Nevada State Climate Office

Quarterly Report & Outlook January - March 2021



Photo by A. Csar





The water year started warm and dry after a hot-dry summer and a generally warm and dry spring. A cool, wet winter and early spring would have helped mitigate drought conditions across the state. Unfortunately, that did not come to pass for for most of us, so drought expanded and deepened. Exceptional (D4) Drought now extends across 40% of the state.

Temperatures were relatively close to the long-term (1981-2010) winter average, with scattered warm and cool areas. As is usually the case, though, seasonal averages hide more interesting variability. January was warmer than normal across most of the state, but temperatures were near normal in Clark, southern Nye and Lincoln counties. Temperatures were close to average in February, and March was cooler than usual over much of the state.

Southern Nevada received less than half of the expected late-winter precipitation. February was particularly dry, with less than 5% of the average precipitation across much of Clark and Lincoln counties. Winter was also dry in the Upper Colorado River Basin, which supplies most of Las Vegas' water.

Northeast and north-central Nevada were luckier. with precipitation and snowpacks that were close to normal. That was a help, but because last spring and summer dried soils out and fall was not wet, vegetation could suffer.

Dry conditions may limit grass growth, which could reduce the risk of fire at lower-elevations, but woody plants and dead plant material are drying out early. This could increase fire risk in forest and sagebrush ecosystems, perhaps leading to early-season fires. You can learn mores about wildfire outlooks prepared by the National Interagency Fire Center Predictive Services Unit at https://www.predictiveservices.nifc.gov/outlooks/outlooks.htm

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The CPC seasonal outlook suggests that a warmer than normal spring is most likely across most of the state, with the potential for drier than normal conditions in the northernmost part of the state. In southern Nevada, there is a 56% chance of above normal temperatures from April - June and only an 11% chance of below normal temperatures. There are roughly equal chances of above, below, or near normal spring precipitation. Further north, there are 40 to 50% chances that spring will be warmer than normal, and a dry spring is increasingly likely, particularly in the northeast. Near Elko, for example, there is a 55% chance that precipitation will be less than normal and only a 12% chance that spring will be wetter than normal. At any rate, it looks like drought will be with us through the spring, unless we're very lucky. In northern Nevada, the summer is typically quite dry, so it would be unusual to get enough rain to resolve drought conditions. Southern Nevada can get summer precipitation from the North American monsoon. The 2020 monsoon didn't really pan out -- Dr. Matt Lachniet at UNLV referred to it as a "nonsoon" in an interview with the Las Vegas Sun. This year, there is a

glimmer of hope. The July - September forecast suggests that the monsoon may be relatively wet. *July - September*

The La Niña that developed this fall remained in place through March. It is likely to weaken, shifting to neutral or normal conditions in the spring, but there is some indication that La Niña may develop again in the autumn.

Projections are from the NOAA Climate Prediction Center (https://www.cpc.ncep.noaa.gov/products/predictions/ 90day/), and more information about El Niño-Southern Oscillation conditions are available at https://www.cpc.ncep. noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.shtml.

Stay on top of drought conditions

The US Drought Monitor has tracked drought since 2000, and it has become a key tool for managing and responding to drought. Every week, one member of the small but dedicated author team takes the lead on compiling the map, with contribution from scientists across the nation. Data is collated and evaluated, and comments let the contributors know where the classification is on point, and where another look at the data is warranted. So, if you have drought on your mind (and who in Nevada doesn't these days), you can stay on top of current conditions at the Drought Monitor, where a new map is published every Thursday. If you're curious about what goes into making the map, check out What is the USDM? Want to contribute your observations (we really ap-

preciate it!) or look at what others are experiencing? The Conditions Monitoring Report provides an easy way to do both. Finally, Living with Drought at the University of Nevada Extension has great resources for dealing with drought, whether you're a rancher, homeowner outdoor enthusiast, or all of the above.



