



Drought Information Statement for South Central Texas

Current Status, Impacts, and Outlook [Beta Test 2023]

Issued By: NWS Austin/San Antonio, TX

Contact information: sr-ewx.webmaster@noaa.gov

May 4, 2023



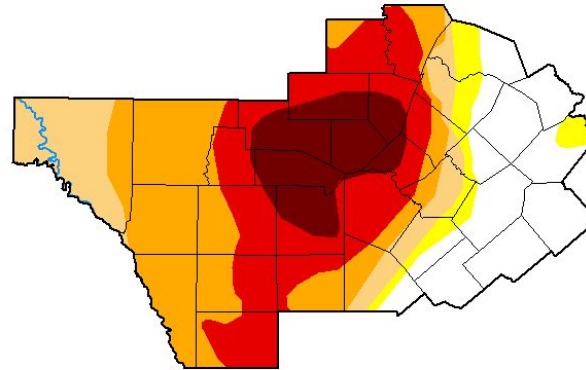


U.S. Drought Monitor

Latest U.S. Drought Monitor Map

- Key Messages:
 - Well above normal precipitation during the month of April allowed for significant improvement of drought conditions across the coastal plains and portions of the I-35 corridor.
 - Near to below normal precipitation across portions of the Edwards Plateau and Rio Grande Plains resulted in maintaining to slight expansion of drought conditions.
- Extreme (D3) to Exceptional Drought covers 36% of our region, while 26% of the area is not in drought.

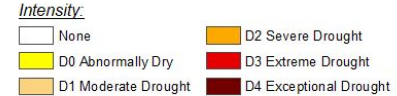
U.S. Drought Monitor Austin/San Antonio, TX WFO



May 2, 2023
(Released Thursday, May 4, 2023)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
Current	20.79	4.93	11.88	26.49	23.87	12.05
Last Week 04-25-2023	9.24	13.48	13.49	25.56	26.18	12.05
3 Months Ago 01-31-2023	1.99	21.45	29.59	26.66	10.16	10.15
Start of Calendar Year 01-03-2023	6.21	14.33	40.02	19.13	11.66	8.65
Start of Water Year 09-27-2022	1.55	13.06	33.69	29.92	16.79	4.98
One Year Ago 05-03-2022	0.00	5.78	12.41	21.56	34.75	25.50



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:
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CPC/NOAA



droughtmonitor.unl.edu

Image Caption: [U.S. Drought Monitor](https://droughtmonitor.unl.edu) valid 8am EDT May 2, 2023





Recent Change in Drought Intensity

- Four Week U.S. Drought Monitor Class Change.
 - Drought Worsened: over a narrow area across the Rio Grande Plains as well as portions of the Hill Country around the D2 and D3 drought area.
 - No Change: Most of the Rio Grande Plains, Southern Edwards Plateau, and Hill Country.
 - Drought Improved: Coastal Plains saw the greatest improvement over the past 30 days. This is most noticeable over Gonzales County with a 4 class improvement.

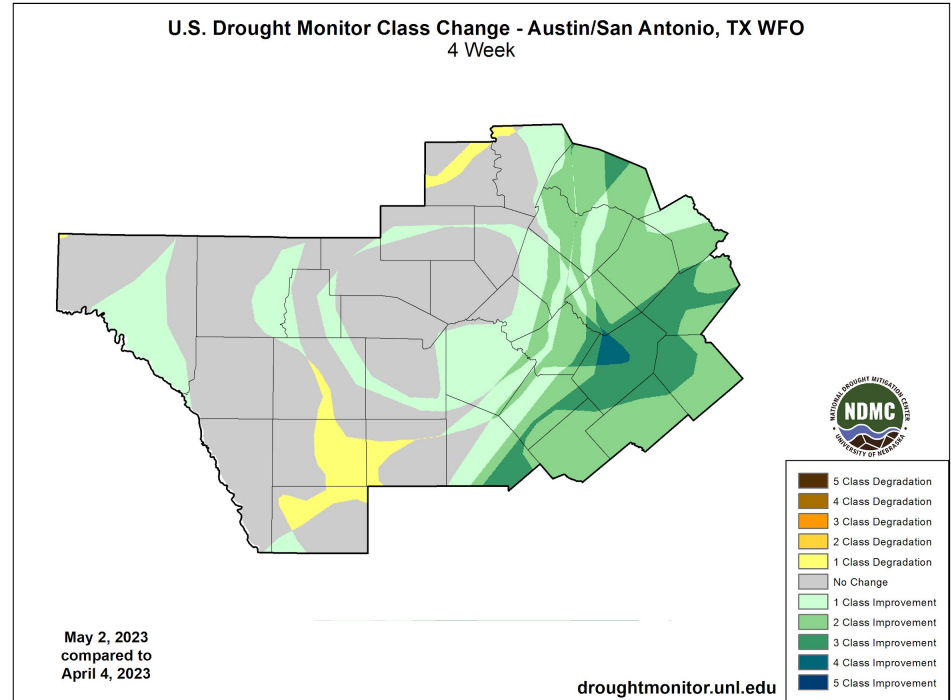
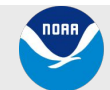


Image Caption: [U.S. Drought Monitor 4-week change map](#) valid 8am EDT May 3, 2023





Precipitation

Main Takeaways

- The Coastal Plains and portions of the I-35 corridor saw significant precipitation over the month of April.
- An obvious maximum occurred over portions of Bastrop, Fayette, Gonzales, Lavaca, Wilson, Karnes, DeWitt and Atascosa counties which exceeded 10 inches.
- The departure from normal map (right) shows a large swath of 4 inches or greater above normal for the past 30 days including portions of the D4 and D3 drought areas.

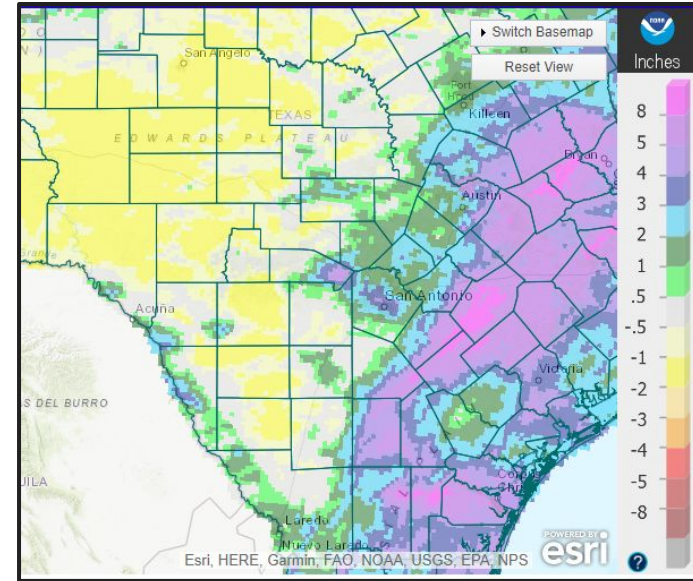
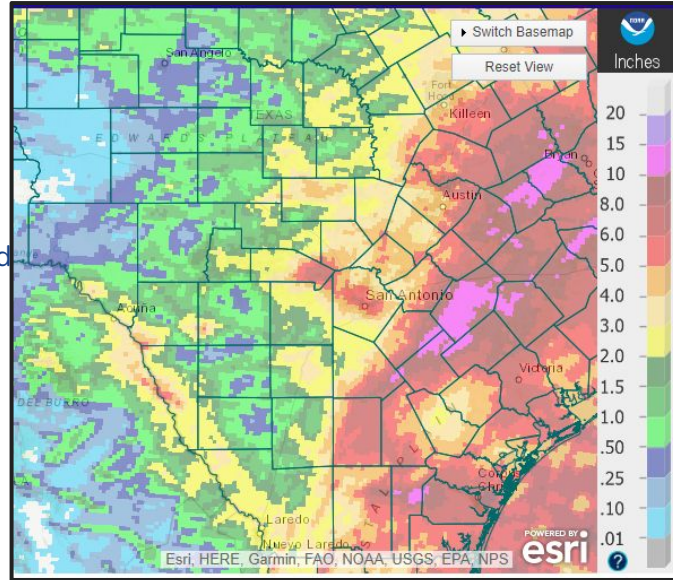


Image Captions:

Left - [Precipitation Amount Map for south-central Texas](#)

Right - [Departure from Normal for south-central Texas](#)

Data Courtesy Advanced Hydrologic Prediction Service (AHPS)

Data over the past 30 days ending May 3, 2023





Summary of Impacts

Hydrologic Impacts

- Streamflows over the past 7 days have shown improvement for the lower Colorado and San Antonio river basins while lower than normal streamflows persist across the Nueces, Guadalupe, San Marcos, Blanco, Llano, and Frio river basins.
- Mixture of responses with area reservoir levels with some showing improvements over the past 30 days and others seeing slightly lower levels.
- See next slide for more details

Agricultural Impacts

- Please see the latest [Crop and Weather Report](#) from Texas A&M Agrilife.
- Soil Moistures have improved significantly over most of south central Texas, but remain below normal over the western Hill Country, southern Edwards Plateau, and Rio Grande Plains.

Fire Hazard Impacts

- Wildfire risk is limited over central and eastern areas in the near term due to recent rains and greenup. Some western areas may still be susceptible to fire hazards during dry, windy periods.
- See slide 8 for more details

Other Impacts

- Water recreation is severely impacted on Lake Medina, and is also impacted on Lakes Travis and Amistad.

Drought Mitigation Actions

- Please refer to your municipality and/or water provider for mitigation information.
- Select [Municipality Restrictions](#) (as of 4/21/2023)
 - Fredericksburg: Stage 3
 - San Antonio: Stage 2
 - Leakey: Stage 2
 - Kerrville: Stage 1
 - Austin: Stage 1
 - Marble Falls: Stage 1
 - Buda: Stage 1
 - Boerne: Stage 1
 - Round Rock: Stage 1





Hydrologic Conditions

Main Takeaways

- Streamflows over the past 7 days have shown improvement for the lower Colorado and San Antonio river basins while lower than normal streamflows persist across the Nueces, Guadalupe, San Marcos, Blanco, Llano, and Frio river basins.
- Mixture of responses with area reservoir levels with some showing improvements over the past 30 days and others seeing slightly lower levels.

Wednesday, May 03, 2023

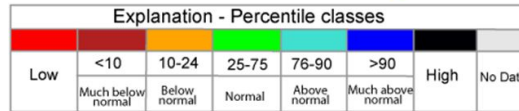
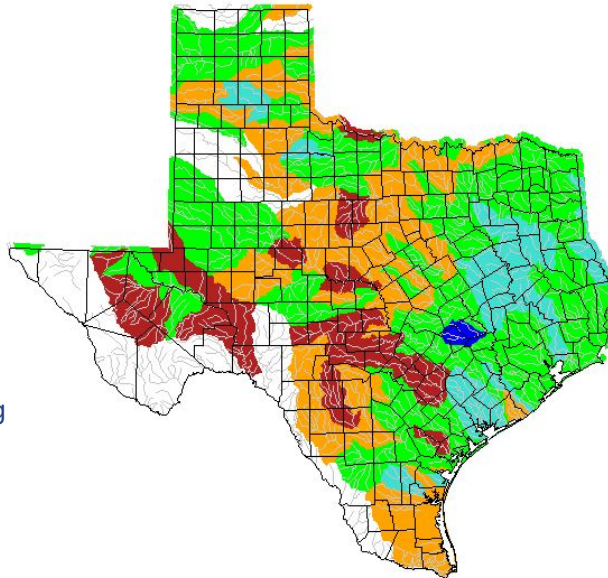


Figure Caption: [USGS 7 day streamflows for Texas](#), valid May 2, 2023

Reservoir	Pool Elevation (ft)	Current Elevation (ft)	Percent Full
Amistad	1117.00	1065.26	34.0%
Medina Lake	1064.2	980.92	5.1%
Canyon Lake	909.00	896.99	76.1%
Granger Lake	504.00	504.50	100%
Georgetown Lake	791.00	779.01	63.8%
Lake Buchanan	1020.00	1001.18	60.2%
Lake LBJ	825.00	824.79	98.8%
Lake Marble Falls	738.00	736.27	94.2%
Lake Travis	681.00	637.90	43.8%
Lake Austin	492.9	492.04	95.1%

Table caption: [TWDB Reservoir](#) conditions as of May 3, 2023

Additional data:

Edwards Aquifer, Bexar Index Well J-17 as of

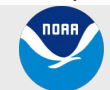


May 3, 2023:

10 day average: 640.8

Historical April Average: 665.5

Departure from Average: -25



National Oceanic and Atmospheric Administration

U.S. Department of Commerce

National Weather Service
Austin/San Antonio, TX

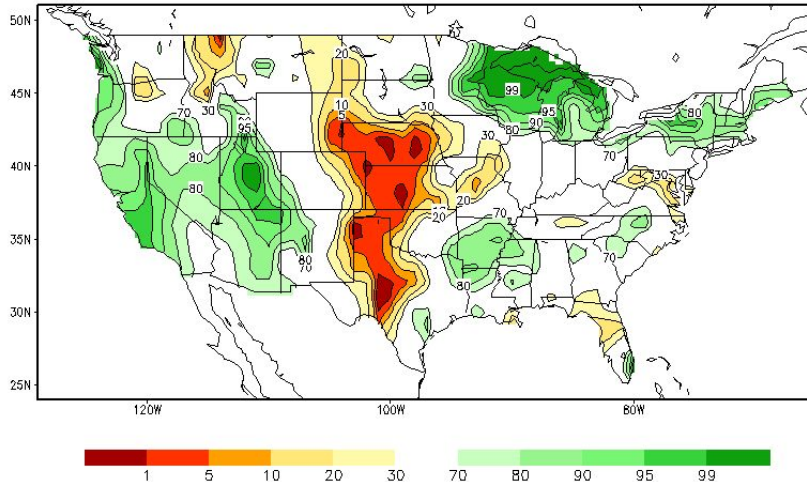


Agricultural Impacts

Main Takeaways

- Soil Moistures have improved significantly over most of south central Texas, but remain below normal over the western Hill Country, southern Edwards Plateau, and Rio Grande Plains.
- Crop moistures are near normal moisture for two of the three crop division while the northwestern division is abnormally dry.

Calculated Soil Moisture Ranking Percentile
MAY 02, 2023



Crop Moisture Index by Division
Weekly Value for Period Ending Apr 29, 2023
Short Term Need vs. Available Water in a Shallow Soil Profile

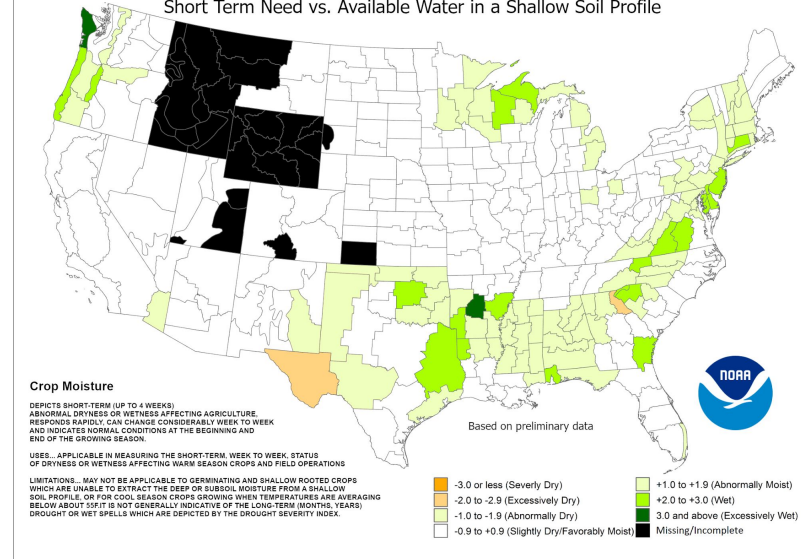
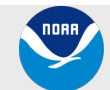


Image Captions:

Left: [CPC Calculated Soil Moisture Ranking Percentile](#) valid May 2, 2023

Right: [Crop Moisture Index by Division](#). Weekly value for period ending April 29, 2023





Fire Hazard Impacts

Main Takeaways

- Keetch Byram Drought Index values are very low for areas east of US-281 thanks to recent rains, but remain in the 400-600 range for many of our western counties.

The Texas Forest Service uses the Keetch-Byram Drought Index (KBDI) as a system for relating current and recent weather conditions to potential or expected fire behavior. It is a numerical index calculated daily for each county. Each number is an estimate of the amount of rain, in hundredths of an inch, needed to bring the soil back to saturation. The index ranges from 0 to 800, with 0 representing a saturated soil and 800 a completely dry soil.

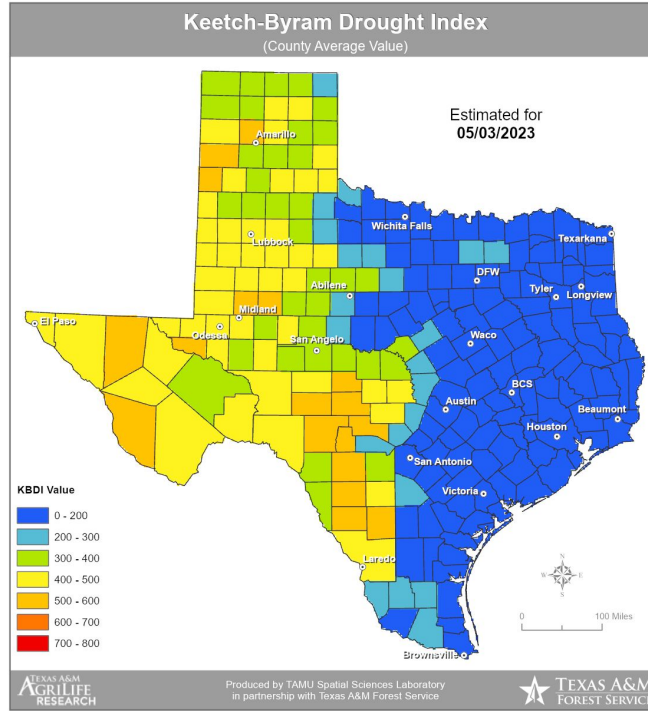
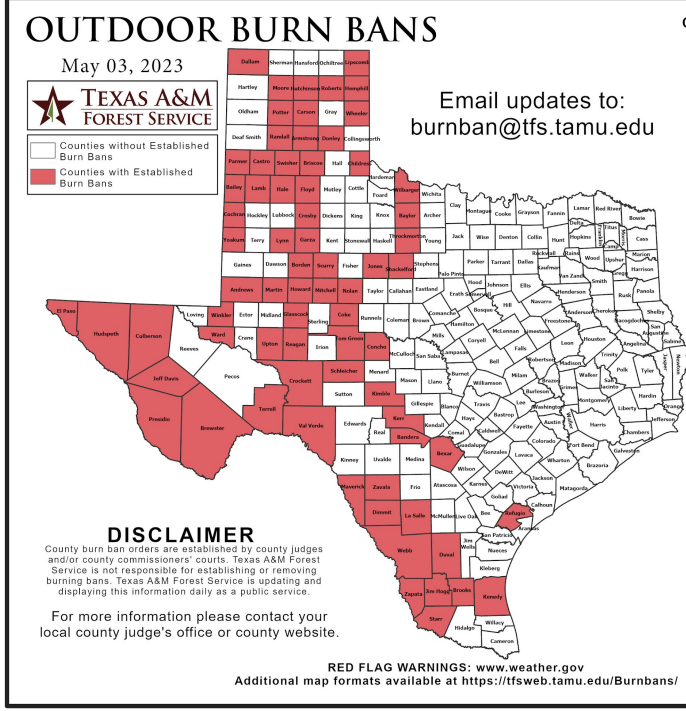


Image Caption: [Keetch-Byram Drought Index \(KBDI\)](#) by county for TX, estimated for May 3, 2023



Burn bans remain in effect for 7 of our 33 counties as of May 3, 2023. Latest County Burn Ban map available [here](#).





Monthly Outlooks

Monthly Temperature and Precipitation Outlook

Main Takeaways

- There are equal chances for above, near, or below normal temperatures in May.
- Odds lean slightly towards above normal precipitation in May (33-40%).

Possible Impact

May is typically the wettest month of the year for much of south-central Texas, so even just near normal precipitation will help prevent an early onset of extreme heat and will limit drought degradation.

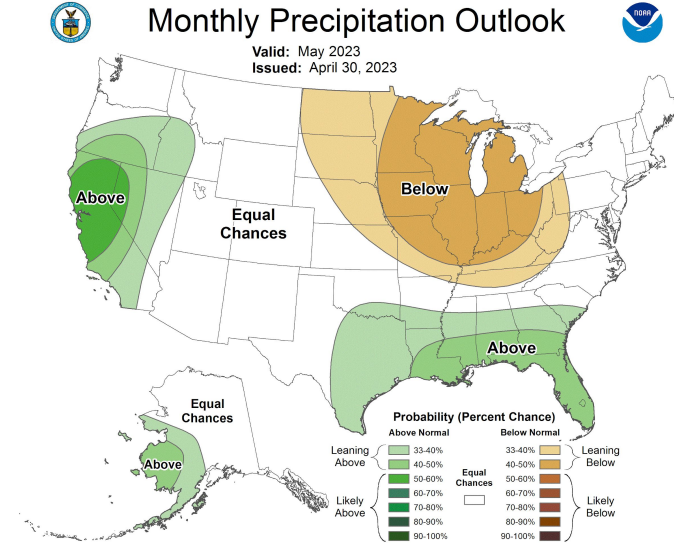
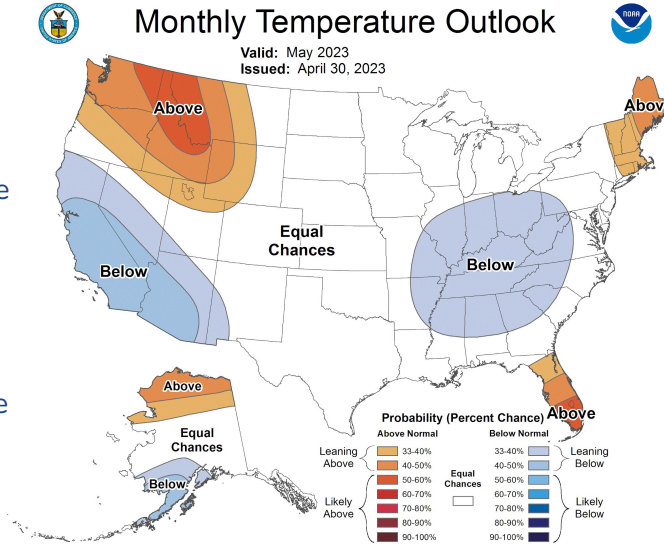
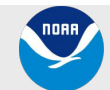


Image Captions:

Left - [Climate Prediction Center Monthly Temperature Outlook](#).

Right - [Climate Prediction Center Monthly Precipitation Outlook](#).

Valid May 2023.





Seasonal Outlook

Seasonal Temperature and Precipitation Outlook

Main Takeaways

- Above normal temperatures are likely on average from May through July. There will still be periods of cooler than normal weather.
- Equal chances for above, near, or below normal precipitation in May through July

Possible Impact

Late spring rainfall amounts will play a big role in summer heat potential. More rain in late spring could limit extreme heat some, especially early this summer.

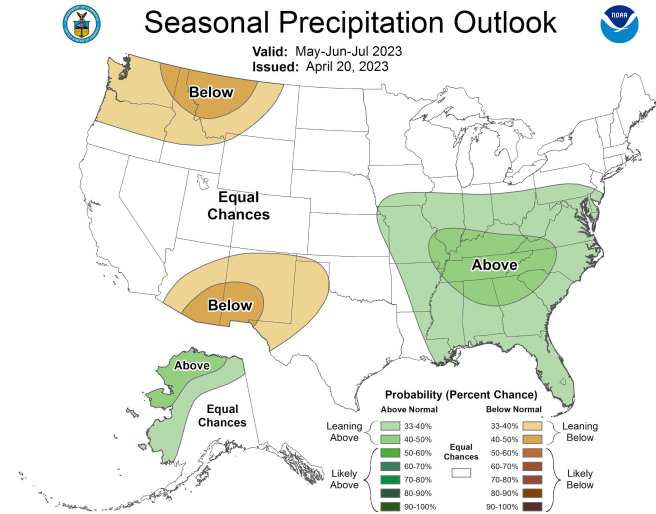
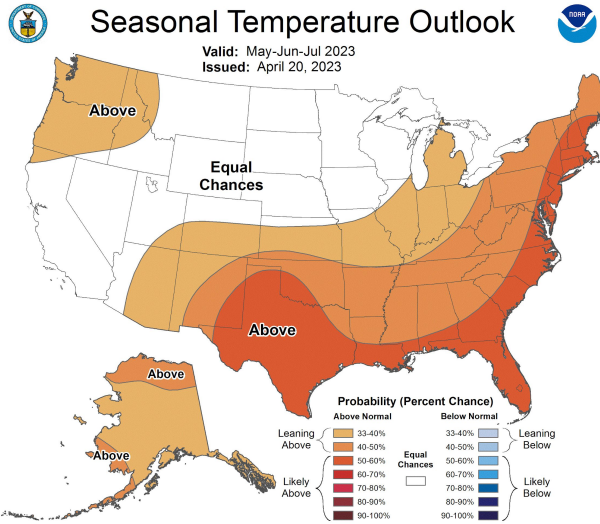
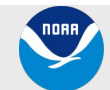


Image Captions:

Left - [Climate Prediction Center Seasonal Temperature Outlook](#).

Right - [Climate Prediction Center Seasonal Precipitation Outlook](#).

Valid May through July 2023





Local Drought Outlook

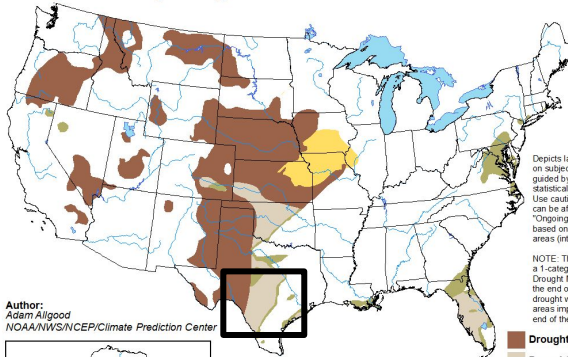
Monthly and Seasonal Outlooks

Main Takeaways

- Drought improvements may continue over eastern portions of south-central Texas through the end of May
- However, longer term impacts of drought are expected to continue through the end of July.

U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

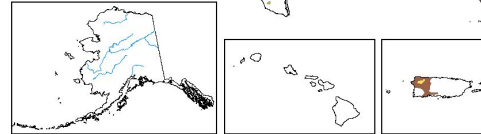
Valid for May 2023
Released April 30, 2023



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

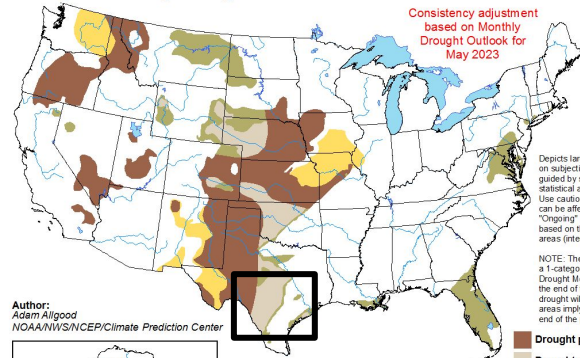
Author:
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NOAA/NWS/NCEP/Climate Prediction Center



 
<http://go.usa.gov/3eZGd>

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for May 1 - July 31, 2023
Released April 30, 2023



Consistency adjustment
based on Monthly
Drought Outlook for
May 2023

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

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Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center



 
<http://go.usa.gov/3eZ73>

Image Captions:

Left - [Climate Prediction Center Monthly Drought Outlook](#) released April 30th and valid for May 2023

Right - [Climate Prediction Center Seasonal Drought Outlook](#) Released April 30, 2023 and valid through July 31, 2023

