

**DOUGLAS A. DUCEY**  
Governor



**THOMAS BUSCHATZKE**  
Director

**ARIZONA DEPARTMENT of WATER RESOURCES**  
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May 17, 2016

Mr. Hunter Moore, Natural Resources Policy Advisor  
Office of Governor Douglas Ducey  
1700 West Washington Street  
Phoenix, Arizona 85007

**Re: Recommendation to Maintain the Drought Emergency Declaration PCA99006 and  
Drought Declaration issued by Executive Order 2007-10**

Dear Mr. Moore,

This letter provides the spring 2016 update on Arizona's drought conditions and recommendation to the Governor from the Drought Interagency Coordinating Group (ICG). The ICG is an advisory body to the Governor, composed of state, federal, tribal and non-governmental organizations. This group meets in the spring and fall to evaluate drought conditions and provide recommendations to the Governor regarding emergency declarations due to drought.

The updates presented at the May 17, 2016 ICG meeting confirmed that Arizona remains in a long-term drought, with most of the state experiencing moderate drought conditions. Based on the information presented at the meeting, the Drought Interagency Coordinating Group unanimously recommends that the state's Drought Emergency Declaration (PCA99006) and Drought Declaration for the State of Arizona (Executive Order 2007-10) be continued. No further action is required to maintain both declarations already in place.

Sincerely,

A handwritten signature in blue ink, which appears to read "Thomas Buschatzke".

Thomas Buschatzke, ICG Co-chair  
cc: Wendy Smith-Reeve, ICG Co-chair

Enclosures:

- ICG Meeting Summary
- PCA99006 Drought Emergency Declaration
- Executive Order 2007-10 Drought Declaration for the State of Arizona



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## Drought Interagency Coordinating Group Meeting Summary - May 17, 2016

### Presentations

- 1. Drought Status Update and Activities of the Drought Monitoring Technical Committee (MTC)**  
*Nancy Selover, State Climatologist, ASU Faculty and Co-Chair of the MTC*
- 2. Weather Outlook and El Niño Update**  
*Mark O'Malley, Lead Forecaster and Climate Specialist, NWS and Co-Chair of the MTC*
- 3. Colorado River - Water Supply Update**  
*Don Gross, Arizona Department of Water Resources*
- 4. Salt & Verde Watersheds - Water Supply Update**  
*Charlie Ester, Salt River Project*
- 5. Update on the Governor's Water Initiative**  
*Gerry Walker, Arizona Department of Water Resources*
- 6. Wildfire Outlook and Update on the Four Forest Initiative**  
*Jeff Whitney, Arizona State Forestry*

### Key Points

#### 1. Drought status

This winter's El-Niño did not perform as anticipated and provided below average precipitation. The long-term drought status looks the same as it did one year ago. The improvements gained in the summer and early winter were reversed due to generally poor winter precipitation. Most of the state continues to experience abnormally dry conditions, while the Verde River watershed is in moderate drought. Short-term drought conditions had improved during the first wetter half of winter (Oct.-Dec.), but then worsened again due to a drier than average second half of winter (Jan.-Apr.). As of May, most of the state is in moderate drought and the Verde River Watershed is in severe drought as can be seen in the table below.

<b>Long-term Drought Status as of March 31, 2016</b>	
No drought	15%
Abnormally dry	22%
Drought moderate	59%
Drought severe	5%

This is the sixth consecutive dry winter within the Salt and Verde watersheds and the fifth consecutive dry winter in the Colorado River Basin. Snowpack accumulated during the first few months of winter quickly melted during the warmer and drier months that came right after. Early winter precipitation greened up grasses for a short period before warm temperatures dried them out again, potentially leading to a very busy fire season. Drought conditions will likely exacerbate during the next few months until the monsoon season starts.

## 2. Weather outlook

El-Niño conditions will decay through the summer eventually becoming neutral and providing little to no influence on Arizona's monsoon season. The official Climate Prediction Center summer outlook predicts better odds for above normal temperatures, though there are equal chances for above, below, or near average precipitation. A changing regional climate may be a better predictor for future summer monsoon seasons where hotter temperatures and more extensive thunderstorms become more common. There are mixed signals with respect to snow cover, drought, and east pacific sea surface temperatures and how they may affect the monsoon season. There appears to be no tilt in odds towards above or below normal Pacific hurricane activity, which would potentially bring moisture to Arizona.

The predominance of models suggests a 60%-70% chance that La-Niña conditions will develop by late fall and winter. There is low confidence on strength, but odds are slightly higher for a warmer and drier winter (40%) as oppose to the odds for a cooler and wetter winter (27%). In the past ten years, a larger majority of the state's precipitation has occurred during the summer months and we have not received as much snowpack during the winter seasons. Climate models further show that Arizona is likely to receive less snowfall on average in the future, and more precipitation during the summer.

## 3. Fire outlook

This year's fire conditions are lining up similarly to 2002 and 2011, which were both extremely busy wildfire seasons. Hotter than average late-winter temperatures prematurely melted snowpack in many basins, exposing vegetation, which increase the risk for fires. Fuel loads are heavy and much work needs to be done to thin the threat in the forests and in the wildland-urban interface. Recent warm and windy conditions have already led to numerous wildfires. From January 1 to May 9, 2016 there have been 476 wildfires, consuming about 29,000 acres of Arizona land. Since then, there were a few large wildfires at the eastern part of the state, and as temperatures are warming up, wildfire activity starts showing in the Central Highlands and Colorado Plateau, until the monsoon onset. Drought impacts will have to be carefully monitored, as fuels and fire potential will respond to changes in drought conditions.

## 4. Reservoir status

The Colorado River Basin is experiencing a 16-year drought, which is the driest in historical record dating back to 1906. The average April through July inflow into Lake Powell for the period 2000 to 2015 has been only 5.54 MAF. This is about 1.6 MAF less than the 1981 - 2010 period average inflow of 7.16 MAF. As of May 1<sup>st</sup>, the Colorado River reservoirs system storage was at 48% of total system capacity, similarly to last year's capacity at this time. Lake Powell and Mead storage was at 45% and 37% capacity, respectively. Early winter showed promising precipitation and snowpack accumulations, but February and March were dry across most of the upper and lower basins, and then April, though usually not wet, provided a decent amount of moisture and some additional snowpack.

The United States Bureau of Reclamation's April projections show a 10% probability of a Tier 1 shortage in the Lower Basin in 2017 and a 56% probability of Tier 1 shortage in the Lower Basin in 2018. A Tier 1 shortage — 320,000 acre-feet reduction to Arizona — would be taken by the Central Arizona Project (CAP). CAP water deliveries would not be reduced to Indian, Municipal, Industrial or Non-Indian Agricultural Priority users. However, all "other excess" deliveries would be curtailed, and deliveries to CAP's agriculture pool would be reduced by about 50%.

This is the sixth year that the Salt and Verde watersheds experienced below median winter runoff. The Salt and Verde reservoir levels have remained approximately the same as this time last year, at about 56% of normal, due to reduced demand and the conjunctive use of groundwater to meet demand. If projections for very low inflow hold, this consecutive six-year period will be the driest six-year period on record (1913-2016).

## 5. Recommendation

The updates confirmed that Arizona remains in long-term drought that is expected to continue, and the Drought Interagency Coordinating Group unanimously recommends that both drought declarations be kept in place.

The meeting summary and presentations are posted on the [ADWR drought website www.azwater.gov](http://www.azwater.gov).