

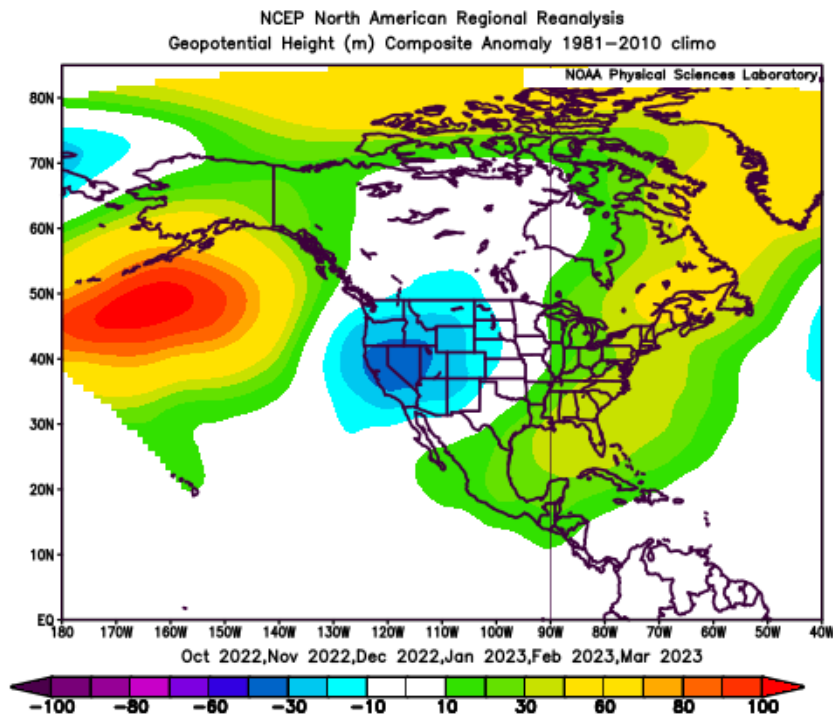


Drought Monitoring Technical Committee Report to the Arizona Interagency Coordinating Group

November 7, 2023

Erinanne Saffell, Ph.D.
Arizona State Climatologist

October to March very wet and cold



Anomalous troughing

23rd coldest (128 years)

October 2022 - March 2023

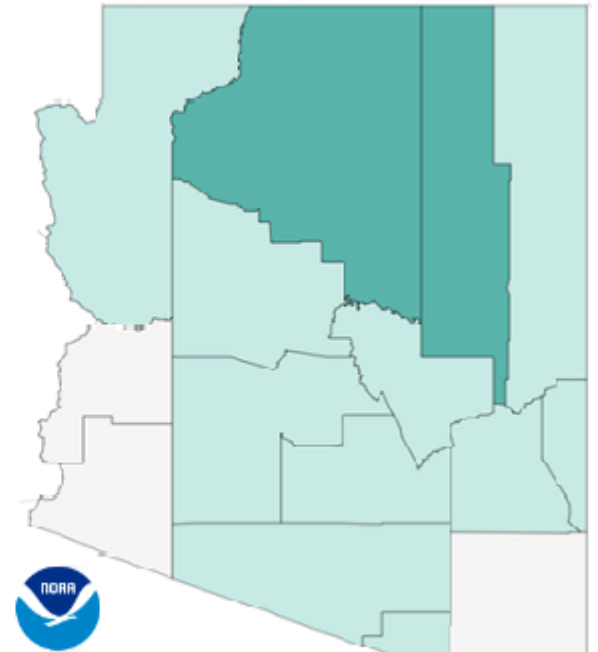


Preliminary data rankings @AZStateClimate

Coldest $\downarrow \frac{1}{10}$ $\downarrow \frac{1}{2}$ Near Normal $\uparrow \frac{1}{2}$ $\uparrow \frac{1}{10}$ Warmest

22nd wettest (128 years)

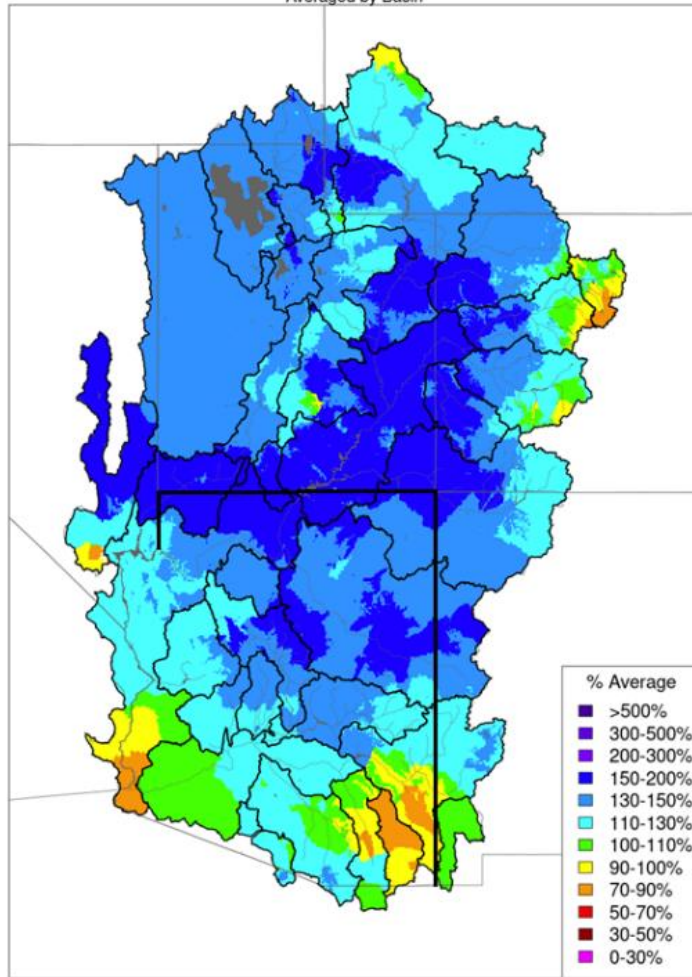
October 2022 - March 2023



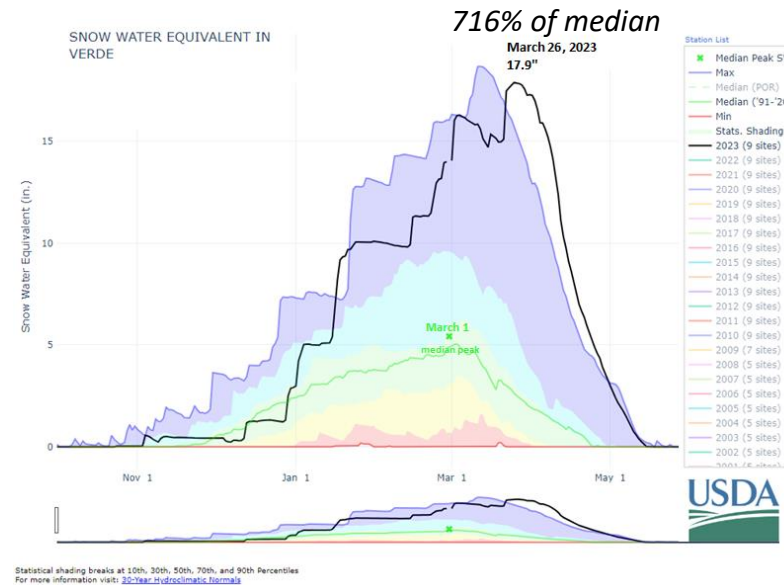
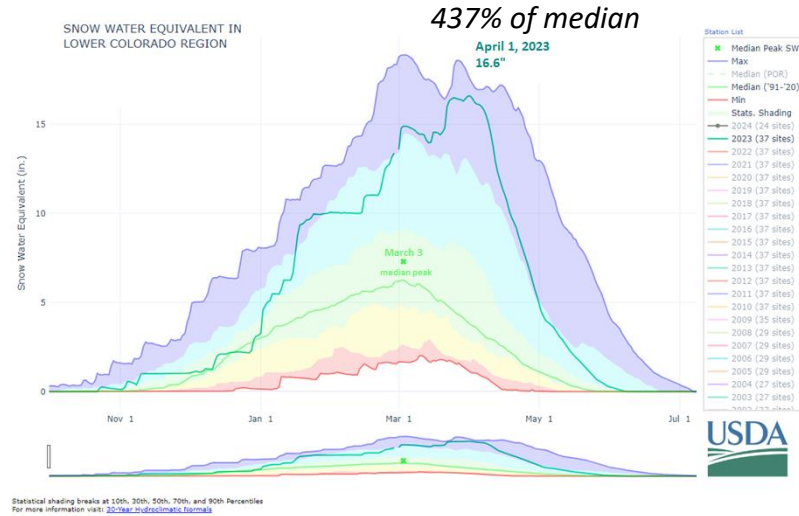
Preliminary data rankings @AZStateClimate

Driest $\downarrow \frac{1}{10}$ $\downarrow \frac{1}{2}$ Near Normal $\uparrow \frac{1}{2}$ $\uparrow \frac{1}{10}$ Wettest

Water Year Precipitation, October 2022 - April 2023
Averaged by Basin



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



Snow melt delayed

Runoff efficiencies high

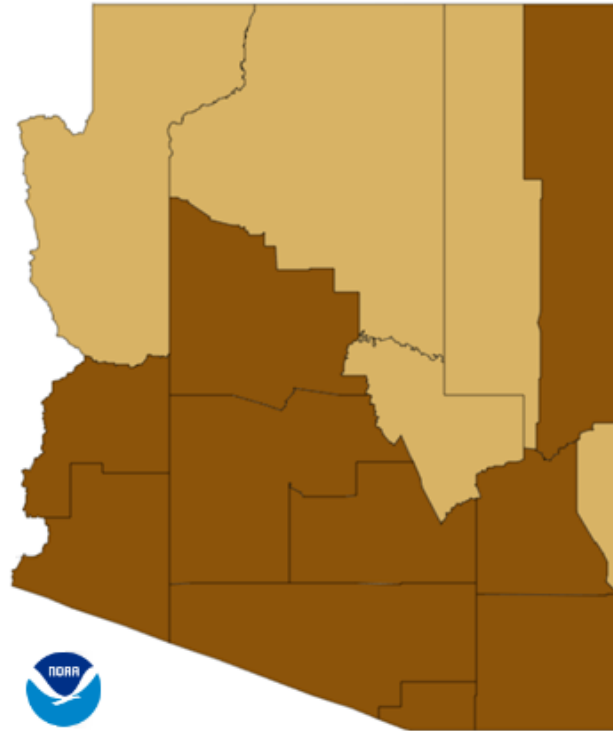
Pool elevation levels improved

Reservoir releases

March storms increased snowpack

April very dry
May mostly wet

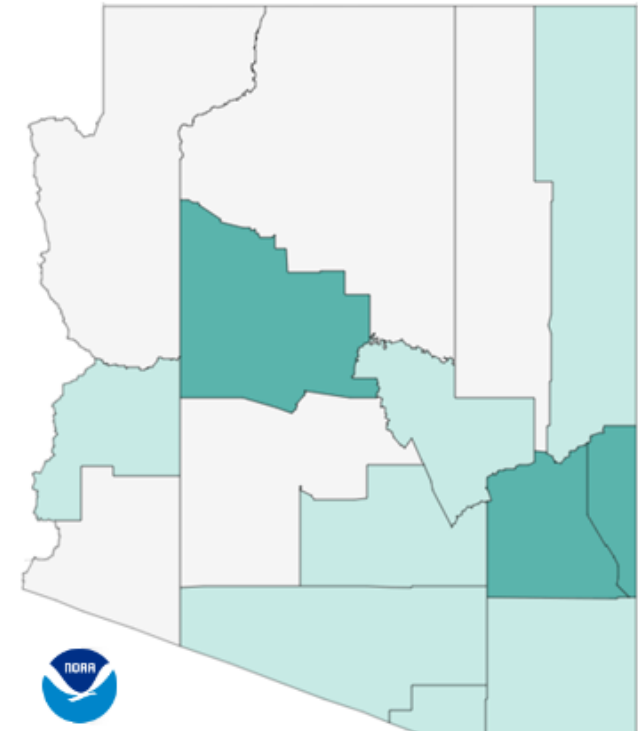
April 2023
precipitation



Preliminary data rankings @AZStateClimate
Driest $\downarrow \frac{1}{10}$ $\downarrow \frac{1}{2}$ Near Normal $\uparrow \frac{1}{2}$ $\uparrow \frac{1}{10}$ Wettest

3rd driest (129 years)

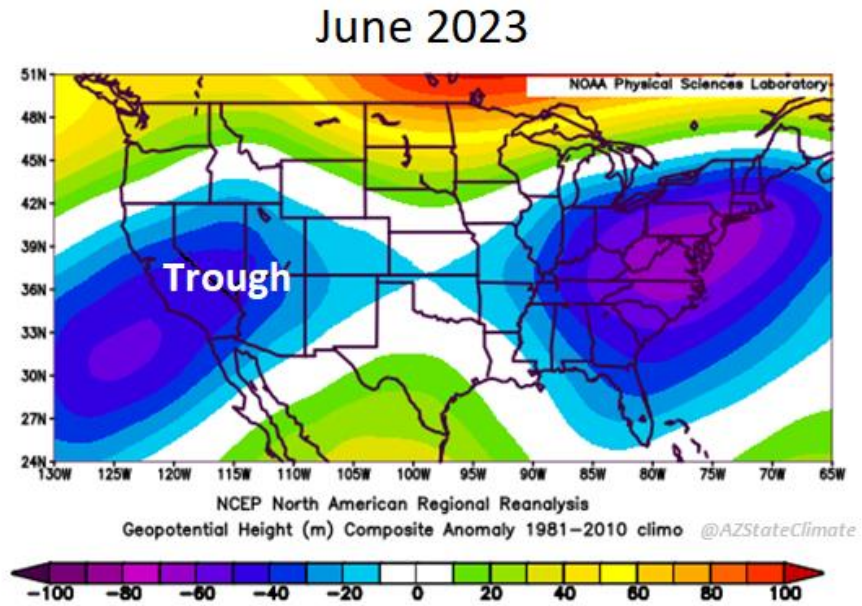
May 2023
precipitation



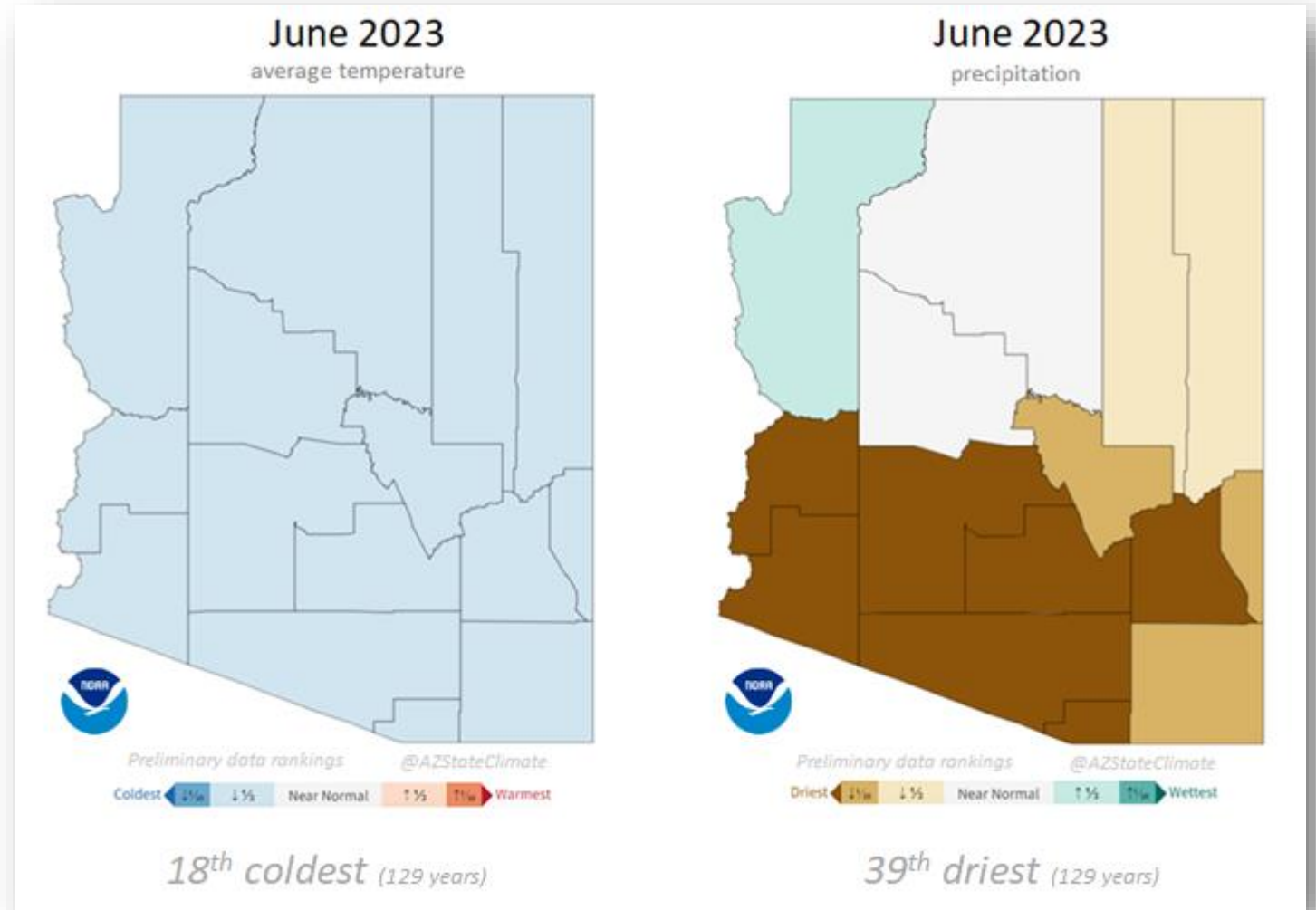
Preliminary data rankings @AZStateClimate
Driest $\downarrow \frac{1}{10}$ $\downarrow \frac{1}{2}$ Near Normal $\uparrow \frac{1}{2}$ $\uparrow \frac{1}{10}$ Wettest

31st wettest (129 years)

June very cold and dry



Persistent troughing



Record Heat-Time Record Warm Low

119° 97°F

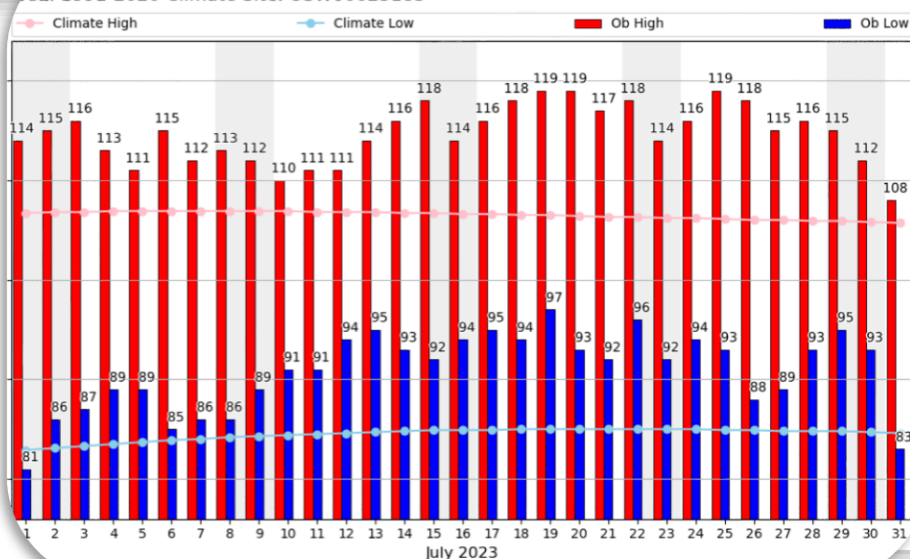
Multiple records
broken across state

*This breaks the all-time record warm low**
previous record: 96°F set on July 15, 2003*
Period of Record (POR): 1896-2023*

at Sky Harbor Airport
Last 119°: 6/20/17

July 19, 2023 - Phoenix

PHOENIX/SKY HARBOR :: Hi/Lo Temps for Jul 2023
CEI 1991-2020 Climate Site: USW00023183



Significant Phoenix records

- Hottest month US city 102.7°F
- Hottest night temp 97°F
- 55 days 110°F+ (2020 had 53)



6-10 Day Temperature Outlook

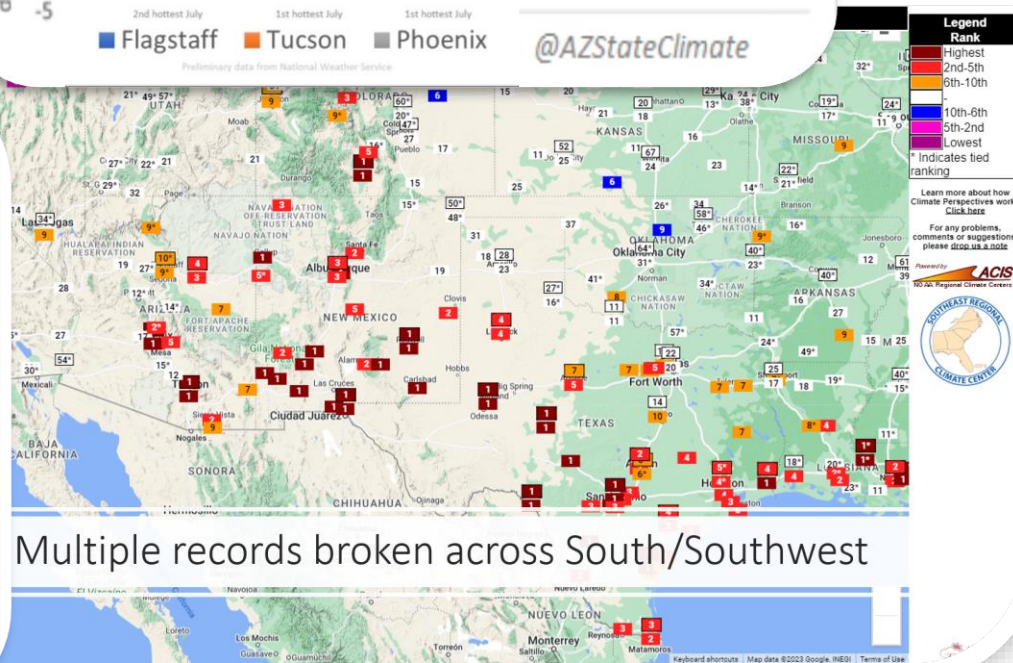
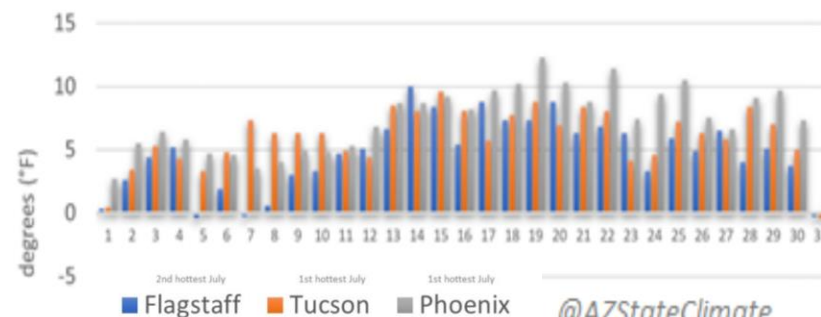


Valid: July 25 - 29, 2023

Issued: July 19, 2023

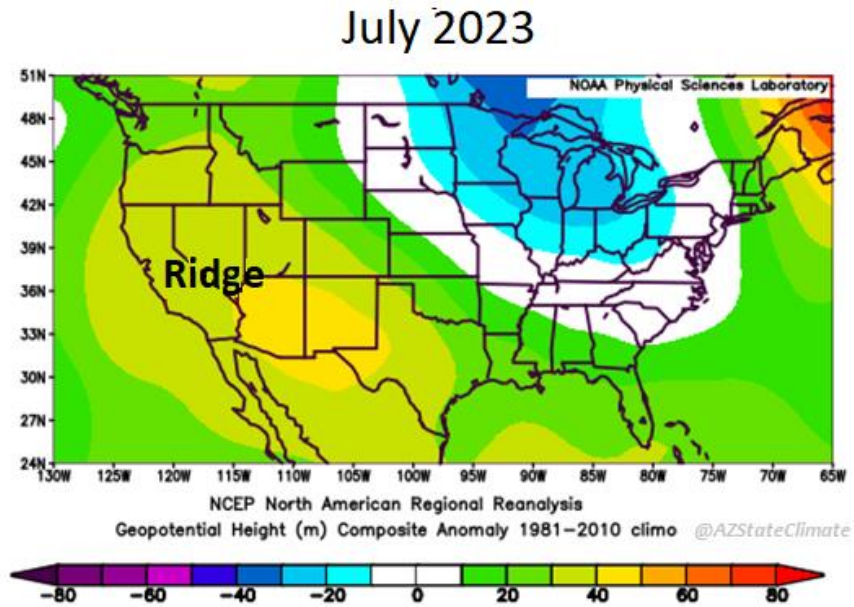
July 2023

departure from average daily temperature



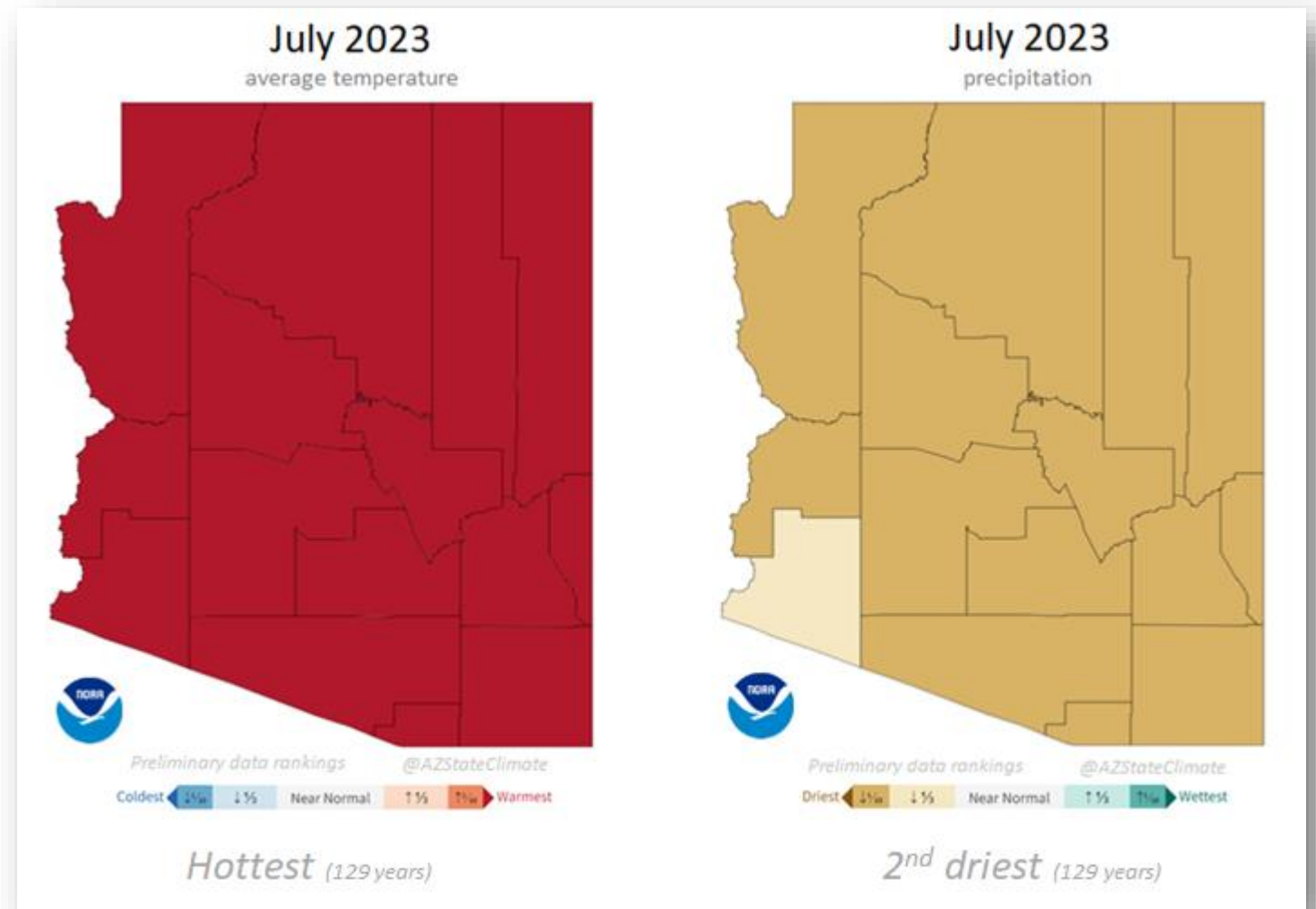
Multiple records broken across South/Southwest

July very hot and dry

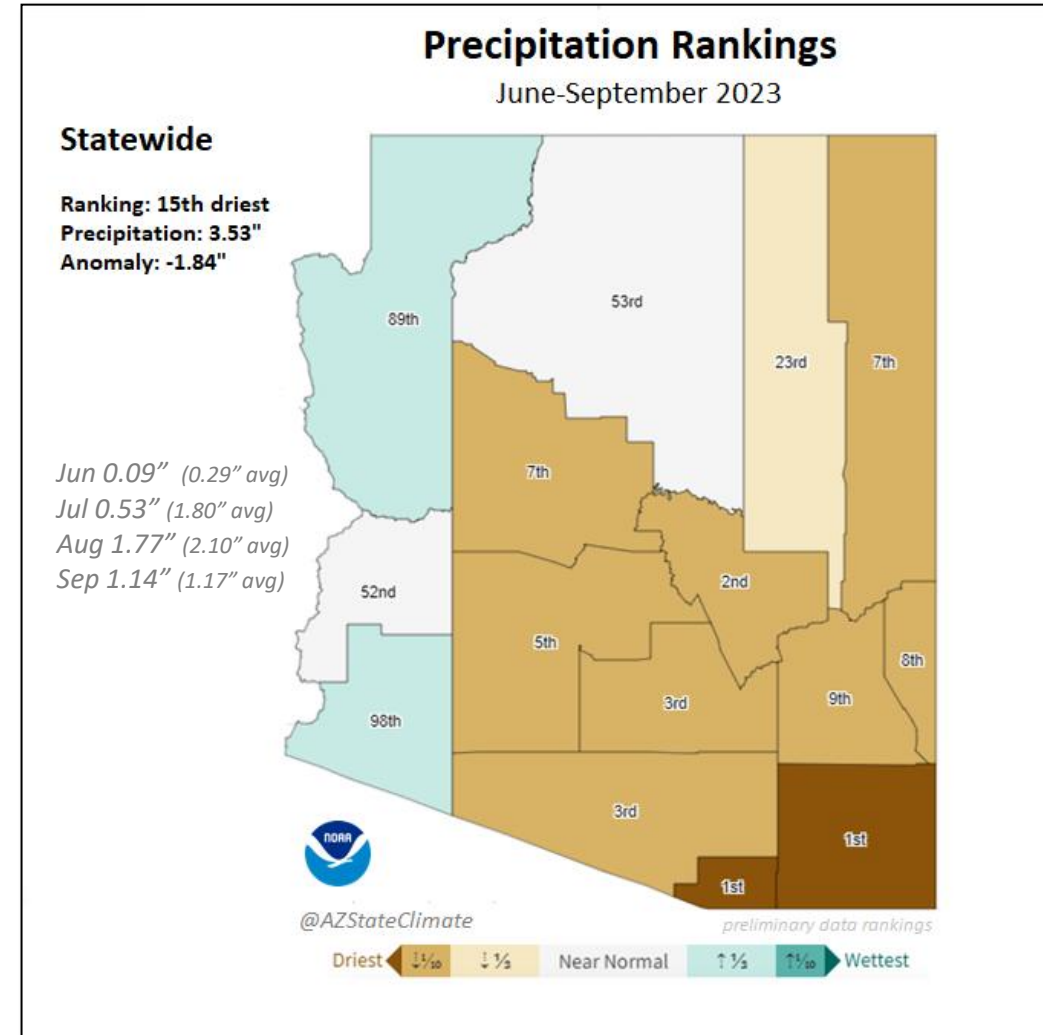
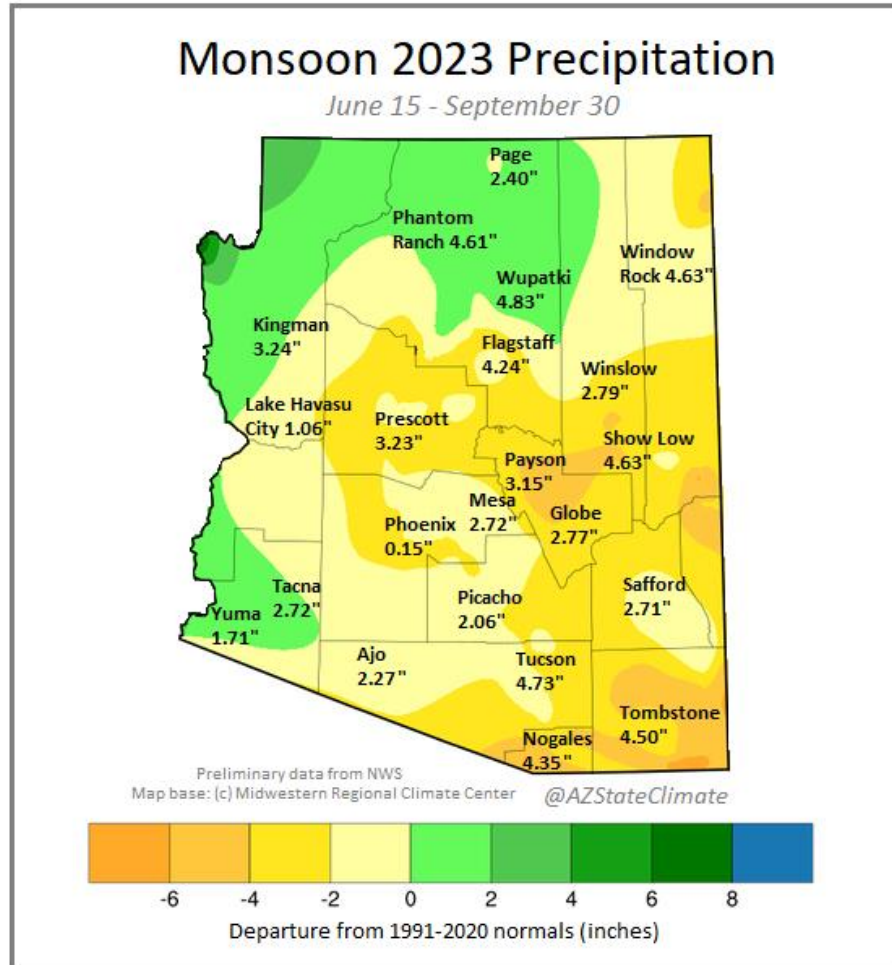


Multiple heat records broken across the state

June-July 2nd driest June-July on record



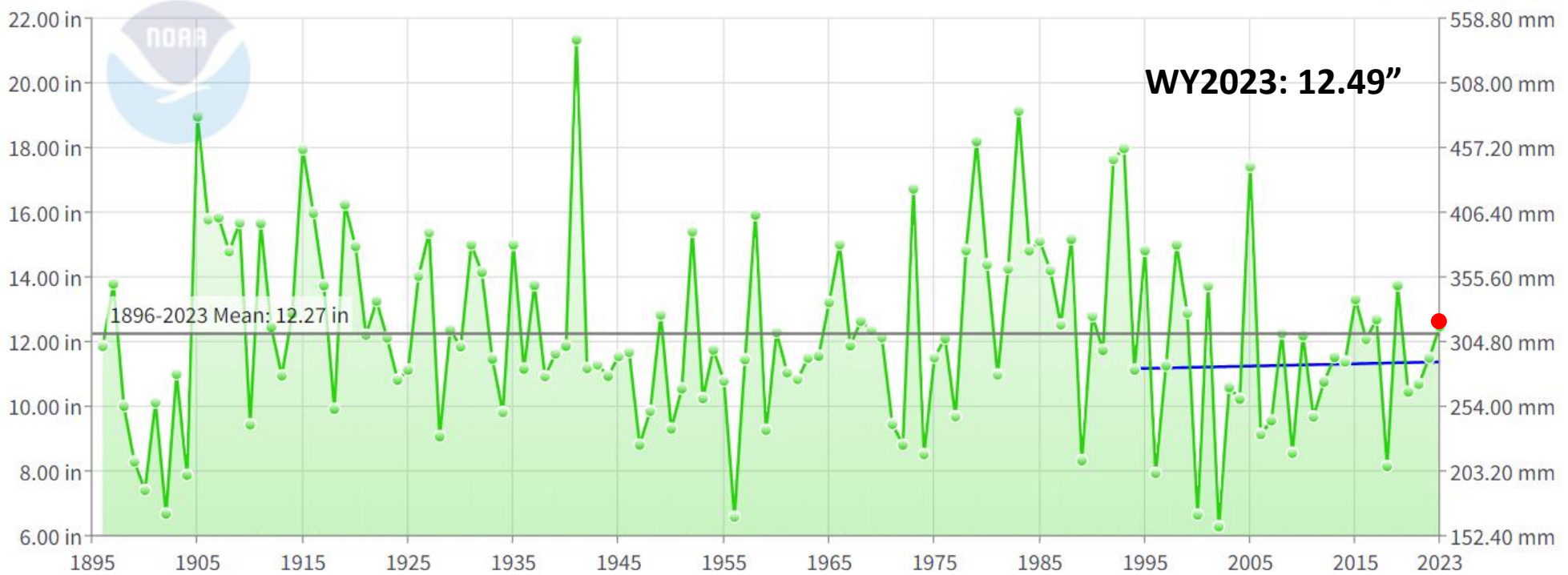
15th driest statewide June-September



Arizona has been in drought 30 years

Arizona Precipitation

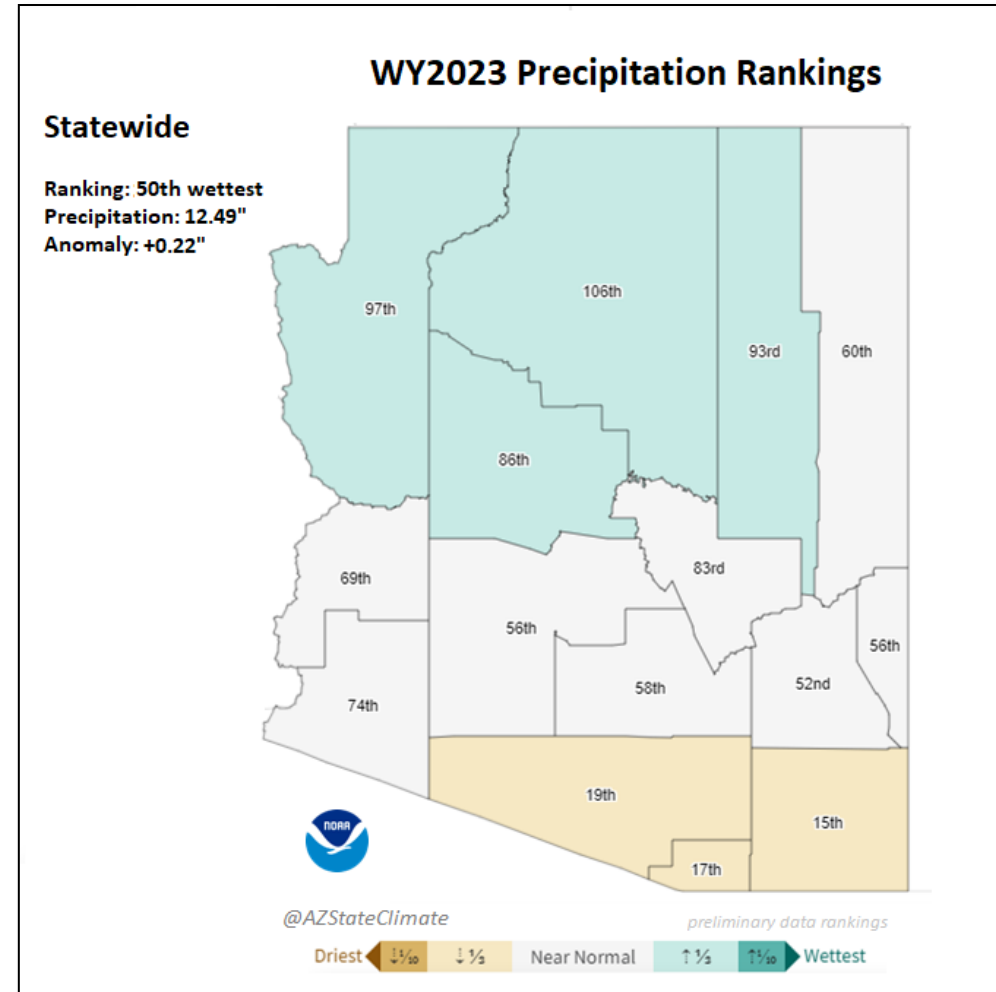
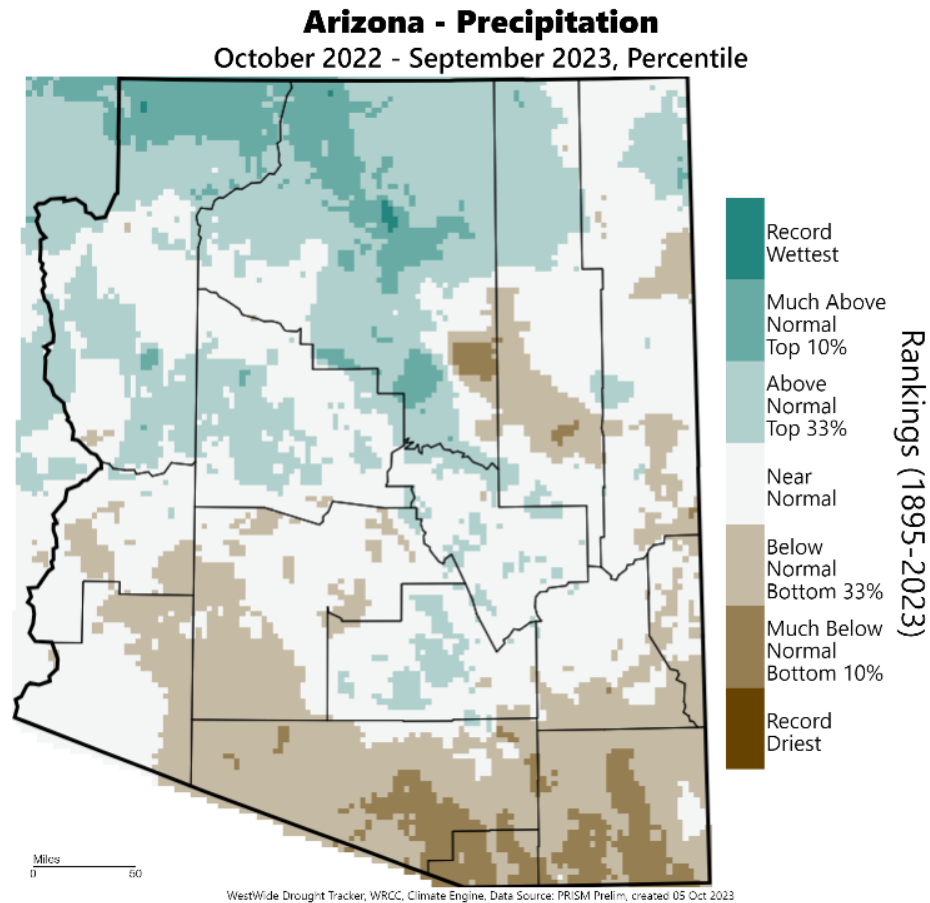
October-September



20 of last 30 years have been below long-term average

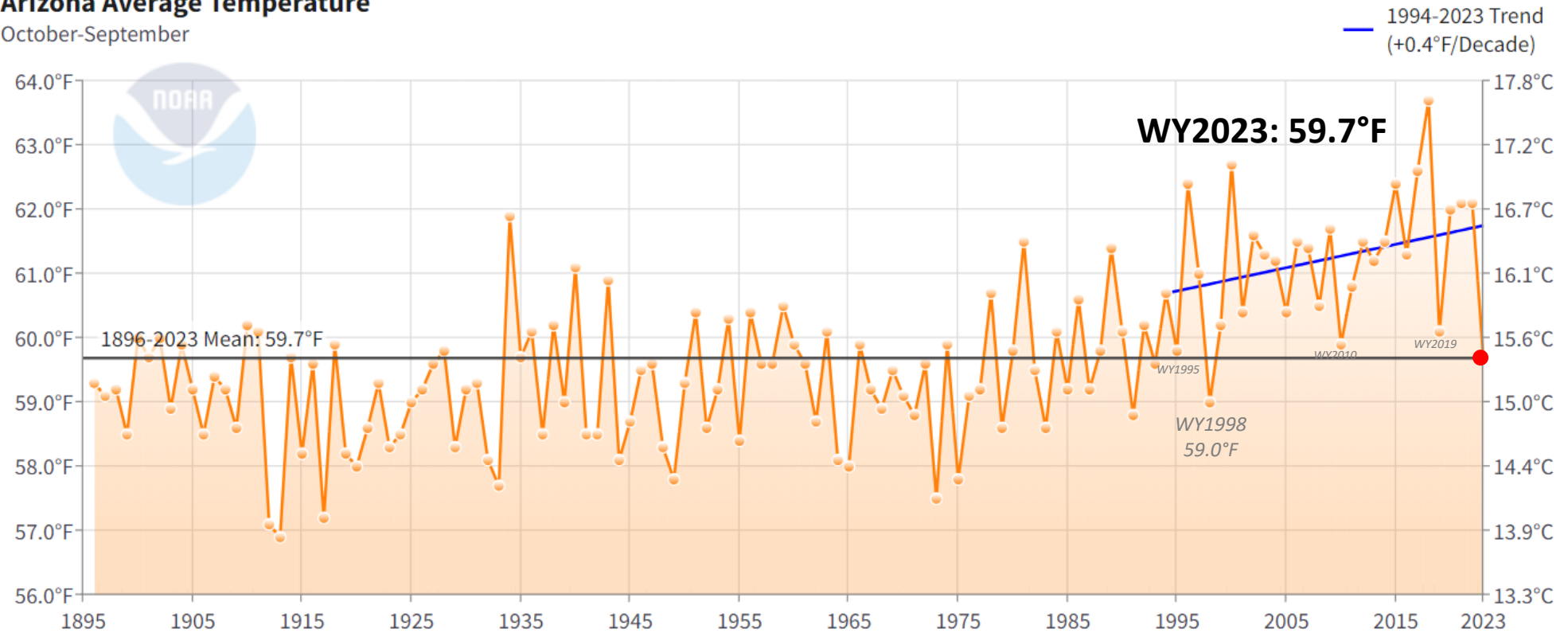
Long-term average 12.27"
Drought average 11.29"

WY2023: slightly above long-term average statewide precipitation (128 WY)

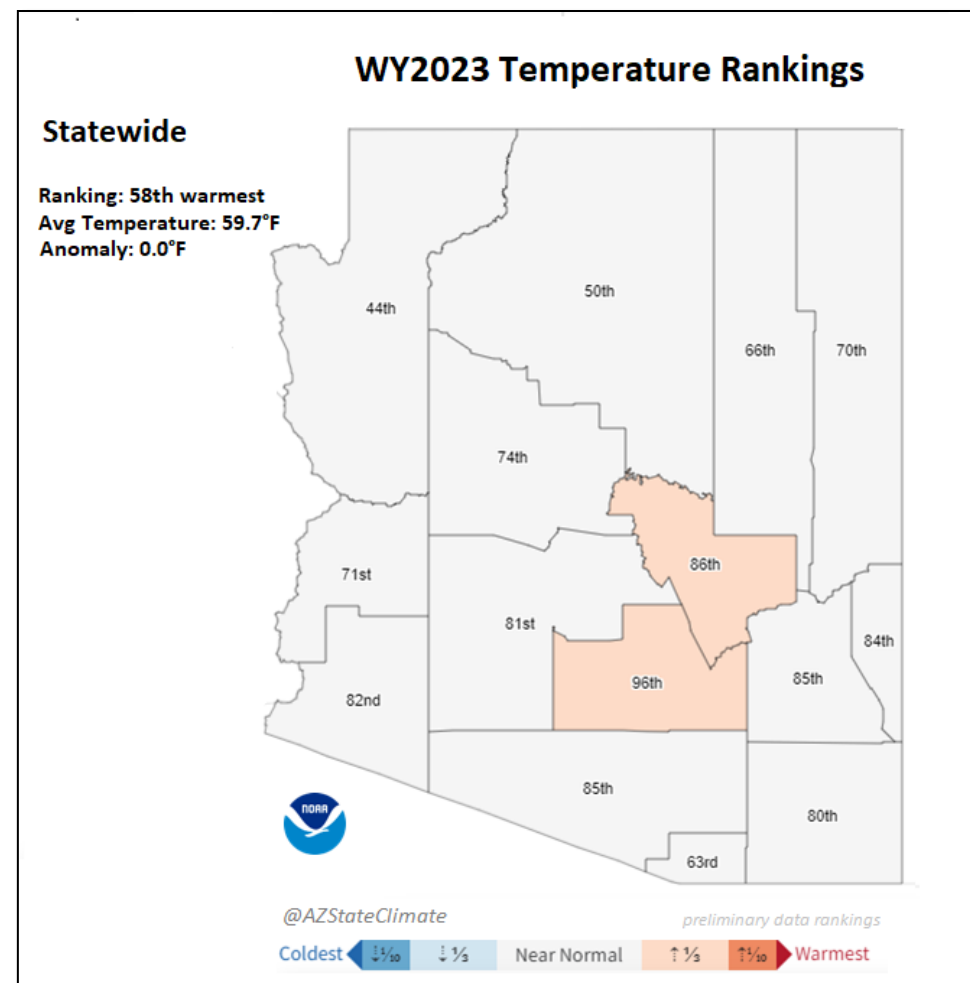
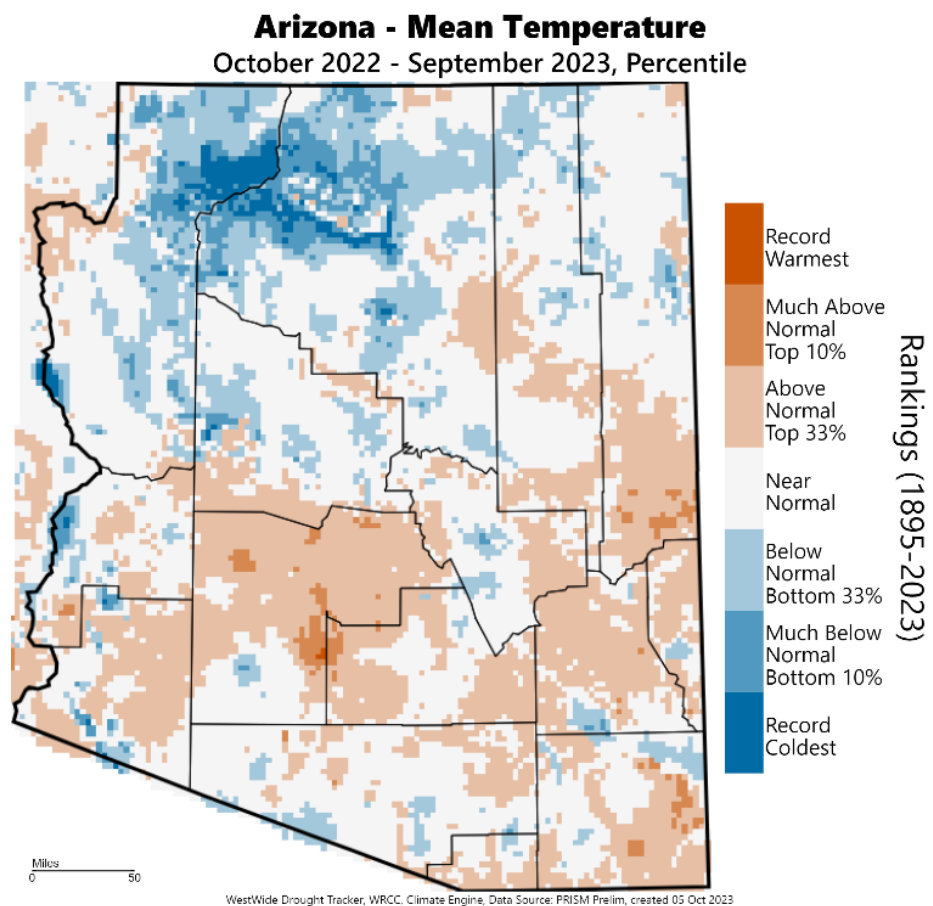


Second coldest WY in last 30 years

Arizona Average Temperature
October-September

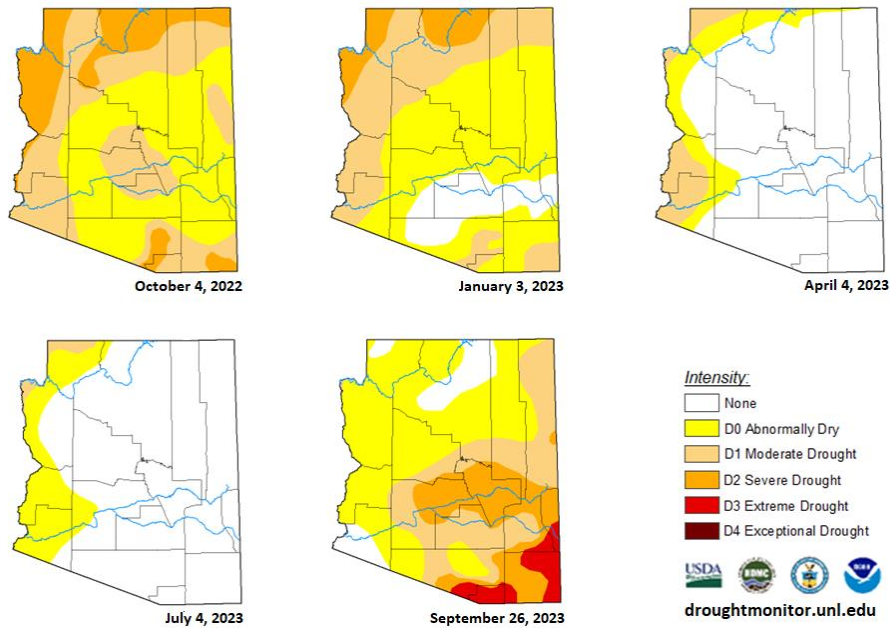


WY2023: tied with long-term average statewide temperature (128 WY)

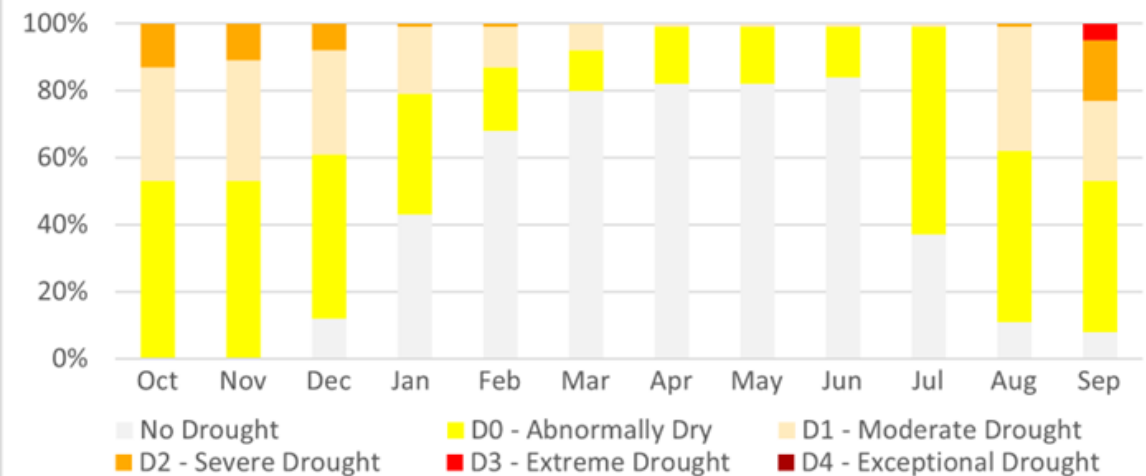


Short-term drought improved from winter precipitation; degraded from dry summer

Arizona Short-Term Drought WY2023



Arizona Short-Term Drought WY2023



@AZStateClimate

Deficit over several years

Previous 5 WY

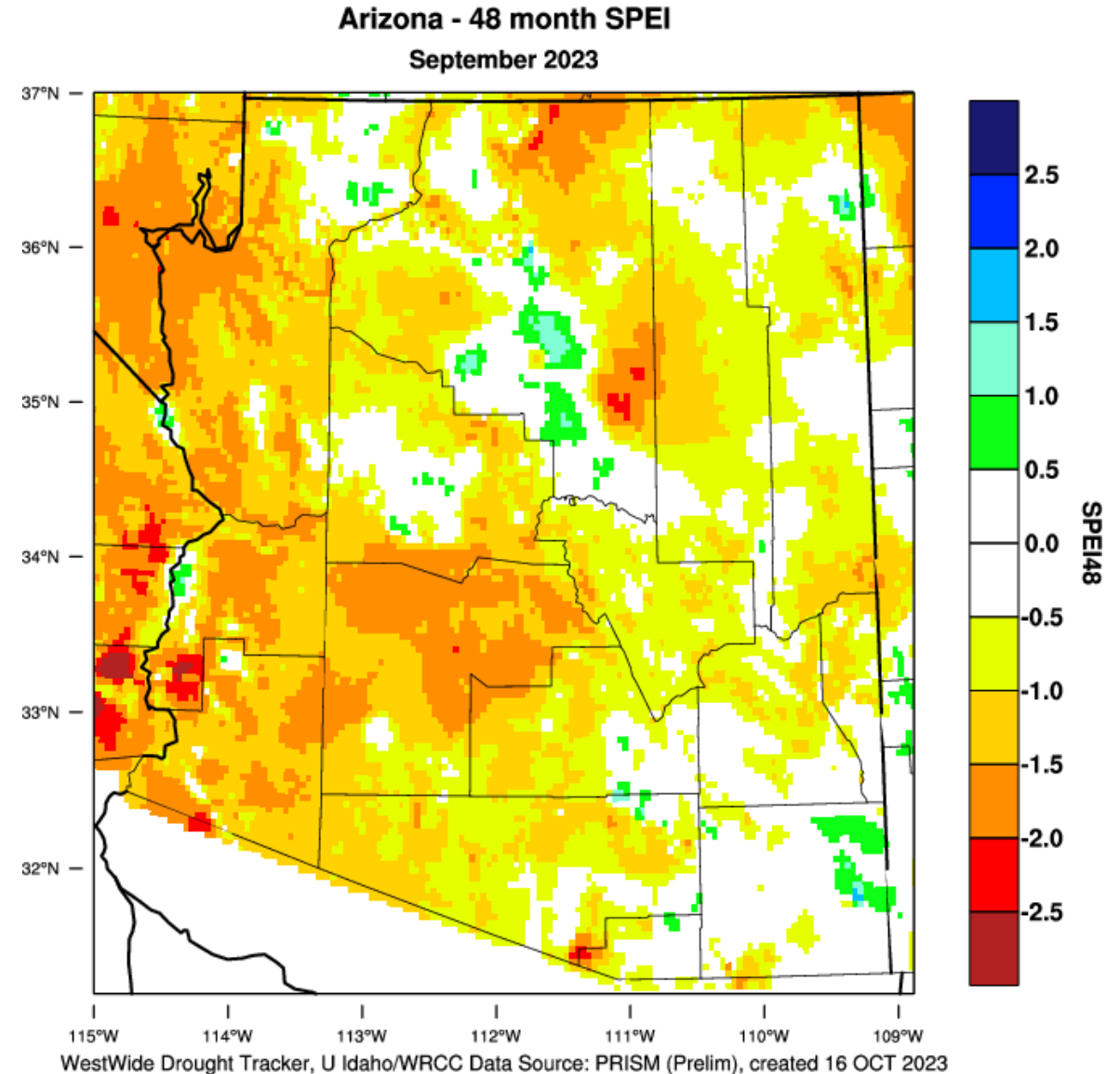
WY2022 **11.52"**

WY2021 **10.71"**

WY2020 **10.47"**

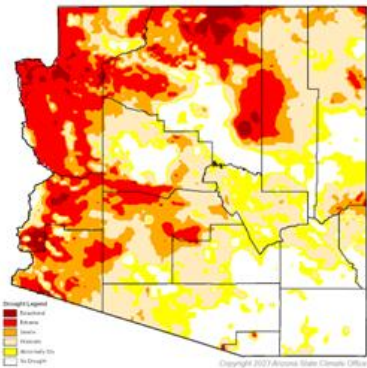
WY2019 **13.76"**

WY2018 **8.17"**

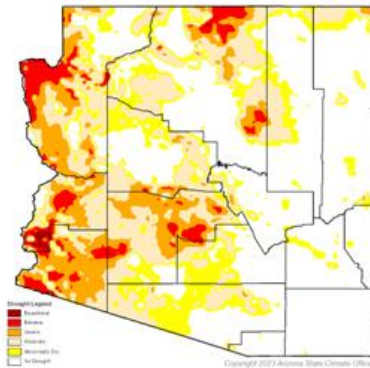


Standardized Precipitation Evapotranspiration Index

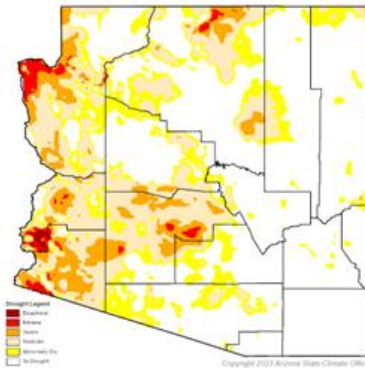
Long-term drought persists



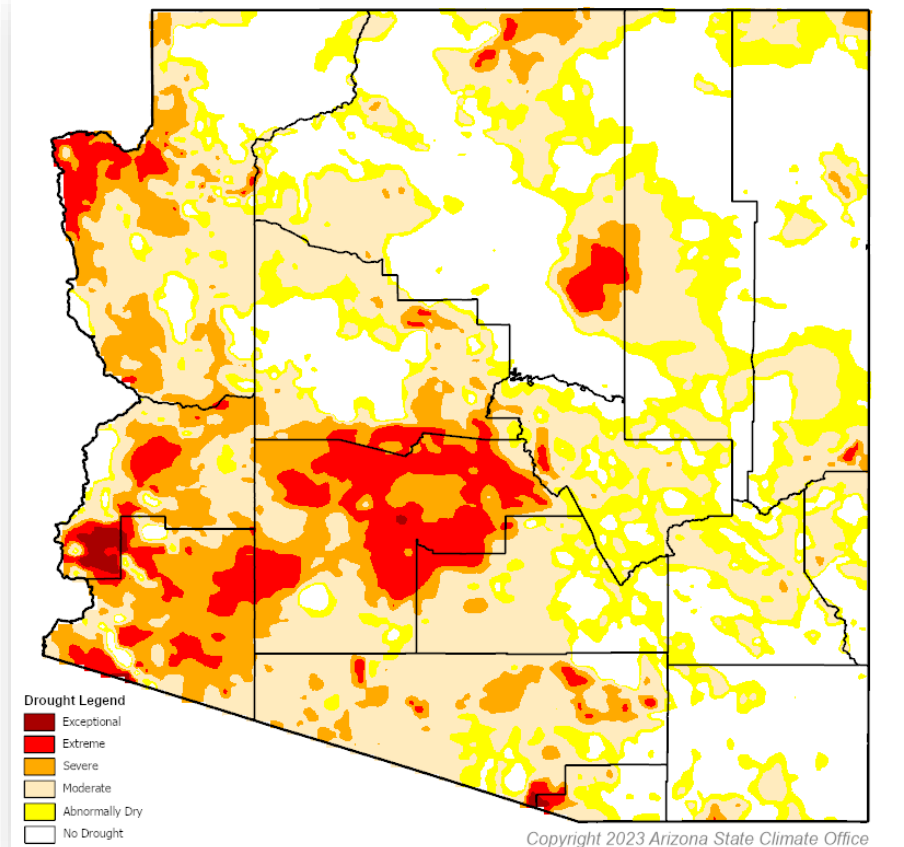
October to December 2022



January to March 2023



April to June 2023



July to September 2023

Thank you

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