

# Drought Information Statement for South Central Texas

**Current Status, Impacts, and Outlook [Beta Test 2023]** Issued By: NWS Austin/San Antonio, TX Contact information: <u>sr-ewx.webmaster@noaa.gov</u> July 6, 2023



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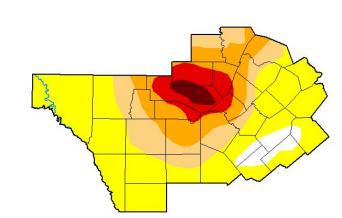
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# Key Messages:

- Drought conditions worsened 0 over the past 30 days due to below normal precipitation and above normal temperatures.
- Outlooks through the remainder 0 of the Summer months support continued expansion of drought conditions.
- Extreme (D3) to Exceptional Drought covers 10% of our region, while 56% of the area is not in drought.

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



July 4, 2023 (Released Thursday, Jul. 6, 2023) Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0	D1	D2	D3	D4
Current	4.43	51.99	17.97	15.71	7.74	2.16
Last Week 06-27-2023	7.27	49.14	19.37	14.31	7.74	2.16
3 Month s Ago 04-04-2023	0.00	0.96	16.92	40.66	21.31	20.16
Start of Calendar Year 01-03-2023	6.21	<mark>14.33</mark>	40.02	19.13	11.66	<mark>8.65</mark>
Start of Water Year 09-27-2022	1.55	13.06	33.69	29.92	<u>16.79</u>	4.98
One Year Ago 07-05-2022	0.00	0.00	9.91	16.48	43.77	29.84

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: Curtis Riganti National Drought Mitigation Center



droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid 8am EDT July 4, 2023

National Weather Service Austin/San Antonio, TX



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# Recent Change in Drought Intensity

- Four Week U.S. Drought Monitor Class Change.
  - Drought Worsened: Over portions of the southern Edwards Plateau, Coastal Plains, and I-35 corridor.
  - No Change: Most of the Hill Country, I-35 Corridor, and portions of the southern Edwards Plateau.
  - Drought Improved: No drought improvement was observed.

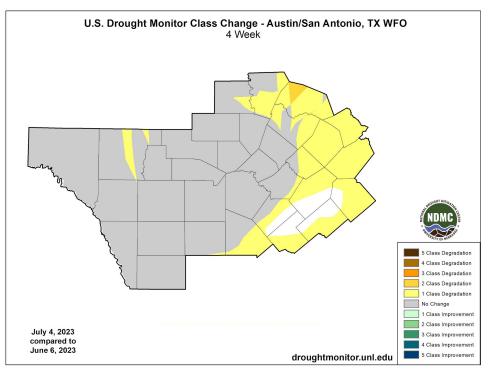


Image Caption: <u>U.S. Drought Monitor 4-week change map</u> valid 8am EDT July 4, 2023

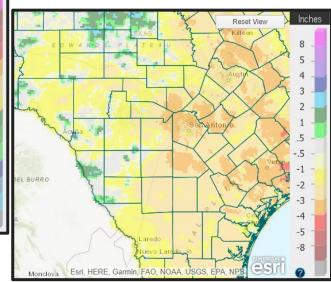




# Main Takeaways

- The majority of South Central Texas saw below normal precipitation for the month of June.
- Locations east of US HWY 281 ended the month with between 2 to 4 inches below their normal rainfall for the month of July.
- Isolated areas across the southern Edwards Plateau and Rio Grande Plains saw near normal to above normal precipitation of the month of June.





#### Image Captions:

Left - <u>Precipitation Amount Map for south-central Texas</u> Right - <u>Departure from Normal for south-central Texas</u> Data Courtesy Advanced Hydrologic Prediction Service (AHPS) Data over the past 30 days ending July 6, 2023





# Hydrologic Impacts

- Streamflows over the past 7 days show normal flow for portions of the Colorado, and Nueces river basins.
- Streamflows were below to much below normal across most of the river basins across the service area.
- See next slide for more details

# **Agricultural Impacts**

- Please see the latest <u>Crop and Weather Report</u> from Texas A&M Agrilife.
- Soil Moistures have decreased over the past 30 days with much of the area showing below normal soil moisture across much of the area. A portion of the Coastal Plains shows near normal soil moisture.

# **Fire Hazard Impacts**

- Wildfire risk will increase through the summer as grasses are dried out.
- 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**

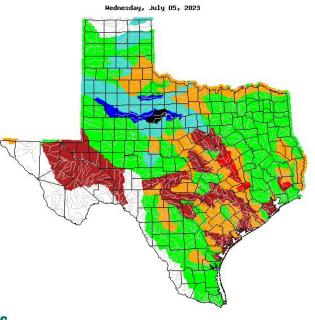
- Please refer to your municipality and/or water provider for mitigation information.
- Select <u>Municipality Restrictions</u> (as of 5/31/2023)
  - Fredericksburg: Stage 3
  - San Antonio: Stage 2
  - Austin: Stage 1
  - Kerrville: Stage 1





# Main Takeaways

- Streamflows over the past 7 days show normal flow for portions of the Colorado, and Nueces river basins.
- Streamflows were below to much below normal across most of the river basins across the service area.



Reservoir	Pool Elevation (ft)	Current Elevation (ft)	Percent Full
Amistad	1117.00	1068.70	38.5%
Medina Lake	1064.2	980.52	5.0%
Canyon Lake	909.00	895.75	73.9%
Granger Lake	504.00	503.78	98.3%
Georgetown Lake	791.00	778.01	61.2%
Lake Buchanan	1020.00	1001.12	60.1%
Lake LBJ	825.00	824.76	98.6%
Lake Marble Falls	738.00	736.36	94.9%
Lake Travis	681.00	637.20	43.1%
Lake Austin	492.9	492.24	96.3%

### Additional data:

Edwards Aquifer, Bexar Index Well J-17 as

of July 6, 2023:

10 day average: 633.7

Historical July Average: 660.1

Departure from Average: -26.5



National Oceanic and Atmospheric Administration Figure Caption: <u>USGS 7 day streamflows for Texas</u>, valid July 5, 2023

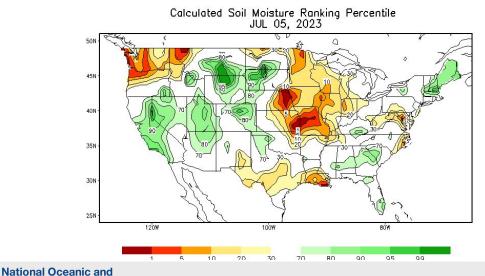
Table caption: <u>TWDB Reservoir</u> conditions as of July 5, 2023

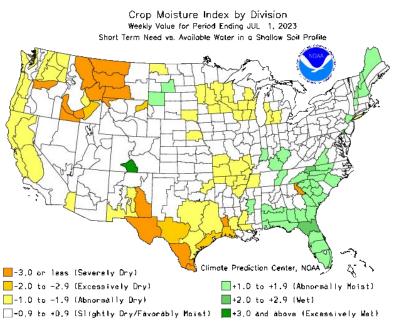


# Agricultural Impacts

# Main Takeaways

- Soil Moistures have decreased over the past 30 days with much of the area showing below normal soil moisture across much of the area. A portion of the Coastal Plains shows near normal soil moisture.
- Crop moistures are abnormally dry to severely dry across the three crop divisions.





#### Image Captions:

Left: <u>CPC Calculated Soil Moisture Ranking</u> <u>Percentile</u> valid July 5, 2023 Right: <u>Crop Moisture Index by Division</u>. Weekly value for period ending July 1, 2023

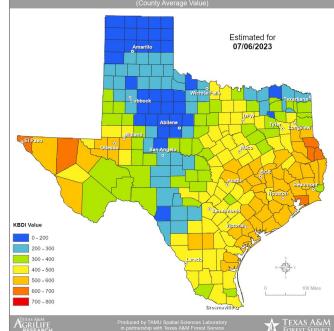




# Main Takeaways

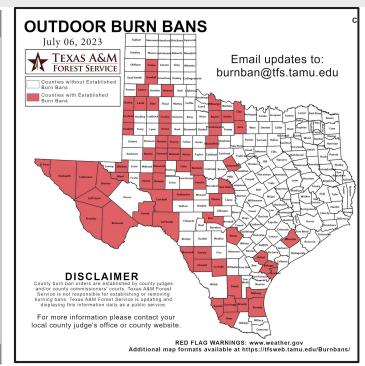
- Keetch Byram Drought Index values are low across portions of the southern Edwards Plateau and Rio Grande Plains with values less than 300.
- Keetch Byram Drought Index values are moderate across the Coastal Plains, I-35 corridor, and Hill Country with values between 400 and 600.

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.



Keetch-Byram Drought Index

Image Caption: <u>Keetch-Byram Drought Index</u> (<u>KBDI</u>) by county for TX, estimated for July 6, 2023



Burn bans remain in effect for 6 of our 33 counties as of July 6, 2023. Latest County Burn Ban map available <u>here.</u>

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# Monthly Outlooks

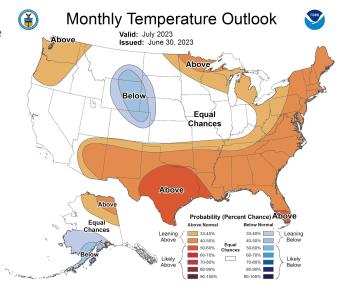
Monthly Temperature and Precipitation Outlook

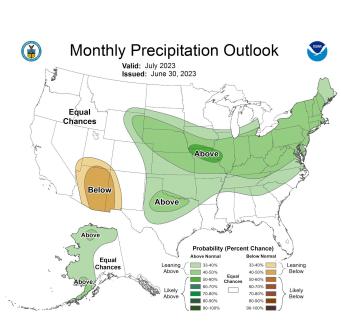
# Main Takeaways

- There is a strong signal for above normal temperatures across the area for the month of July.
- There are equal chances for at, below, or near normal precipitation across the area for the month of July.

### **Possible Impact**

With above normal temperatures expected for the month, drought conditions would worsen with near or below normal precipitation for the month.





#### Image Captions: Left - <u>Climate Prediction Center Monthly Temperature Outlook</u>. Right - <u>Climate Prediction Center Monthly Precipitation Outlook</u>. Valid July 2023.





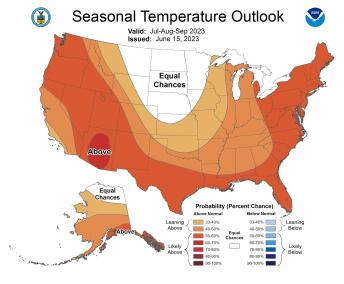
#### Seasonal Temperature and Precipitation Outlook

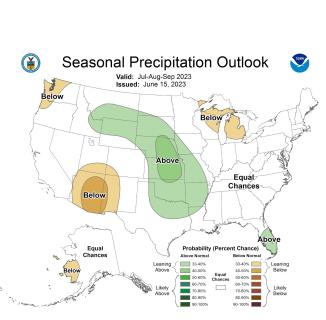
# Main Takeaways

- Above normal temperatures are likely on average from July through September.
- Equal chances for above, near, or below normal precipitation in July through September.

# **Possible Impact**

Drought conditions could worsen through the summer months given the above normal temperatures.





#### Image Captions:

Left - <u>Climate Prediction Center Seasonal Temperature Outlook</u>. Right - <u>Climate Prediction Center Seasonal Precipitation Outlook</u>. Valid July through September 2023

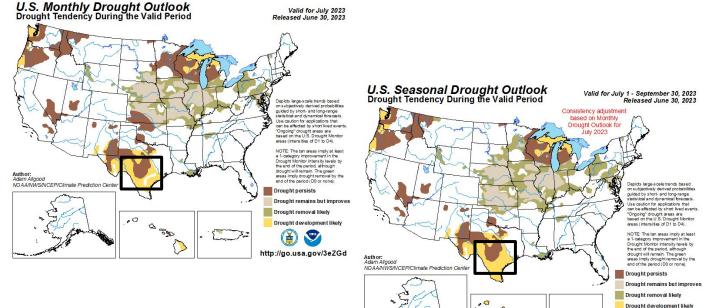




#### Monthly and Seasonal Outlooks

# Main Takeaways

 Drought outlooks show expectation of worsening drought conditions through the remainder of the Summer months.



#### Image Captions:

Left - <u>Climate Prediction Center Monthly Drought Outlook</u> released June 30 and valid for July 2023 Right - <u>Climate Prediction Center Seasonal Drought Outlook</u> Released June 30

and valid through September 2023

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



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