

# **Arizona Climate Summary**

# Summary of conditions for April 2024

### **April 2024 Summary**

Although April is climatologically drier for Arizona, most of central and southern counties experienced above normal precipitation. Maricopa and Cochise counties recorded their wettest April since 2004, while Coconino, Graham, Greenlee, La Paz, Pima, Pinal, Yavapai, and Yuma counties measured their wettest April since 2016. This month's average statewide precipitation was 0.56 inches, which is 0.03 inches above the 1895-2024 mean of 0.53 inches. Complete snowmelt occurred in the Salt basin on April 22; however, late snow events brought 0.1 inches of snow to the basin on April 23 and April 27. The Little Colorado and Verde basins also received additional amounts of snow on April 27 (0.2 inches and 0.1 inches, respectively). By the end of the month, 2.6 inches of snow was observed in the Little Colorado basin and 1.3 inches of snow was measured in the Verde basin.

An upper-level low pressure system entered the state at the end of March and brought rain showers through the beginning of April. On April 1, multiple precipitation records were broken in many locations, including Youngtown (1.38 inches, previous record: 0.13 inches on 4/1/1998), Carefree (0.97 inches, previous record: 0.48 inches on 4/1/1990), Douglas-Bisbee (0.64 inches, previous record: 0.16 inches on 4/1/2004), Deer Valley (0.45 inches, previous record: 0.21 inches on 4/1/1999), and Show Low (0.42 inches, previous record: 0.13 inches set on 4/1/1999). Show Low also set a new daily snowfall record of 3.1 inches, breaking the previous record of 1.0 inches set on 4/1/1999. Strong thunderstorms impacted portions of Apache County, while severe thunderstorms were observed in Coconino and Yavapai counties. A cold air funnel was reported near Maricopa, flooding occurred in and along Indian Bend Wash, and a swift-water rescue took place in the Cañada del Oro (CDO) Wash in Pima County.

A ridge of high pressure brought warm and dry conditions to the state from April 2-4. On April 3, Flagstaff Pulliam Airport reached 61°F for the first time this year. The climatological normal date of Flagstaff reaching a high temperature greater than or equal to 60°F is February 20, making this year's date 43 days later than normal.

A storm system impacted Arizona from April 5-6, bringing strong winds, rain, and high elevation snow. Flagstaff received 0.24 inches of precipitation (1.5 inches of snow), Williams received 0.20 inches of precipitation (2.0 inches of snow), Globe received 0.13 inches of precipitation, Phantom Ranch received 0.12 inches of precipitation, Safford Municipal Airport received 0.07 inches of precipitation, Scottsdale received 0.04 inches of precipitation, East Mesa received 0.02 inches of precipitation, and Kingman received 0.01 inches of precipitation.

Zonal flow caused temperatures to increase on April 7. On April 8, a closed low pressure system brought scattered rain and snow showers to portions of northern Arizona, including Alpine (0.11 inches of precipitation, 0.5 inches of snow), Sunset Crater (0.02 inches of precipitation, trace of snow), and Bellemont (trace of snow).

Persistent high pressure over the Desert Southwest resulted in warmer temperatures across the state from April 9-13. On April 11, a high temperature greater than or equal to 90°F was measured for the first time this year at Tucson International Airport (90°F) and Phoenix Sky Harbor (94°F). For both locations, this was 12 days later than the climatological normal date of March 30.

Dr. Erinanne Saffell, Arizona State Climatologist Juliana Likourinou, Author http://azclimate.asu.edu © 2024 Arizona State Climate Office





Gusty winds and cooler temperatures were prevalent across the state from April 14-15 due to a low pressure system. On the 15th, a trace of snow fell at Bright Angel and the Grand Canyon.

Warmer temperatures and dry conditions persisted from April 16-24. Phoenix Sky Harbor observed their first 100°F day of the year on April 21, and on April 22, Tucson International Airport recorded their first 95°F day of the year. On average, Phoenix reaches 100°F or above by May 2, and Tucson reaches 95°F or above by April 24.

A series of low pressure systems brought gusty winds, rain, and mountain snow from April 25-27. Bellemont received 0.94 inches of precipitation (6.3 inches of snow), Carefree received 0.70 inches of precipitation, Flagstaff received 0.63 inches of precipitation (2.5 inches of snow), the Grand Canyon received 0.60 inches of precipitation, Page received 0.59 inches of precipitation, Kingman received 0.14 inches of precipitation, and Deer Valley received 0.09 inches of precipitation. Severe thunderstorms impacted portions of Coconino and Yavapai counties. Estimated wind gusts of 60 mph were reported in Black Canyon City, where large tree branches were broken. Wind damage was also reported near Parker where metal roofs were blown off of sheds. Pea-sized hail (0.25 inches in diameter) was observed near Parks, Bellemont, and Williams in Coconino County, while marble-sized hail (0.50 inches in diameter) fell near Wittmann in Maricopa County and Chino Valley in Yavapai County.

Once these systems exited the state, warmer temperatures and tranquil conditions prevailed through the end of the month.

**Data are preliminary** and are from NOAA/NCEI, the Northeast Regional Climate Center, the Southeast Regional Climate Center, and the National Weather Service Forecast Offices in Flagstaff, Phoenix, Tucson, and Las Vegas.

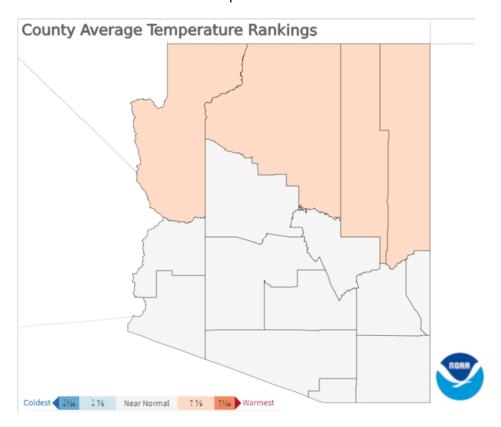
<u>Note</u>: Weather stations across the state have different reporting times. Official daily temperature and precipitation values are recorded at the airports from midnight to midnight, while statewide observations are taken at varying times throughout the day.

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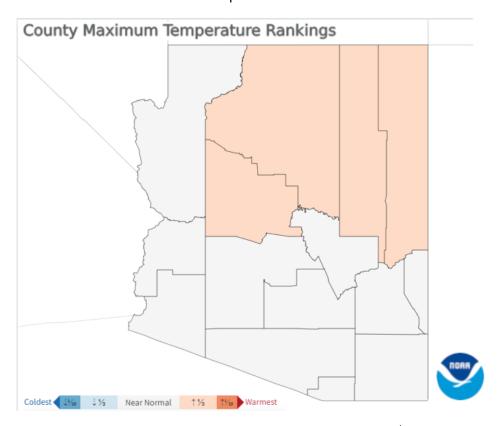
April 2024



The average state temperature for April was 58.2°F, ranking as the 47<sup>th</sup> warmest April within the period of record. The 1895-2024 mean average state temperature for April was 57.2°F, resulting in an anomaly of +1.0°F.

County	Average Temperature	Rank (130 Years)	Anomaly From the 1895-2024 mean
Apache	49.2°F	35 <sup>th</sup> warmest	+1.4°F
Cochise	58.5°F	61 <sup>st</sup> coldest	-0.3°F
Coconino	51.9°F	34 <sup>th</sup> warmest	+2.0°F
Gila	56.5°F	55 <sup>th</sup> warmest	+0.6°F
Graham	58.1°F	63 <sup>rd</sup> warmest	+0.1°F
Greenlee	53.9°F	61 <sup>st</sup> warmest	+0.2°F
La Paz	69.3°F	54 <sup>th</sup> warmest	+1.0°F
Maricopa	67.8°F	50 <sup>th</sup> warmest	+1.0°F
Mohave	60.3°F	38 <sup>th</sup> warmest	+1.6°F
Navajo	51.1°F	33 <sup>rd</sup> warmest	+1.7°F
Pima	64.1°F	62 <sup>nd</sup> coldest	-0.1°F
Pinal	65.8°F	58 <sup>th</sup> warmest	+0.5°F
Santa Cruz	57.3°F	57 <sup>th</sup> coldest	-0.4°F
Yavapai	56.7°F	44 <sup>th</sup> warmest	+1.3°F
Yuma	69.0°F	62 <sup>nd</sup> warmest	+0.2°F

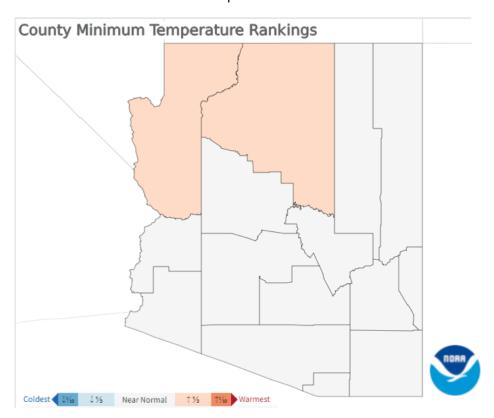
April 2024



The average maximum state temperature for April was 73.7°F, ranking as the  $49^{th}$  warmest April within the period of record. The 1895-2024 mean maximum state temperature for April was 72.2°F, resulting in an anomaly of +1.5°F.

County	Maximum Temperature	Rank (130 Years)	Anomaly From the 1895-2024 mean
Apache	65.4°F	26 <sup>th</sup> warmest	+2.6°F
Cochise	75.4°F	61 <sup>st</sup> warmest	+0.2°F
Coconino	66.8°F	39 <sup>th</sup> warmest	+2.3°F
Gila	71.8°F	52 <sup>nd</sup> warmest	+1.1°F
Graham	73.4°F	55 <sup>th</sup> warmest	+0.7°F
Greenlee	69.6°F	45 <sup>th</sup> warmest	+1.1°F
La Paz	84.5°F	53 <sup>rd</sup> warmest	+1.4°F
Maricopa	83.6°F	53 <sup>rd</sup> warmest	+1.4°F
Mohave	73.7°F	45 <sup>th</sup> warmest	+1.6°F
Navajo	67.2°F	31 <sup>st</sup> warmest	+2.5°F
Pima	80.4°F	62 <sup>nd</sup> coldest	+0.2°F
Pinal	81.6°F	55 <sup>th</sup> warmest	+0.9°F
Santa Cruz	73.7°F	58 <sup>th</sup> coldest	-0.2°F
Yavapai	72.6°F	39 <sup>th</sup> warmest	+2.1°F
Yuma	84.8°F	63 <sup>rd</sup> coldest	+0.2°F

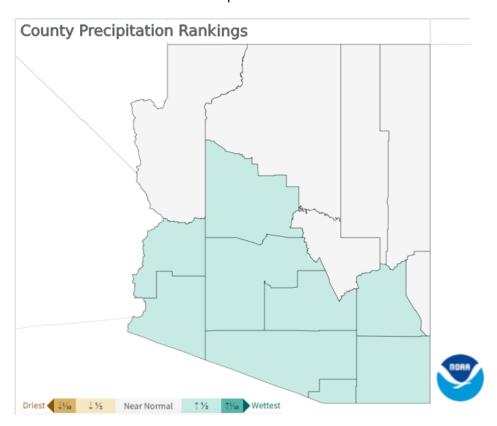
April 2024



The average minimum state temperature for April was 42.7°F, ranking as the 53rd warmest April within the period of record. The 1895-2024 mean minimum state temperature for April was 42.1°F, resulting in an anomaly of +0.6°F.

County	Minimum Temperature	Rank (130 Years)	Anomaly From the 1895-2024 mean
Apache	32.9°F	59 <sup>th</sup> warmest	+0.2°F
Cochise	41.5°F	45 <sup>th</sup> coldest	-0.8°F
Coconino	37.0°F	33 <sup>rd</sup> warmest	+1.8°F
Gila	41.3°F	62 <sup>nd</sup> warmest	+0.2°F
Graham	42.9°F	53 <sup>rd</sup> coldest	-0.5°F
Greenlee	38.2°F	53 <sup>rd</sup> coldest	-0.7°F
La Paz	54.2°F	50 <sup>th</sup> warmest	+0.8°F
Maricopa	52.1°F	51 <sup>st</sup> warmest	+0.7°F
Mohave	46.8°F	38 <sup>th</sup> warmest	+1.5°F
Navajo	35.0°F	47 <sup>th</sup> warmest	+0.8°F
Pima	47.8°F	61 <sup>st</sup> coldest	-0.3°F
Pinal	49.9°F	61 <sup>st</sup> warmest	0.0°F
Santa Cruz	40.9°F	52 <sup>nd</sup> coldest	-0.6°F
Yavapai	40.8°F	50 <sup>th</sup> warmest	+0.6°F
Yuma	53.2°F	55 <sup>th</sup> warmest	+0.2°F

April 2024

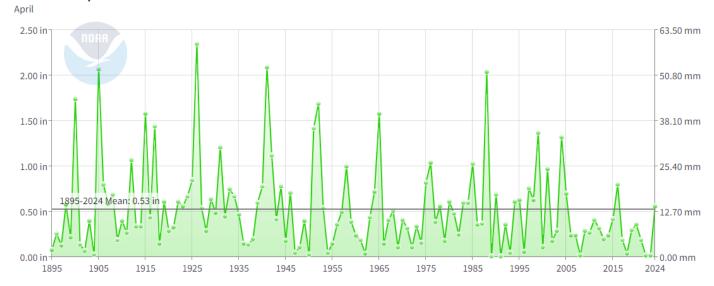


The average state precipitation for April was 0.56 inches, ranking as the 47th wettest April within the period of record. The 1895-2024 mean state precipitation for April was 0.53 inches, resulting in an anomaly of +0.03 inches.

County	Precipitation	Rank (130 Years)	Anomaly From the 1895-2024 mean
Apache	0.45"	57 <sup>th</sup> driest	-0.23"
Cochise	0.81"	14 <sup>th</sup> wettest	+0.51"
Coconino	0.70''	57 <sup>th</sup> wettest	-0.06''
Gila	0.85"	46 <sup>th</sup> wettest	+0.03"
Graham	0.71"	26 <sup>th</sup> wettest	+0.27"
Greenlee	0.53"	46 <sup>th</sup> wettest	0.00''
La Paz	0.24"	40 <sup>th</sup> wettest	+0.04"
Maricopa	0.46"	28 <sup>th</sup> wettest	+0.16"
Mohave	0.35"	64 <sup>th</sup> wettest	-0.20''
Navajo	0.42"	61 <sup>st</sup> driest	-0.19''
Pima	0.50"	26 <sup>th</sup> wettest	+0.18"
Pinal	0.58"	32 <sup>nd</sup> wettest	+0.17"
Santa Cruz	0.62"	25 <sup>th</sup> wettest	+0.21"
Yavapai	0.93"	37 <sup>th</sup> wettest	+0.18"
Yuma	0.31"	20 <sup>th</sup> wettest	+0.18"

### April Statewide Precipitation (1895 to date)

### **Arizona Precipitation**



Period of record: 1895-2024

This chart shows average Arizona precipitation each April through the period of record (1895 to present). April 2024 ranked as the 47<sup>th</sup> wettest with an average of 0.56 inches, which is 0.03 inches above the 1895-2024 average of 0.53 inches.

### **Flagstaff Climate Statistics**

### April 2024

This ranked as the 41<sup>st</sup> warmest April on record (1898-09-10 to present). With 0.90 inches of precipitation, it ranked as the 61<sup>st</sup> driest April on record.

Cooling Degree Days: 0 Normal: 0 Degree base 65°F

Normal: 639

Heating Degree Days: 614

Avg Max Temp: 59.9°F Normal: 59.2°F Avg Min Temp: 28.6°F Normal: 28.2°F Avg Mean Temp: 44.3°F Normal: 43.7°F

Total April Precipitation: 0.90"

Normal April Precipitation: 0.89"

Departure from Normal: +0.01"

Greatest 24-Hr Precip: 0.49" from 26<sup>th</sup> – 27<sup>th</sup>

Highest Monthly Avg Temp: 50.4°F in 1989 Lowest Monthly Avg Temp: 36.2°F in 1975 Total Precipitation Year-to-Date: 9.63"
Departure from Normal: +2.64"
Total Precip Year-to-Date (Last Year): 16.19"

Highest Temp this month: 73°F on 22<sup>nd</sup> Lowest Temp this month: 19°F on 7<sup>th</sup>

Total April Snowfall: 4.5"

Normal: 5.0"

Record High: 80°F on 4/28/1992, 4/7/1989

Record April Snowfall: 58.3" in 1965

Record Low: -2°F on 4/2/1975

Greatest April Precipitation: 5.62" in 1965 Least April Precipitation: 0.00" in 2008, 1991

No temperature or precipitation records this month.

# Number of Days:

Clear 24
Partly Cloudy 5
Cloudy 1

Flagstaff Number of Days of:

Minimum Temp 32°F or lower 25
Minimum Temp 0°F or lower 0
Maximum Temp 90°F or higher 0
Maximum Temp 32°F or lower 0

Average Wind Speed: 7.4 mph

Highest Peak Gust: 54 mph from 190° on 14<sup>th</sup>

Data are from NOAA, the Northeast Regional Climate Center, and the Southeast Regional Climate Center and are **preliminary.** 

Normals on this page are from 1991-2020

		FL	RIL Z AGST	AFF			
ABOVE AVERAGE BELOW +/- 0.5°F							
S	М	Т	W	Th	F	S	
	1	2	3	4	5	6	
7	8	9	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30					

Flagstaff recorded 17 days of above average temperatures, 11 days of below average temperatures, and 2 days of average temperatures this month.

#### **Phoenix Climate Statistics**

### April 2024

This ranked as the 23<sup>rd</sup> warmest April on record (1895-08-06 to present). With 0.40 inches of precipitation, it ranked as the 32<sup>nd</sup> wettest April on record.

Heating Degree Days: 18 Normal: 14 Cooling Degree Days: 295 Normal: 259

Degree base 65°F

Avg Max Temp: 86.8°F Normal: 85.5°F Avg Min Temp: 61.3°F Normal: 60.8°F Avg Mean Temp: 74.0°F Normal: 73.2°F

Total April Precipitation: 0.40"

Normal April Precipitation: 0.22"

Departure from Normal: +0.18"

Greatest 24-Hr Precip: 0.40" on 1st

Highest Monthly Avg Temp: 80.0°F in 1989 Lowest Monthly Avg Temp: 62.3°F in 1967 Total Precipitation Year-to-Date: 3.79"

Departure from Normal: +1.00"

Total Precip Year-to-Date (Last Year): 2.88"

Highest Temp this month: 102°F on 22<sup>nd</sup> Lowest Temp this month: 49°F on 1<sup>st</sup>, 6<sup>th</sup>

Greatest April Precipitation: 3.36" in 1926 Least April Precipitation: 0.00" in 2023 and 34 other years

Record High: 105°F on 4/22/2012, 4/29/1992

4/20/1989

Record Low: 35°F on 4/10/1922

Number of Days:
Clear 23
Partly Cloudy 7

Cloudy 0

No temperature or precipitation records this month.

Average Wind Speed: 7.0 mph

Highest Peak Gust: 43 mph from 270° on 26<sup>th</sup>

Phoenix Number of Days of:

Minimum Temp 32°F or lower 0
Minimum Temp 0°F or lower 0
Maximum Temp 90°F or higher 13
Maximum Temp 32°F or lower 0

Data are from NOAA, the Northeast Regional Climate Center, and the Southeast Regional Climate Center and are **preliminary.** 

Normals on this page are from 1991-2020

Γ			Р	RIL :	11X				
	ABOVE AVERAGE BELOW +/- 0.5°F								
ı	S	М	т	W	Th	F	S		
		1	2	3	4	5	6		
ı	7	8	9	10	11	12	13		
ı	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27		
	28	29	30						
ata are	from the Natio	nal Weather Se	ervice office in F	Phoenix and are	preliminary.				

Phoenix observed 15 days of above average temperatures, 13 days of below average temperatures, and 2 days of average temperatures this April.

#### **Tucson Climate Statistics**

### April 2024

This ranked as the 42<sup>nd</sup> warmest April on record Heating Degree Days: 54 Normal: 44 Cooling Degree Days: 131 (1894-09-01 to present). With 0.88 inches of Normal: 137 precipitation, it ranked as the 12th wettest Degree base 65°F April on record.

Total April Precipitation: 0.88" Normal April Precipitation: 0.24" Avg Max Temp: 82.3°F Normal: 82.9°F Avg Min Temp: 52.4°F Normal: 53.3°F Departure from Normal: +0.64"

Greatest 24-Hr Precip: 0.92" from 3/31 - 4/1 Avg Mean Temp: 67.3°F Normal: 68.1°F

5.29" Highest Monthly Avg Temp: 73.8°F in 1989 Total Precipitation Year-to-Date: Lowest Monthly Avg Temp: 57.8°F in 1975 Departure from Normal: +2.81" Total Precip Year-to-Date (Last Year): 3.01"

Highest Temp this month: 95°F on 22<sup>nd</sup> Lowest Temp this month: 39°F on 7<sup>th</sup>

Greatest April Precipitation: 3.53" in 1905 0.00" in 2023 Least April Precipitation: and 29 other years

Number of Days:

Cloudy

Record High: 104°F on 4/21/1989, 4/20/1989

Clear 21 **Partly Cloudy** 

Temperature or precipitation records this month:

LoMax: 55°F on 4/1/2024,

previous record 56°F on 4/1/1949

Record Low: 27°F on 4/4/1945

Average Wind Speed: 7.1 mph

Highest Peak Gust: 52 mph from 220° on 5<sup>th</sup>

Tucson Number of Days of:

Minimum Temp 32°F or lower 0 Minimum Temp 0°F or lower 0 Data are from NOAA, the Northeast Regional Climate Maximum Temp 90°F or higher 9 Center, and the Southeast Regional Climate Center Maximum Temp 32°F or lower 0 and are **preliminary**.

Normals on this page are from 1991-2020

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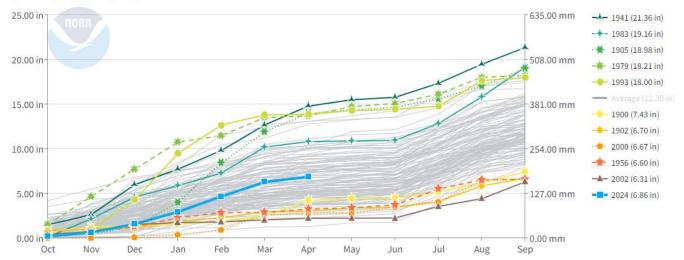
			Т	RIL :	ИС			
	ABOVE AVERAGE BELOW +/- 0.5°F							
	S M T W Th F S							
	1 2 3 4 5 6							
	7	8	9	10	11	12	13	
	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	
	28	29	30					
ıta are	from the Natio	nal Weather Se	ervice office in 1	Tucson and are	preliminary.			

This month, Tucson measured an equal number of days of above average and below average temperatures (15 days).

### Cumulative Statewide Precipitation per Water Year (Oct 2023-Sept 2024)

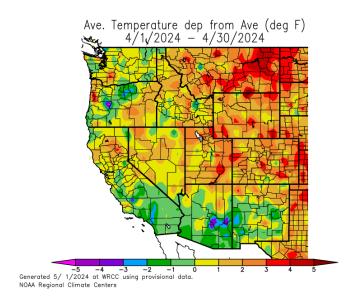
#### Arizona

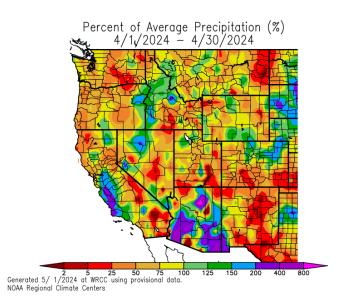


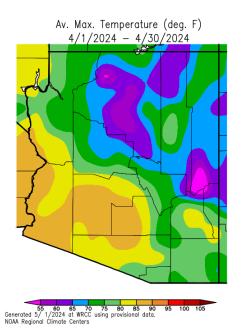


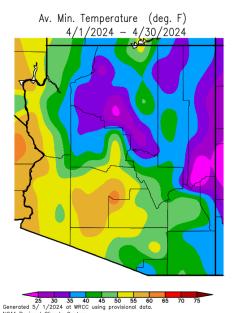
The average state cumulative Water Year precipitation was 6.86 inches at the end of April, which is 0.21 inches above the October-April average of 6.65 inches.

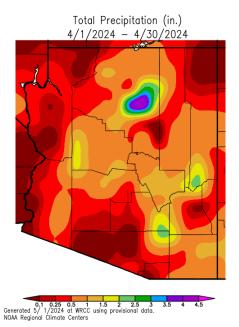
Data are from the National Centers for Environmental Information and are preliminary.





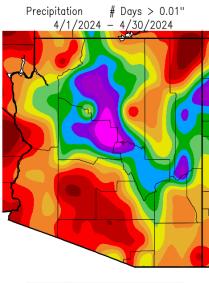






Precipitation Departure from Average (in.)

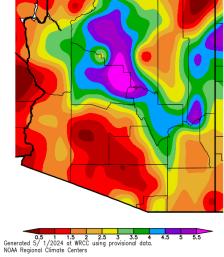
4/1/2024 - 4/30/2024



Percent of Average Precipitation (%) 4/1/2024 - 4/30/2024

-3,75 -3 -2.25 -1.5 -0.75 0 0.75 1.5 2.25 3 3.75
Generated 5/ 1/2024 at WRCC using provisional data.

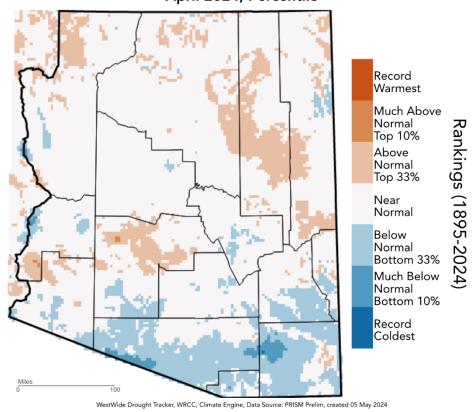
NOAR Regional Climate Centers



2 5 25 50 75 100 125 150 200 400 800

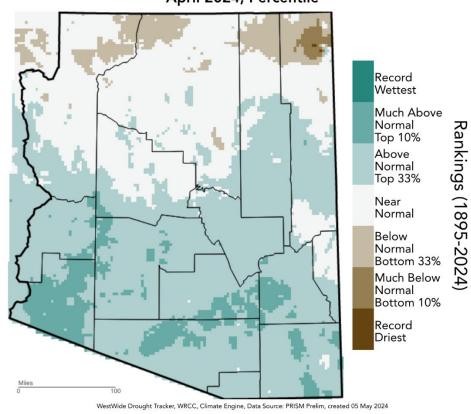
Road Regional Climate Centers

### Arizona - Mean Temperature April 2024, Percentile

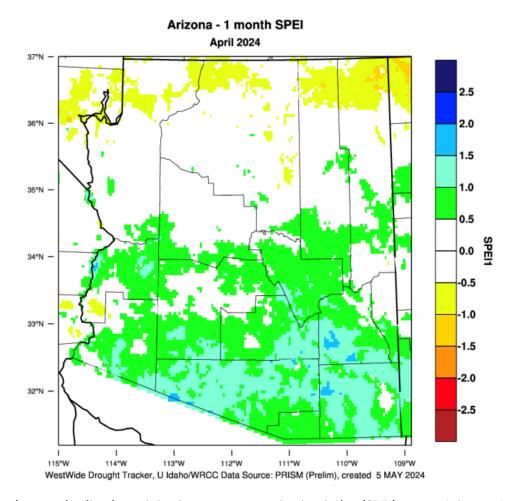


Temperatures across much of the state were near normal, while portions of southern counties observed below normal temperatures and portions of northern counties recorded above normal temperatures.

# Arizona - Precipitation April 2024, Percentile

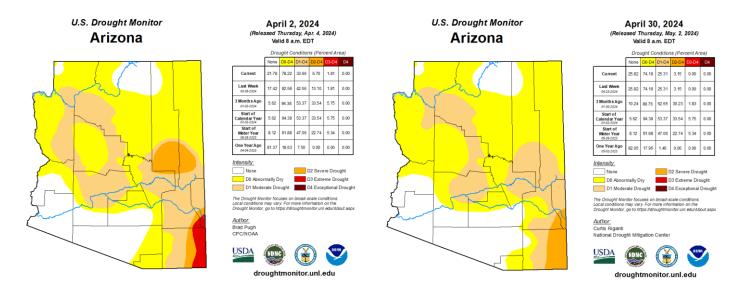


Above normal precipitation was measured in most of central and southern Arizona.



This map shows the standardized precipitation evapotranspiration index (SPEI) across Arizona. April precipitation and evapotranspiration totals are measured across the state and are compared to previous April precipitation and evapotranspiration totals through the period of record (1895-present). Positive values represent wet conditions, while negative values represent dry conditions.

### **Short-term Drought**



Short-term drought improved in April, with all Extreme (D3) short-term drought removed. Severe (D2) short-term drought remained in 3% of the state, while Moderate (D1) short-term drought retreated to 22% of the state.

Abnormally dry (D0) locations and areas without drought covered 75% of the state.