

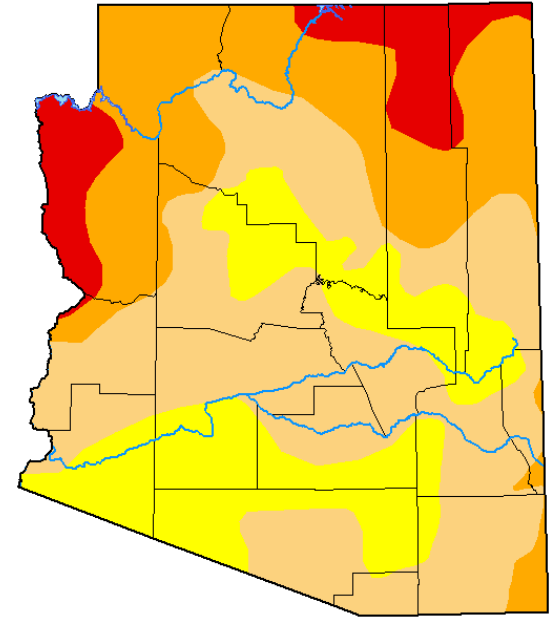
# Drought Monitoring Technical Committee Update to the Arizona Interagency Coordinating Group

November 10, 2021

Erinanne Saffell, Ph.D.  
Arizona State Climate Office

Arizona State University

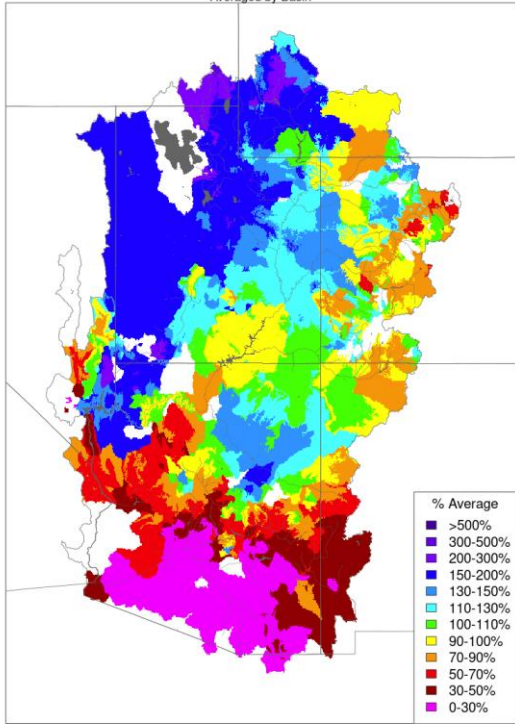
## U.S. Drought Monitor Arizona



USDA NDMC IACG NWS  
November 2, 2021  
Released Thursday, Nov. 4, 2021  
Valid 8 a.m. EDT  
droughtmonitor.unl.edu

# Colorado Basin

Seasonal to Date Precipitation, October 01 - October 31 2021  
Averaged by Basin

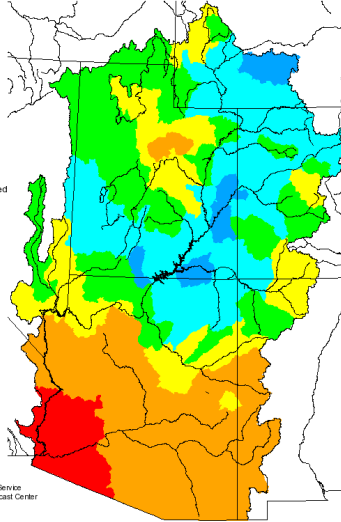


Prepared by NOAA, Colorado Basin River Forecast Center  
Salt Lake City, Utah, www.cbrfc.noaa.gov

Seasonal Precipitation, October 2015 - April 2016  
(Averaged by Hydrologic Unit)

**% Average**

- > 150%
- 129 - 150%
- 110 - 129%
- 100 - 109%
- 90 - 99%
- 70 - 89%
- 50 - 69%
- < 50%
- Not Reported

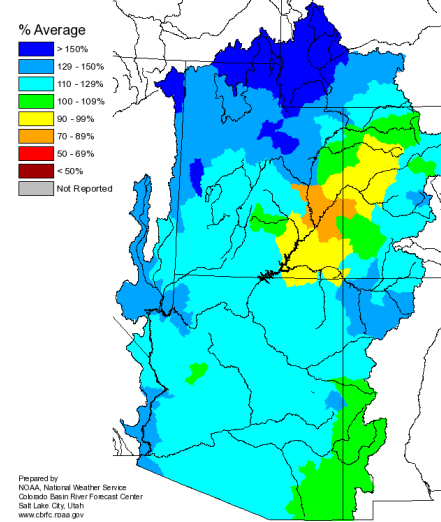


Prepared by NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
www.cbrfc.noaa.gov

Seasonal Precipitation, October 2016 - April 2017  
(Averaged by Hydrologic Unit)

**% Average**

- > 150%
- 129 - 150%
- 110 - 129%
- 100 - 109%
- 90 - 99%
- 70 - 89%
- 50 - 69%
- < 50%
- Not Reported

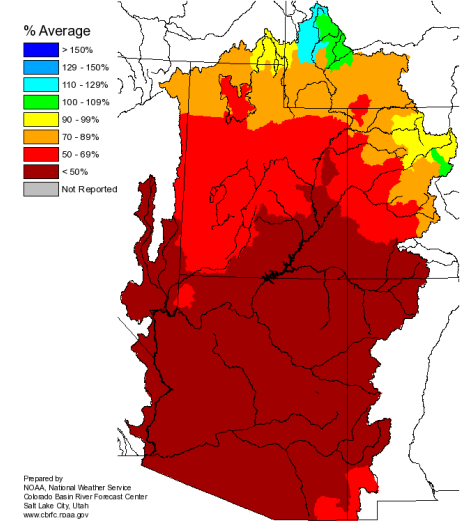


Prepared by NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
www.cbrfc.noaa.gov

Seasonal Precipitation, October 2017 - April 2018  
(Averaged by Hydrologic Unit)

**% Average**

- > 150%
- 129 - 150%
- 110 - 129%
- 100 - 109%
- 90 - 99%
- 70 - 89%
- 50 - 69%
- < 50%
- Not Reported

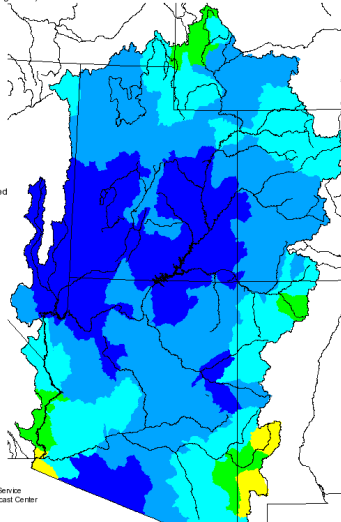


Prepared by NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
www.cbrfc.noaa.gov

Seasonal Precipitation, October 2018 - April 2019  
(Averaged by Hydrologic Unit)

**% Average**

- > 150%
- 129 - 150%
- 110 - 129%
- 100 - 109%
- 90 - 99%
- 70 - 89%
- 50 - 69%
- < 50%
- Not Reported

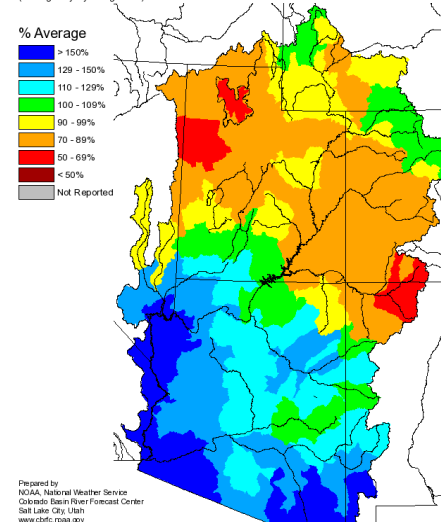


Prepared by NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
www.cbrfc.noaa.gov

Seasonal Precipitation, October 2019 - April 2020  
(Averaged by Hydrologic Unit)

**% Average**

- > 150%
- 129 - 150%
- 110 - 129%
- 100 - 109%
- 90 - 99%
- 70 - 89%
- 50 - 69%
- < 50%
- Not Reported

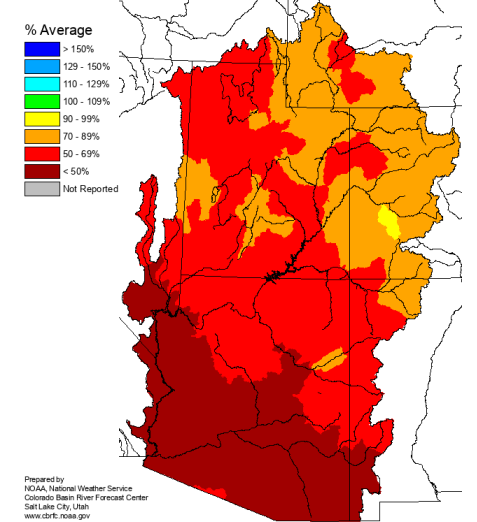


Prepared by NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
www.cbrfc.noaa.gov

Seasonal Precipitation, October 2020 - March 2021  
(Averaged by Hydrologic Unit)

**% Average**

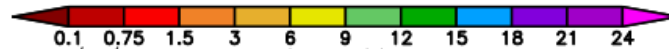
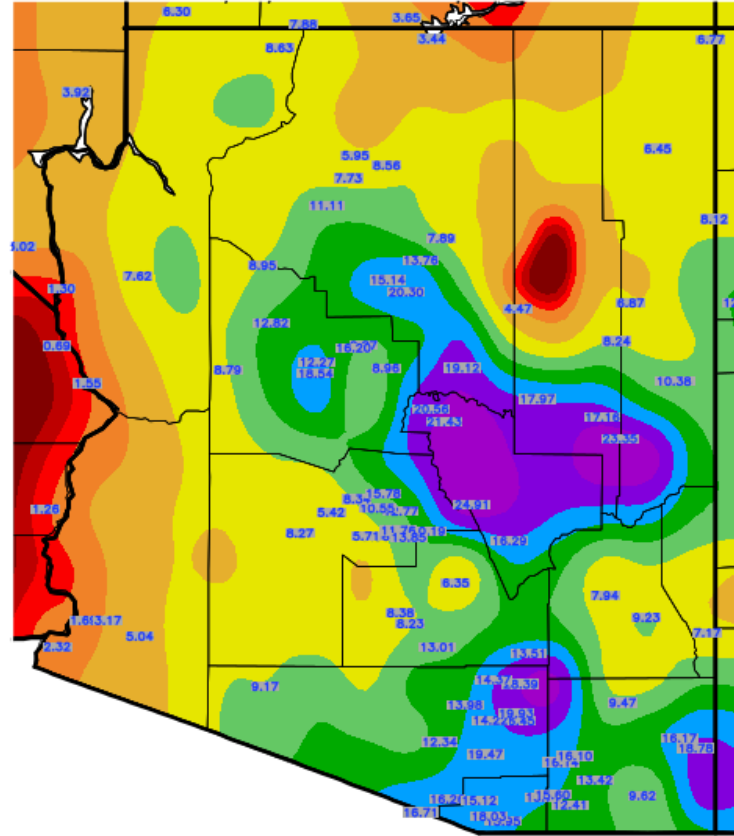
- > 150%
- 129 - 150%
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- < 50%
- Not Reported



Prepared by NOAA, National Weather Service  
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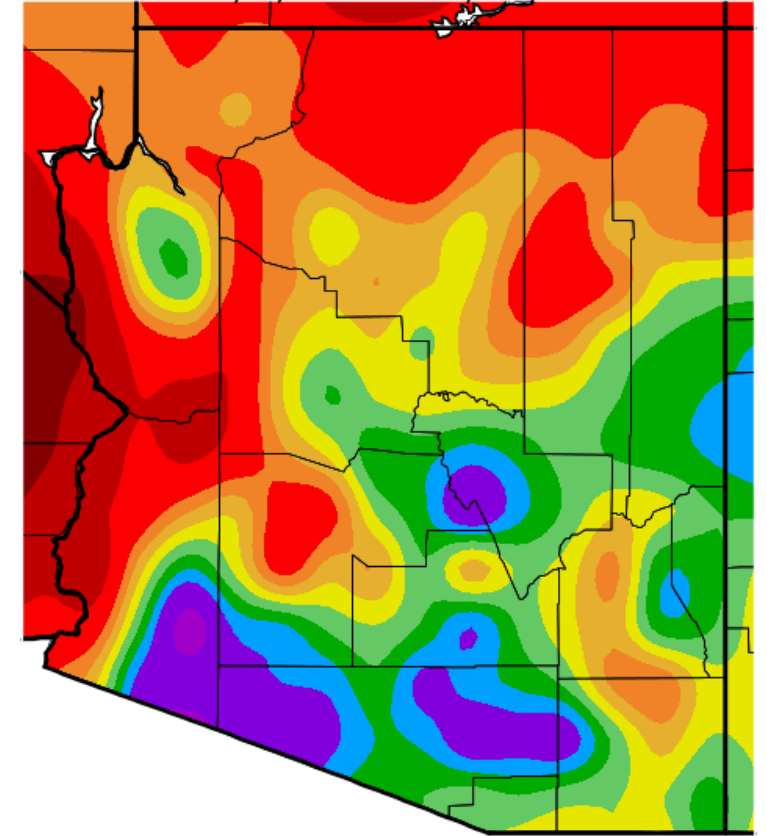
# WY2021 precipitation

Total Precipitation (in.)  
10/1/2020 – 9/30/2021



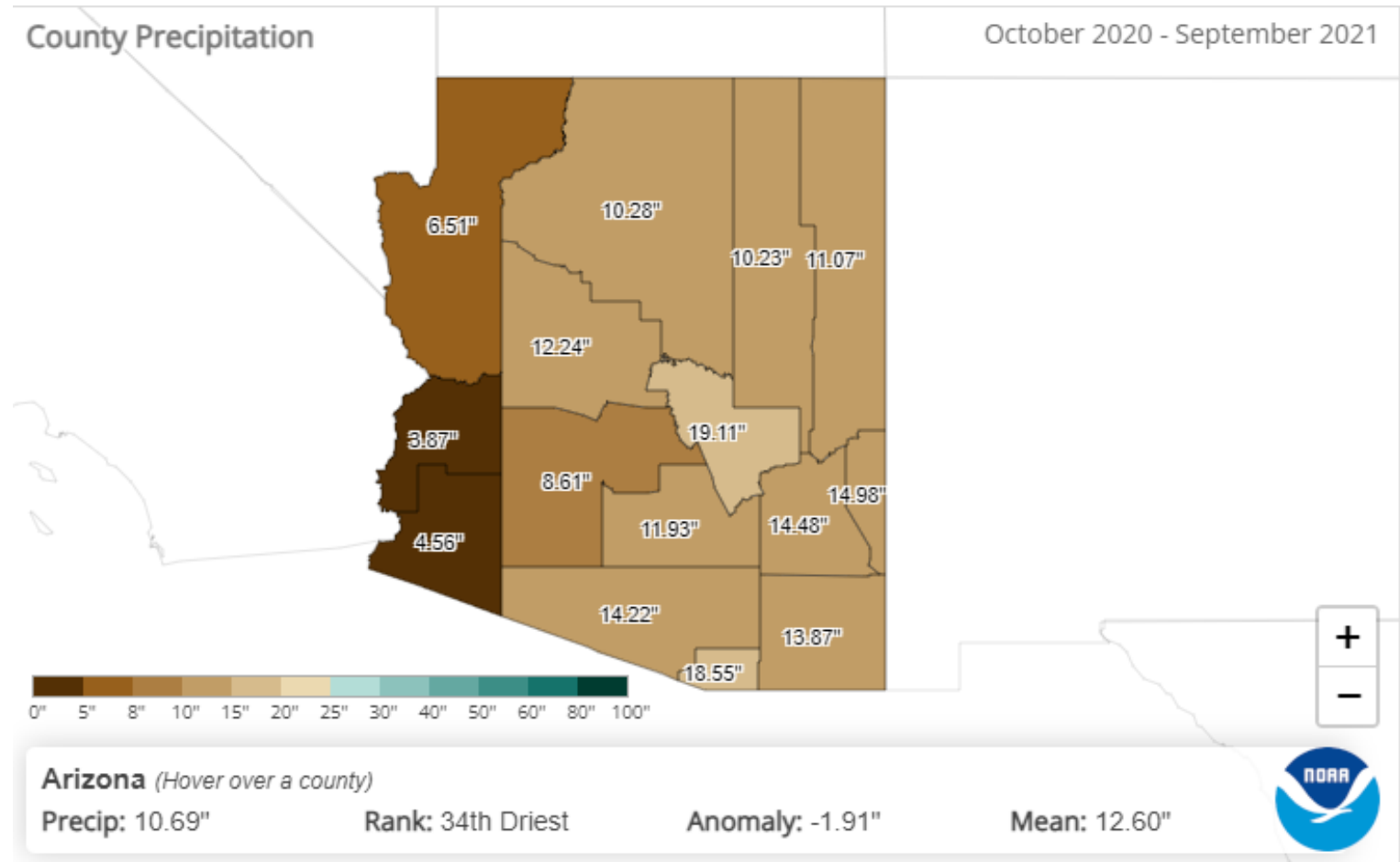
Generated 10/ 1/2021 at WRCC using provisional data.  
NOAA Regional Climate Centers

Percent of Average Precipitation (%)  
10/1/2020 – 9/30/2021



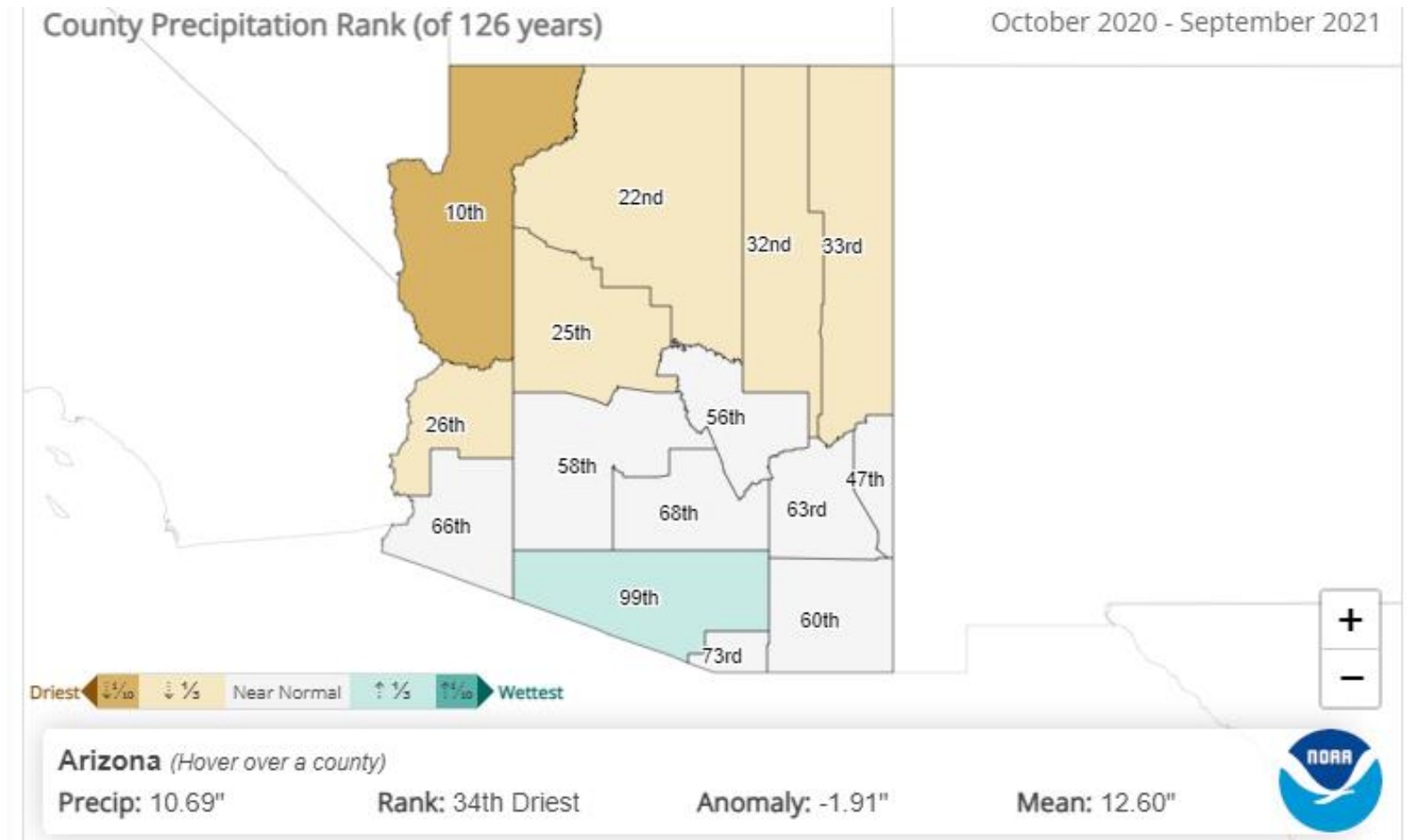
Generated 10/ 1/2021 at WRCC using provisional data.  
NOAA Regional Climate Centers

# WY2021 precipitation county totals



Period of record: 1895-2021; 127=wettest

WY2021  
precipitation  
county ranks



Period of record: 1895-2021; 127=wettest

**Intensity:**

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

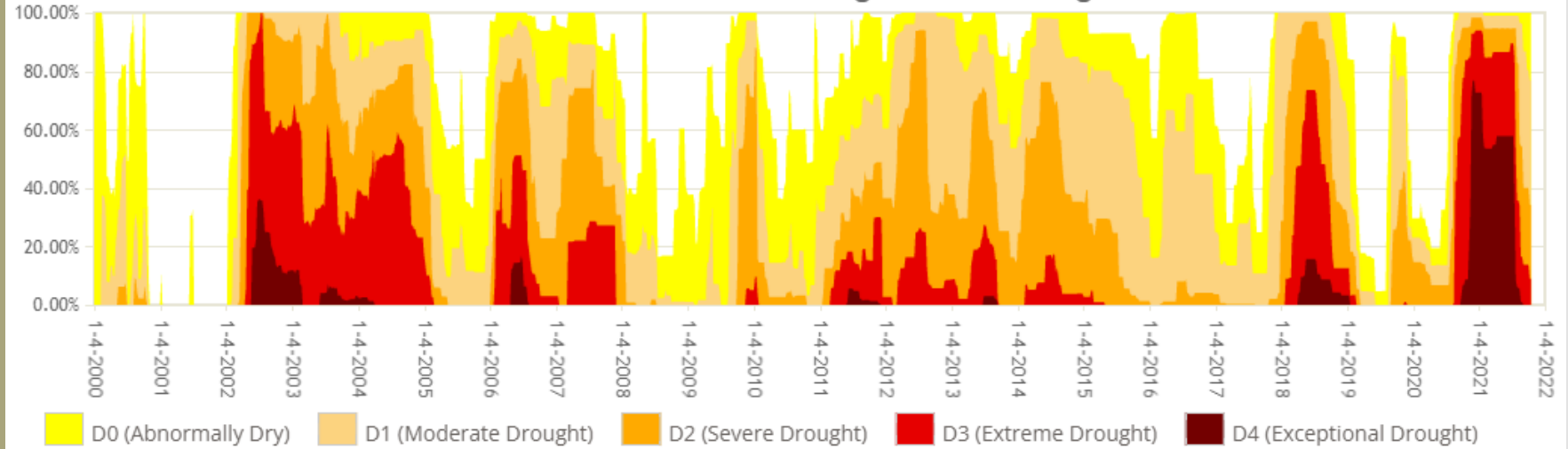
**Author:**

Adam Hartman  
NOAA/NWS/NCEP/CPC

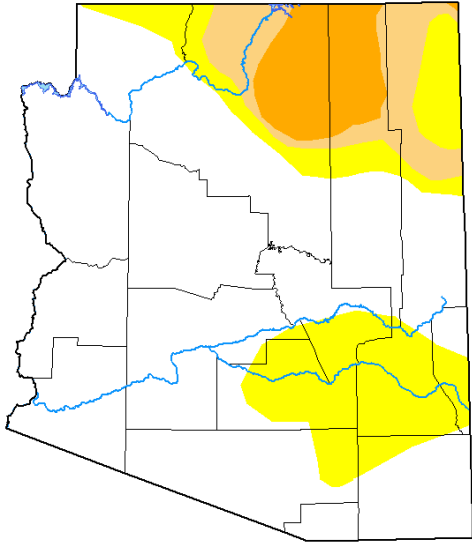


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

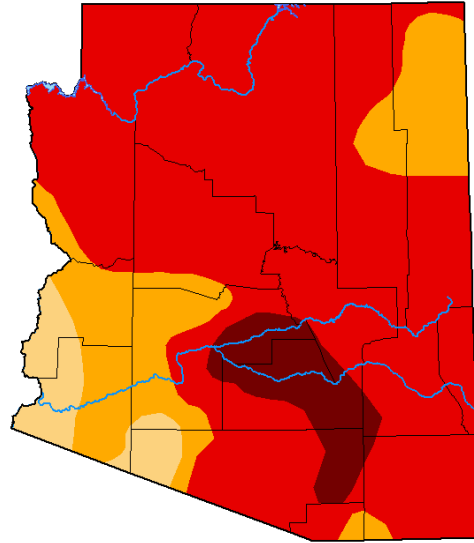
**Arizona Percent Area in U.S. Drought Monitor Categories**



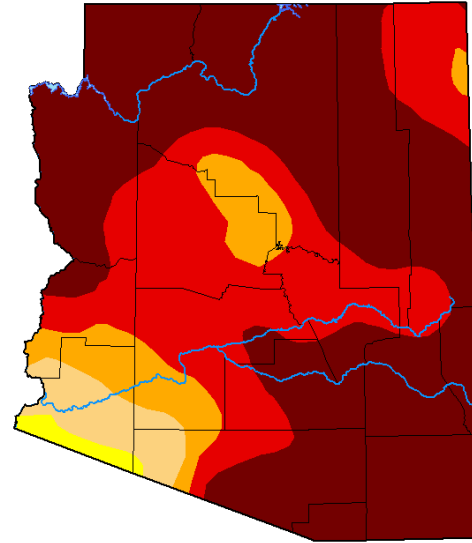
WY 2020



June 16, 2020



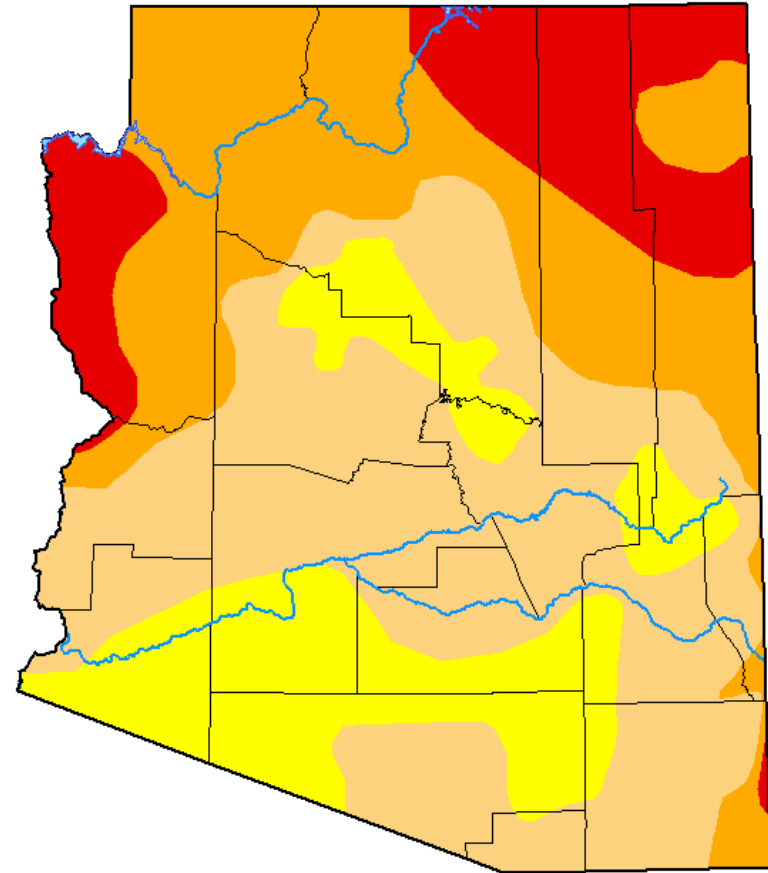
October 6, 2020



June 15, 2021

WY 2021







October 5, 2021



WY 2020

WY 2021

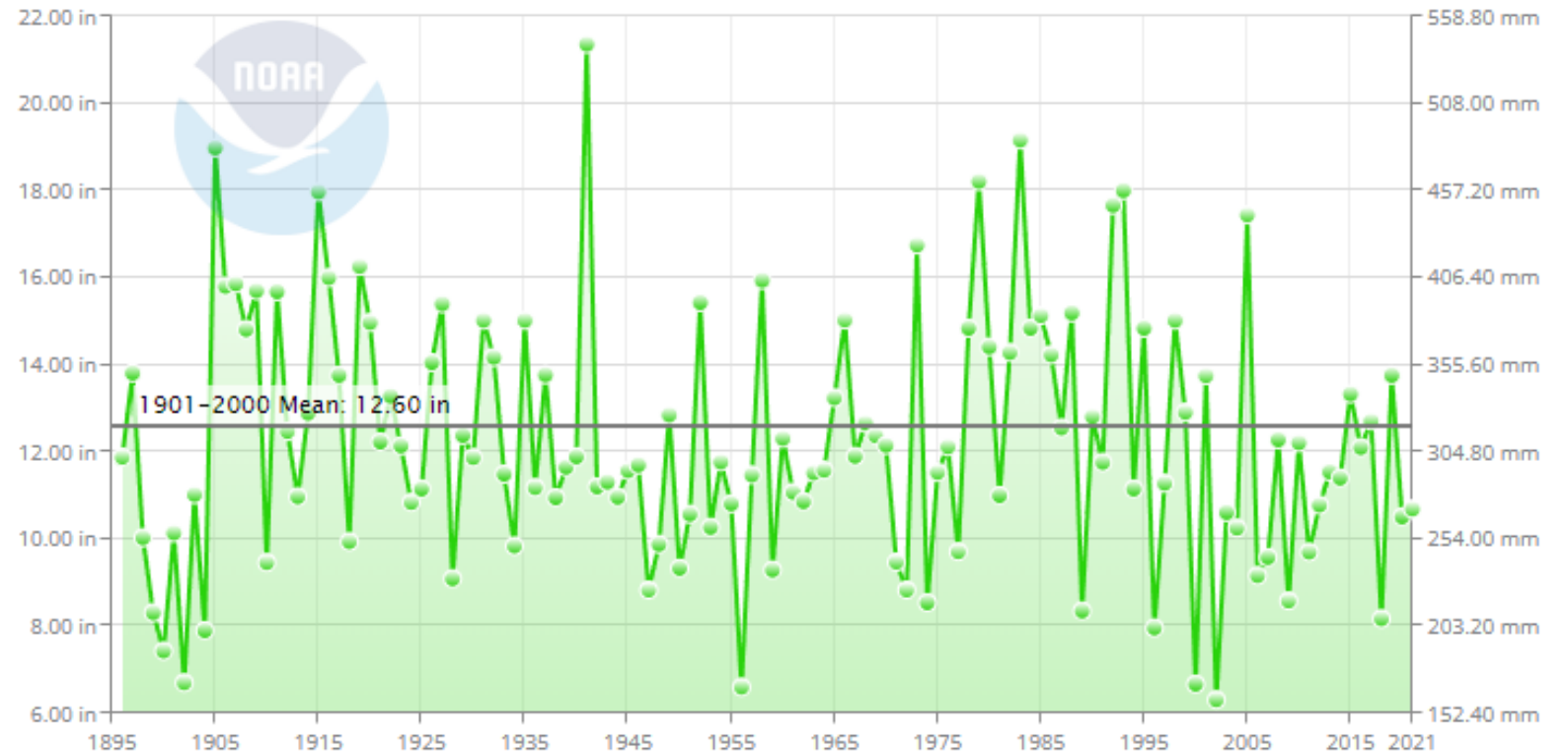
### Intensity

	None
	D0 (Abnormally Dry)
	D1 (Moderate Drought)
	D2 (Severe Drought)
	D3 (Extreme Drought)
	D4 (Exceptional Drought)

	June 16, 2020	October 6, 2020	June 15, 2021	October 5, 2021
None	67%	0%	0%	0%
D0 (Abnormally Dry)	19%	0%	1%	20%
D1 (Moderate Drought)	7%	5%	4%	40%
D2 (Severe Drought)	7%	17%	8%	26%
D3 (Extreme Drought)	0%	71%	29%	14%
D4 (Exceptional Drought)	0%	7%	58%	0%

# Long-Term Statewide WY Precipitation

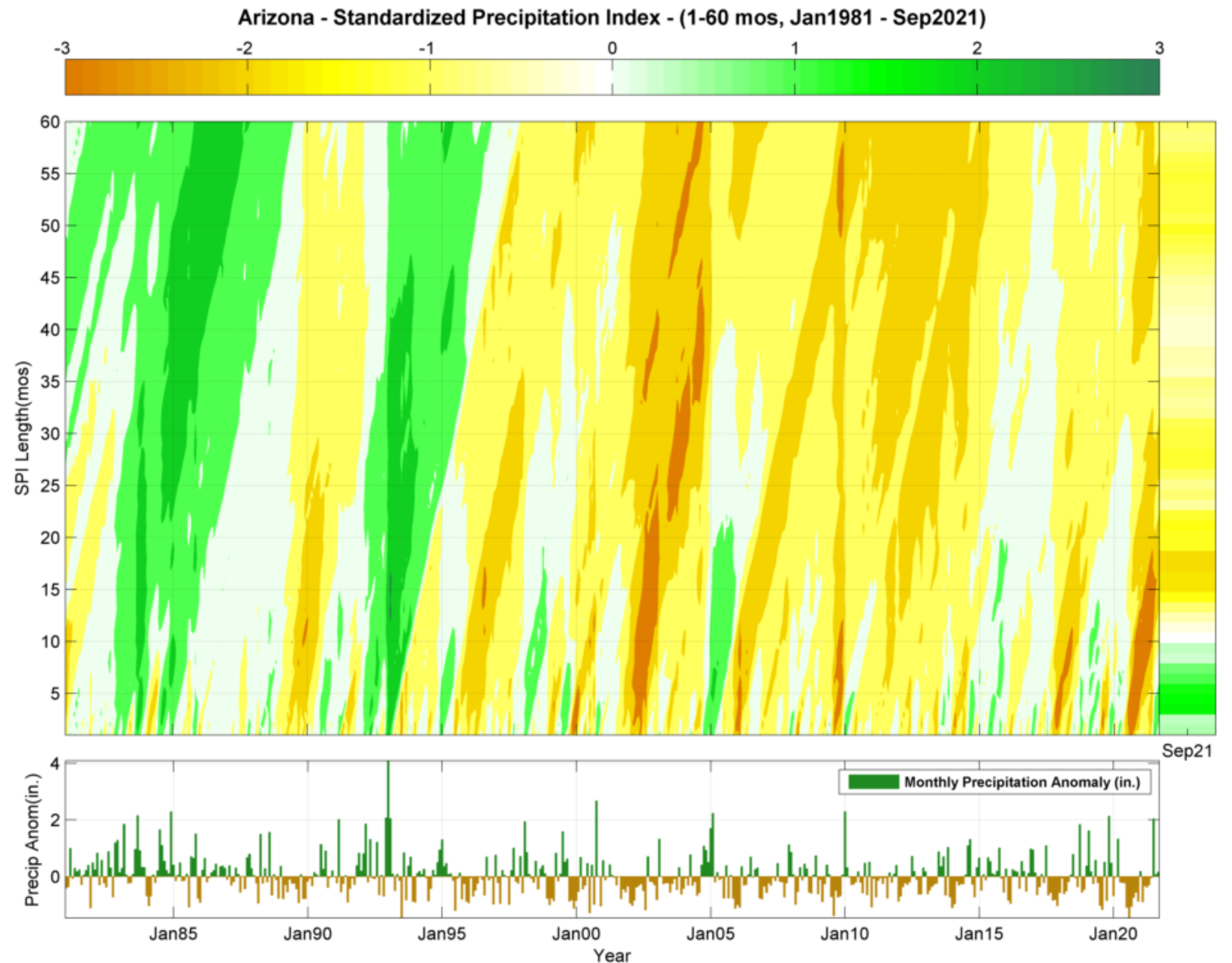
Arizona Precipitation  
October–September



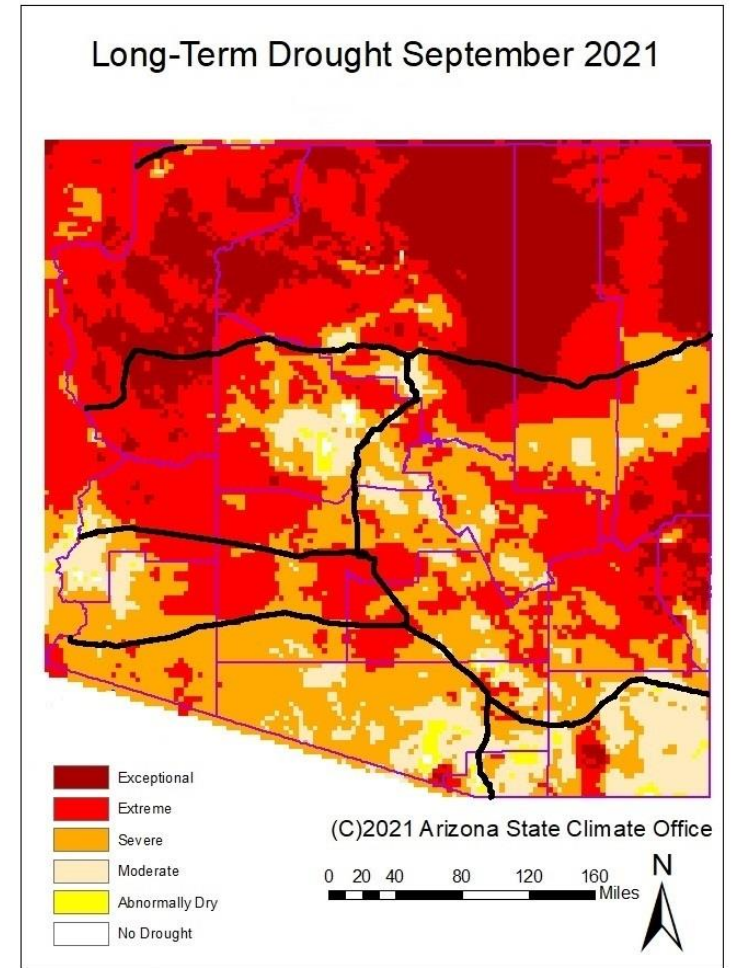
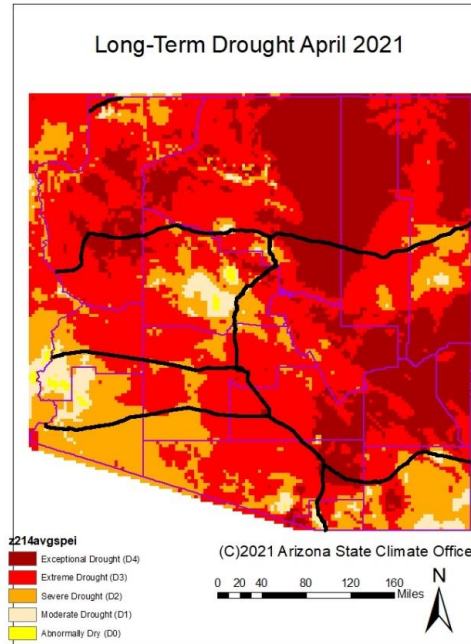
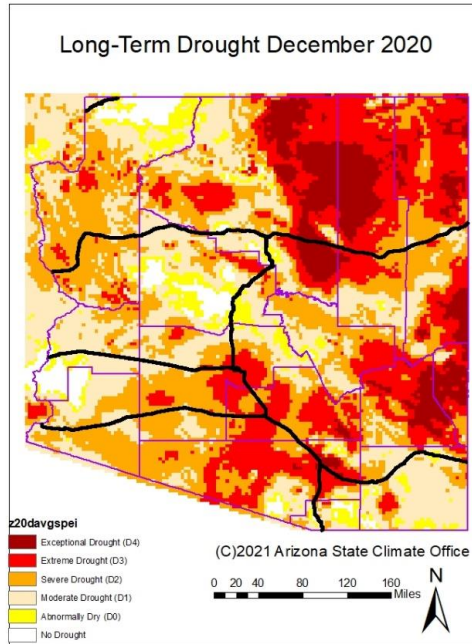
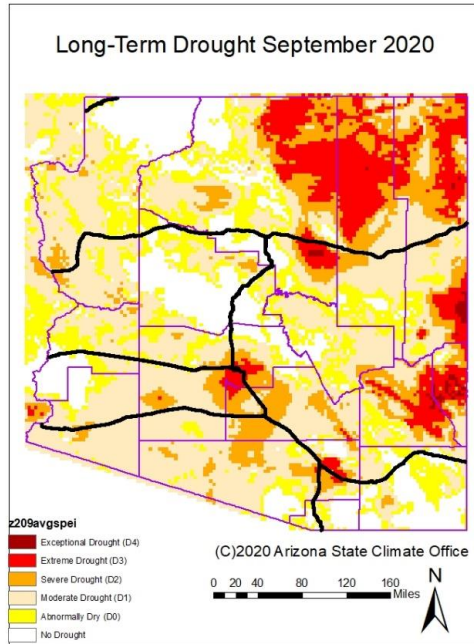
WY 2021 10.69"  
Departure from mean -1.91"

# Standardized Precipitation Index (SPI)

precipitation at different time scales to identify short- and long-term drought



# WY 2021



Average 24-, 36-, and 48-month SPEI

Questions?

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Arizona State Climatologist

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[azclimate.asu.edu](http://azclimate.asu.edu)



ARIZONA STATE  
CLIMATE OFFICE

**ASU** School of Geographical  
Sciences and Urban Planning  
Arizona State University