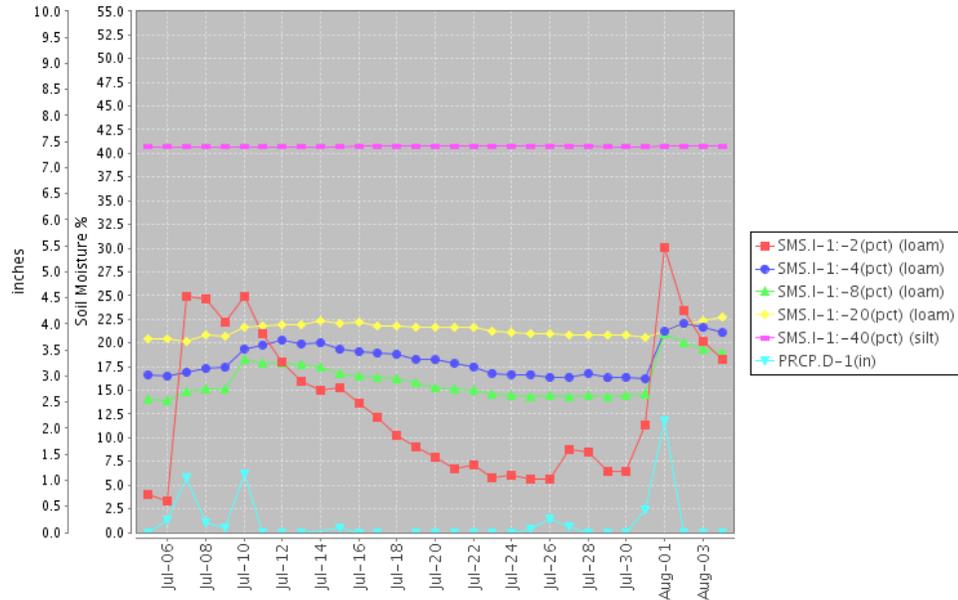


Fig. 5a: This NRCS resource shows a site in Coastal North Carolina with improving soil moisture as heavy rains dominated on August 1. Ref: <http://www.wcc.nrcs.usda.gov/nwcc/site?sitenum=2008&state=nc>

Station (2091) MONTH=2011-07-05 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision
Thu Aug 04 07:13:05 PDT 2011

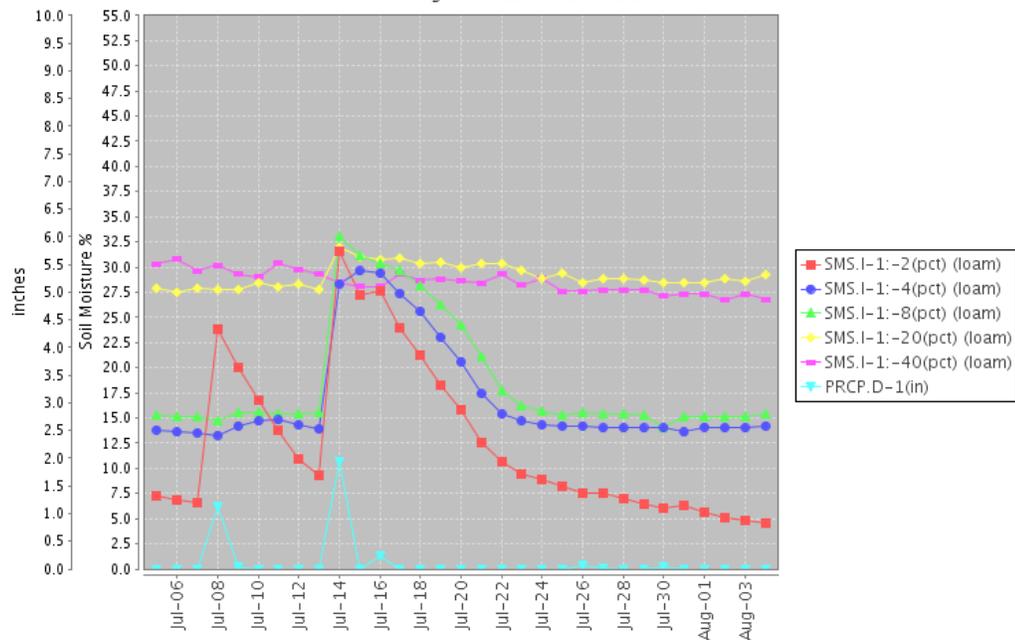


Fig. 5b: This SCAN station is located in eastern Arkansas shows a steady decline in soil moisture after little rainfall fell during the second half of July. Ref: <http://www.wcc.nrcs.usda.gov/nwcc/site?sitenum=2091&state=ar>

Weekly Snowpack and Drought Monitor Update Report

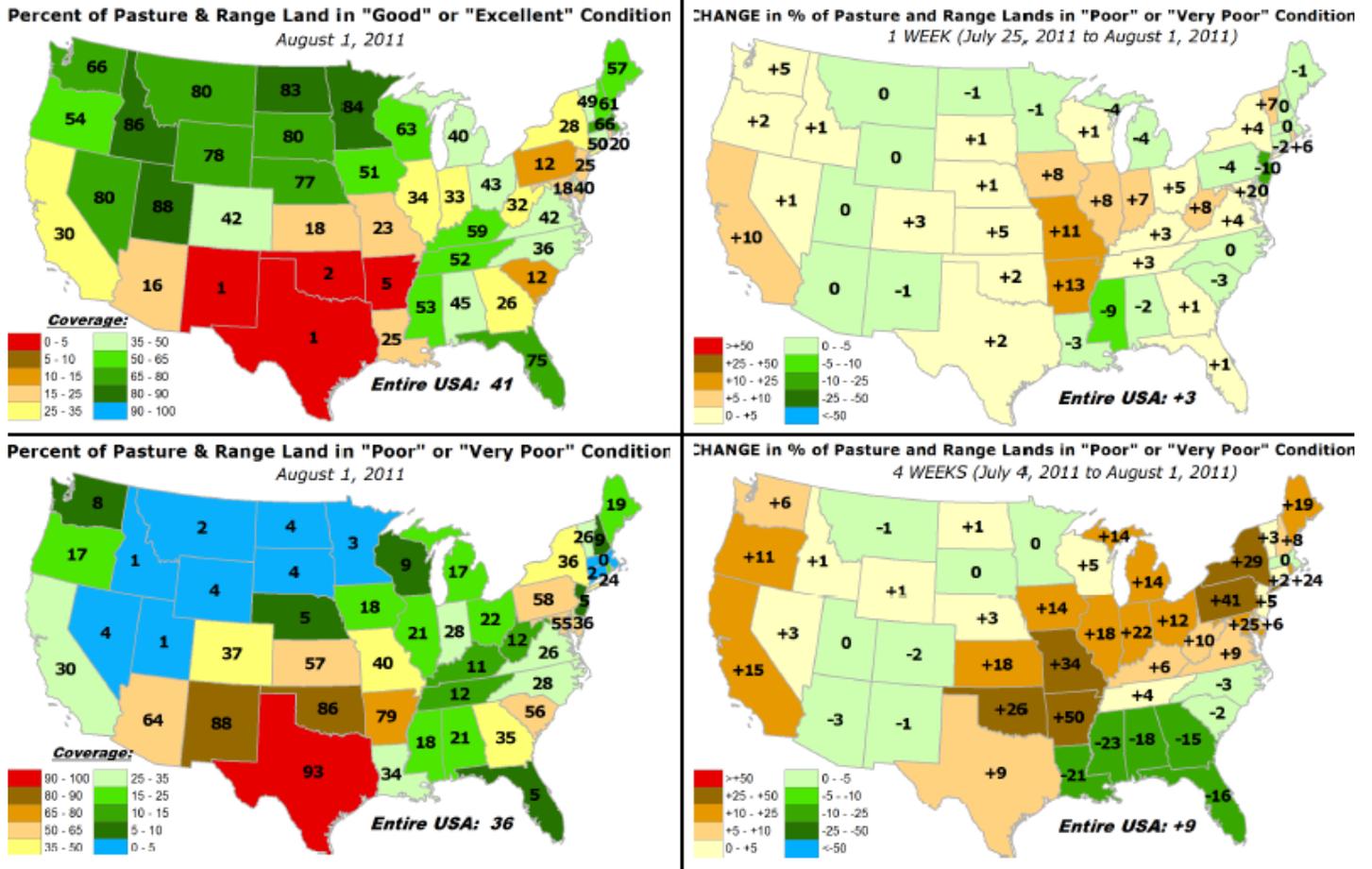


Fig. 6: Percent and changes to pasture and range lands show the extreme depth of the Texas, New Mexico, Arkansas, and Oklahoma drought. Conditions have deteriorated the most over Missouri and Arkansas the past week (upper right map). Over the past 4 weeks, the Central and Eastern Gulf States have shown the greatest improvements (lower right map).

Ref: <http://www.cpc.ncep.noaa.gov/products/predictions/experimental/edb/pasture-statewide-conditions.pdf>

Weekly Snowpack and Drought Monitor Update Report

Wednesday, August 03, 2011

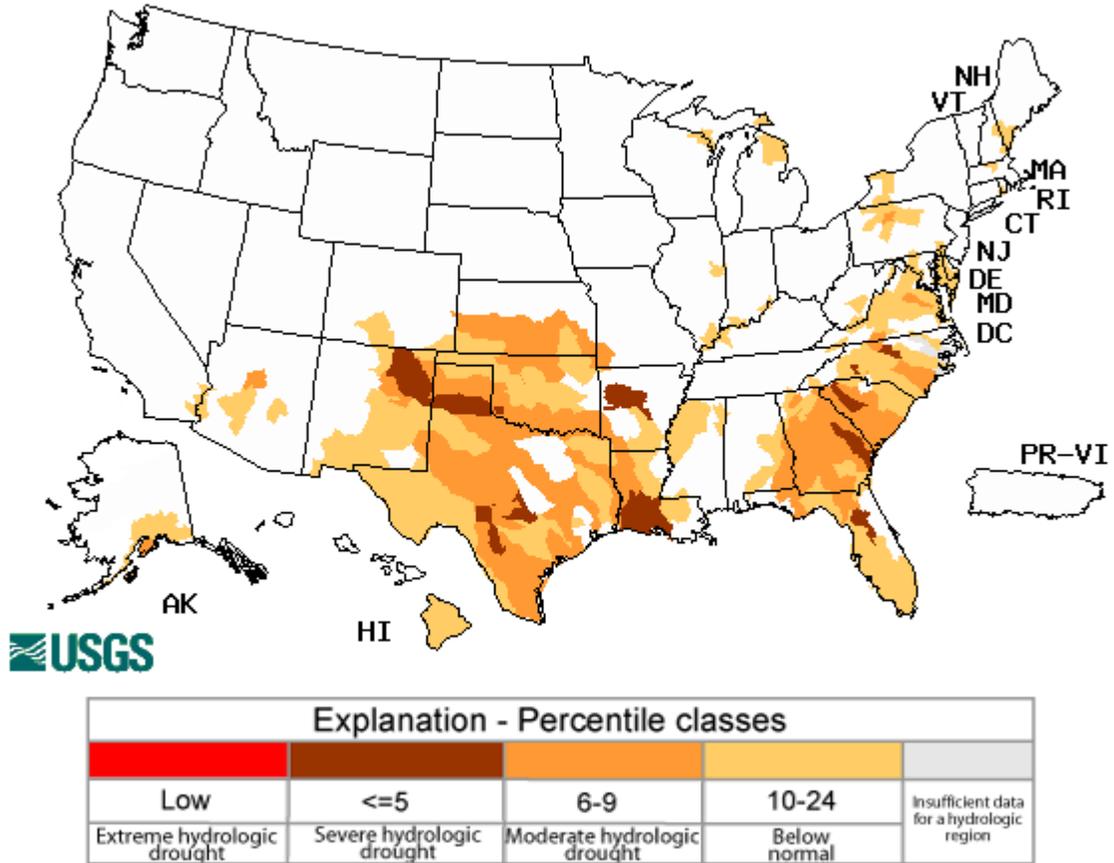


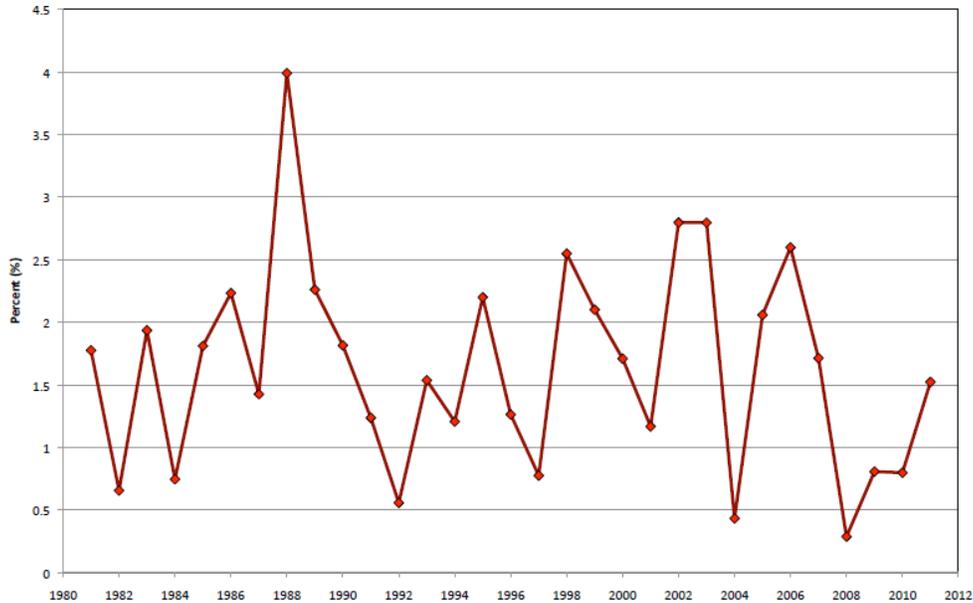
Fig. 7: Map of below normal 7-day average streamflow compared to historical streamflow for the day of year. Portions of the Southern Plains, New Mexico, and Coastal Southeastern States are experiencing severe conditions. Ref: <http://waterwatch.usgs.gov/?m=dryw&r>.

Weekly Snowpack and Drought Monitor Update Report

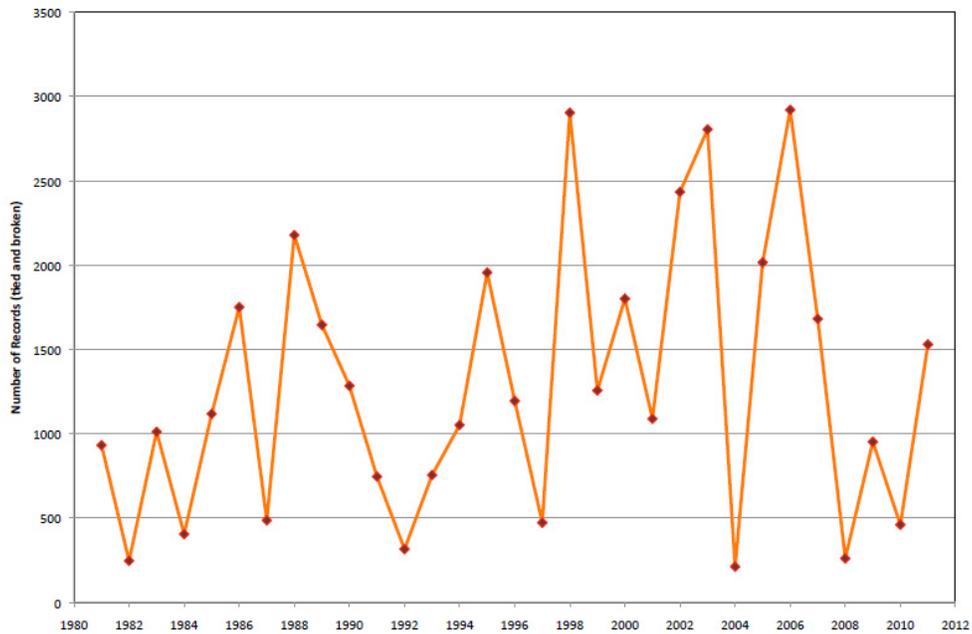
Special Report

There is the perception by many that July 2011 was exceptionally hot with a record number of weather stations reporting a greater number of new daily maximum temperatures than usual. However, a study conducted by Becky Smith at Colorado State University reveals that **nationwide**, this July had a typical number of new or tied records as compared to the period 1980-2011.

Percent of Total Observations with July Daily Maximum Temperature Records in the U.S.



Total Number of July Record Maximum Temperatures Over 100 Degrees



Charts are courtesy of [Becky Smith](#) (Colorado State University).

Weekly Snowpack and Drought Monitor Update Report

National Drought Summary -- August 2, 2011

The discussion in the Looking Ahead section is simply a description of what the official national guidance from the National Weather Service (NWS) National Centers for Environmental Prediction is depicting for current areas of dryness and drought. The NWS forecast products utilized include the HPC 5-day QPF and 5-day Mean Temperature progs, the 6-10 Day Outlooks of Temperature and Precipitation Probability, and the 8-14 Day Outlooks of Temperature and Precipitation Probability, valid as of late Wednesday afternoon of the USDM release week. The NWS forecast web page used for this section is:
<http://www.cpc.ncep.noaa.gov/products/forecasts/>.

Weekly Weather Summary: Despite scattered, locally heavy showers across the Midwest and Southeast, hot weather continued to have a detrimental impact on summer crops. The heat's effects were amplified in areas largely bypassed by showers, including a broad arc of farmland stretching from southern Iowa into western Ohio. Meanwhile, an already dire situation continued to worsen across the south-central U.S., where the combination of an historic 10-month drought and a relentless summer heat wave left little hope for rain-fed commodities and placed significant stress on livestock and irrigated crops. Farther west, an active monsoon circulation contributed to beneficial showers in the Four Corners States. Elsewhere, Southeastern showers helped to offset the effects of hot weather, especially in the central Gulf Coast region and parts of the southern Atlantic States, while Tropical Storm Don—which made landfall in Deep South Texas on July 29—was a tremendous disappointment with minimal rainfall.

The Midwest and Northeast: Patchy agricultural dryness (D0A) continued to develop from the Midwest into the Northeast, with some pockets of drought (D1A) beginning to appear. In many areas, persistent heat aggravated the effects of short-term dryness. For example, Detroit, Michigan, set a record for its hottest month (79.3°F; previously, 79.0°F in July 1921 and 1955). Meanwhile in Indiana, Ft. Wayne not only set a record for its hottest month, but also experienced a record-high number of 90-degree days in July (22; previously, 21 days in 1983).

In Pennsylvania, nearly one-third (31%) of the corn crop was rated in very poor to poor conditions at the end of July. Not far behind were Missouri (28% of the corn very poor to poor) and Indiana (21%). Pastures continued to “burn up,” with more than half reported in very poor to poor condition on July 31 in Pennsylvania (58%) and Maryland (55%). Topsoil moisture was rated 85% very short to short in Maryland; end-of-July values in other states included 78% in Pennsylvania, 69% in Missouri, 66% in Delaware, 64% in New York, and 63% in Indiana.

Ironically, some areas received heavy rain. For example, daily-record totals in Michigan for July 27 reached 3.49 inches in Grand Rapids and 2.15 inches in Lansing. On July 28, Wisconsin locations such as Wisconsin Rapids (3.20 inches) and Green Bay (2.25 inches) tallied daily-record amounts. Dubuque, Iowa, was hammered by 10.62 inches of rain in a 24-hour period on July 27-28, establishing an all-time record. Previously, Dubuque's highest 24-hour rainfall had been 8.96 inches on August 21-22, 2002. Dubuque also experienced its wettest calendar day on record (7.47 inches on July 27), shattering its former mark of 6.28 inches set on July 1, 1961. In fact, Midwestern monthly rainfall totals were extraordinarily variable, with Dubuque (16.01 inches) experiencing its wettest month on record and Indianapolis, Indiana (0.47 inch), weathering its driest July.

Weekly Snowpack and Drought Monitor Update Report

The Southeast: Locally heavy showers kept drought intensification at bay in some areas and resulted in some additional drought relief in the central Gulf Coast region. In fact, New Orleans, Louisiana, received daily-record rainfall amounts on July 25 and 28 (2.34 and 3.52 inches, respectively), and ended the month with 13.00 inches of precipitation (210 percent of normal). However, even rain-affected locations had to deal with record-setting heat. In North Carolina, Wilmington (101°F on July 30) tied an annual record with its seventh day of triple-digit heat. Wilmington originally set its annual record of seven 100-degree readings in 1952.

By July 31, more than half (56%) of South Carolina's pastures were rated in very poor to poor condition. South Carolina also led the Southeast with topsoil moisture rated 77% very short to short. Nearly one-third (32%) of the cotton was rated very poor to poor by the end of July in Alabama and Georgia. Peanuts (30% very poor to poor) were struggling in Alabama. Nearly one-half (45%) of North Carolina's corn was rated very poor to poor.

The Central and Southern Plains and the Mid-South: Tropical Storm Don—which made landfall on July 29 between Brownsville and Corpus Christi—was a mighty disappointment for parched Texas. Scattered showers, totaling mostly less than an inch, were limited to Deep South Texas, as the storm literally disintegrated upon moving inland. Meanwhile, a record-shattering string of 100-degree readings continued into August across parts of the Lone Star State. Tyler, TX, posted a 36-day streak (and counting) of triple-digit heat from June 28 – August 2, nearly doubling its former mark of 20 days set from July 15 – August 3, 1998. Dallas-Ft. Worth registered highs of 100°F or higher on 32 consecutive days (and counting) from July 2 – August 2, second only to a 42-day stretch of triple-digit heat from June 23 – August 3, 1980. With an average temperature of 89.2°F, July 2011 was the hottest month on record in Oklahoma City, Oklahoma, smashing its Dust Bowl-era record of 88.7°F set in August 1936. Childress, Texas (90.2°F), also demolished its long-standing “hottest month” record, previously set with 89.0°F in July 1934. Elsewhere in Texas, Wichita Falls (92.9°F) edged its July 1980 standard of 91.9°F. For the second consecutive month, Lubbock, TX, experienced its hottest month on record (85.9°F in June and 86.0°F in July; previously, 85.4°F in July 1966). Adding insult to injury was the ongoing historic drought. For example, Midland, Texas, completed another month without measurable precipitation (rainfall greater than a trace last fell on May 20). Midland also endured its driest 10-month period on record, with just 0.18 inch falling from October 2010 - July 2011. The previous record-low precipitation for any 10-month period in Midland was 2.60 inches from October 1950 - July 1951.

The coverage of Texas rangeland and pastures in very poor to poor conditions stood at 93% on July 31, according to USDA. The rangeland and pasture situation was nearly as bad in Oklahoma (86% very poor to poor), Arkansas (79%), and Kansas (57%). Oklahoma's row crops were in particularly bad shape, with USDA rating 88% of the cotton and 74% of the sorghum in very poor to poor condition. By month's end, topsoil moisture was reported to be 100% very short to short in Oklahoma, 97% in Texas, 89% in Arkansas, and 73% in Kansas.

The Southwest: An active monsoon circulation continued to generate scattered showers and thunderstorms across the Four Corners States. July ended wetter than normal at many Southwestern locations, including Douglas, Arizona (3.57 inches, or 114% of normal), and Grand Junction, Colorado (1.71 inches, or 259%). However, recovery in drought-affected areas was slow, with rangeland and pastures struggling to rebound. At the end of July, USDA rated 88% of New Mexico's rangeland and pastures in very poor to poor condition, along with 64% in Arizona.

Weekly Snowpack and Drought Monitor Update Report

Puerto Rico, Hawaii, and Alaska: Tropical Storm Emily formed southeast of Puerto Rico on August 1 but contributed to an overall wet pattern in early August across the Greater Antilles. Meanwhile, lackluster summer showers across Hawaii's Big Island led to expanded coverage of dryness (D0) and drought (D1 and D2). In particular, moderate drought (D1) coverage increased due to increased irrigation demands and deteriorating pasture conditions. Farther north, heavy precipitation fell across much of southeastern Alaska in late July, leading to a reduction in the coverage of abnormal dryness (D0). July 24-30 rainfall totaled 2.33 inches in Juneau, boosting its monthly sum to 3.51 inches (85 percent of normal). Nearly two-thirds (2.54 of 3.86 inches) of Yakutat's monthly rain fell from July 24-30.

Looking Ahead: During the next 5 days (from August 4-8), excessively hot conditions will persist across the south-central and southeastern U.S., while cooler air will overspread the Midwest. Little or no rain will fall in the Far West and the drought-devastated south-central U.S. However, most other areas—including the northern and central Plains, Midwest, and East—can expect 1 to 2 inches of rain, with locally higher amounts. Most forecast guidance suggests that Tropical Storm Emily will turn away before reaching the U.S. mainland, although a weekend landfall along the southern Atlantic Coast cannot be ruled out.

The CPC 6- to 10-day outlook for August 9-13 calls for below-normal temperatures along and near the Pacific Coast and from the Midwest into the Northeast, while hotter-than-normal weather will prevail from the Four Corners region into the Southeast. Meanwhile, below-normal rainfall in California and across the nation's southern tier will contrast with wetter-than-normal conditions from the northern Plains to New England, including the Midwest.

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Dryness Categories

D0 ... Abnormally Dry ... used for areas showing dryness but not yet in drought, or for areas recovering from drought.

Drought Intensity Categories

D1 ... Moderate Drought

D2 ... Severe Drought

D3 ... Extreme Drought

D4 ... Exceptional Drought

Drought or Dryness Types

A ... Agricultural

H ... Hydrological

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