



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

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**Weekly Report - Snowpack / Drought Monitor Update**      **Date: 21 May 2009**

## **SNOTEL SNOWPACK AND PRECIPITATION SUMMARY**

**Snow:** Snow-water equivalent percent to date shows values over much of the Cascades and Northern Rockies holding on to surpluses while the Southern Tier States continue to dwindle (Fig 1). Unofficial forecast changes for the past 7 days in spring and summer streamflow runoff for selected SNOTEL sites show that forecast values are mostly dropping as mountain snowpack melts out (Fig. 1a). This past week's snow depth changes show late season decreases across the entire West as would be expected for this time of year (Fig. 1b).

**Temperature:** SNOTEL and ACIS-day station average temperature anomalies were mostly above normal across the West (Fig. 2). ACIS 7-day average temperature anomalies show that the greatest positive temperature departures occurred over areas over southern California and southern Nevada (>+12F) and the greatest negative departures occurred over northern Montana (<-3F) (Fig. 2a).

**Precipitation:** ACIS 7-day average precipitation anomaly for the period ending 20 May shows a continued wet pattern over parts of the Pacific Northwest. Except for isolated thunderstorm activity across the Southern Tier States, the West was dry (Fig. 3). Seasonal precipitation (rain & snow water equivalent) as a percent of normal for the 2009 Water Year that began on October 1, 2008 shows values within a few percentage points of last week's values. It is interesting to note that much of the West is within 15% of normal with the exception of southeast Utah and southwest New Mexico (Fig 3a).

## **WESTERN DROUGHT STATUS**

**The West:** An expansion of the D1(A) was made in Arizona, based on short-term blends, 14-30- and 60-day precipitation totals, which were 2,5, and 25-50 percent of normal, respectively. The Arizona expansion, which included the area between Phoenix and Flagstaff north to the Colorado River was also based on 90-, 180-, 360-day precipitation deficits (less than 25 percent of normal at 90 days, less than 70 percent of normal at 6 and 12 months). In eastern Utah (Ferron Creek and Moab), SWSI values near -2.0 led to an expansion of the D0 area.

A small reduction of the D1 area in southwestern Idaho was based on the short- and long-term drought blends, and Water Year-To-Date basin average precipitation which stood at 110 percent of normal. Stream flows are generally near to slightly above normal in this region. The rest of the West received little if any precipitation, but since that is not unusual for this time of the year, no changes were indicated. Authors: Matthew Rosencrans, David Miskus, and Anthony Artusa, CPC/NCEP/NWS/NOAA

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

## **DROUGHT IMPACTS DEFINITIONS (<http://drought.unl.edu/dm/classify.htm>)**

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.

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The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve maintain and improve our natural resources and environment

## Weekly Snowpack and Drought Monitor Update Report

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. 4, 4a, 4b, and 4c).

### SOIL MOISTURE

Soil moisture (Figs. 5a and 5b), 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).

### OBSERVED FIRE DANGER CLASS

**Fire Weather Users:** The image presented on the National page now highlights offices with current Fire Weather Watches or Red Flag Warnings. Though the entire forecast office area is highlighted, the area of the Watch or Warning may be much smaller. Refer to the individual forecasts for details. Since forecast formats and policies are different among the different Weather Service offices, it is impossible to account for all variations in Watch/Warning issuances. Some Watches/Warnings may not be highlighted due to these differences and some may remain highlighted past the expiration time.

Most offices issue a separate product for Fire Weather Watches/Red Flag Warnings, but some do not. For those that do issue a separate product, a hyperlink will appear in the Fire Weather Forecast for that office (the product that displays when you click on an area in the image of the United States). The offices that do not issue a separate product place the Red Flag Warning/Fire Weather Watch information directly in the Fire Weather Forecast, so no separate hyperlink will show up.

The National Interagency Coordination Center provides a variety of products that describe the current wildfire status for the U.S. - [http://activefiremaps.fs.fed.us/lq\\_fire2.php](http://activefiremaps.fs.fed.us/lq_fire2.php). The latest Observed Fire Danger Class is shown in Figs. 6 shows the current active wildfires across the West - <http://geomac.usgs.gov/>.

### 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.

[http://water.usgs.gov/cgi-bin/waterwatch?state=us&map\\_type=dryw&web\\_type=map](http://water.usgs.gov/cgi-bin/waterwatch?state=us&map_type=dryw&web_type=map).

### 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/>

## Weekly Snowpack and Drought Monitor Update Report

### 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>

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

/s/ NOLLER HERBERT  
Director, Conservation Engineering Division

Weekly Snowpack and Drought Monitor Update Report

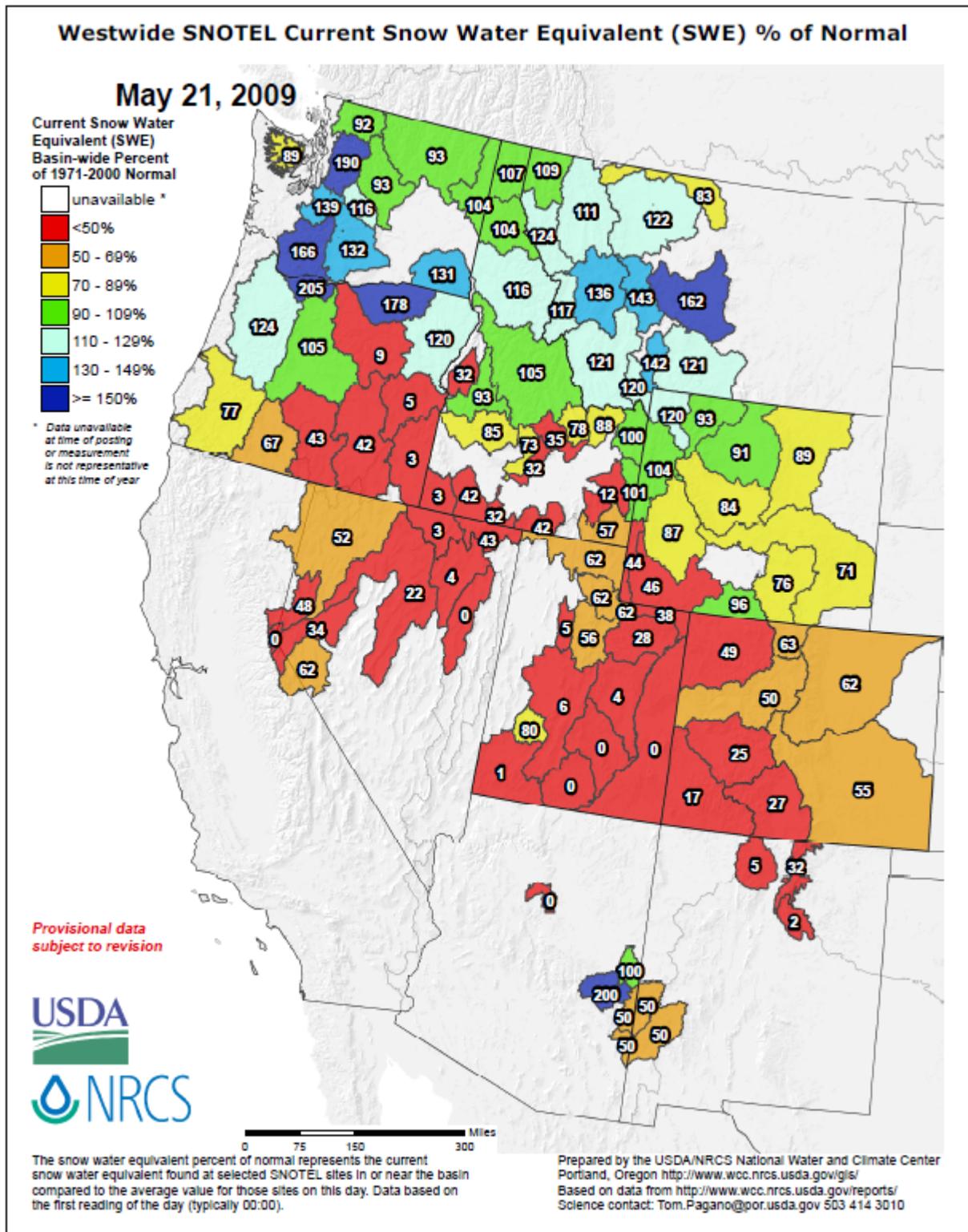


Fig. 1. Snow-water equivalent percent to date shows values over much of the Cascades and Northern Rockies holding on to surplus values while the Southern Tier States continue to dwindle. Ref: [http://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/west\\_swepctnormal\\_update.pdf](http://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/west_swepctnormal_update.pdf)

# Weekly Snowpack and Drought Monitor Update Report

## 7-Day Guidance Forecast Change as Percent of 1971-2000 Normal

May 21, 2009

For guidance only

7-Day Guidance  
Forecast Change  
(% normal)

- ✕ > 20% gain
- ▲ 16 - 20%
- ▲ 11 - 15%
- ▲ 6 - 10%
- ▲ 1 - 5%
- ⊖ no change
- ▼ -5 - -1%
- ▼ -10 - -6%
- ▼ -15 - -11%
- ▼ -20 - -16%
- ✚ > 20% loss
- ⊖ Unavailable\*

\* Forecast unavailable due  
to insufficient realtime data  
or low forecast skill

Provisional Data  
Subject to Revision

Miles  
0 50 100 200



Prepared by the USDA/NRCS National Water and Climate Center  
Portland, Oregon [http://www.wcc.nrcs.usda.gov/wsf/daily\\_forecasts.html](http://www.wcc.nrcs.usda.gov/wsf/daily_forecasts.html)  
Based on data from  
[ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/daily\\_forecast/SummaryOutput.csv](ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/daily_forecast/SummaryOutput.csv)  
Science contact: Tom.Pagano@por.usda.gov 503 414 3010

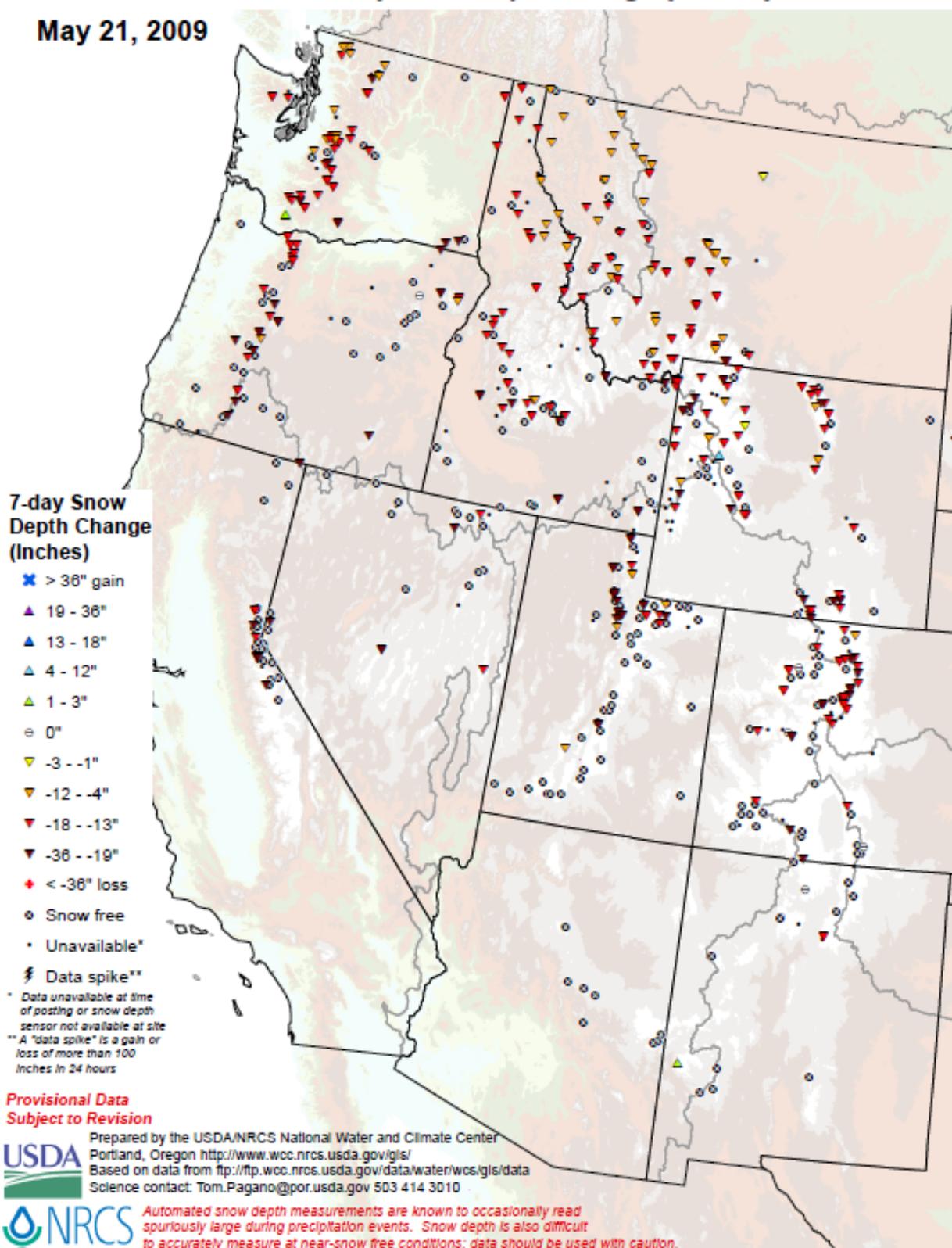
*This is a completely automated objective product  
based on SNOTEL data. This product is not meant  
to replace or supersede the official forecasts produced  
in coordination with the National Weather Service.*

Fig. 1a: Selected preliminary daily water supply forecast changes since last week show that forecast values are mostly dropping as mountain snowpack melts out.

Ref: [ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/daily\\_forecast/maps/west\\_dailyfcst\\_7daych.pdf](ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/daily_forecast/maps/west_dailyfcst_7daych.pdf)

**SNOTEL 7-Day Snow Depth Change (Inches)**

**May 21, 2009**



**Fig. 1b: This past week's snow depth changes show late season decreases across the entire West as would be expected for this time of year.**

Ref: [ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/west\\_snowdepth\\_7ddelta.pdf](ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/west_snowdepth_7ddelta.pdf)

# Weekly Snowpack and Drought Monitor Update Report

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

May 21, 2009

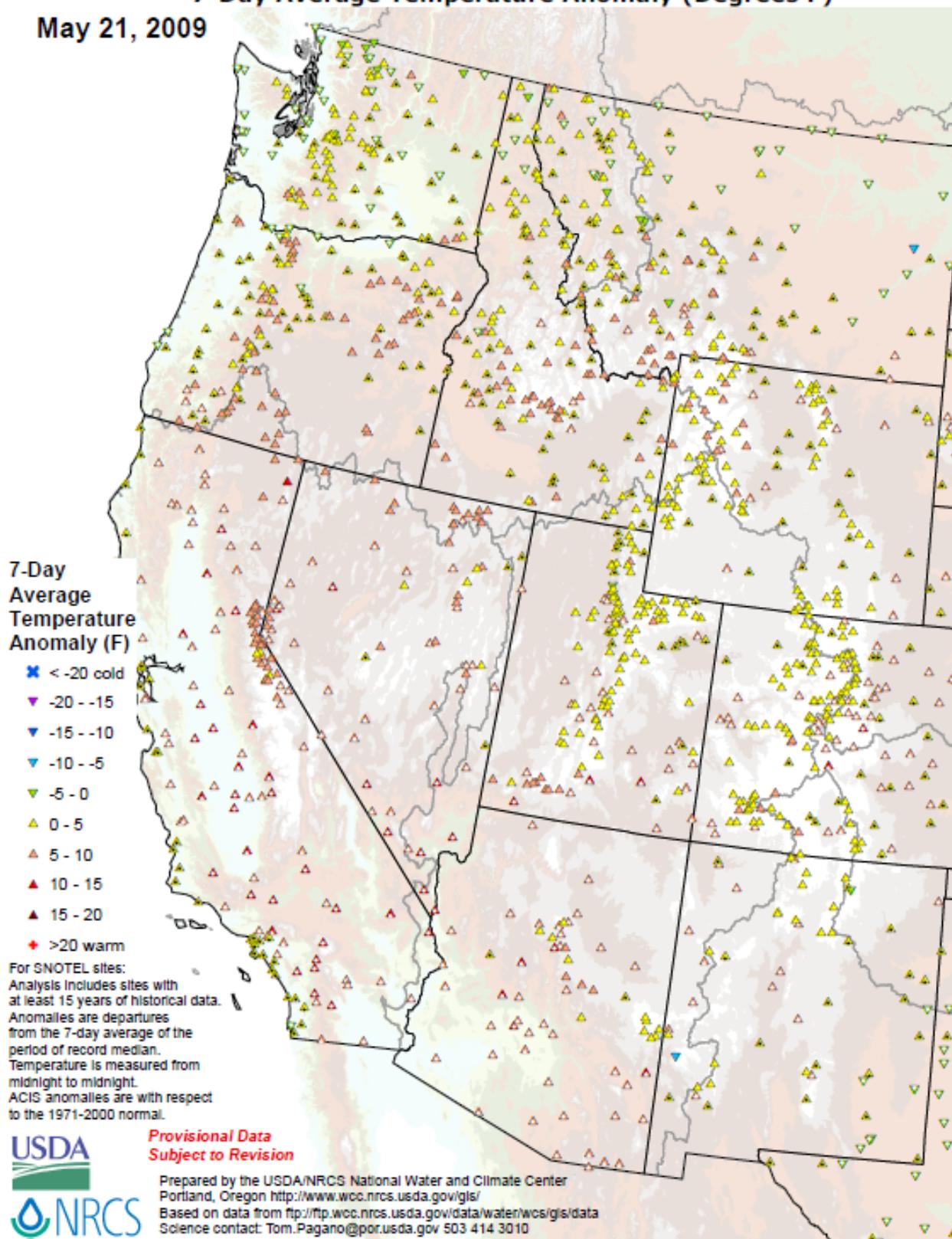
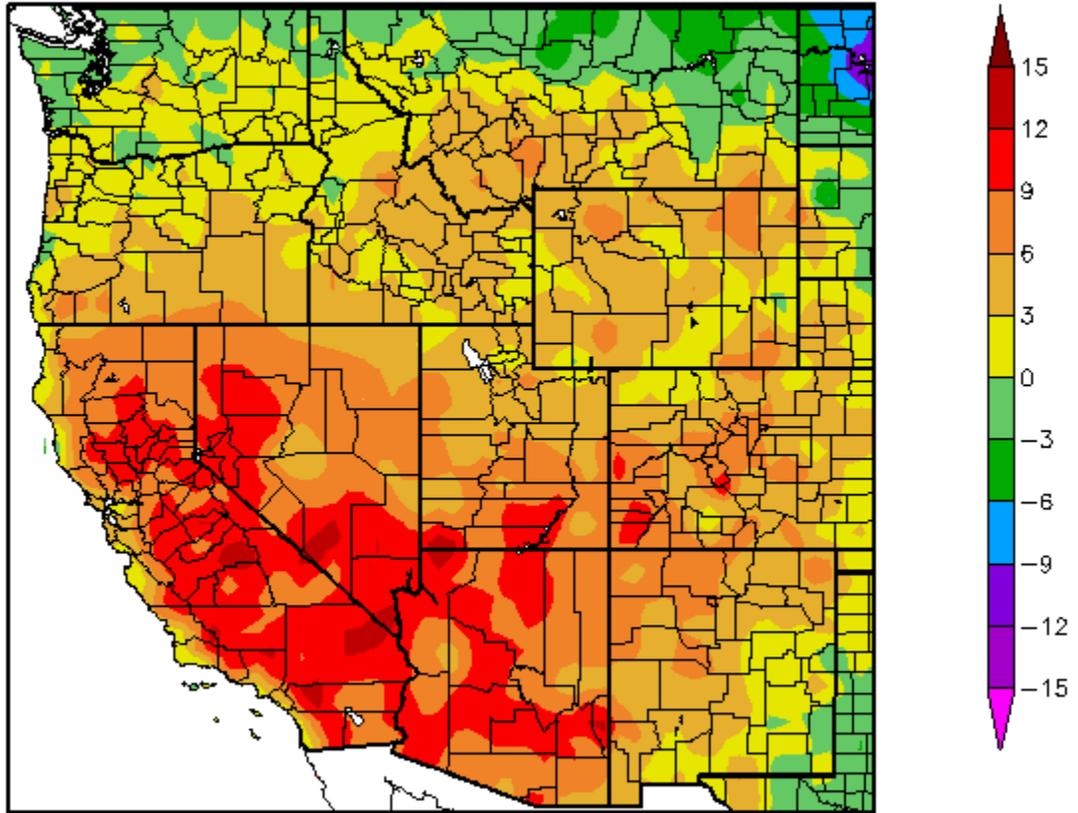


Fig. 2. SNOTEL and ACIS-day station average temperature anomalies were mostly above normal across the West.

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

Weekly Snowpack and Drought Monitor Update Report

Departure from Normal Temperature (F)  
5/14/2009 – 5/20/2009



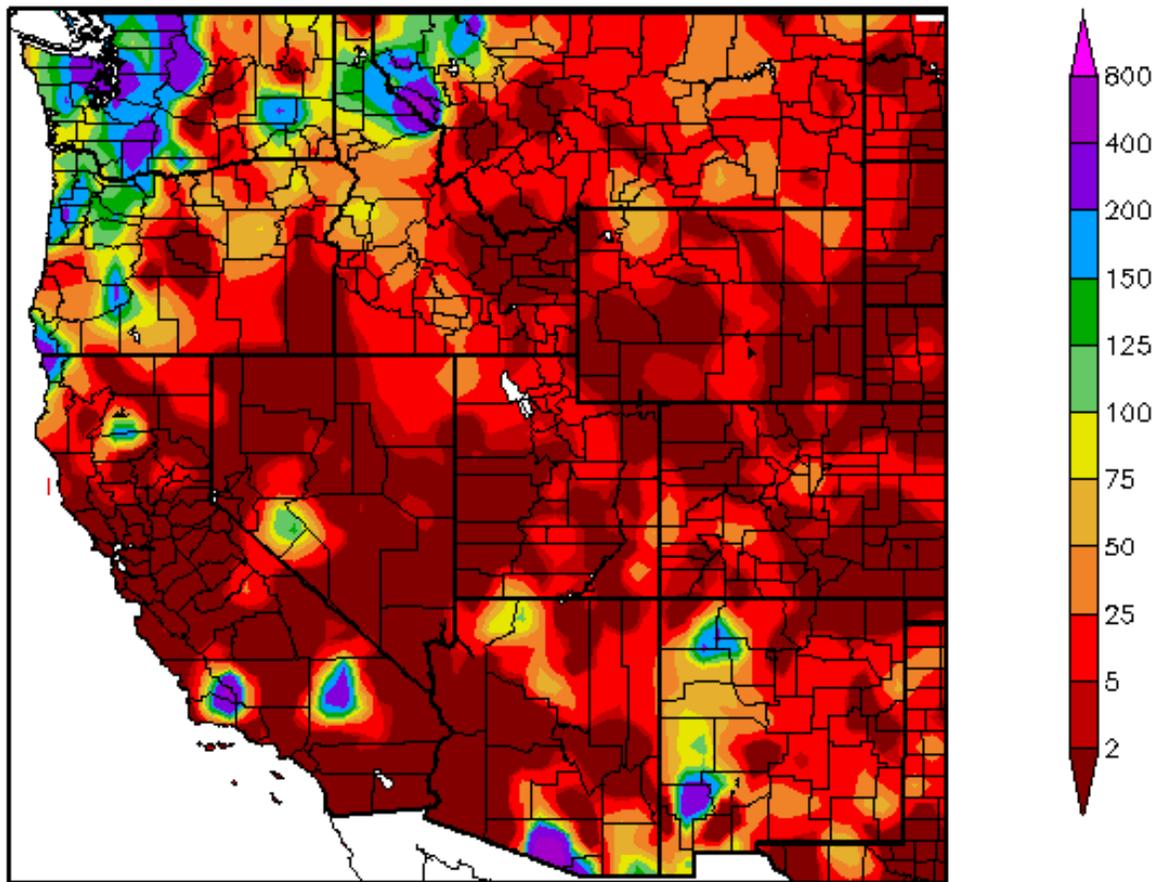
Generated 5/21/2009 at HPRCC using provisional data.

NOAA Regional Climate Centers

**Fig. 2a. ACIS 7-day average temperature anomalies show that the greatest positive temperature departures occurred over areas over southern California and southern Nevada (>+12F) and the greatest negative departures occurred over northern Montana (<-3F).**

Ref: [http://www.hprcc.unl.edu/maps/current/index.php?action=update\\_product&product=TDept](http://www.hprcc.unl.edu/maps/current/index.php?action=update_product&product=TDept)

Percent of Normal Precipitation (%)  
5/14/2009 – 5/20/2009



Generated 5/21/2009 at HPRCC using provisional data.

NOAA Regional Climate Centers

**Fig. 3. ACIS 7-day average precipitation anomaly for the period ending 20 May shows a continued wet pattern over parts of the Pacific Northwest. Except for isolated thunderstorm activity across the Southern Tier States, the West was dry.**

Ref: [http://www.hprcc.unl.edu/maps/index.php?action=update\\_product&product=PNorm](http://www.hprcc.unl.edu/maps/index.php?action=update_product&product=PNorm)

Weekly Snowpack and Drought Monitor Update Report

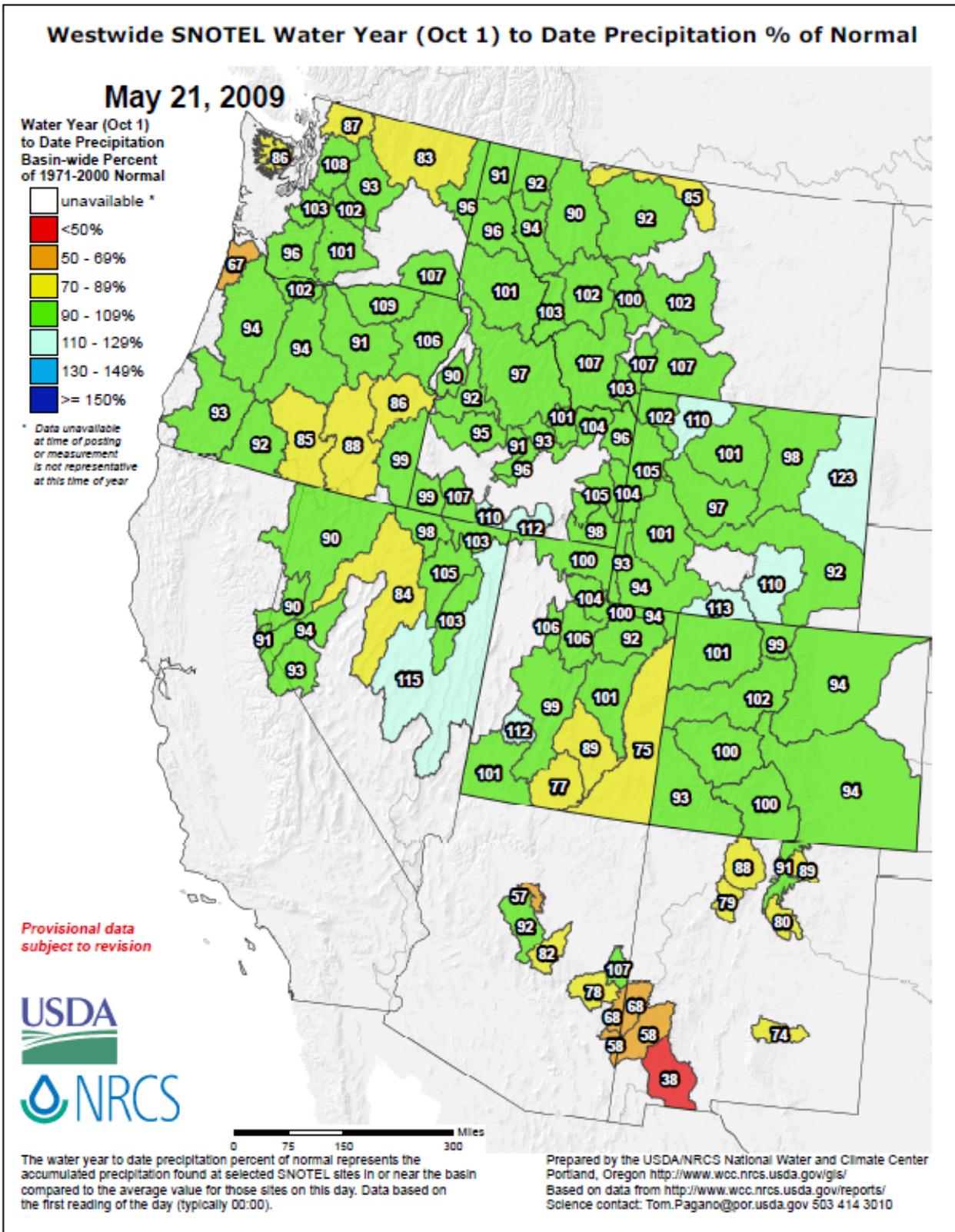
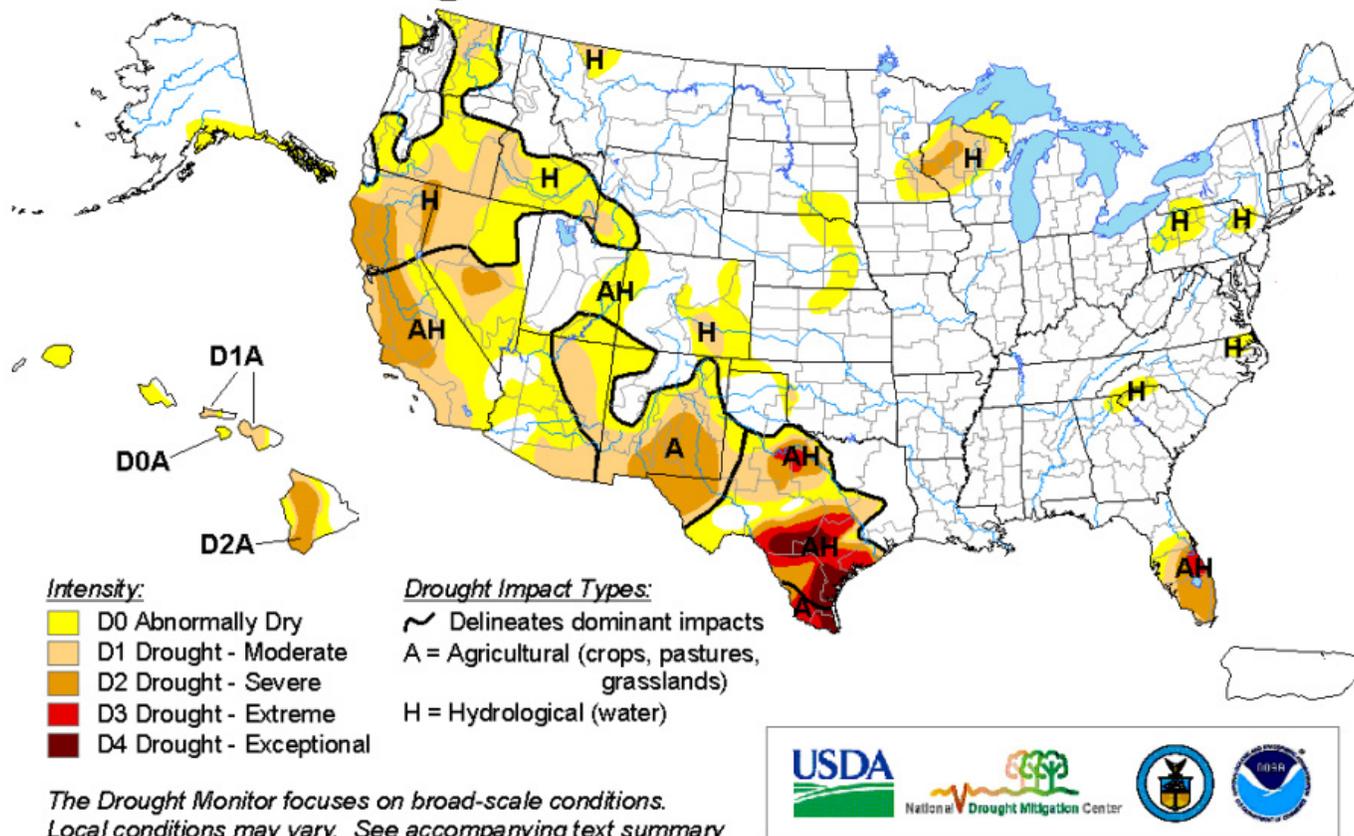


Fig 3a. Seasonal precipitation (rain & snow water equivalent) as a percent of normal for the 2009 Water Year that began on October 1, 2008 shows values within a few percentage points of last week's values. It is interesting to note that much of the West is within 15% of normal with the exception of southeast Utah and southwest New Mexico.

Ref: [ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/wytdprecpcnormal\\_update.pdf](ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/wytdprecpcnormal_update.pdf)

# U.S. Drought Monitor

May 19, 2009  
Valid 8 a.m. EDT



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

**Released Thursday, May 21, 2009**  
**Authors: Matthew Rosencrans, David Miskus, and Anthony Artusa, CPC/NOAA**

**Fig. 4. Current Drought Monitor weekly summary.**

Ref: National Drought Mitigation Center (NDMC) - <http://www.drought.unl.edu/dm/monitor.html>

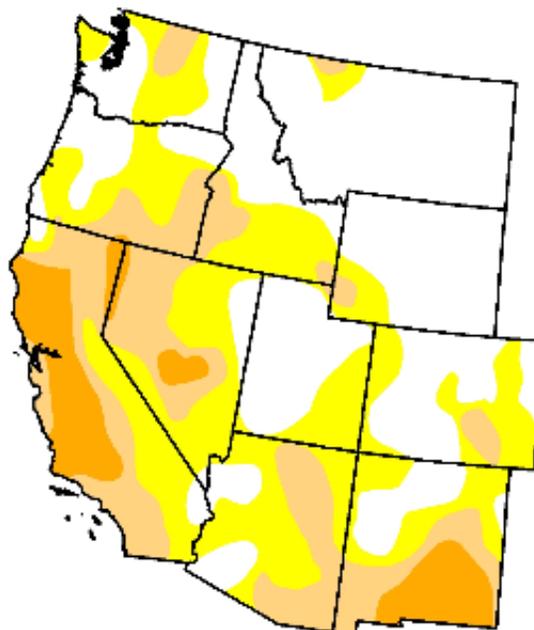
# U.S. Drought Monitor

## West

May 19, 2009  
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	42.8	57.2	27.2	8.2	0.0	0.0
Last Week (05/12/2009 map)	43.3	56.7	26.2	7.3	0.0	0.0
3 Months Ago (02/24/2009 map)	37.2	62.8	26.5	9.0	2.0	0.0
Start of Calendar Year (01/06/2009 map)	37.4	62.6	28.9	8.8	0.4	0.0
Start of Water Year (10/07/2008 map)	41.3	58.7	28.6	10.4	0.1	0.0
One Year Ago (05/20/2008 map)	32.8	67.2	34.5	6.8	0.2	0.0



***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, May 21, 2009**

Author: M. Rosencrans/D. Miskus/A. Artusa, CPC/NOAA

**Fig. 4a. Drought Monitor for the Western States with statistics over various time periods. Conditions have remained essentially unchanged during the past week.**

Ref: [http://www.drought.unl.edu/dm/DM\\_west.htm](http://www.drought.unl.edu/dm/DM_west.htm)

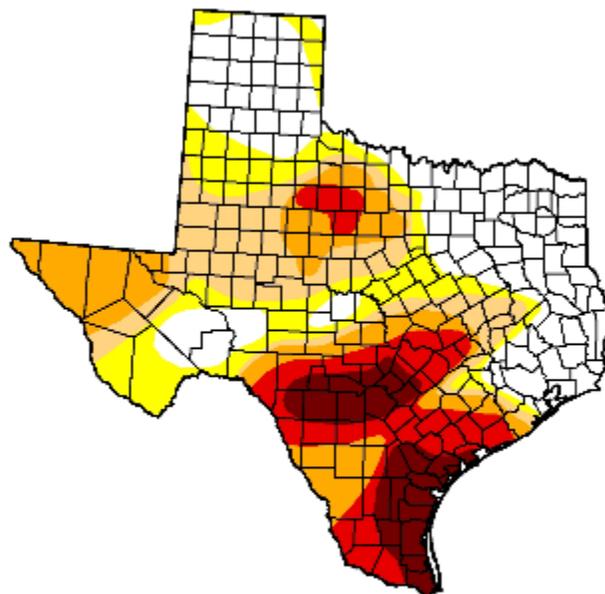
# U.S. Drought Monitor

## Texas

May 19, 2009  
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	31.9	68.1	51.9	36.3	20.5	8.5
Last Week (05/12/2009 map)	31.2	68.8	50.5	38.0	23.7	14.9
3 Months Ago (02/24/2009 map)	3.2	96.8	65.5	43.1	19.9	8.6
Start of Calendar Year (01/06/2009 map)	41.7	58.3	24.5	15.0	9.1	4.2
Start of Water Year (10/07/2008 map)	67.2	32.8	20.5	11.0	3.6	0.0
One Year Ago (05/20/2008 map)	47.2	52.8	42.1	20.3	1.9	0.0



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*



**Released Thursday, May 21, 2009**

**Author: M. Rosencrans/D. Miskus/A. Artusa, CPC/NOAA**

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

**Fig. 4b: Texas is the only state with D4 drought condition in the US. Note some improvement in D4 since last week. Ref: [http://www.drought.unl.edu/dm/DM\\_state.htm?TX,S](http://www.drought.unl.edu/dm/DM_state.htm?TX,S)**

### Drought Monitor Classification Changes for Selected Time Periods

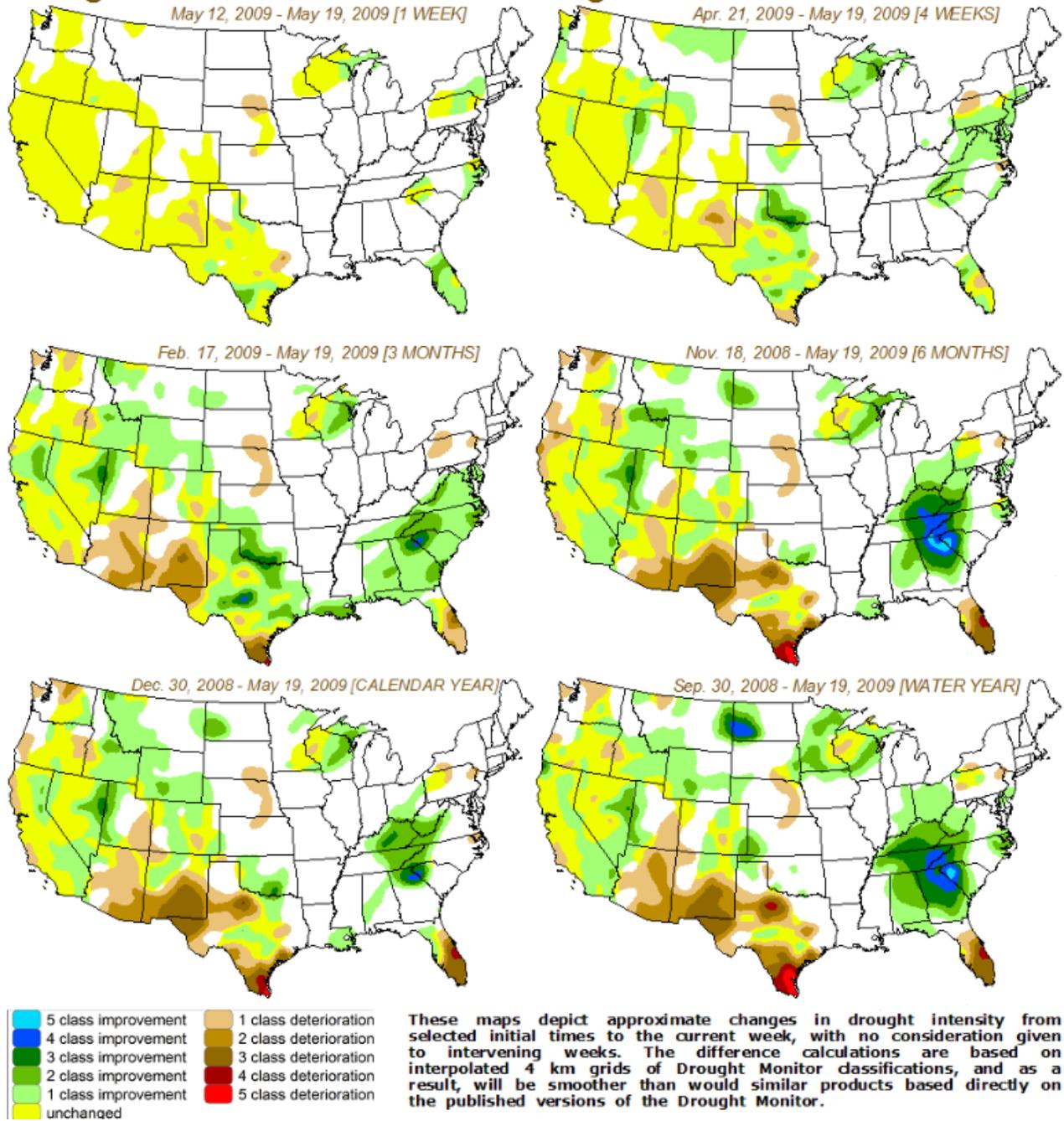
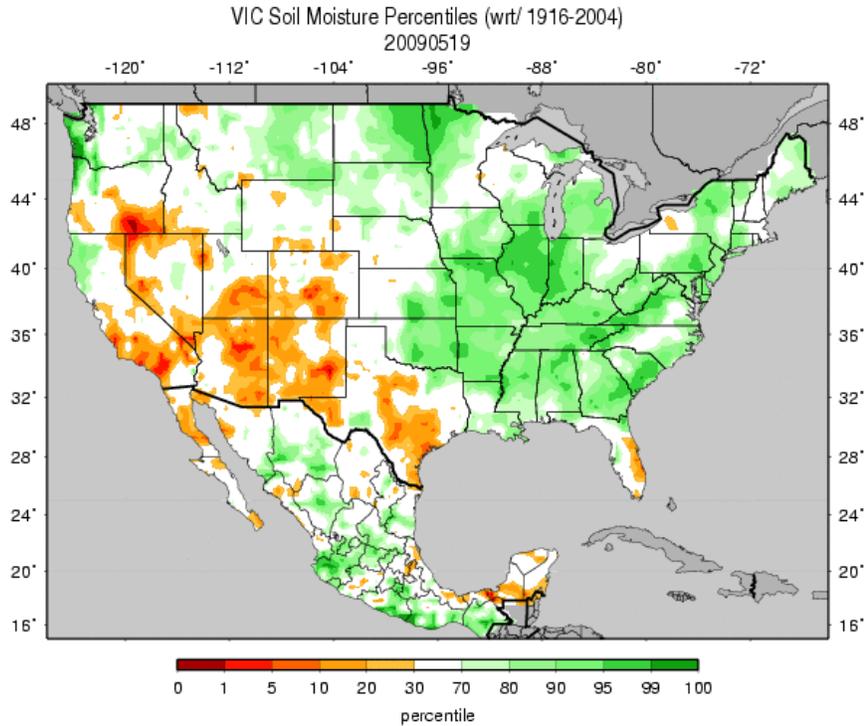


Fig. 4c: Drought Monitor category changes over various time periods. Note improvement over Florida during the past week. Ref:

<http://www.cpc.ncep.noaa.gov/products/predictions/experimental/edb/dm-change-4maps.png>

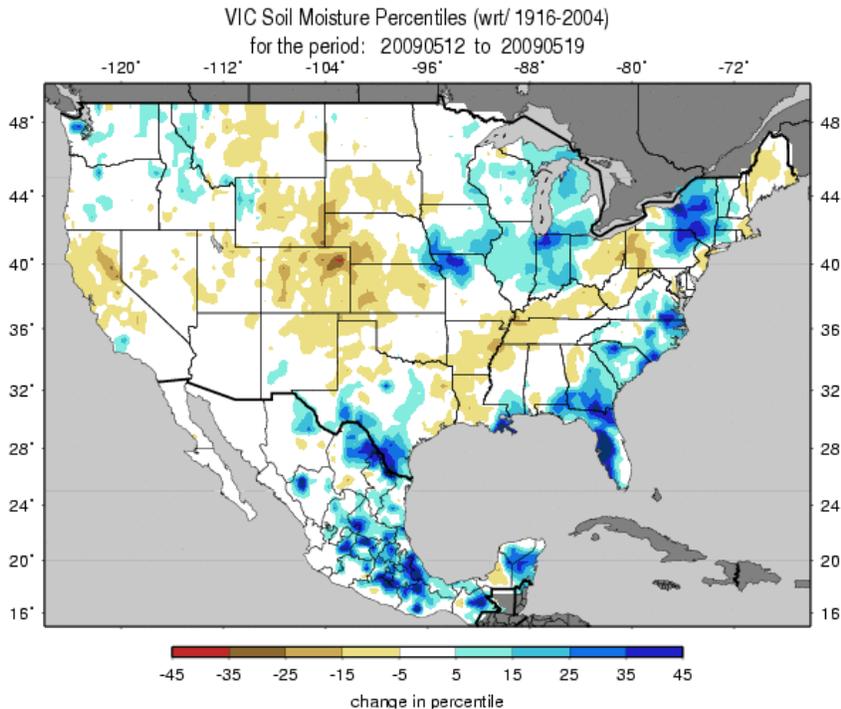
# Weekly Snowpack and Drought Monitor Update Report



**Figs. 5a:** Soil Moisture ranking in percentile based on 1916-2004 climatology as of 19 May. Near saturation exists over the Northern Plain and much of the mid-West while excessive dryness is scattered across the West from Texas to Oregon.

Ref:

[http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/CONUS.MEXICO.vic.sm\\_qnt.gif](http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/CONUS.MEXICO.vic.sm_qnt.gif)



**Figs. 5b:** Soil Moisture change in percentile based on 1916-2004 climatology for this past week. There was significant moistening over the East Coast, Central Great Lake States, southwestern Texas, and northern Missouri. Excessive dryness is noted over the Central High Plains and northern California. Ref:

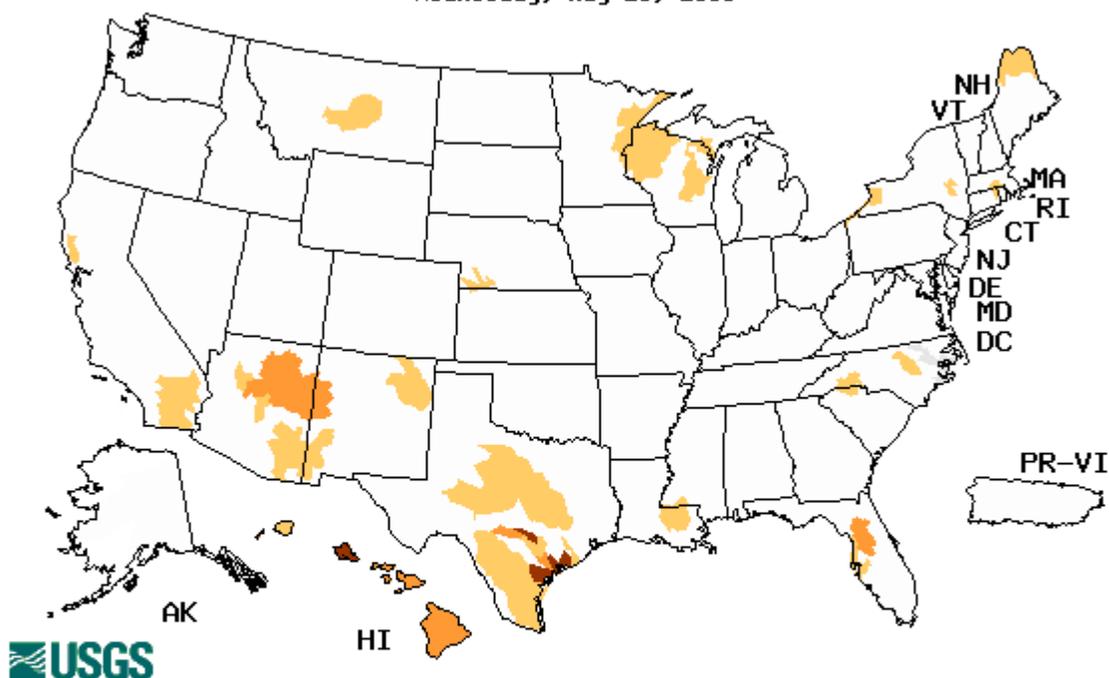
[http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/CONUS.MEXICO.vic.sm\\_qnt.1wk.gif](http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/CONUS.MEXICO.vic.sm_qnt.1wk.gif)



Fig. 6. Red Flag Warning areas  
 Ref: <http://fire.boi.noaa.gov/>

# Weekly Snowpack and Drought Monitor Update Report

Wednesday, May 20, 2009



Explanation - Percentile classes				
Low	≤5	6-9	10-24	Insufficient data for a hydrologic region
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

Fig. 7. Map of below normal 7-day average streamflow compared to historical streamflow for the day of year. Conditions are very poor over central Florida, southern Texas, and central Arizona during the past week. Ref: <http://water.usgs.gov/waterwatch/?m=dryw&w=map&r=us>

## Weekly Snowpack and Drought Monitor Update Report

### National Drought Summary – May 19, 2009

*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/>.*

During May 12-18, very wet and stormy conditions prevailed over the eastern half of the country. A slow moving frontal system tracked across the Central States early in the period and the Eastern States later in the period. The heaviest amounts of rain fell from eastern Oklahoma northeastward to the Ohio River Valley, on parts of New York and Pennsylvania, and also across parts of the Southeast. The southern end of the cold front brought some precipitation (up to 2 inches) across central Texas, bringing modest improvement to the region. Late in the period, an area of low pressure aloft and a stationary front brought as much as 5 to 10 inches of rain to northeast Florida, and significant amounts across most of the state. Over the Southwest, little to no precipitation and unseasonably hot temperatures dominated during the period. Weekly average temperatures ranged from 6 to 10 degrees F above normal, with highs in the triple digits as far north as northern California.

**Northeast and Mid-Atlantic, and Carolinas:** Two to four inches of rain fell across northeast Pennsylvania and southern New York, alleviating most of the D0 in the Northeast. D0(H) remained where lower precipitation amounts were reported (less than an inch), and year-to-date precipitation amounts were 50 to 75 percent of normal. Average USGS stream flows for latest 7, 14, and 28 days were still in the lower 25th percentile over northwest Pennsylvania and western New York.

In the Carolinas, another week of moderate to heavy (2-4 inches) rainfall in the drought areas further diminished D0(H) in western and eastern North Carolina, and western South Carolina. Reports from the Georgia State Climatologist indicated that Lake Lanier was still 6 feet below normal supporting D0(H) in northeast Georgia. In eastern North Carolina and the southern Appalachians, measured precipitation was a foot below normal for the past 12 months, and long-term blends supported the continuation of the drought.

**Florida:** After a very dry spring, the south Florida wet season began 9 days early, on May 11. Widespread showers and thunderstorms covered most of the state, bringing at least 1 inch of rain to the drought area. One to two category improvements were made from Fort Myers to Tampa to the I-4 corridor to Palm Coast, where 4 to locally 10 inches of rain fell. South of Lake Okeechobee, 2 to locally 6 inches of rain reduced drought by a category. The KBDI greatly improved, dropping from 600-800 before the onset of precipitation to 100-300 on May 19. Average stream flow values improved accordingly. Despite the recent wet weather, lower rainfall (1-2 inches) did not significantly mitigate the drought from Lake Okeechobee northward to Brevard County, and D3 remained. As of May 19, Lake Okeechobee was at 10.6 feet (2.64 feet below normal), finally rising after dropping since mid-September 2008. Heavy rains fell after the 12 UTC May 19 data cutoff, and further improvement will likely be shown next week.

**Midwest:** Light to moderate rains fell on the upper Midwest, with the heavier amounts (between 1.0 and 1.5 inches) occurring in eastern Wisconsin, the Upper Peninsula of Michigan, and northern Lower Michigan. The rains were enough to alleviate abnormal dryness

## Weekly Snowpack and Drought Monitor Update Report

in those three areas, but further west, larger deficiencies remained. At 30-, 60-, 90-, and 180-days, precipitation was still less than 70 percent of normal. Weekly rainfall amounts were less than 0.5 inches as the 7-, 14-, and 28-day average stream flows remained in the lowest quartile. The D2 region was shifted southwestward to better depict the driest area.

**The Plains:** Although an inch of rain fell on extreme eastern Nebraska, drier conditions to the west expanded the initial D0 area in Nebraska into southeastern South Dakota and north-central Kansas. Year-to-date deficits exceeded 6 inches in this region, although long-term (subsoil) moisture supplies were adequate. Impacts were negligible as the drier top soils allowed producers to make excellent planting progress. Toward the end of the week, hot weather (highs near 100 degrees F) accompanied the dryness, raising concerns of additional D0 in the western Corn Belt.

In the southern Plains, a cold front produced scattered showers and thunderstorms, some locally heavy, over southwestern Oklahoma and the eastern two-thirds of Texas, including far southern Texas. In Oklahoma, Roger Mills County finally received decent rains (1.26 inches) after missing out the past few weeks, improving conditions there. The SPI blend products from Texas A&M supported more improvement along the Red River, south-central Texas, and the Big Bend area. In the Red River region (Donley to Montague counties) 1 to 2 inches of rain provided additional relief from the drought. In south-central Texas (Webb to Gonzales counties), a convective line dropped 1.5 to 3 inches of rain, prompting improvement across the former D4 region. One to 1.5 inches of rain also eased drought in Starr and Zapata counties (near Laredo). In the Big Bend area (Pecos, Brewster, and Terrell counties) 1 to 1.5 inches of rain alleviated abnormal dryness there.

In contrast, a one-category degradation was made in the Texas Panhandle (Parmer to Garza counties) as dry and hot weather occurred during the normally wettest time of the year. A reassessment of SPI values suggested a westward shift in the core D2-D3 area in north-central Texas (centered over Haskell and Stonewall counties). The worst of the D4 area was centered over Aransas County where the Aransas County airport reported 14 percent of normal precipitation over the past 9 months (3.43 inches versus 25.07 inches normally). Since March 26 of 2009, the airport only measured 0.03 inches of rain, or 0.7 percent of normal! Since October 1, 2007, a total of 19 months, not counting this May, Aransas County airport has reported only 4 months with at least 50 percent of normal precipitation.

In New Mexico, continued hot and mostly dry weather further deteriorated conditions. Highs reached the century mark in many locations, and temperatures averaged 4 to 8 degrees F above normal. According to the NRCS, precipitation was well below normal since January across the southern third of the State. As of May 17, 92 percent of the state's top soil moisture, 62 percent of the total winter wheat, and 65 percent of the pastures and ranges were rated poor or very poor, respectively, by NASS/USDA. Accordingly, an expansion of D1 and D2 was made in southeastern New Mexico.

**The West:** An expansion of the D1(A) was made in Arizona, based on short-term blends, 14-30-, and 60-day precipitation totals, which were 2, 5, and 25-50 percent of normal, respectively. The Arizona expansion, which included the area between Phoenix and Flagstaff north to the Colorado River was also based on 90-, 180-, 360-day precipitation deficits (less than 25 percent of normal at 90 days, less than 70 percent of normal at 6 and 12 months). In eastern Utah (Ferron Creek and Moab), SWSI values near -2.0 led to an expansion of the D0 area.

A small reduction of the D1 area in southwestern Idaho was based on the short- and long-term drought blends, and Water Year-To-Date basin average precipitation which stood at 110 percent of normal. Stream flows are generally near to slightly above normal in this region.

## Weekly Snowpack and Drought Monitor Update Report

The rest of the West received little if any precipitation, but since that is not unusual for this time of the year, no changes were indicated.

**Hawaii and Alaska:** In Kauai, a late-season cold front dropped between 0.25 and 1.00 inch of rain on some spots, but nothing along the southwest (leeward) side. Average stream flows out through 28 days were in the lowest decile. Additionally, a USDA report from the island indicated that pasture conditions were starting to dry out earlier than normal for this time of year, prompting the introduction of D0 throughout Kauai. Elsewhere, light scattered windward showers maintained conditions.

In Alaska, light showers (less than 0.5 inch of rain) on top of 30- and 90-day observed precipitation deficits at Sitka (3.3/7.0 inches), Juneau (1.9/3.6 inches), and Yakutat (8.5/21.5 inches) did little to alleviate abnormal dryness throughout the Alaskan Panhandle. The exception was near Ketchikan, where 1-3 inches of rain fell.

**Looking Ahead:** During the next 5 days (May 21-25) a stationary front and an upper low will bring heavy rains to parts of Florida. This low is forecast to move westward into the Gulf, allowing Florida to dry out while soaking the central Gulf coast by the weekend. A pair of cold fronts will track across the northern tier of states, producing light to moderate rains, with possibly 2-4 inches from Wyoming to South Dakota. In the Four Corners region, scattered showers and storms will move into the area and increase in intensity and coverage. Warm and dry conditions are forecast for the Pacific Coast States.

The Climate Prediction Center 6-10 day forecast (May 26-30) calls for above-normal precipitation over the Gulf and Atlantic Coastal States (including Florida), and from western Texas and New Mexico northward through Colorado. Subnormal precipitation is expected across the Northwest, Great Basin, northern Plains and upper Midwest. Warmer than usual weather is forecast for the western third of the Nation, while subnormal readings are predicted for the Central and Southeastern U.S.

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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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