



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

June 1, 2023



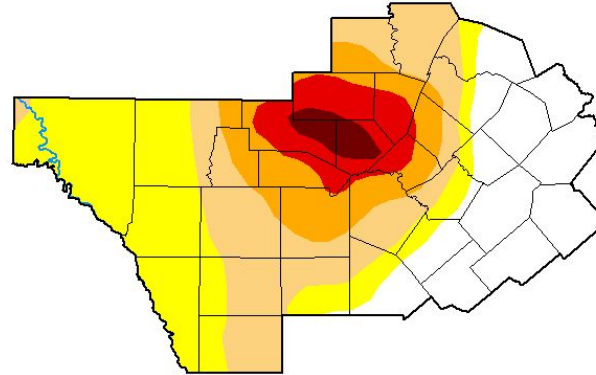


U.S. Drought Monitor

Latest U.S. Drought Monitor Map

- Key Messages:
 - Much needed rain occurred during the month of May allowing for widespread improvement in drought conditions.
 - While portions of the D4 area have received beneficial rainfall in the near term, long-term deficits and impacts from those deficits are still present.
- Extreme (D3) to Exceptional Drought covers 10% of our region, while 54% of the area is not in drought.

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



May 30, 2023

(Released Thursday, Jun. 1, 2023)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
Current	25.14	28.60	24.10	12.26	7.74	2.16
Last Week 05-23-2023	25.08	21.45	29.74	13.83	7.74	2.16
3 Months Ago 02-28-2023	0.95	13.56	31.74	22.87	20.72	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 05-31-2022	0.00	1.57	14.11	27.88	33.53	22.91

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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:

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NCEI/NOAA



droughtmonitor.unl.edu

Image Caption: [U.S. Drought Monitor](https://droughtmonitor.unl.edu) valid 8am EDT June 1, 2023



National Oceanic and
Atmospheric Administration

U.S. Department of Commerce

National Weather Service
Austin/San Antonio, TX



Recent Change in Drought Intensity

- Four Week U.S. Drought Monitor Class Change.
 - Drought Worsened: over the course of the month, no areas saw drought worsen.
 - No Change: Most of the Coastal Plains and portions of the Hill Country, I-35 Corridor, and the southern Edwards Plateau.
 - Drought Improved: Much of the southern Edwards Plateau, Rio Grande Plains, I-35 corridor, and Hill Country.

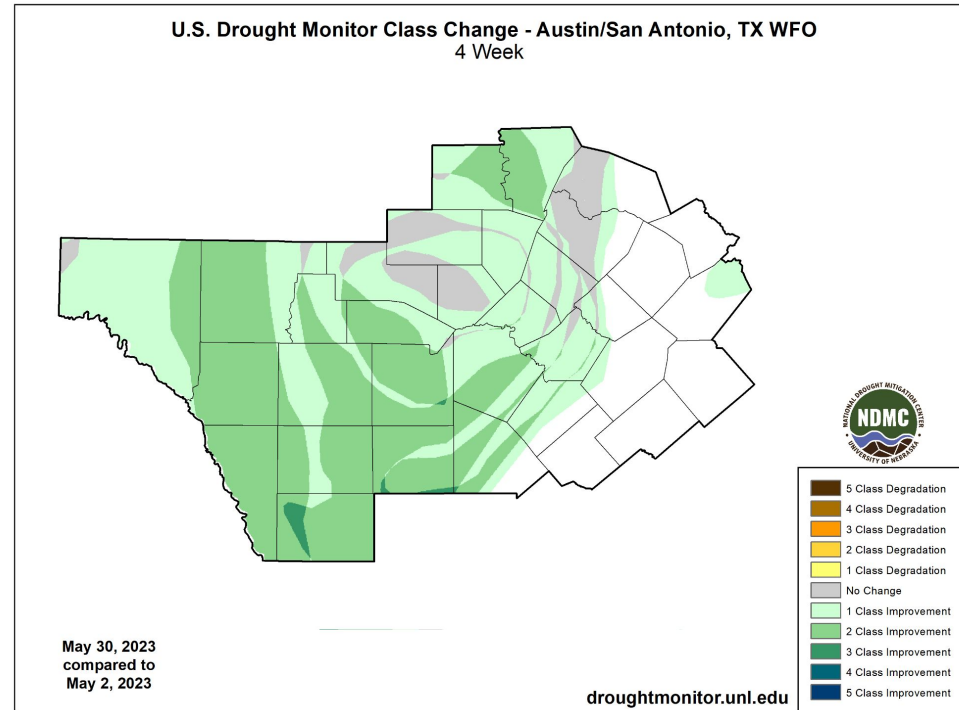
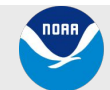


Image Caption: [U.S. Drought Monitor 4-week change map](#) valid 8am EDT June 1, 2023





Precipitation

Main Takeaways

- The majority of South Central Texas saw well above normal rainfall for the month of May.
- A broad swath of greater than 4 inches above normal can be seen over the Coastal Plains stretching westwards in the portions of the southern Edwards Plateau and Rio Grande Plains.
- Isolated areas of the I-35 corridor and Hill Country saw near the slightly below normal rainfall for over the past 30 days.

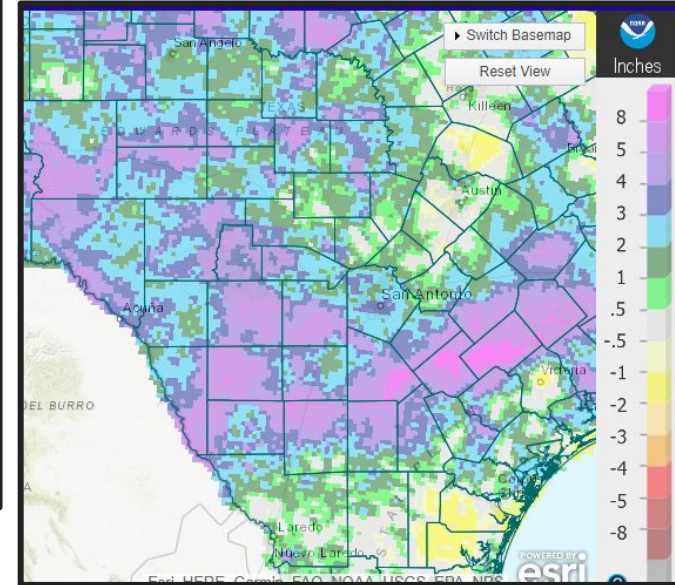
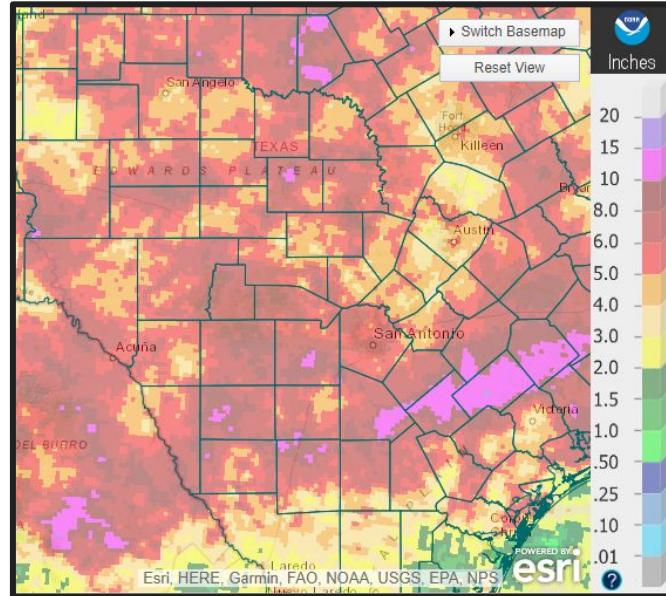


Image Captions:

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 31, 2023



Summary of Impacts

Hydrologic Impacts

- Streamflows over the past 7 days show normal flow for portions of the Colorado, Nueces, San Antonio, and Blanco river basins.
- Streamflows were below to much below normal across portions of the Guadalupe, Frio, San Marcos, Medina, and lower Colorado river basins
- 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 the month of May and now much of the area is showing normal soil moisture. Portions of the Coastal Plains shows above normal moisture while a small portion of Val Verde County is below normal.

Fire Hazard Impacts

- Wildfire risk is limited due to the above normal rainfall for the month of May and greenup.
- See slide 8 for more details

Other Impacts

- Water recreation is severely impacted on Lake Medina, Lakes Travis and Amistad as well as the Guadalupe River.

Drought Mitigation Actions

- Please refer to your municipality and/or water provider for mitigation information.
- Select [Municipality Restrictions](#) (as of 5/31/2023)
 - Fredericksburg: Stage 3
 - San Antonio: Stage 2
 - Austin: Stage 1
 - Kerrville: Stage 1

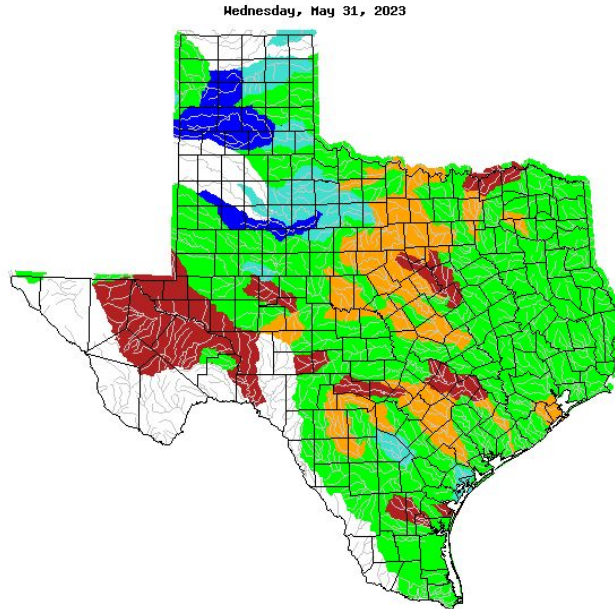





Hydrologic Conditions

Main Takeaways

- Streamflows over the past 7 days show normal flow for portions of the Colorado, Nueces, San Antonio, and Blanco river basins.
- Streamflows were below to much below normal across portions of the Guadalupe, Frio, San Marcos, Medina, and lower Colorado river basins



Additional data:

Edwards Aquifer, Bexar Index Well J-17 as 

of May 31, 2023:

10 day average: 647.6

Historical April Average: 662.6

Departure from Average: -14.8

Figure Caption: [USGS 7 day streamflows for Texas](#), valid May 31, 2023

Reservoir	Pool Elevation (ft)	Current Elevation (ft)	Percent Full
Amistad	1117.00	1068.16	38.0%
Medina Lake	1064.2	981.24	5.2%
Canyon Lake	909.00	896.96	76.0%
Granger Lake	504.00	504.23	100%
Georgetown Lake	791.00	780.01	66.4%
Lake Buchanan	1020.00	1002.50	62.9%
Lake LBJ	825.00	824.81	98.9%
Lake Marble Falls	738.00	736.38	95.1%
Lake Travis	681.00	639.25	45.1%
Lake Austin	492.9	492.11	95.5%

Table caption: [TWDB Reservoir](#) conditions as of May 31, 2023

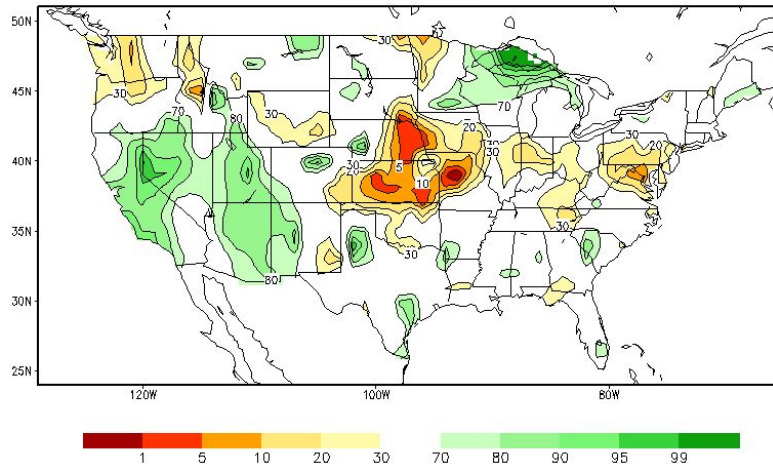


Agricultural Impacts

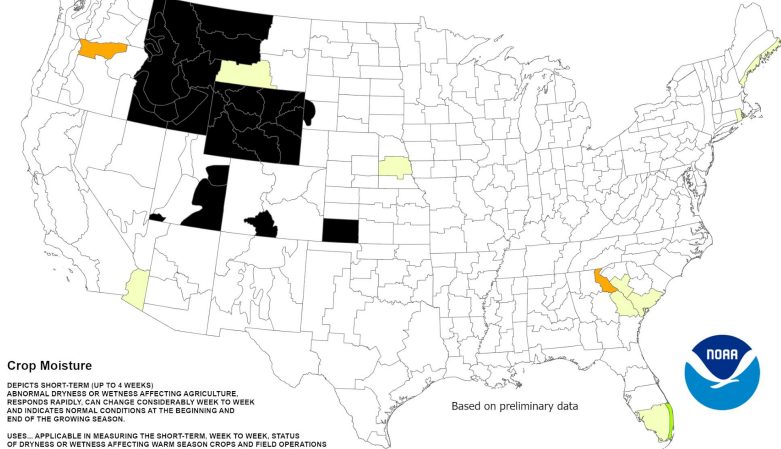
Main Takeaways

- Soil Moistures have improved significantly over the month of May and now much of the area is showing normal soil moisture. Portions of the Coastal Plains shows above normal moisture while a small portion of Val Verde County is below normal.
- Crop moistures are near normal moisture for all three of the crop divisions.

Calculated Soil Moisture Ranking Percentile
MAY 30, 2023



Crop Moisture Index by Division
Weekly Value for Period Ending May 27, 2023
Short Term Need vs. Available Water in a Shallow Soil Profile



Crop Moisture

DEPICTS SHORT-TERM (UP TO 4 WEEKS), ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE. RESPONDS RAPIDLY. CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

USES... APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS

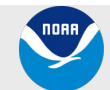
LIMITATIONS... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A SHALLOW SOIL PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 50°F IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

- 3.0 or less (Severely Dry)
- 2.0 to -2.9 (Excessively Dry)
- 1.0 to -1.9 (Abnormally Dry)
- 0.9 to +0.9 (Slightly Dry/Favorably Moist)
- +1.0 to +1.9 (Abnormally Moist)
- +2.0 to +3.0 (Wet)
- 3.0 and above (Excessively Wet)
- Missing/Incomplete

Image Captions:

Left: [CPC Calculated Soil Moisture Ranking Percentile](#) valid May 30, 2023

Right: [Crop Moisture Index by Division](#). Weekly value for period ending May 27, 2023





Fire Hazard Impacts

Main Takeaways

- Keetch Byram Drought Index values are very low across the area with values less than 200.

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.

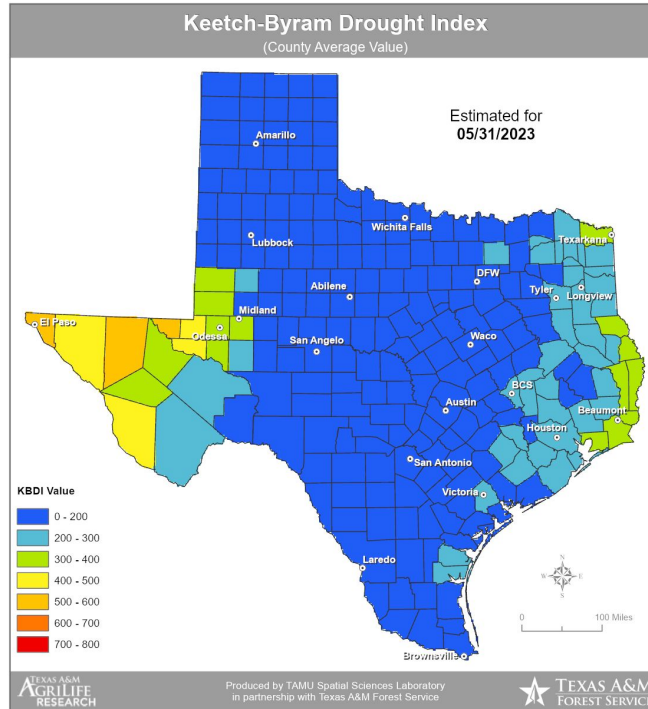


Image Caption: [Keetch-Byram Drought Index \(KBDI\)](#) by county for TX, estimated for May 31, 2023

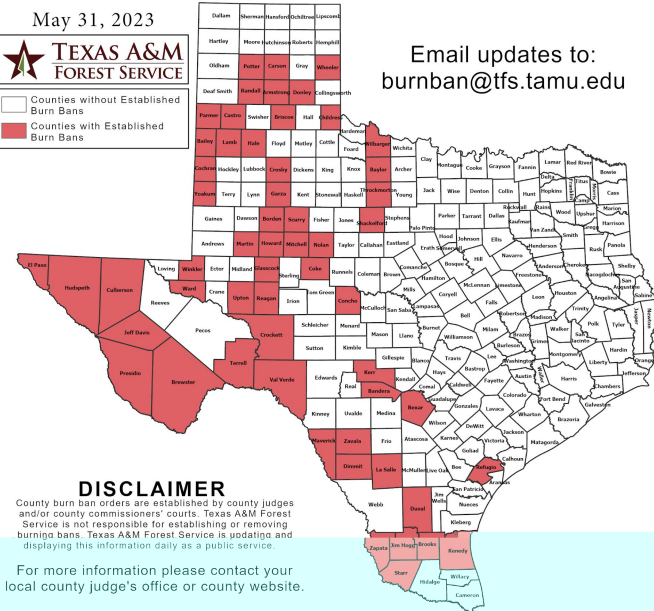
OUTDOOR BURN BANS

May 31, 2023



Email updates to: burnban@fs.tamu.edu

- Counties without Established Burn Bans
- Counties with Established Burn Bans



Burn bans remain in effect for 7 of our 33 counties as of May 31, 2023. Latest County Burn Ban map available [here](#).

RED FLAG WARNINGS: www.weather.gov
Additional map formats available at <https://tfsweb.tamu.edu/Burnbans/>





Monthly Outlooks

Monthly Temperature and Precipitation Outlook

Main Takeaways

- There are equal chances for above, near, or below normal temperatures in June.
- Odds lean slightly towards above normal precipitation for much of the area for June (33-40%) with equal chances of near, above, or below normal precipitation across the Coastal Plains and portions of the I-35 corridor.

Possible Impact

June typically sees less rainfall than May but it does bring decent rainfall to the area. So near or above normal precipitation would help to continue drought improvement across the area.

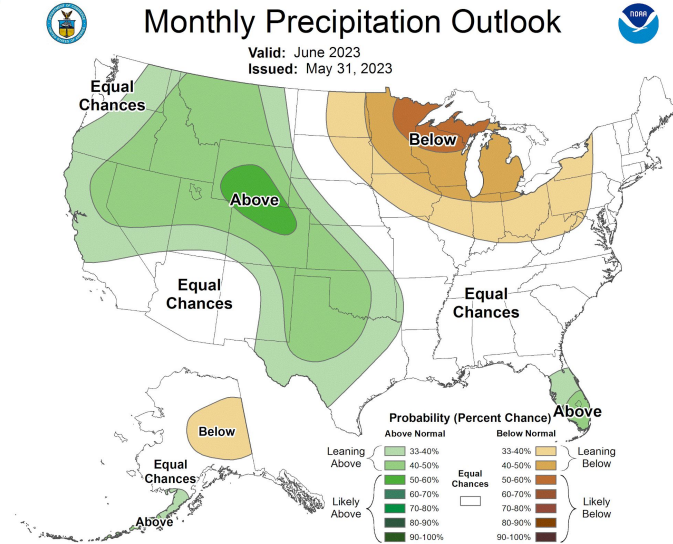
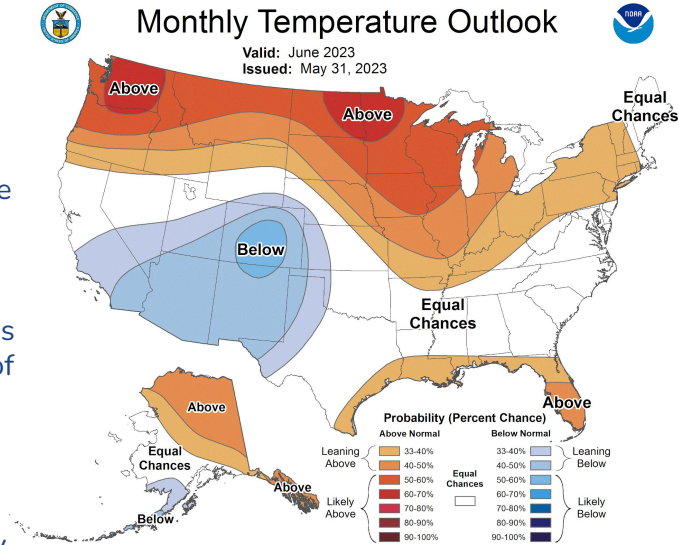


Image Captions:

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

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

Valid June 2023.





Seasonal Outlook

Seasonal Temperature and Precipitation Outlook

Main Takeaways

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

Possible Impact

The rainfall from May could help to reduce the duration of heat during early Summer however, average temperatures for the Summer months range from the mid to upper 90s.

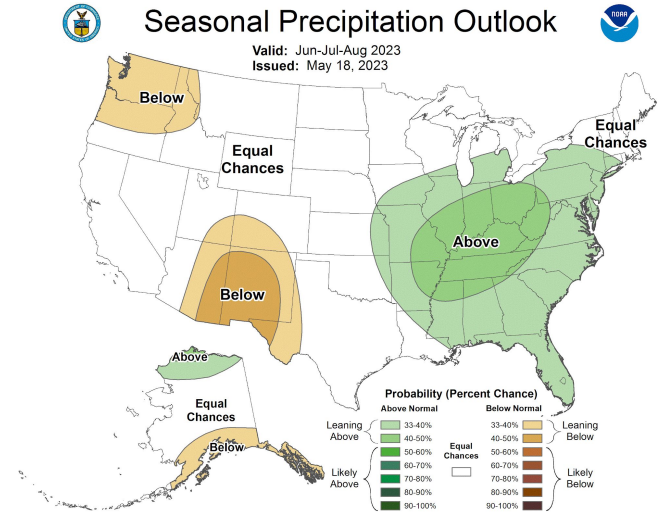
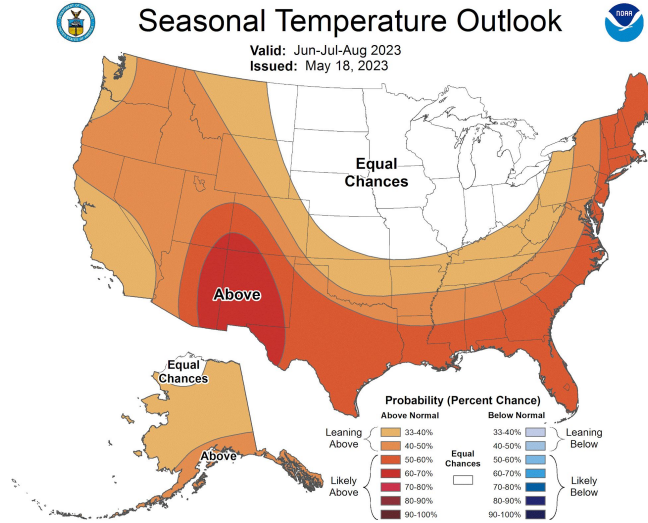


Image Captions:

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

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

Valid June through August 2023





Local Drought Outlook

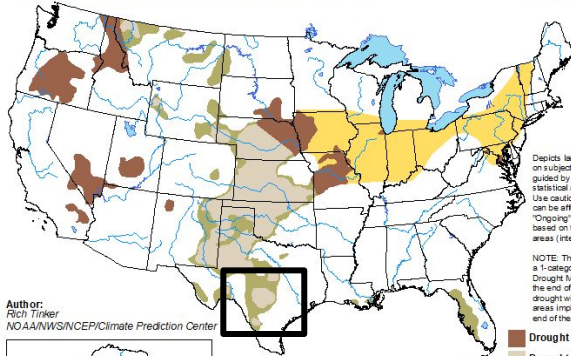
Monthly and Seasonal Outlooks

Main Takeaways

- Drought improvements may continue over central and western portions of south-central Texas through June and into August.

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

Valid for June 2023
Released May 31, 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 (interfiles 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).

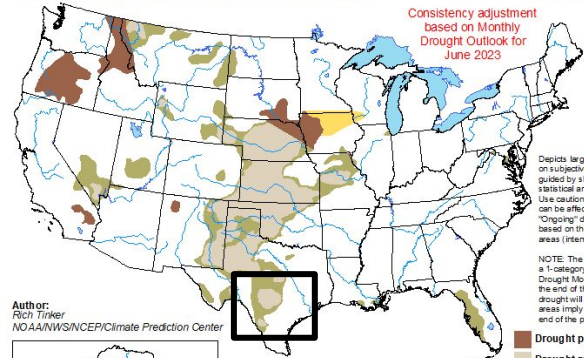
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<http://go.usa.gov/3eZGd>

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

Valid for June 1 - August 31, 2023
Released May 31, 2023

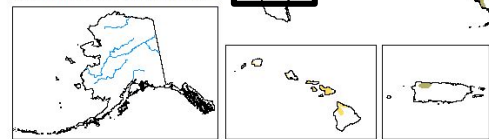


Consistency adjustment based on Monthly Drought Outlook for June 2023

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 (interfiles 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:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center



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

Image Captions:

Left - [Climate Prediction Center Monthly Drought Outlook](#) released May 31 and valid for June 2023

Right - [Climate Prediction Center Seasonal Drought Outlook](#) Released May 31 and valid through August 2023

