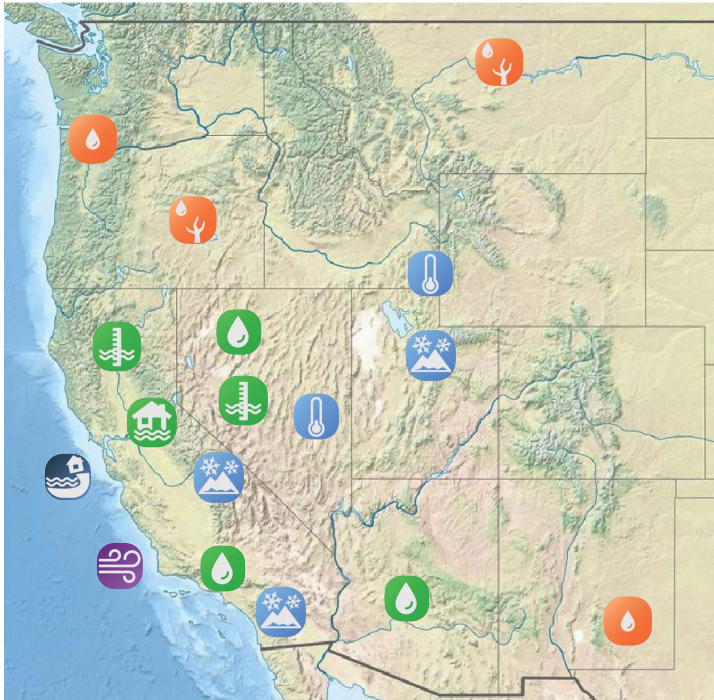










## Significant Events for Dec-Jan-Feb 2023

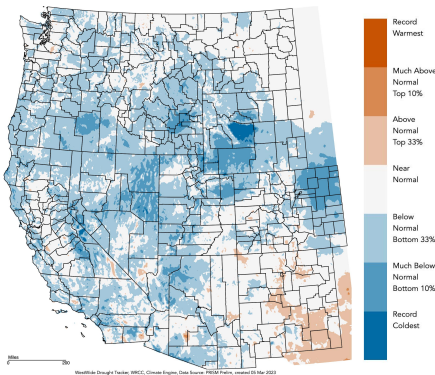
### Dec-Jan-Feb Highlights



-  Much above normal precipitation throughout CA, the Great Basin, and parts of CO River Basin
-  Strong storms in December and January brought extreme precipitation, flooding, and coastal damage to parts of CA
-  Below normal temperatures across nearly all of the West; coldest winter in decades for some
-  Much above normal snowpack across CA, the Great Basin, and parts of the Upper CO River Basin
-  Persistent winter storms brought major improvements to reservoir levels and surface water supply throughout CA and Great Basin
-  La Niña conditions weakened throughout the winter with ENSO neutral conditions favored for spring and early summer

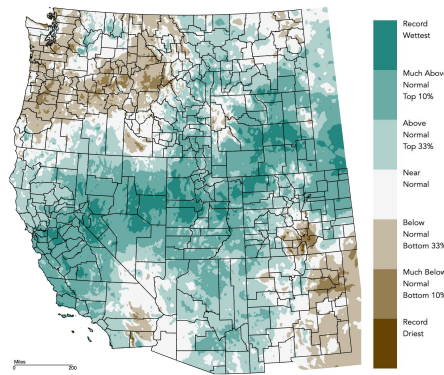
## Regional Overview for Dec-Jan-Feb 2023

### Mean Temperature Percentile Dec-Jan-Feb 2023



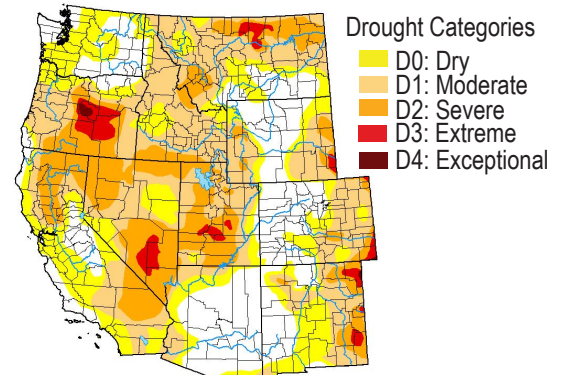
Temperatures were below normal across nearly the entire West with the exception of parts of southeast New Mexico. The Great Basin and parts of the northern Rockies saw the coldest temperatures relative to normal with departures of 3-5 degrees Fahrenheit below normal. For California and Nevada this was the coldest winter since 2008.

### Precipitation Percentile Dec-Jan-Feb 2023



A series of atmospheric rivers from late-December through mid-January brought heavy precipitation to California, the Great Basin, and parts of the northern Rockies where total winter precipitation was record high in some instances. Parts of Washington, Oregon, Idaho, Colorado, and New Mexico remained dry and saw winter precipitation totals in the bottom ten percent of all years.

### US Drought Monitor February 28 2023



Over 54% of the western U.S. was in drought at the end of winter, with only 3% in extreme to exceptional drought. This is the lowest extent of drought coverage for the west since mid-2020. California saw the greatest drought reductions with locations going from exceptional drought (D4) at the start of the winter to no drought by the end of winter.

## Regional Impacts for Dec-Jan-Feb 2023

### Flooding and Storm Impacts

Weeks of heavy rainfall in California, with little break from late December through mid-January, caused major flooding and over 500 landslides were reported by the California Geological Survey. At least 20 deaths were reported due to the severe weather and related impacts.

### Recreation and Tourism

Heavy snow, 4-6 feet or more in some locations, and blizzard conditions in the San Bernardino Mountain in southern California left many tourists and residents stranded for days. Several fires started in the region due to fractured natural gas lines.

### Drought and Water Supply

Water levels in Lake Mead and Lake Powell remain critically low with the reservoirs at 28% and 23% of capacity, respectively. Forecasted April-July inflows into Lake Powell are 125% of normal which is good news but won't be nearly enough to eliminate water supply concerns for the region.

### Strong Early January Storms bring Major Coastal Impacts to California



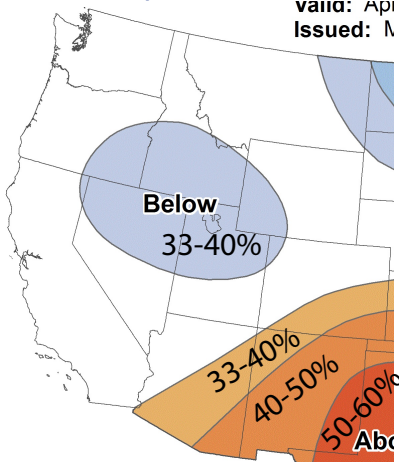
Image:  
Damaged Capitola, CA Wharf on 5 January, 2023.  
Credit: Nic Coury/AP

A series of strong winter storms with heavy rainfall (more than 20 inches in less than three weeks for some), high winds, and large ocean waves that coincided with high tides caused major flooding and damage to areas of California's central coast. Capitola, just to the east of Santa Cruz, was hit particularly hard with many oceanfront properties and businesses severely damaged including the 166-year-old Capitola Wharf. Initial estimates of damage in Santa Cruz County came in at \$36 million.

## Regional Outlook for Apr-May-Jun 2023

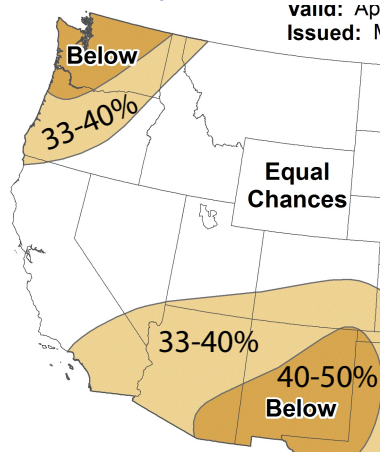
### CPC Temperature Outlook

valid: Apr  
Issued: Mar 15, 2023



### CPC Precipitation Outlook

valid: Apr  
Issued: Mar 15, 2023



Numbers indicate percent chance of temperatures in warmest/coolest one-third and precipitation in wettest/driest one-third. Outlook produced March 15, 2023.

The CPC outlook for April-June favors above normal temperatures in New Mexico and parts of Arizona and Colorado with odds slightly favoring below normal temperatures in much of the Great Basin and eastern Montana. Below normal precipitation is favored in Washington, Oregon, northern Idaho and much of the Southwest with equal chances of above or below normal precipitation in most of California, the Great Basin, and Rockies. Dry and warm conditions in Arizona and New Mexico could lead to abundant growth of fine fuels after a very wet winter and raises concerns for spring wildfire potential in the region.

## Western Region Partners

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