



Tucson Weather Forecast Office Drought Services

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Tucson Weather Forecast Office
Pima County LDIG Meeting
May 12, 2021



Drought Information Statement

- Issued when Drought Monitor indicates Extreme Drought D3 or greater in the Weather Forecast Office's county forecast and warning area
- Provide current drought situation with pertinent hydrometeorological information and data to water managers, other agencies, and the media
- https://www.wrh.noaa.gov/total_forecast/getprod.php?afos=dgttwc&wfo=twc&new

Drought Information Statement
National Weather Service Tucson Arizona
500 PM MST FRI APR 23 2021

...EXCEPTIONAL DROUGHT CONDITIONS CONTINUE ACROSS MOST OF SOUTHEAST ARIZONA...

.SYNOPSIS:

Drought intensity and extent: According to the latest U.S. Drought Monitor, exceptional drought (D4) conditions were across most of southeast Arizona. The exception was extreme drought (D3) conditions across south-central Pinal and parts of central Pima county and moderate (D1) to severe (D2) conditions across western Pima county.



Southeast Arizona Drought Page

<https://www.weather.gov/twc/seazDM>

NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HOME FORECAST PAST WEATHER SAFETY INFORMATION EDUCATION NEWS SEARCH ABOUT

Local forecast by "City, St" or ZIP code

[Location Help](#)

News Headlines

- 2021 Air Quality Awareness Week
- NWS Tucson Virtual Skywarn Spotter Training Now Available
- April climate report for Tucson, 3rd warmest on record

NWS Forecast Office Tucson, AZ
[Weather.gov](#) > NWS Tucson Arizona

Current Hazards Current Conditions Radar Forecasts Rivers and Lakes Climate and Past Weather **Local Programs**

Click a location below for detailed forecast.

Watches, Warnings & Advisories

Hazardous Weather Outlook

Items of Interest

- Our Office
- Coyote Crier
- Monsoon
- Monsoon Safety
- SE Arizona drought page**
- Education Resources
- COOP Observer
- NWS News

Last Map Update: Thu, May 6, 2021 at 1:01:26 pm MST

Southeast Arizona Drought Page

[Weather.gov](#) > [NWS Tucson Arizona](#) > Southeast Arizona Drought Page

NWS Tucson Arizona
Weather Forecast Office

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Southeast Arizona Drought Page

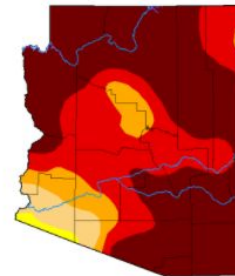
[Local Drought Information Statement](#) (DGT) issued April 23

is issued once a month when portions of southeast Arizona are in Extreme (D3) or Exceptional (D4) drought

U. S. Drought Monitor

<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor Arizona



May 4, 2021
(Released Thursday, May 6, 2021)
Valid 8 a.m. EDT

	None	D0	D1	D2	D3	D4	OK
Current	0.00	100.00	85.00	24.00	20.00	00.00	07.70
Last Week	0.00	100.00	85.00	24.00	20.00	00.00	07.70
1 Month Ago	0.00	100.00	85.00	24.00	20.00	00.00	07.70
1 Year Ago	0.00	100.00	85.00	24.00	20.00	00.00	07.70
Calendar Year	0.00	100.00	85.00	24.00	20.00	00.00	07.70
Year to Date	0.00	100.00	85.00	24.00	20.00	00.00	07.70
Other Year to Date	00.00	00.00	00.00	00.00	00.00	00.00	00.00

Legend

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

The Drought Monitor focuses on areas where conditions are unfavorable and/or where drought conditions are likely to develop. For more information on the Drought Monitor, visit droughtmonitor.unl.edu

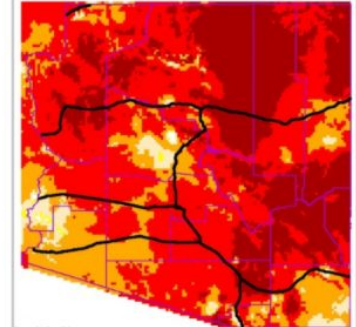
Author:
David Serrano
Western Regional Climate Center

droughtmonitor.unl.edu

Long Term Drought Status

<https://new.azwater.gov/drought>

January-March 2021 Long-term Drought



Drought Conditions

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

(C)2021 Arizona State Climate Office
 0 20 40 80 120 160 Miles



Local Drought Services Ideas

- Additional information or resources for the Drought Information Statement
- Additions to Southeast AZ Drought Page

New services

- Drought email briefing?
 - Similar to Monthly Fire Weather Outlook Briefings
 - Expand upon Drought Impact Statement
- Colorado River Shortage

NWS Tucson Briefing - Monthly Fire Weather Outlook for May - July 2021 Inbox x

NWS Tucson - NOAA Service Account Mon, May 3, 3:16 PM (7 d)

to bcc: twc.operations ▾

Good afternoon,

Not a lot of changes with the outlook this month as severe to exceptional drought continues.

Key Points:

- April - Above average in temps and below average in precip
- May – Expect above average temps and equal chances for precip with a slight lean toward drier than normal.
- Severe to exceptional drought continues
- Increased chances of a more active monsoon remain

SOUTHEAST ARIZONA MONTHLY SEASONAL OUTLOOK

National Weather Service
Tucson

Briefing for:

Wildland Fire Agencies

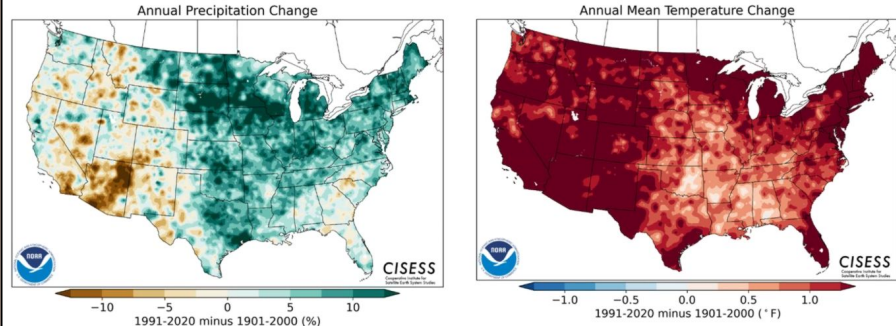




New Climate Normals 1991-2020

- Updated every 10 years in accordance with World Meteorological Organization
- Majority of Arizona warmer & drier
 - Tucson 1.2 degrees warmer and 0.98" drier annually, monsoon season 0.39" drier
 - Ajo annual precipitation 0.14" wetter
- <https://www.noaa.gov/explainers/understanding-climate-normals>

Comparing 1991-2020 to 1901-2000



- Climate change is clearly seen in comparing the new normals to the Twentieth Century averages

1991-2020				Tucson Airport				1981-2010			
Temperature Normals °F			Precip Normals (")	Temperature Normals °F			Precip Normals (")				
High	Low	Avg		High	Low	Avg					
Jan	66.5	40.8	53.6	0.84	Jan	65.5	39.8	52.6	0.94		
Feb	69.2	43.2	56.2	0.84	Feb	68.5	42.2	55.3	0.86		
Mar	75.8	48.0	61.9	0.56	Mar	74.1	46.2	60.1	0.73		
Apr	82.9	53.3	68.1	0.24	Apr	82.1	52.0	67.0	0.31		
May	91.8	61.8	76.8	0.20	May	91.6	60.5	76.0	0.23		
Jun	101.2	71.1	86.1	0.23	Jun	100.3	69.3	84.8	0.20		
Jul	100.2	76.3	88.2	2.21	Jul	99.7	74.4	87.0	2.25		
Aug	98.6	75.2	86.9	1.98	Aug	97.4	73.3	85.3	2.39		
Sep	95.1	70.4	82.8	1.32	Sep	94.5	68.6	81.6	1.29		
Oct	86.3	59.0	72.6	0.67	Oct	84.8	57.3	71.0	0.89		
Nov	75.1	47.9	61.5	0.56	Nov	73.5	46.1	59.8	0.57		
Dec	65.5	40.5	53.0	0.96	Dec	64.8	39.1	51.9	0.93		
Annual	84.1	57.3	70.7	10.61	Annual	83.1	55.8	69.4	11.59		
Monsoon (6/15-9/30)				5.69	Monsoon (6/15-9/30)				6.08		



Monsoon Season Outlook

- June - October above normal precipitation for Arizona
- Climate Prediction Center Discussion: Below-normal soil moisture in the Southwest and southern Rockies may allow for more efficient heating of the land mass and potentially an enhanced monsoon circulation. Elevated probabilities for above-normal precipitation are predicted for parts of the southwest from JJA through ASO 2021, supported in part by dynamical model forecasts.
- Only 3 years since 2000 CPC outlook had above normal precipitation for monsoon season
 - 2001 - only 2.81" at Tucson Airport & 11th driest
 - 2006 - 10.60" at Tucson Airport & 6th wettest
 - 2015 - 6.63" at Tucson Airport & slightly above normal

