

# Water and Climate Update

July 21, 2016

The Natural Resources Conservation Service produces this weekly report using data and products from the <u>National</u> <u>Water and Climate Center</u> and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

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# NOAA: June marks 14 consecutive months of record heat



**July 19, 2016**: According to the National Oceanic and Atmospheric Administration (NOAA), June 2016 was 1.62 degrees F above the 20<sup>th</sup> century average, breaking last year's record for the warmest June by 0.04 degrees F. The average sea surface temperature was also at a record high in June. Thus far in 2016, the average global temperature was 1.89 degrees F above the 20<sup>th</sup> century average. In addition, this was the highest temperature for this 6-month period, surpassing the 2015 record by 0.36 degrees F. The period of record for the NOAA global temperature data is 137 years (1880). <u>Full Report >></u>

# Precipitation



### Last 7 Days, Western Mountain Sites (NRCS SNOTEL Network)

7-day precipitation percent of average map

See also: 7-day total precipitation values (inches) map

#### Alaska 7-day precipitation percent of average map

See also: <u>Alaska 7-day total</u> precipitation values (inches) map



Last 7 Days, National Weather Service (NWS) Networks Centers

Source: Regional Climate

7-day precipitation percent of normal map for the continental U.S.

See also: 7-day total precipitation values (inches) map

Percent of Normal Precipitation (%)7/14/2016 - 7/20/2016



Generated 7/21/2016 at HPRCC using provisional data.

Regional Climate Centers

#### Month-to-Date, All Available Data Including SNOTEL and NWS Networks Source: PRISM



average map

See also: Month-to-Date national total precipitation values (inches) map



Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)

2016 water year-to-date precipitation percent of average map

See also: 2016 water yearto-date precipitation values (inches)



Alaska 2016 water year-to-date precipitation percent of average map

See also: <u>Alaska</u> 2016 water year-to-<u>date precipitation</u> values (inches) map

## Temperature

Last 7 Days, National Weather Service (NWS) Networks Centers Source: Regional Climate



### Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM





### Last 3 Months, All Available Data Including SNOTEL and NWS Networks Source: PRISM

# Drought

U.S. Drought Monitor See map below. U.S. Drought Portal Comprehensive drought resource.



### **Changes in Drought Monitor Categories over Time**

Click any map to enlarge







Changes in drought conditions over the last 12 months

### Current National Drought Summary, July 19, 2016

#### Author: Chris Fenimore, NOAA/NESIS/NCEI

"This week's USDM period (ending on July 19) was characterized by typical hit and miss summer-time shower activity across the country, punctuated by extreme heat in the Southern Plains and the Northeast. The heaviest rains fell in southern Minnesota, southwest Iowa, much of Indiana and eastern Illinois, western Kentucky, eastern North Carolina, along the Gulf Coast and Florida. Below normal precipitation was observed in eastern Texas, northern Wisconsin, Pennsylvania, and New England. A strong ridge over the southern Plains contributed to abnormally warm temperatures in New Mexico and Texas during the period. Daily maximum temperatures soared well into the triple digits, as much as 10 degrees F above normal in the area. While not as intense, temperatures 6-8 degrees F above normal were observed in the Northeast. Cooler-than-normal temperatures encapsulated much of the Northwest and High Plains."



### USDA 2016 Secretarial Drought Designations

### Highlighted Drought Resources

- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

### **Other Climatic and Water Supply Indicators**

### **Soil Moisture**



<u>Modeled soil moisture percentiles</u> as of July 16, 2016.

### Soil Moisture Data: NRCS Soil Climate Analysis Network (SCAN)



Soil moisture (at 2-, 4-, 8-, 20-, and 40-inch depths) and precipitation for the past 30 days at the <u>Abrams</u> <u>SCAN site 2092</u> in Kansas. The precipitation events over the last month have had no impact on the 40inch volumetric water content. Smaller precipitation events did not affect the 8-inch and 20-inch sensors, but the large precipitation event on July 2-3 did increase soil moisture at these depths. Sensors at 2 inches and 4 inches were impacted by most precipitation events over the month.

#### **Soil Moisture Data Portals**

<u>CRN Soil Moisture</u> <u>Texas A&M University North American Soil Moisture Database</u> <u>University of Washington Experimental Modeled Soil Moisture</u>

### Streamflow

Source: USGS

ER-VI



PR-VI

Click to enlarge and display legends

Current streamflow maps

### **Current Reservoir Storage**

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National Water and Climate Center Reservoir Data

#### U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions:

Upper Colorado Pacific Northwest/Snake/Columbia Sevier River Water, Utah Upper Missouri, Kansas, Oklahoma, Texas

California Reservoir Conditions



### Wildfires: USDA Forest Service Active Fire Mapping

# Short- and Long-Range Outlooks

### **Agricultural Weather Highlights**

Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

National Outlook, July 21, 2016: "Following a brief bout with heat and humidity, the northern Plains and Midwest should experience temperatures mostly below 90°F next week. The relief, in the wake of a cold front's passage, will include lower temperatures and humidity levels—starting during the weekend across the northern Plains and upper Midwest and spreading throughout the Midwest early next week. Heat will linger, however, in the South and further build across the West. Meanwhile, 5-day rainfall totals could reach 1 to 3 inches, with locally higher amounts, in the Midwest. Locally heavy showers will also dot the Southeast and Southwest, while mostly dry weather will cover California, the Northwest, and the south-central U.S. The NWS 6- to 10-day outlook for July 26 – 30 calls for near- to above normal temperatures nationwide, with the greatest likelihood of hot conditions occurring in the eastern and western U.S. Meanwhile, below-normal rainfall across the lower Southeast and most areas from the High Plains westward will contrast with wetter-than-normal weather in the Desert Southwest; a broad area stretching from the mid-South into the Mid-Atlantic States; and the north-central U.S., including the Dakotas."

### Fire Potential Outlook: August 2016



NWS Climate Prediction Center Weather Hazard Outlook: July 23 - 27, 2016





### Seasonal Drought Outlook: July 21 - October 31, 2016

### **NWS Climate Prediction Center 3-Month Outlook**



August-September-October (ASO) 2016 precipitation outlook summary HEREE-MONTH LERIO VALUD RSD 2016

**Temperature** 

August-September-October (ASO) 2016 temperature outlook summary

# **More Information**

The NRCS <u>National Water and Climate Center</u> publishes this weekly report. We welcome your feedback. If you have questions or comments, please <u>contact us</u>.