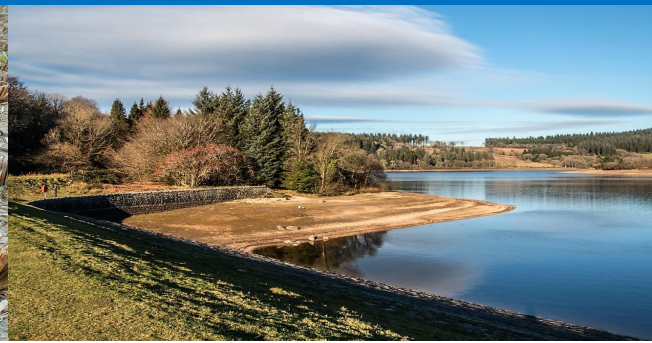
Drought Information Statement for South Central Texas

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 decificts are still present.
- Extreme (D3) to Exceptional Drought covers 10% of our region, while 54% of the area is not in drought.

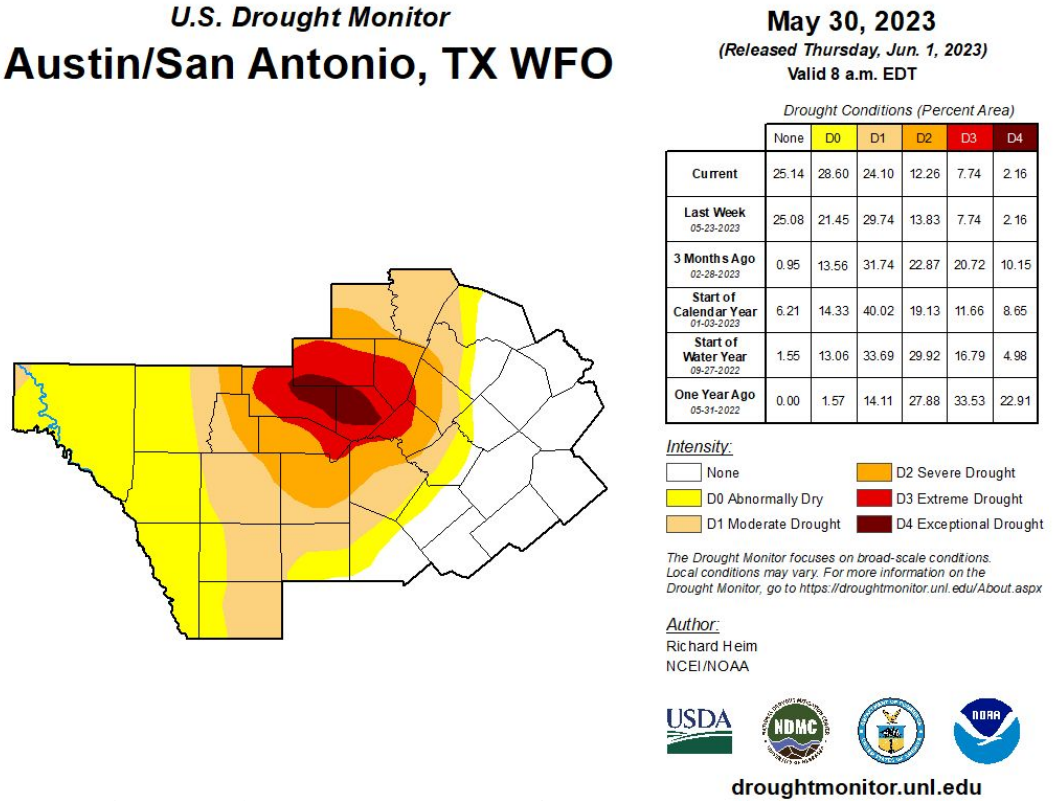


Image Caption: U.S. Drought Monitor valid 8am EDT June 1, 2023

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.

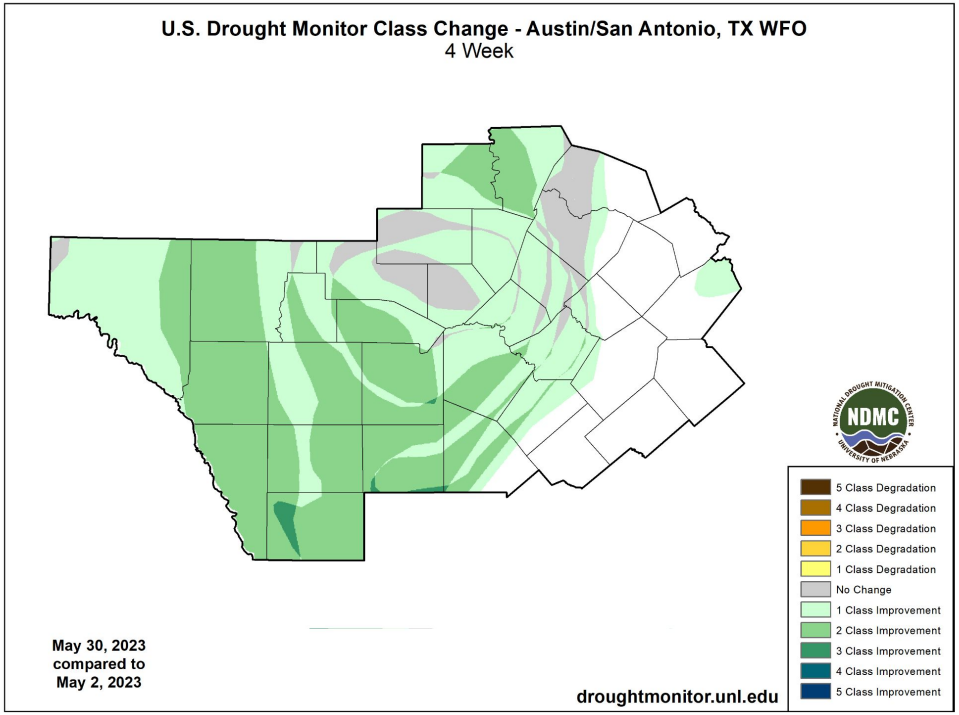
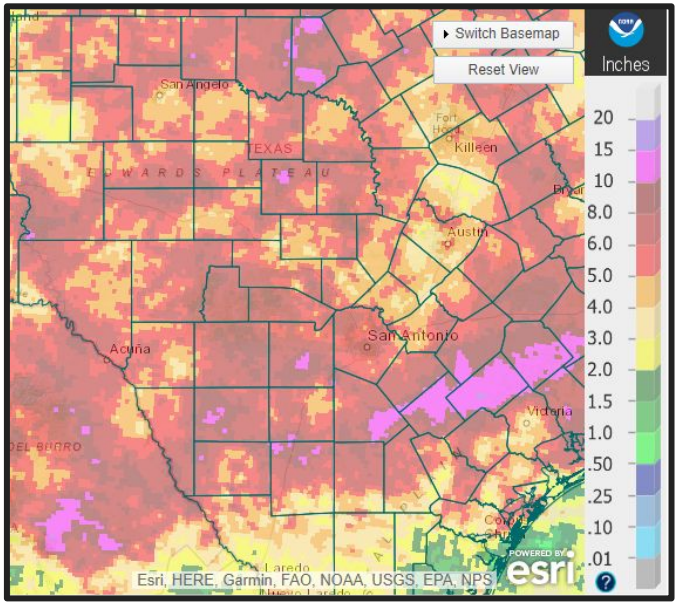


Image Caption: U.S. Drought Monitor 4-week change map valid 8am EDT June 1, 2023

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.



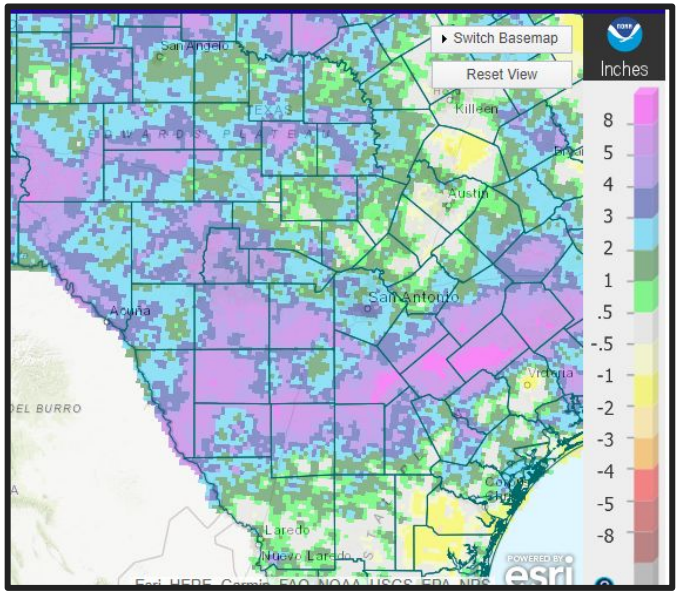


Image Captions:
Left - Precipitation Amount Map for south-central Texas
Right - Departure from Normal for south-central Texas
Data Courtesy Advanced Hydrologic Prediction Service (AHPS)
Data over the past 30 days ending May 31, 2023

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

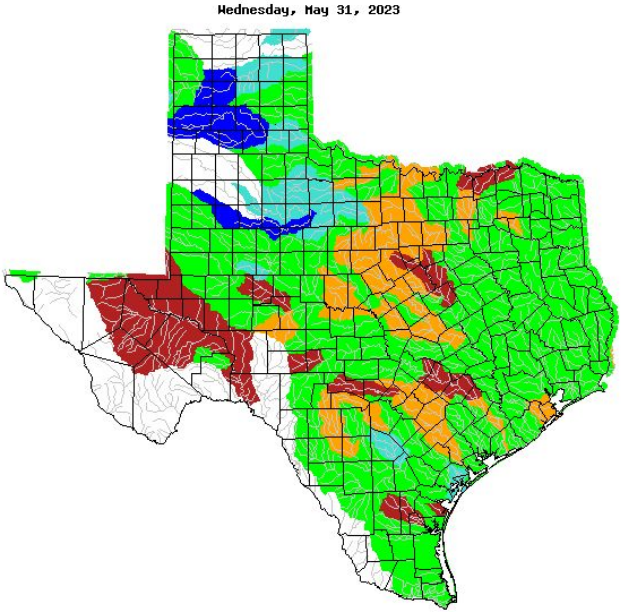
- Please refer to your municipality and/or water provider for mitigation information.

- 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



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%

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

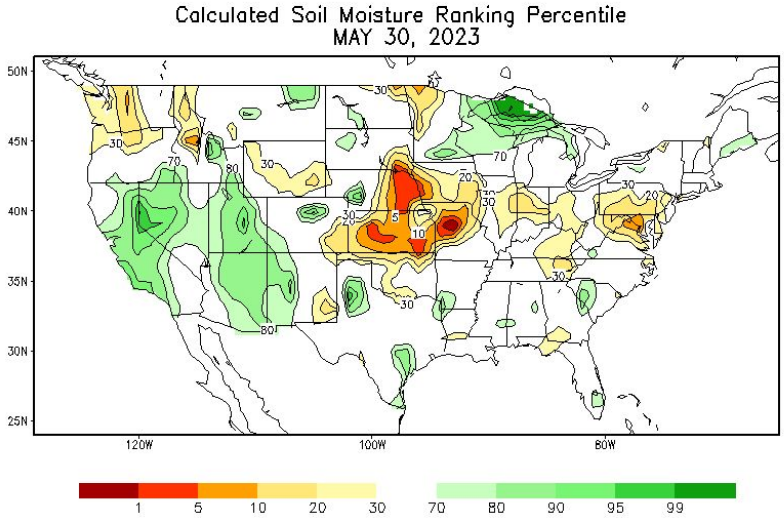
Table caption: TWDB Reservoir conditions as of May 31, 2023

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.



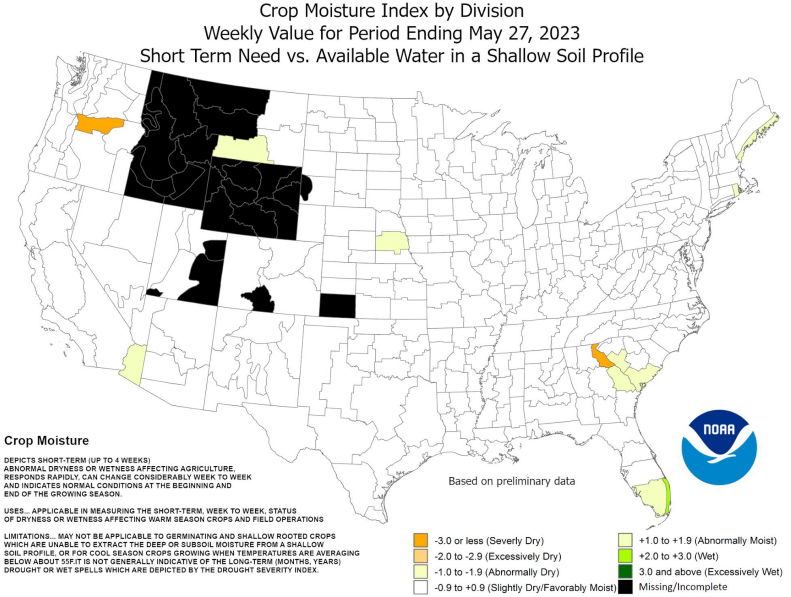


Image Captions:
Left: CPC Calculated Soil Moisture Ranking Percentile valid May 30, 2023
Right: Crop Moisture Index by Division. Weekly value for period ending May 27, 2023

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.

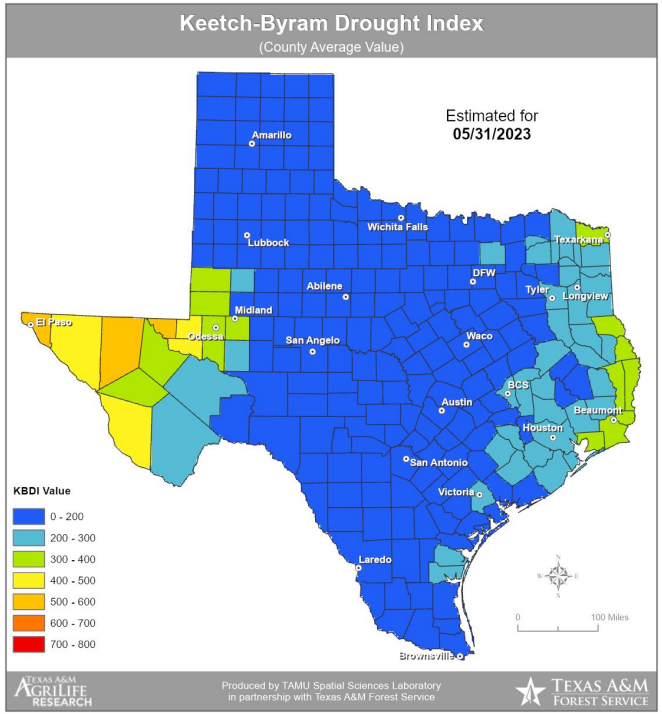
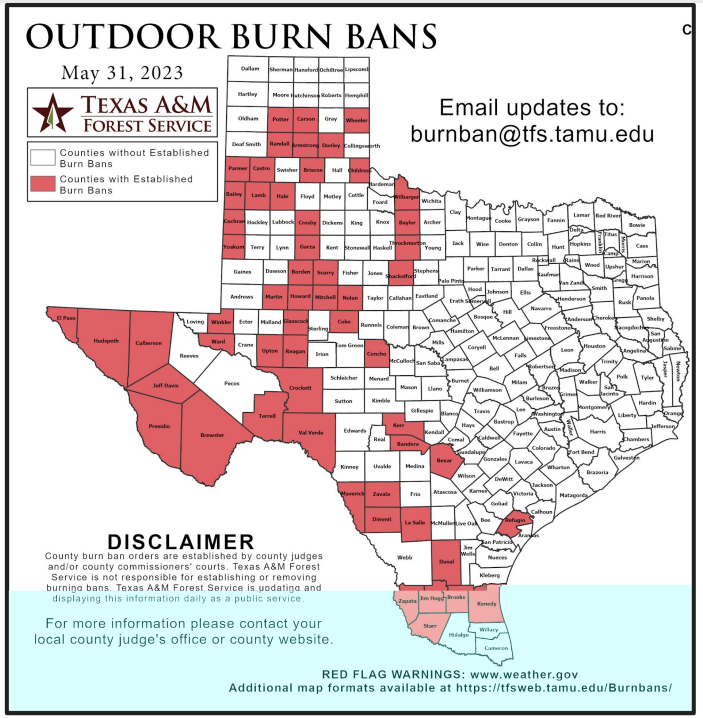


Image Caption: Keetch-Byram Drought Index (KBDI) by county for TX, estimated for May 31, 2023



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

Monthly Outlooks

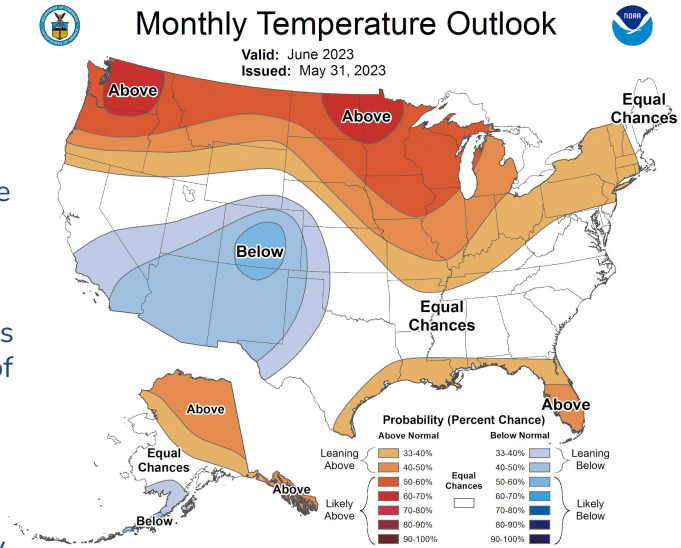
Monthly Temperature and Precipitation Outlook

Main Takeaways

- There are equal chances for above, near, or below normal temperatures in 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.



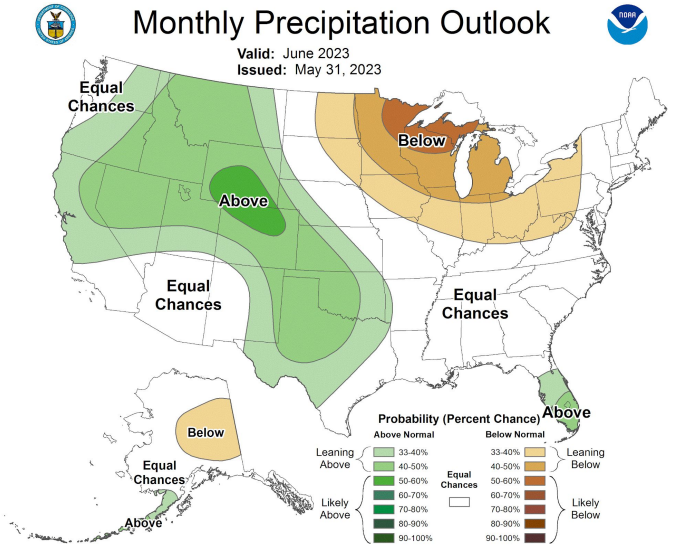


Image Captions:
Left - Climate Prediction Center Monthly Temperature Outlook.
Right - Climate Prediction Center Monthly Precipitation Outlook.
Valid June 2023.

Seasonal Outlook

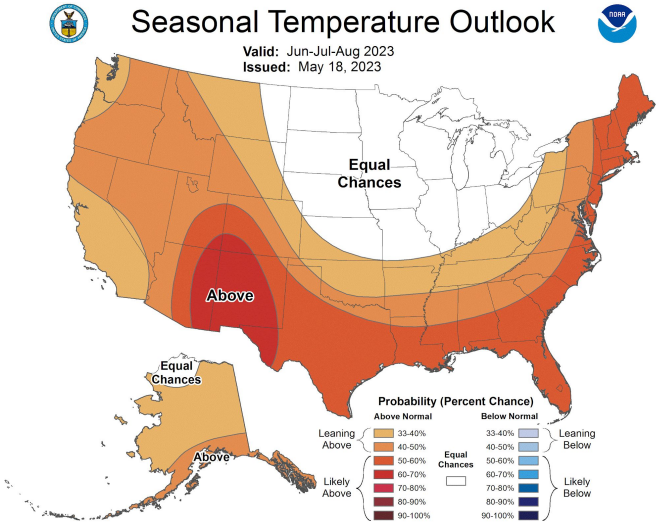
Seasonal Temperature and Precipitation Outlook

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.



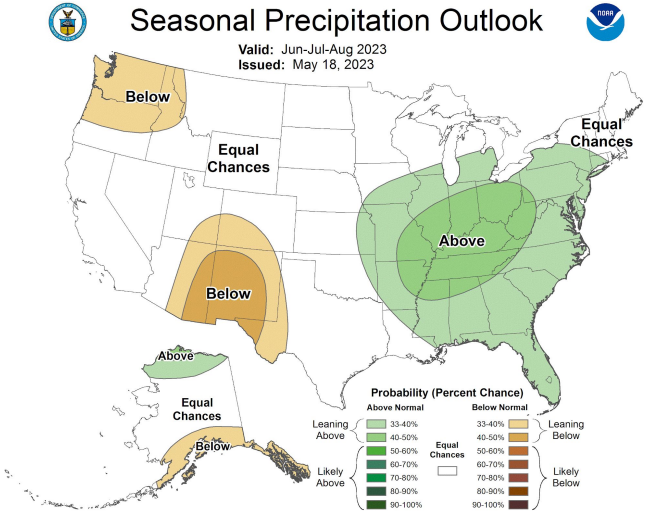


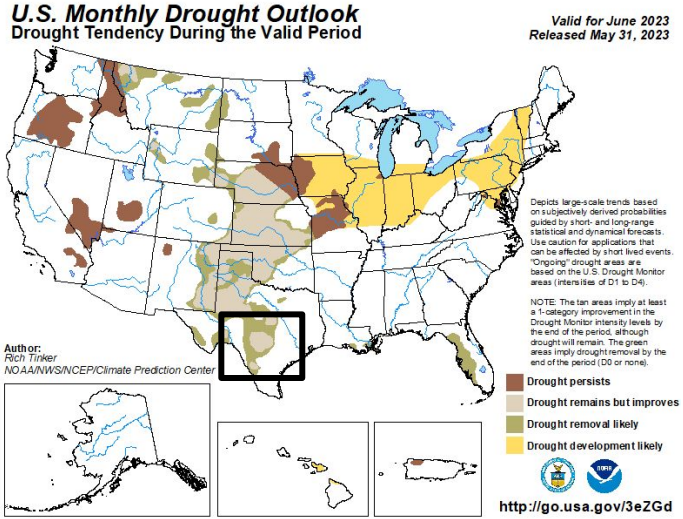
Image Captions:
Left - Climate Prediction Center Seasonal Temperature Outlook.
Right - Climate Prediction Center Seasonal Precipitation Outlook.
Valid June through August 2023

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.



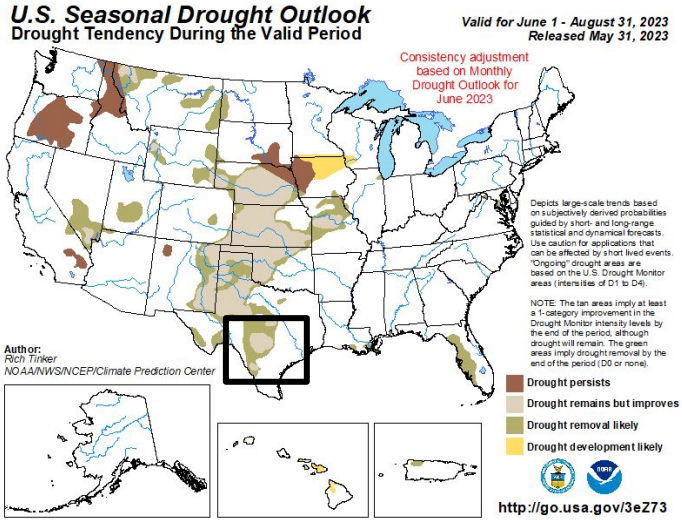


Image Captions:
Left - Climate Prediction Center Monthly Drought Outlook released May 31 and valid for June 2023
Right - Climate Prediction Center Seasonal Drought Outlook Released May 31 and valid through August 2023