



February 2023

Monthly Hydrologic Report (E5)

NWS Austin/San Antonio, TX

Prepared by: Chris Morris

March 8, 2023





Monthly Summary

Recap

- The month began in the middle of an ice storm with early morning rainfall amounts of 1/2 to 1 1/2 inch of rain and freezing pelting the I-35 corridor with icing on area surfaces and vegetation, and leading to widespread power outages over the Hill Country and Austin metropolitan area. Meanwhile areas along and west of Hwy 83 saw much lighter amounts of around 1/10 inch.
- Fire weather activity increased during mid-February where near critical fire weather conditions were observed on 9th, 10th, 15th, and 16th across the southern Edwards Plateau, and Winter Garden. On the 14th, the I-35 corridor and Hill Country experienced near critical fire weather conditions while the Edwards Plateau and Winter Garden experienced critical fire weather conditions.
- A cold front dropped into the forecast area during the day on the 22nd before becoming stalled. Convection along the front gradually weakened as it moved across the Edwards Plateau and northern Hill Country. Rainfall amounts were generally less than a 0.10" but a few isolated amounts reached 0.25".
- Outside of drizzle across portions of the area from the 23rd through the end of the month, no appreciable rainfall occurred during the second half of the month.

X

An X inside this box indicates that no flooding occurred within this hydrologic service area.



National Oceanic and
Atmospheric Administration

U.S. Department of Commerce

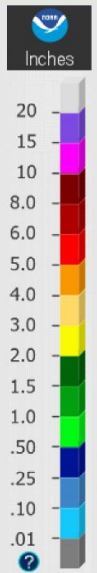
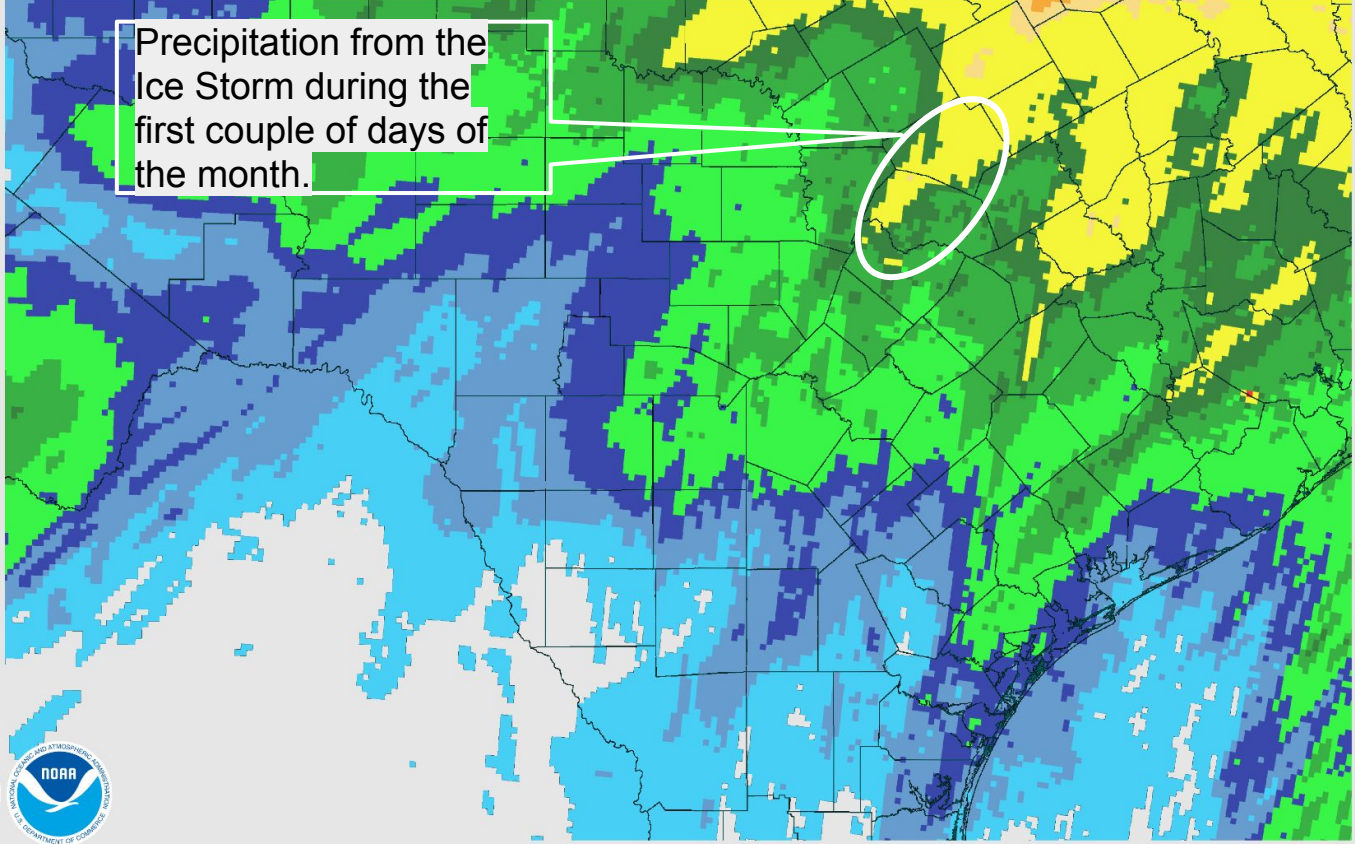
National Weather Service
Austin/San Antonio, TX



February 2023 Rainfall

Observed Rainfall (Inches)

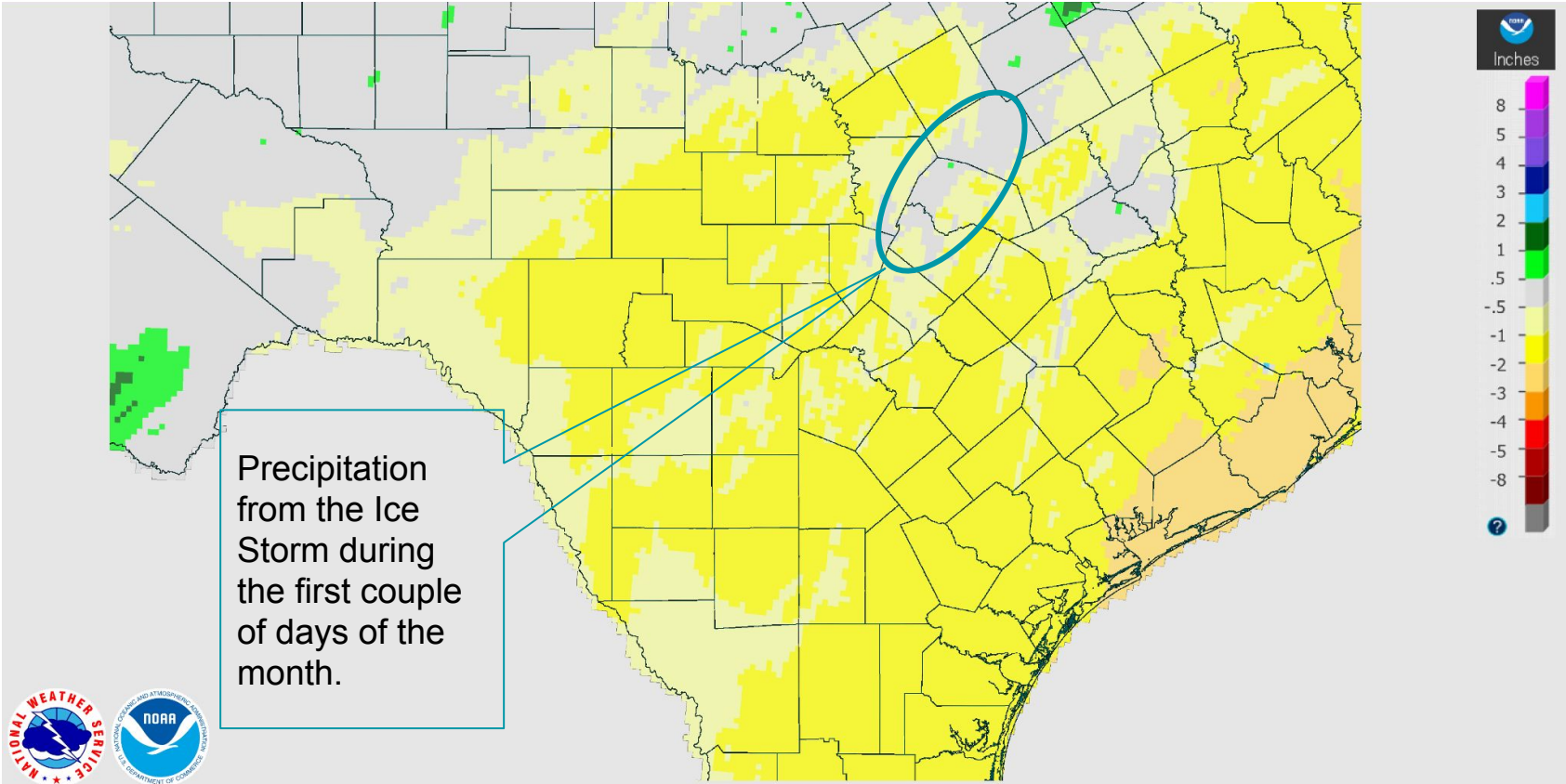
Precipitation from the Ice Storm during the first couple of days of the month.





February 2023 Rainfall

Departure from Normal Rainfall (Inches)



National Oceanic and Atmospheric Administration

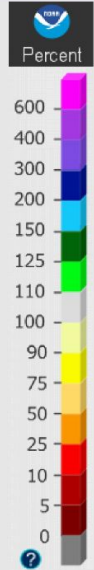
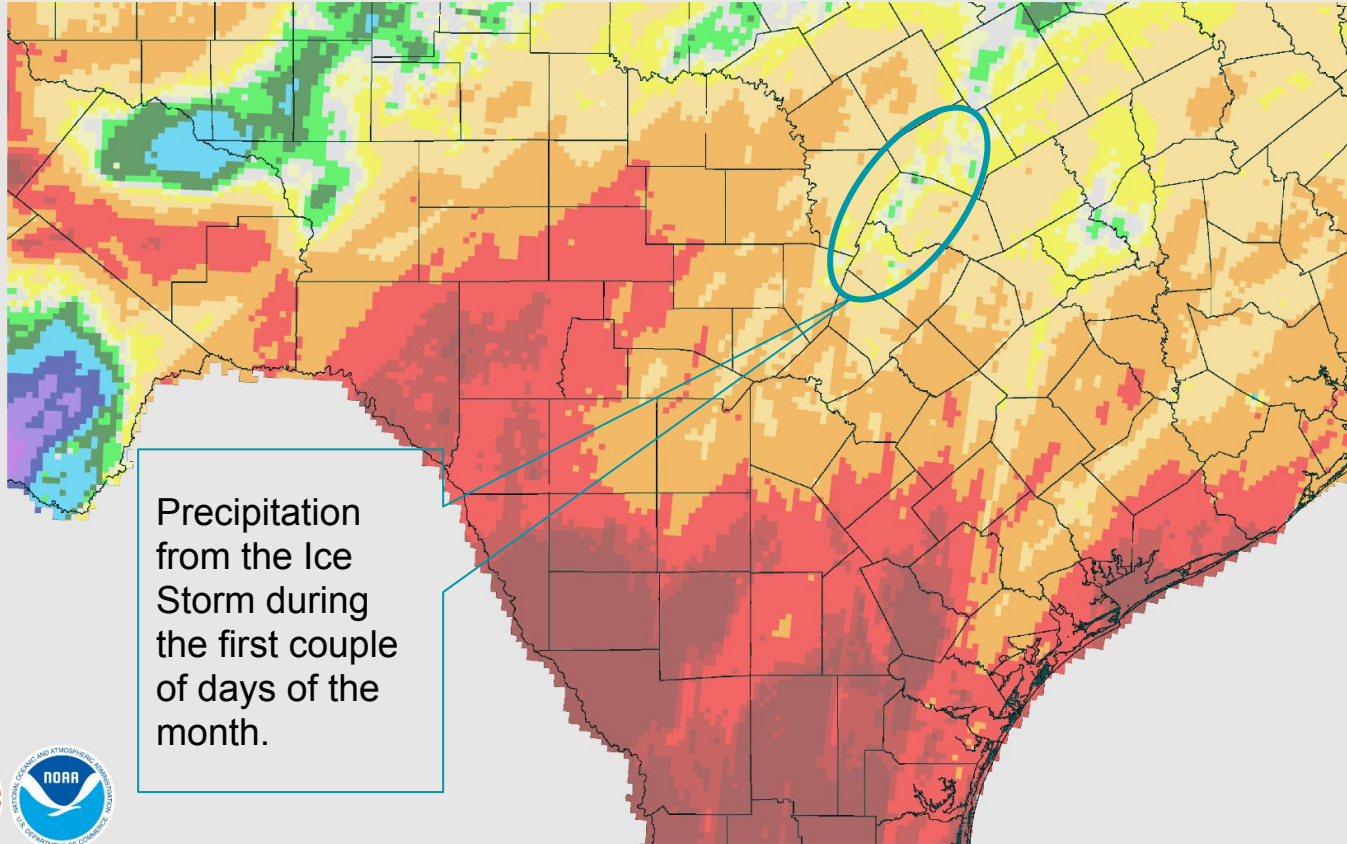
U.S. Department of Commerce

National Weather Service
Austin/San Antonio, TX



February 2023 Rainfall

Percent of Normal Rainfall (%)





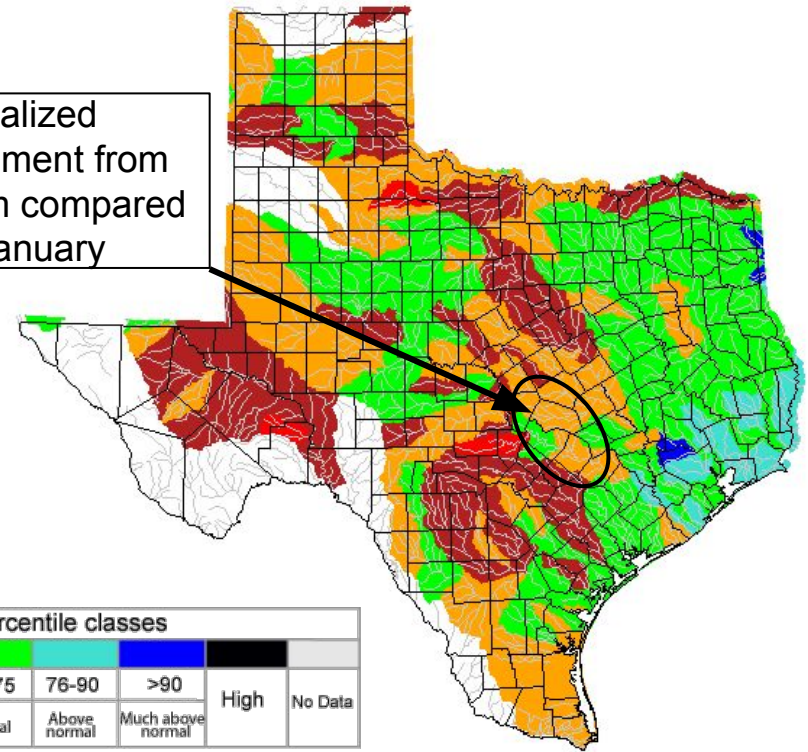
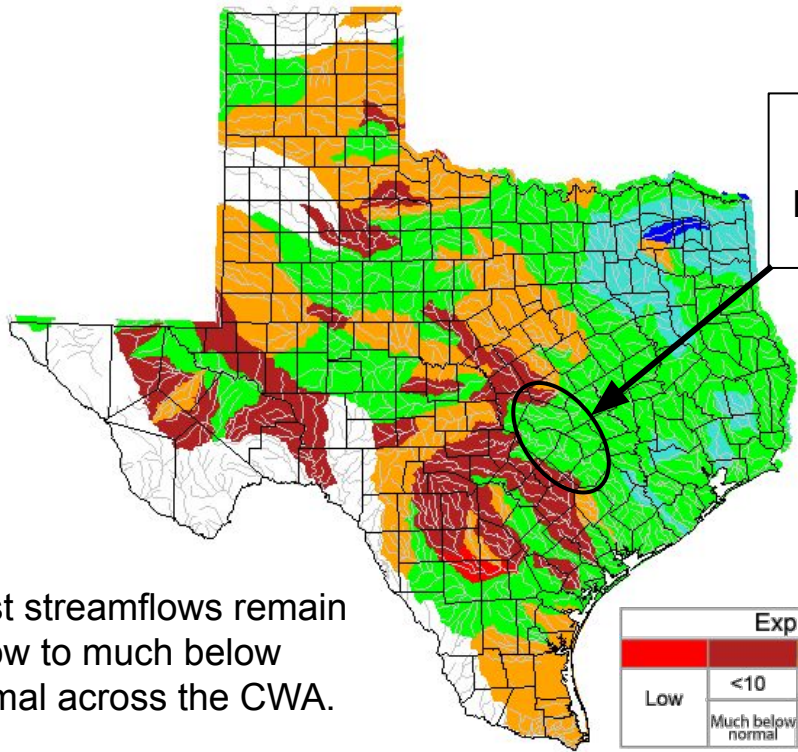
February 2023 - Historical Streamflow Comparison

Streamflow Comparison

February 2023

January 2023

Localized improvement from Ice Storm compared to January



Most streamflows remain below to much below normal across the CWA.

Explanation - Percentile classes

Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		





Climate Station Rainfall Data For the Month

Austin/San Antonio Area

	Monthly Rainfall	Monthly Average	2023 Rainfall Through Month	1991-2020 Normal Through Month	Percent of Normal
Austin – Bergstrom	1.51”	1.89”	3.04”	4.71”	65%
Austin – Mabry	1.78”	1.89”	2.52”	4.53”	56%
Del Rio	0.07”	0.63”	0.21”	1.24”	17%
San Antonio	1.17”	1.74”	1.86”	3.70”	50%

*The monthly averages and normal values are for the period 1991-2020





Climate Station Rainfall Data For the Month

Nearby Offices:

	Monthly Rainfall	Monthly Average	2023 Rainfall Through Month	1991-2020 Normal Through Month	Percent of Normal
College Station	2.93"	2.90"	4.97"	6.33"	79%
Corpus Christi	0.19"	1.29"	0.91"	2.68"	34%
Laredo	0.02"	0.83"	0.33"	1.73"	19%
San Angelo	0.91"	1.20"	1.46"	2.12"	69%
Victoria	1.12"	1.96"	7.29"	4.63"	157%
Waco	3.29"	2.68"	4.72"	5.27"	90%

*The monthly averages and normal values are for the period 1991-2020





Reservoir Data For the Month

Data from the TWDB Water Data For Texas Dashboard

Reservoir	Conservation Elevation (feet)	End of Month Elevation (feet)	Monthly Change (Feet)
Lake Buchanan	1020	1001.9	-0.46
Lake Travis	681	639.5	0.18
Canyon Lake	909	897.8	-0.53
Medina Lake	1064.2	982.6	-0.95
Lake Amistad	1117	1081.52	-1.32





Hydrologic Products Issued for the Month

Product Issued	Number Issued	Additional Comments
River Flood Warning (FLW)	0	
River Flood Statement/Flood Advisory (FLS)	0	
Hydrologic Statement (RVS)	0	
Flash Flood Watch (FFA)	0	
Flash Flood Warning (FFW)	0	
Flash Flood Statement (FFS)	0	
Hydrologic Outlook (ESF)	6	AHPS probabilistic forecasts for the Brazos, Colorado, Guadalupe, San Antonio, Pecos, and Nueces Rivers



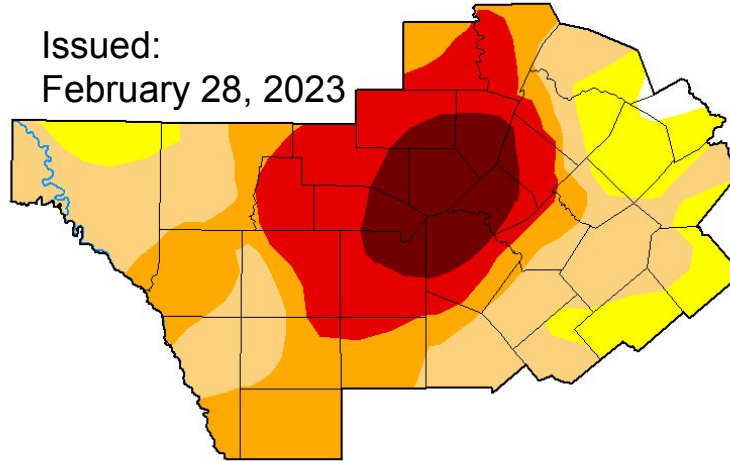
Drought Conditions

Monthly Drought Monitor Comparison

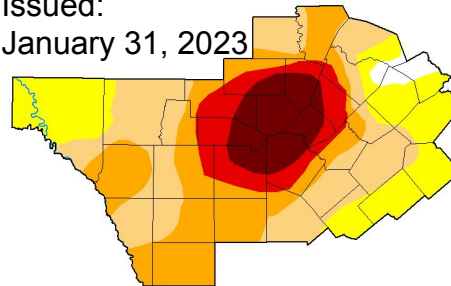
Drought conditions worsened as we progressed through the month and appreciable precipitation was lacking. What help previous month precipitation, multiple days of fire weather conditions resulted in drought categories degraded across the Edwards Plateau, Winter Garden, and Hill Country.

- D3/D4 drought encompasses 31% of the CWA
- Drought doesn't affect 15% of the CWA

Issued:
February 28, 2023



Issued:
January 31, 2023



February 28, 2023

(Released Thursday, Mar. 2, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.95	99.05	85.49	53.75	30.87	10.15
Last Week 02-21-2023	1.85	98.15	84.16	51.69	20.31	10.15
3 Months Ago 11-29-2022	7.03	92.97	78.80	38.55	22.21	7.15
Start of Calendar Year 01-03-2023	6.21	93.79	79.46	39.44	20.31	8.65
Start of Water Year 09-27-2022	1.55	98.45	85.39	51.70	21.77	4.98
One Year Ago 03-01-2022	10.69	89.31	72.71	41.21	7.35	0.00

Intensity:





One Month Outlook

Looking at the Monthly Outlook for March

- The Precipitation Outlook has trended towards equal chances for above, below, normal amounts.
- The Temperature Outlook continues to lean towards above normal for the entire area.

[Click for latest graphics](#)

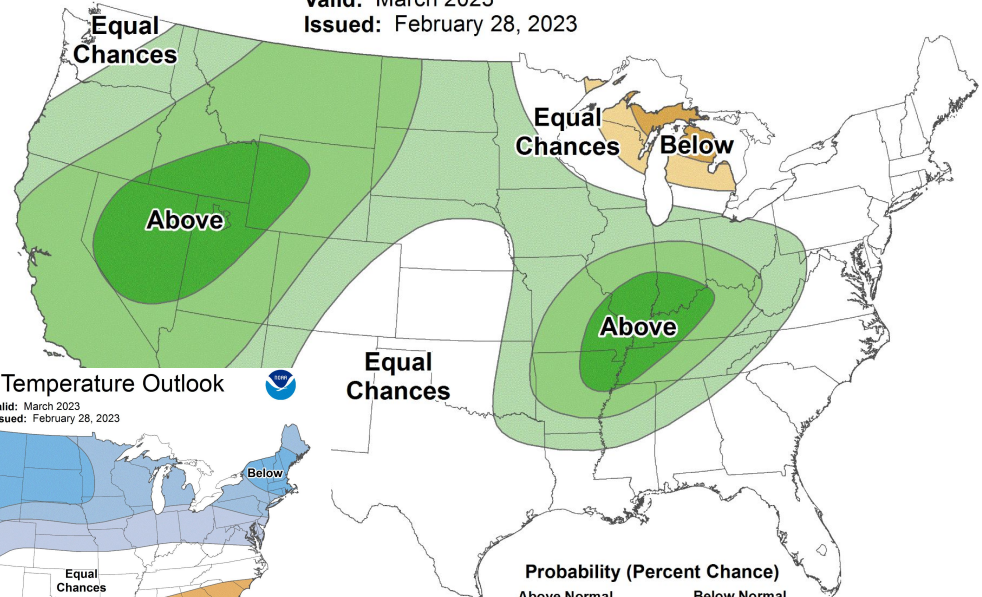


Monthly Precipitation Outlook



Valid: March 2023

Issued: February 28, 2023

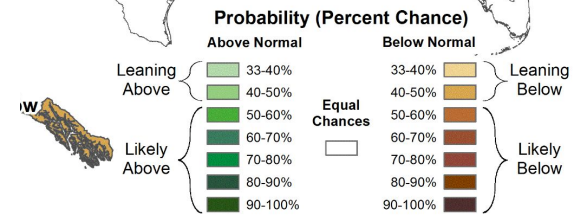
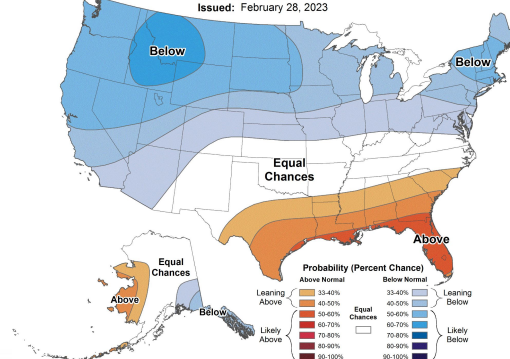


Monthly Temperature Outlook



Valid: March 2023

Issued: February 28, 2023





Three Month Outlook

Looking at the Seasonal Outlooks

- The Precipitation Outlook continues to show equal chances for above, below, normal amounts.
- The Temperature Outlook continues to show above normal for the entire area.

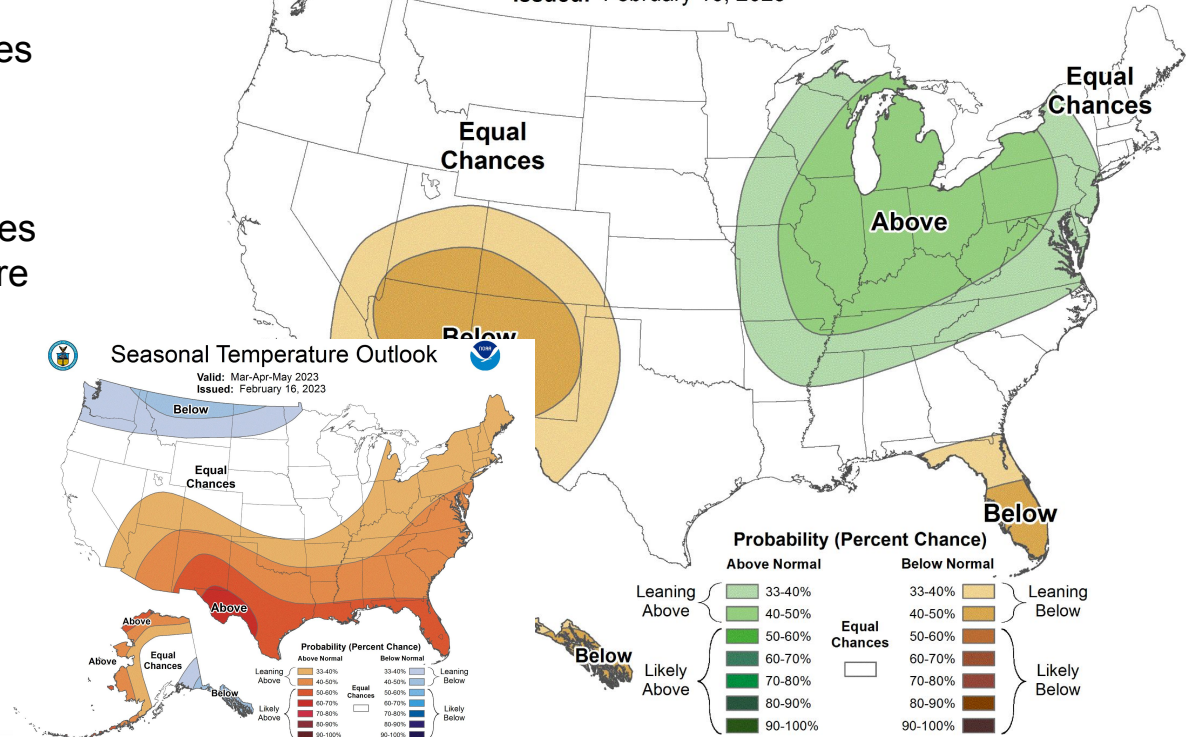
[Click for latest graphics](#)



Seasonal Precipitation Outlook



Valid: Mar-Apr-May 2023
Issued: February 16, 2023





For additional rainfall, stream, soil moisture, or drought information please refer to the links provided below.

Daily, Monthly and Yearly summaries of precipitation and departure from normal are available from the West Gulf River Forecast Center at: <http://www.weather.gov/wgrfc/>

Or from the Precipitation Analysis page at: <http://water.weather.gov/precip/>

Streamflow conditions are available from the United States Geological survey at:
<http://waterdata.usgs.gov/tx/nwis/rt>

Soil moisture conditions are available from the Climate Prediction Center at:
http://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml

National Integrated Drought Information System: <http://www.drought.gov/>