

Water and Climate Update April 25, 2019

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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Wet winter eliminates extreme drought in the U.S.



The U.S. is currently drought-free in 85.88 percent of the country. The area in extreme or exceptional drought is 0.0, the smallest since the U.S. Drought Monitor began in 2000. California has been declared drought-free for the first time since December 2011. The U.S. had a record wettest six months of any year in 2018, and just had one of the top ten wettest January – March to start 2019. From the current <u>Drought Monitor Summary</u> "With near- to record wetness in many parts of the country this winter and in 2018, the April 16 USDM had the lowest percent of area in drought (D1-D4) for the lower 48 States (3.73%) and all 50 States (3.78%) since the inception of the U.S. Drought Monitor in 2000, surpassing the previous low drought standard of May 23, 2017. In fact, no dryness/drought (D0-D4) in both the lower 48 (85.88%) and all 50 States (87.06%) also set record low values last week. With more wet weather over D0-D2 areas this week, new USDM record lows will most-likely be set."

Related:

Lowest percent of US in drought since 2000 – High Plains Journal Drought Coverage in the Continental U.S. Drops to a 21st Century Record Low – The weather channel Salt Lake City nears end of drought as precipitation levels cross spring average - KSL.com (UT) After 7 years, California drought is officially over. - Good Magazine Hard to Believe, But There Are Still Dry Areas on the Drought Monitor - AgWEB National Drought Summary for April 23, 2019 – US Drought Monitor

Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



<u>Snow water</u> <u>equivalent percent of</u> <u>median map</u>

See also:

<u>Snow water</u> equivalent values (inches) map



Alaska snow water equivalent percent of median map

See also:

Alaska snow water equivalent values (inches) map

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Current Snow Depth

Source: National Weather Service Snow Analysis



Precipitation

Last 7 Days, 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: Alaska 7-day total precipitation values (inches) map



Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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





Generated 4/25/2019 at HPRCC using provisional data.



Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

<u>7-day precipitation</u> <u>anomaly map</u> for Alaska.

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



Generated 4/25/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers











Water Year-to-Date, NRCS SNOTEL Network



2019 water year-to-date precipitation percent of average map

See also: 2019 water year-todate precipitation values (inches) map

Alaska 2019 water yearto-date precipitation percent of average map

See also: Alaska 2019 water year-todate precipitation values (inches) map

Temperature

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for the contiguous U.S.

See also: 7-day temperature (° F) map Departure from Normal Temperature (F) 4/18/2019 - 4/24/2019



Generated 4/25/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

See also: 7-day temperature (°F) map



Generated 4/25/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers



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





Drought

U.S. Drought Monitor

Source: National Drought Mitigation Center

U.S. Drought Portal





Current National Drought Summary, April 25, 2019

Source: National Drought Mitigation Center

"A series of storm systems moved quickly across the lower 48 States until reaching the East Coast as a strong ridge of high pressure over the western Atlantic Ocean blocked their eastward progression. Due in part to this slowdown, severe weather and heavy rainfall occurred in portions of the southern Great Plains, lower Mississippi Valley, Southeast, and mid-Atlantic during April 17-19. Moderate to heavy precipitation (1.5-4 inches) also occurred over the western Great Lakes region, Tennessee and central Ohio Valleys, parts of New England, and northwestern Washington. Light to moderate precipitation (0.5-2 inches) was widespread in the Northwest, eastern Great Basin, northern and southern thirds of the Rockies, northern Plains, and the eastern third of the Nation. Only portions of the Southwest, central Rockies and Plains, and western Corn Belt saw little or no precipitation. Weekly temperatures averaged above-normal for much of the contiguous U.S., except for subnormal readings across the Southeast and western and southern Alaska. Light to moderate precipitation along the southern and southeastern Alaskan Coast and light showers on the windward side of the Hawaiian Islands maintained conditions in both states. Changes were made in Puerto Rico as spotty heavy showers provided some relief to short-term D0 and D1 areas, but where the rains missed, some deterioration occurred."

Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center



6 Months



Changes in drought conditions over the last 12 months for the contiguous U.S.

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 •

Secretarial Drought Designations

Source: USDA Farm Service Agency



Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction



Modeled soil moisture percentiles as of April 20, 2019

Soil Moisture Percent of Saturation

Source: NRCS SNOTEL and Soil Climate Analysis Network (SCAN)



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Soil Moisture Data

Source: NRCS Soil Climate Analysis Network (SCAN)



This graph shows the precipitation and soil moisture for the last 30 days at the <u>Monocline Ridge SCAN site</u> <u>2217</u> in California. Precipitation on April 15 and 16 totaled 0.25 inches, slightly increasing the soil moisture at all sensor depths over the next few days.

Soil Moisture Data Portals

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

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey



Map of flood and high flow conditions

(14 in major flood, 34 in moderate flood, 109 in minor flood, 102 in near flood)

Explanation - Percentile classes						
<95	95-98	>= 99	Above Above A action stage	Above moderate flood stage	Above major flood stage	
∆ Streamgage with flood stage O Streamgage without flood stage						

WaterWatch: Streamflow, drought, flood, and runoff conditions

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



April 1, 2019 Reservoir Storage: Chart | Dataset

Hydromet Tea Cup Reservoir Depictions

Source: U.S. Bureau of Reclamation

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

Current California Reservoir Conditions

Source: California Department of Water Resources



Current California Reservoir Conditions

Short- and Long-Range Outlooks

Agricultural Weather Highlights

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

National Outlook, Thursday, April 25, 2019: "A low-pressure system currently centered over the mid-South will cross the Ohio Valley on Friday and reach northern New England by late Saturday. Subsequently, a cool weather pattern will develop across the North, while warmth will linger across the nation's southern tier. Several fast-moving disturbances will move eastward across the country, traversing the boundary between warm and cool air. Five-day rainfall totals could reach 1 to 2 inches or more in many areas east of the Rockies, while mostly dry weather will prevail in the Pacific Coast States, the Desert Southwest, and the Rio Grande Valley. Some snow may fall on April 26 on the northern Plains and on April 27 in the upper Midwest. The NWS 6- to 10-day outlook for April 30 – May 4 calls for the likelihood of near or below-normal temperatures on the Plains and throughout the North, while warmer-than-normal weather will prevail in the Southeast, Southwest, and much of California. Meanwhile, near- or above-normal precipitation across most of the country will contrast with drier-than-normal conditions in the Pacific Northwest."

Weather Hazards Outlook: April 27 – May 1, 2019

Source: NOAA Climate Prediction Center



Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center



Seasonal Drought Outlook: <u>April 18 – July 31, 2019</u> Source: National Weather Service



Climate Prediction Center 3-Month Outlook

Source: National Weather Service



May-June-July (MJJ) 2019 precipitation and temperature outlook summaries

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>.