

DOUGLAS A. DUCEY
Governor



THOMAS BUSCHATZKE
Director

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November 30, 2015

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 the Drought Declaration issued by Executive Order 2007-10

Dear Mr. Moore,

This letter provides the fall 2015 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 November 10, 2015 ICG meeting confirmed that Arizona remains in long-term drought, with most of the state experiencing abnormally dry to moderate drought conditions. Although El Niño should continue to help alleviate drought conditions, extended years of normal or above normal precipitation are needed to alleviate the effects of the long-term drought conditions experienced over most of the state.

Based on this information, 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, appearing to read "Tom Buschatzke", with a long horizontal flourish extending to the right.

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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ARIZONA DEPARTMENT of WATER RESOURCES
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Drought Interagency Coordinating Group Meeting Summary - November 10, 2015

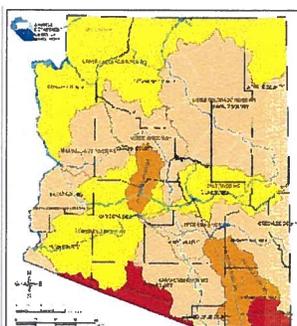
Presentations

1. 2105 Drought Status and Activities of the Drought Monitoring Technical Committee (MTC)
Nancy Selover, State climatologist, ASU faculty and co-chair of the MTC
2. 2015-2016 Weather Outlook and El Niño Update
Mark O'Malley, Lead forecaster and climate specialist, NWS and co-chair of the MTC
3. Water Supply Update
Tom Buschatzke, Director, Arizona Department of Water Resources
4. 2015 Wildfire Summary and 2016 Outlook
Jeff Whitney, State forester, Arizona State Forestry
5. Forest and Woodland Health
Bob Celaya, Forest health specialist, Arizona State Forestry
6. Disaster Designations Related to Drought
Ryan Hunt, GIS specialist, USDA Farm Service Agency

Key Points

1. Drought status

Arizona has been easing out of drought for the past two years, moving from several watersheds in severe to extreme drought in 2013 to only one watershed in moderate drought this year. Both winter and summer of 2015 were wetter than in 2014, however, similar to last year, snow accumulation was well below normal across most of the state.



October 2013
Long Term Drought Status



October 2014
Long-term Drought Status



October 2015
Long-term Drought Status

Category
No Drought
D0 - Abnormally Dry
D1 - Moderate Drought
D2 - Severe Drought
D3 - Extreme Drought
D4 - Exceptional Drought

While the drought appears to be easing, it is not over. More than two-thirds of the state is abnormally dry or in moderate drought, reservoirs are only approximately half full, and every Arizona county had a disaster designation during water year 2015. Furthermore, groundwater recovery is relatively slow, and it will take several years of above average precipitation to break the grip of the drought that is approaching 21 years.

2. Weather Outlook:

Strong El Niño conditions are currently in place, and the Climate Prediction Center's outlook for winter 2016 (January through March) indicates a better than 95% chance that these conditions will continue into the spring. This means a very high probability for a wetter than average winter and more rainfall days than usual. Mountain snowfall, however, may or may not be above average. The official outlook for winter temperatures shows equal chances for above, below or near normal temperatures.

The Climate Prediction Center's outlook for summer 2016 (June through August) shows better chances that the average temperature during these three months will be above normal statewide. This outlook is based primarily on recent trends over the past 10 years (climate change) versus the longer term 30-year average. The precipitation outlook shows no discernible signal during this period. This is very typical for Arizona's monsoon season where thunderstorm activity is usually localized and not influenced by larger-scale climate signals.

3. Water Supply Update

The current Colorado River reservoir system storage stands at 51% of total system capacity as of November 8, 2015, which is approximately the same as last year's capacity (50%). For water year 2015, the Colorado River Basin had near average stream flow into Lake Powell (94%), below average snow accumulation, and 91% of average cumulative precipitation.

In April 2015, Reclamation's official projection for a 2016 shortage declaration for the Lower Colorado River Basin was 33%. The projection was lowered to 1% after unusually high precipitation in May. The August forecast shows a 0% chance of a shortage declaration in 2016 and an 18% chance of a shortage declaration in 2017.

This is the fifth consecutive year that the Salt and Verde watersheds experienced below median winter runoff. The Salt and Verde reservoirs remain at the same levels as this time last year, approximately 49% full. This is due to the use of groundwater to meet demand, a fairly active monsoon season, and a general decrease in demand.

4. Fire Outlook

Due to the moist conditions, water year 2015 was similar to 2014—a light year for fires. The above average rainfall has resulted in an abundance of continuous fine fuels in general across the state. Forests, woodlands and deserts are likely to exhibit increased fuel loads in 2016, which could potentially lead to a busy wildfire season, depending on weather patterns from April to June. Extreme fire danger continues to be a threat in forests due to the extreme density of trees.

5. Forest Health

The overall increased precipitation and high humidity had wide ranging impacts on Arizona forests. While the rainfall was welcome, it promoted the widespread expansion of non-native and invasive plants during the summer, and hail in early July caused damage to trees over a wide area. 2015 saw an increase in defoliating insect and fungi activity in several areas of the state, however, bark beetle activity was lower than it has been over the past several years.

6. Range and Farmland

The impact of drought on range and farmland resulted in USDA disaster designations for all counties in the state. Drought conditions affected dryland farming and irrigation water supply resulting in crop loss, reduced rangeland water supply (from wells, ponds, springs and creeks), and reduced forage supply. Forage capacity is considerably low because rainfall did not occur at the opportune time for forage growth and because of die-off of sod base due to the prolonged drought. Resulting livestock reductions were due to both a lack of forage production and a carryover from the long-term drought.

Summary and Recommendation

The updates confirmed that Arizona remains in long-term drought, with most of the state experiencing abnormally dry to moderate drought conditions. Although El Niño will continue to help alleviate drought conditions, extended years of normal or above normal precipitation are needed to alleviate the effects of the long-term drought conditions experienced over most of the state. Based on this information, the Drought Interagency Coordinating Group unanimously recommends that both drought declarations, PCA99006 and Executive Order 2007-10, be kept in place.

IN ACCORDANCE WITH ESTABLISHED EMERGENCY PROCEDURES

WHEREAS, precipitation throughout the State of Arizona during the past several months has been significantly below normal; and

WHEREAS, the lack of precipitation has significantly reduced stream flows in the State's interior basins and reduced surface and groundwater supplies upon which citizens and commerce of the State are dependent; and

WHEREAS, the lack of precipitation has created drought conditions throughout rural areas of the State with no near-term relief; and

WHEREAS, the drought endangers the crops, property, and livestock of a considerable number of the citizens throughout the State of Arizona; and

NOW, THEREFORE I, Jane Dee Hull, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and Laws of the State, do hereby determine that the lack of precipitation has and will continue to have an adverse impact on the citizens of the State and that a declaration of drought emergency is justified, and I hereby:

- a. Activate the State of Arizona Emergency Response and Recovery Plan
- b. Invoke A.R.S. § 26-309 to provide mutual aid assistance to stricken areas of the State

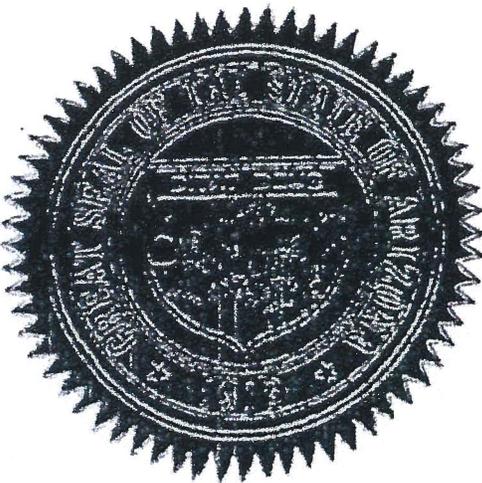
IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona

Jane Dee Hull
GOVERNOR

DONE at the Capitol in Phoenix on this twenty-third day of June in the Year One Thousand Nine Hundred and Ninety-nine and of the independence of the United States of America the Two Hundred and Twenty-third.

ATTEST:

Betty Bayless
Secretary of State



Executive Order 2007-10
Drought Declaration For The State of Arizona

WHEREAS, Arizona is entering its second decade of a statewide drought due to long-term precipitation deficits and increased demand for water; and

WHEREAS, on June 23, 1999, Governor Hull declared a drought emergency (PCA 99006), which remains in effect today; and

WHEREAS, drought conditions continue to stress Arizona's resources and have had significant impacts on the citizens and commerce of the state, including increases in wild land fires, water supply shortages, vegetation and wildlife mortality, and economic losses in the ranching, agriculture and tourism sectors; and

WHEREAS, climate research has shown that although droughts lasting multiple decades are common in Arizona, they may be intensified by the effects of global climate change;

NOW, THEREFORE I, Governor Janet Napolitano, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of the state, do hereby determine that a continued declaration of drought is justified, and I hereby:

- A. Order continued implementation of the *Arizona Drought Preparedness Plan and State of Arizona Emergency Response and Recovery Plan*;
- B. Order the continued invocation of A.R.S. § 26-309 to provide mutual aid assistance to stricken areas of the state;
- C. Request assistance from the federal government for the appropriate federal disaster programs;
- D. Order state agencies to implement their water use reduction plans and assist in drought planning efforts across the state;
- E. Urge water facilities to develop and implement more aggressive drought and conservation plans and monitor water use; and
- F. Call upon citizens, businesses, schools, institutions of higher learning, local governments and federal agencies to increase water conservation efforts.

THIS ORDER supplements the directives in PCA 99006, which remains in effect. This Executive Order shall take effect immediately and shall remain in effect until such time as the Governor rescinds it.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona.


GOVERNOR



DONE at the Capitol in Phoenix on this *21st* day of May in the Year Two Thousand and Seven and of the Independence of the United States of America the Two Hundred and Thirty-First.

ATTEST:


SECRETARY OF STATE