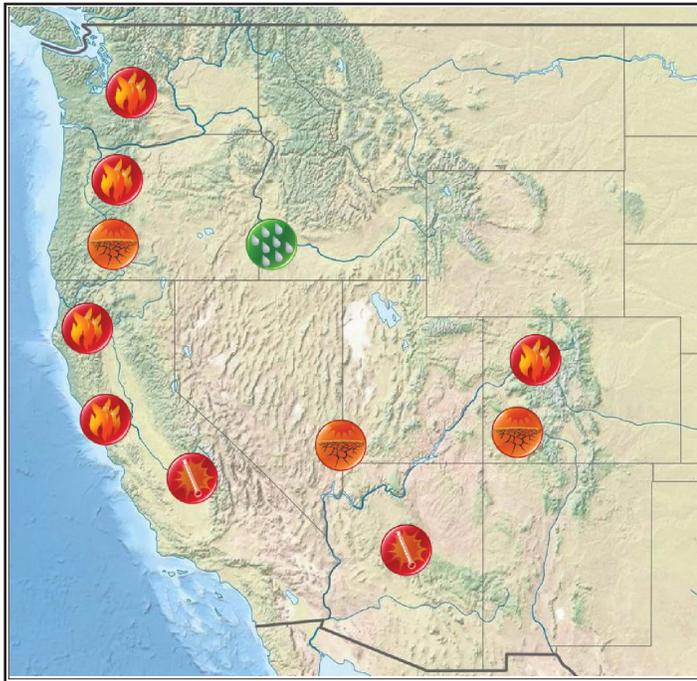




Significant Events for Jun-Jul-Aug 2020

Jun-Jul-Aug Highlights



Inactive Southwestern Monsoon resulted in well below average precipitation in Four Corners region: AZ saw its driest summer on record; NM had its 2nd driest summer on record.



Above normal temperatures across much of West: AZ recorded its warmest summer on record; NM recorded its 2nd warmest summer on record; CO recorded its 3rd warmest summer on record; CA, NV, AZ, NM, UT, and CO all recorded warmest August on record.



Warmer and drier than normal conditions led to expansion of drought conditions: 17% of West in extreme or exceptional drought as of August 25.



Rare mid-August thunderstorm event driven by moisture from post-Tropical Storm Elida in central and northern CA ignited 362 fires.

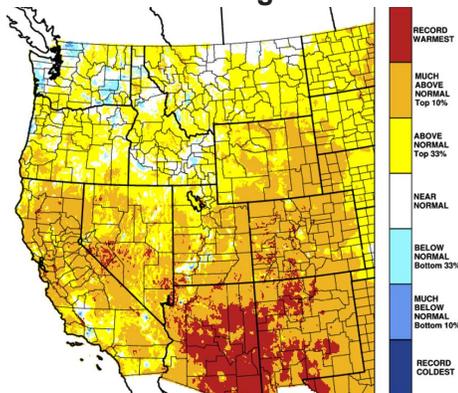


La Niña conditions developed in August and likely to persist into autumn and winter.



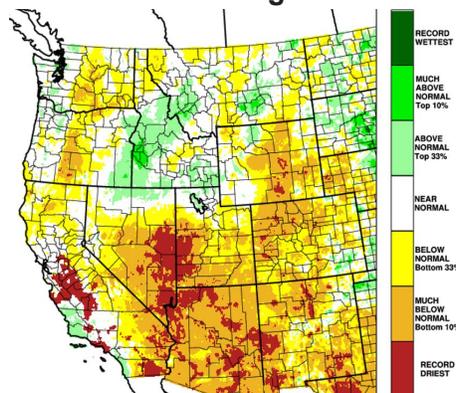
Regional Overview for Jun-Jul-Aug 2020

Mean Temperature Percentile Jun-Jul-Aug 2020



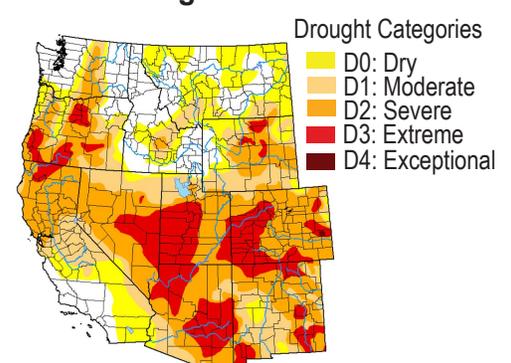
Summer temperatures were well above normal in CA, NV, the Four Corners and WY. Pacific Northwest and MT temperatures were near normal or above normal with a few small pockets below normal. Summer temperatures statewide for AZ were the warmest on record and August was notably warm across the region with record warmth for CA, NV, AZ, NM, UT, and CO.

Precipitation Percentile Jun-Jul-Aug 2020



Large areas of the West observed a drier than normal summer with southeast CA into AZ being the driest. This is the second year in a row with "missing" monsoon rains; AZ saw record low summer precipitation in 2019 and then broke that record again in 2020. The northern Great Basin into parts of MT was one area with above normal precipitation.

US Drought Monitor August 25 2020



At the end of the summer season, 67% of the West was experiencing moderate or worse drought conditions with large areas of extreme drought (17%). The Four Corners states, NV, CA, OR, and WY all show some area of extreme drought. Most of the AZ, UT, and southern NV drought developed over the summer due to lack of monsoon rains.

Regional Impacts for Jun-Jul-Aug 2020

Drought, Water Resources

After a hot and dry summer, Lake Powell is at 48% full; April-July inflows were 52% of normal.

Drought in Colorado has led to limited hay supplies forcing ranchers to sell livestock at low prices.

In Southwest Colorado, water diversions from the Rio Grande River were suspended to prevent the river from running dry due to drought conditions.

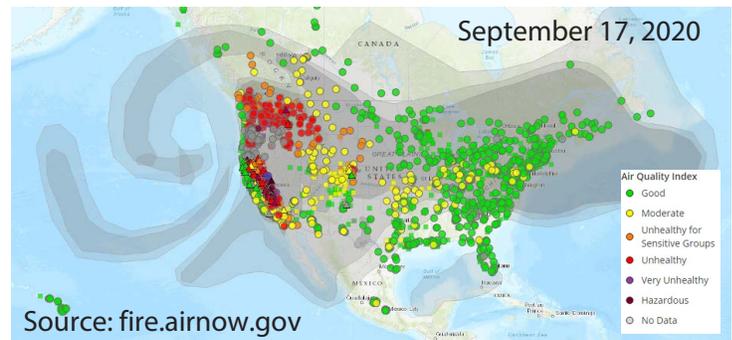
In central Oregon, some farmers had irrigation water cut off leading to a need to purchase hay for livestock

Wildfire

Rare dry thunderstorm event impacted central and northern CA. During a 3-day period 8,532 lightning strikes were detected that ignited 362 new fires. As of September 17, 2020, the August Complex is the largest fire in CA's history having burned 839,175 acres.

Approximately 40,000 people in Oregon forced to evacuate homes and businesses due to wildfires; approximately 500,000 Oregonians (10% of state population) were in locations that could potentially have to evacuate.

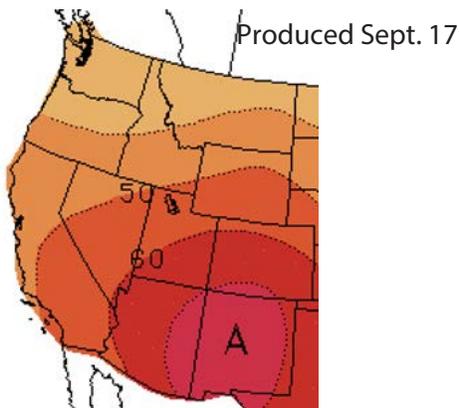
Widespread and Long Duration Dense Wildfire Smoke



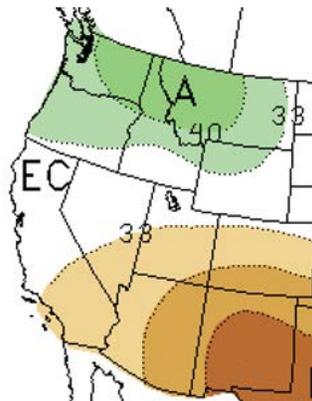
Wildfire season in the West had a sharp ramp up in the second half of summer due to a combination of drought, lightning, and strong wind events. Numerous large and destructive fires have been occurring in CA, OR, WA, and CO. Massive amounts of smoke are being transported long distances leading to degraded air quality across the entire United States. PM 2.5 air quality index values due to smoke has been impacting much of the West since mid-August reaching the hazardous category for parts of CA, NV, OR, and WA on frequent days and with at least poor conditions persisting locally for days or weeks. This has led to closures of schools, cancellations of outdoor events, and respiratory health impacts.

Regional Outlook for Oct-Nov-Dec 2020

CPC Temperature Outlook



CPC Precipitation Outlook



A = Above normal B = Below normal EC = Equal chances. Numbers indicate percent chance of temperatures in warmest/coolest one-third and precipitation in wettest/driest one-third.

Above-normal temperatures are expected for the entire region for Oct-Dec. The highest probabilities (60%-80%) for above-normal temperatures are in the Four Corners. Above-normal precipitation is expected for the Pacific Northwest into the Northern Rockies with below-normal precipitation in southern CA and NV, and the Four Corners. This precipitation pattern going into winter is common during La Niña years and prediction tools used to generate the CPC outlooks are producing these patterns due to the La Niña conditions that are present which developed in August.

Western Region Partners

- Western Regional Climate Center
wrc.dri.edu
- National Integrated Drought Information System (NIDIS) - drought.gov
- Western Governors' Association
westgov.org
- Western States Water Council
westgov.org/wswc
- NOAA/ESRL Physical Sciences Division
esrl.noaa.gov/psd
- NOAA Climate Prediction Center
www.cpc.ncep.noaa.gov
- National Centers for Environ. Info. (NCEI)
www.ncdc.noaa.gov
- USDA/NRCS National Water and Climate Center - www.wcc.nrcs.usda.gov
- National Interagency Fire Center
www.nifc.gov
- Western Water Assessment
wwa.colorado.edu
- Climate Assessment for the Southwest
climas.arizona.edu
- California Nevada Applications Program
cnap.ucsd.edu
- Climate Impacts Research Consortium
pnwclimate.org/resources
- NWS Western Region Forecast Offices
www.wr.noaa.gov/