



February 2024

Monthly Hydrologic and Flood

Stage Report (E5/E3)

NWS Austin/San Antonio, TX

Prepared by: Chris Morris

March 15, 2024

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



Monthly Summary

Monthly recap

- Much of the area saw near to below normal rainfall for the month of February
 - Portions of the Coastal Plains saw above normal rainfall while much of the Rio Grande Plains and southern Edwards saw well below normal rainfall
- For the Coastal Plains, the bulk of the month's rainfall occurred on Feb 2nd
 - Late January storms saturated soils along the Coastal Plains to increase runoff
 - Despite the pre-existing conditions, only a few forecast points reached action stage and remained below minor flood stage

1-Day Estimated Rainfall

Valid: 02/02/2024 06:00 AM - 02/03/2024 06:00 AM CST

Weather Forecast Office
Austin/San Antonio, TX

Issued Feb 03, 2024 8:45 AM CST



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weather.gov/ewx



National Oceanic and
Atmospheric Administration

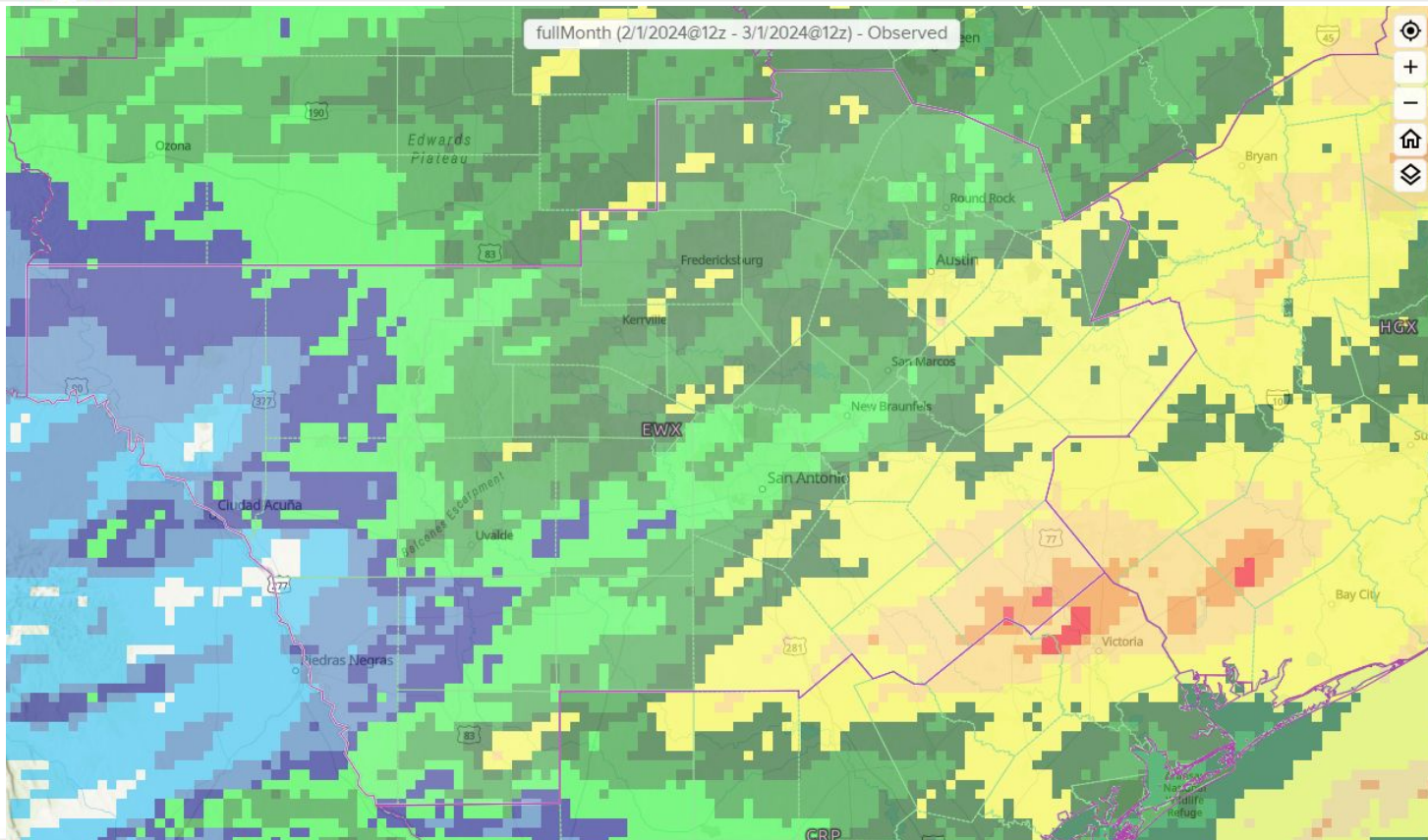
U.S. Department of Commerce

National Weather Service
Austin/San Antonio, TX



February 2024 Rainfall

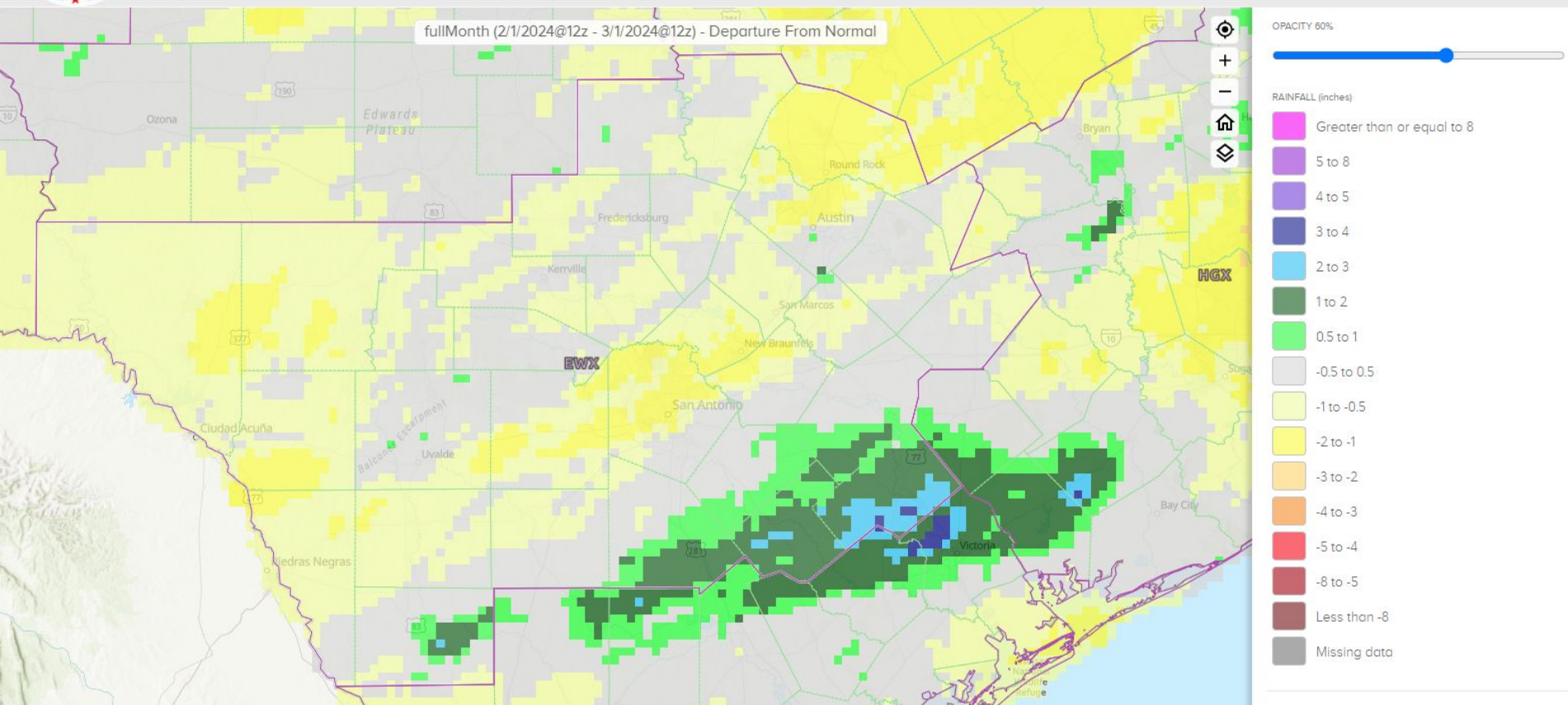
Observed Rainfall (Inches)





February 2024 Rainfall

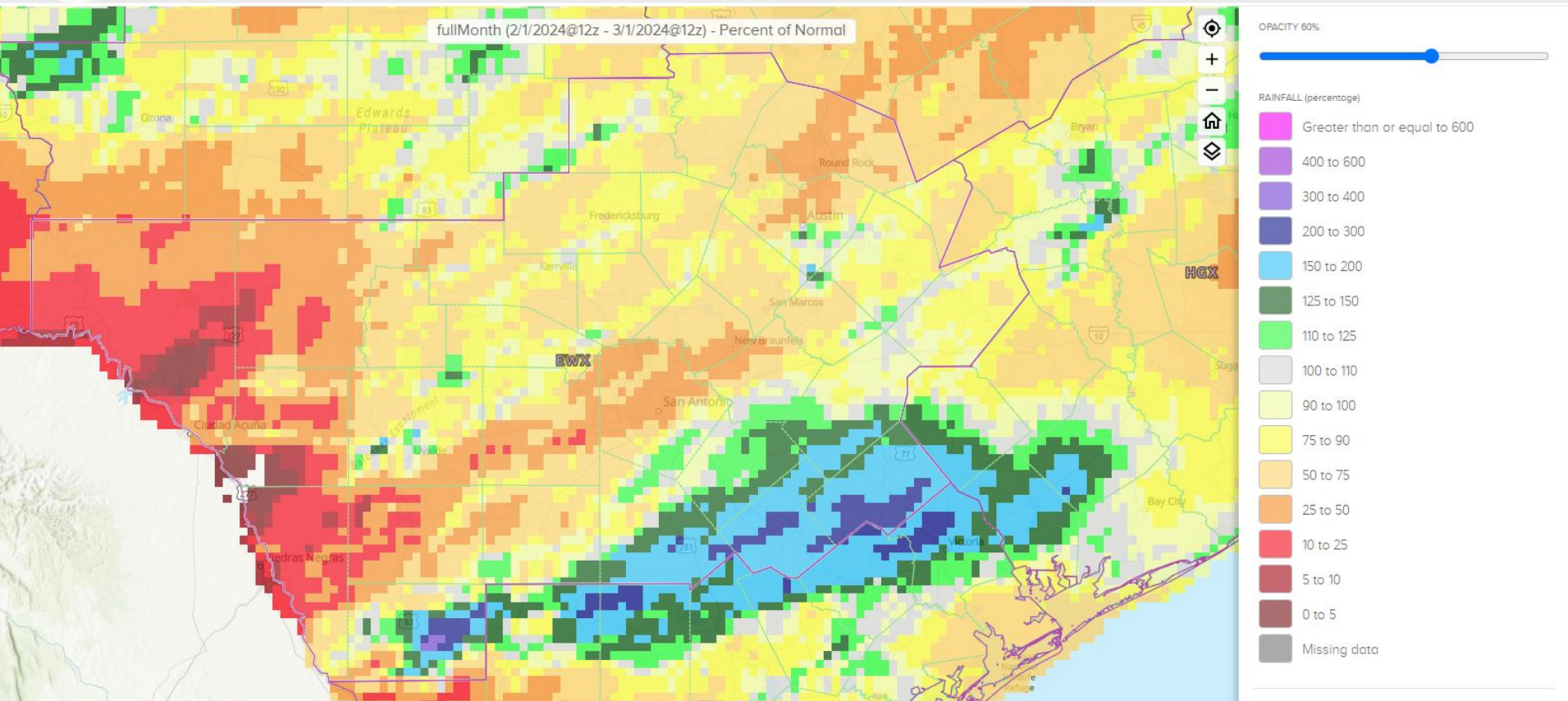
Departure from Normal Rainfall (Inches)





February 2024 Rainfall

Percent of Normal Rainfall (%)



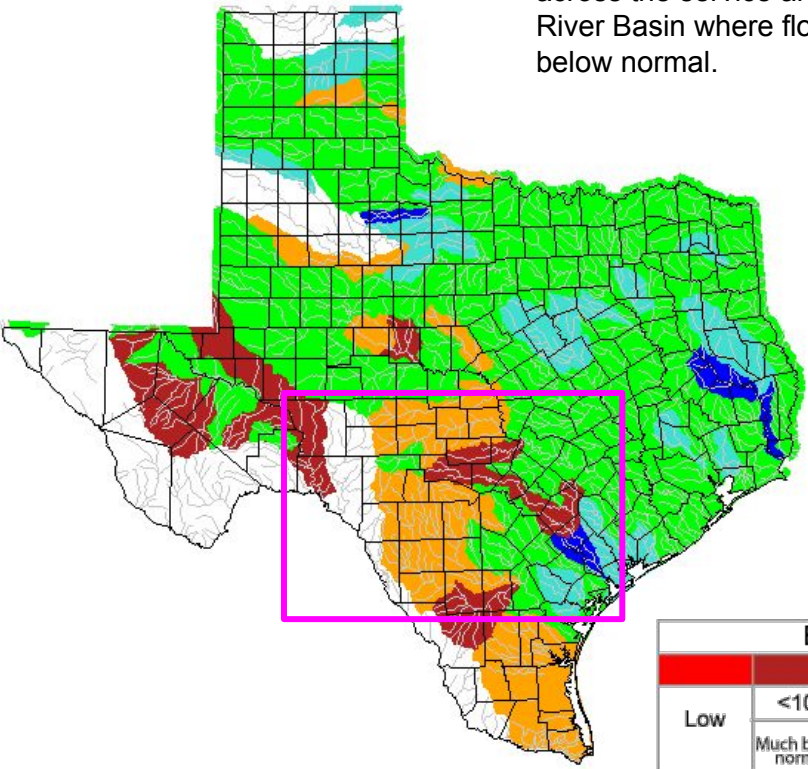


February 2024 - Historical Streamflow Comparison

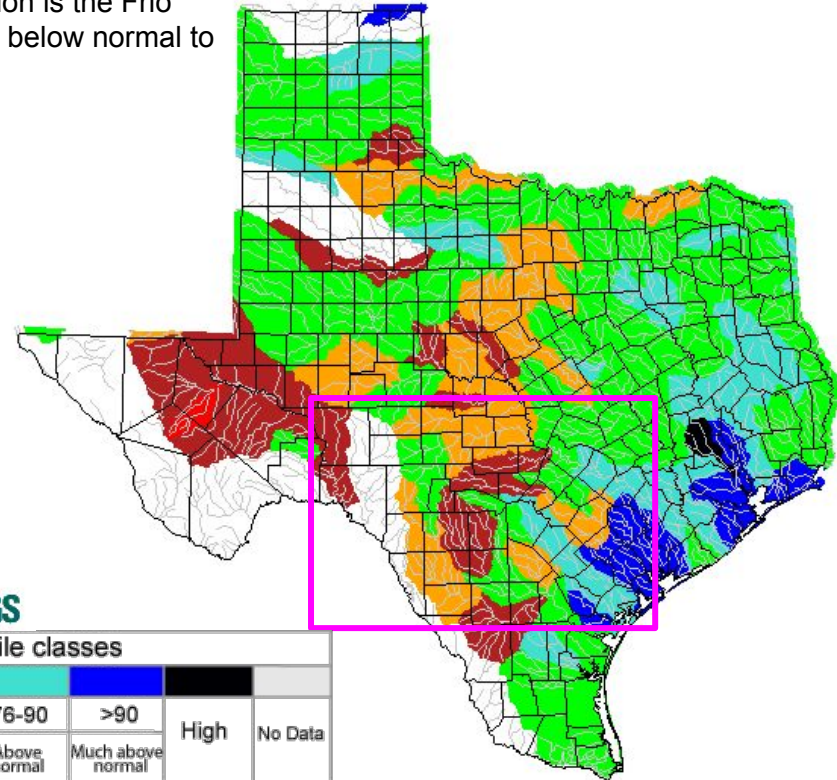
Streamflow Comparison

A general decrease in monthly streamflow can be seen across the service area. The only exception is the Frio River Basin where flows went from much below normal to below normal.

February 2024



January 2024



Explanation - Percentile classes

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



Climate Station Rainfall Data For the Month

Austin/San Antonio Area

	Monthly Rainfall	Monthly Average	2024 Rainfall Through Month	1991-2020 Normal Through Month	2024 Percent of Normal
Austin – Bergstrom	2.09”	1.89”	8.86”	4.71”	188%
Austin – Mabry	0.99”	1.89”	7.06”	4.53”	156%
Del Rio	0.40”	0.63”	0.57”	1.24”	46%
San Antonio	0.87”	1.74”	7.59”	3.70”	205%

*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	2024 Rainfall Through Month	1991-2020 Normal Through Month	2024 Percent of Normal
College Station	3.09"	2.90"	10.87"	6.33"	172%
Corpus Christi	1.10"	1.29"	4.51"	2.68"	168%
Laredo	0.25"	0.83"	0.69"	1.73"	40%
San Angelo	0.63"	1.20"	1.14"	2.12"	54%
Victoria	3.16"	1.96"	10.83"	4.63"	234%
Waco	1.60"	2.68"	6.15"	5.27"	117%

*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	944.80	0.38
Lake Travis	681	631.62	0.16
Canyon Lake	909	887.55	-0.12
Medina Lake	1064.2	973.87	-0.76
Lake Amistad	1117	1050.72	-8.27





Hydrologic Products Issued for the Month

Product Issued	Number Issued	Additional Comments
River Flood Warning/Area Flood Warning (FLW)	0	
River Flood Statement/Area Flood Advisory (FLS)	4	6 Areal Flood Advisories
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



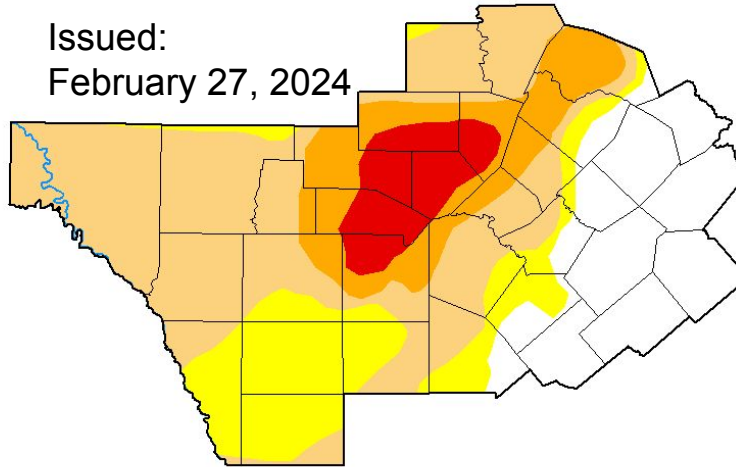
Drought Conditions

Monthly Drought Monitor Comparison

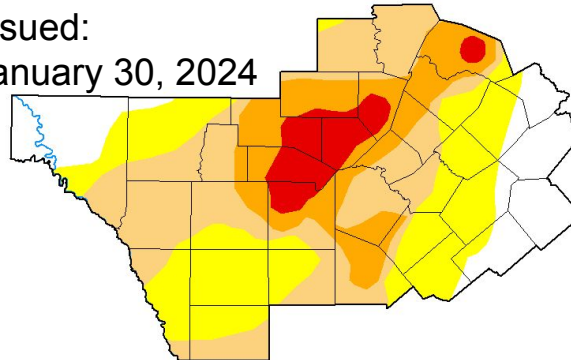
The above normal precipitation across the Coastal Plains during the early portion of the month helped to further scrape away drought conditions. However, below normal rainfall for the southern Edwards Plateau and Rio Grande Plains allowed drought to develop and worsen over the month.

- D3 drought encompasses 7% of the CWA
- Drought doesn't affect 40% of the CWA

Issued:
February 27, 2024



Issued:
January 30, 2024



February 27, 2024

(Released Thursday, Feb. 29, 2024)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
Current	22.20	17.98	40.02	12.62	7.18	0.00
Last Week <i>02-20-2024</i>	22.20	17.98	40.02	12.62	7.18	0.00
3 Months Ago <i>11-28-2023</i>	13.14	10.21	29.72	29.75	17.18	0.00
Start of Calendar Year <i>01-02-2024</i>	11.10	12.65	31.67	20.39	24.19	0.00
Start of Water Year <i>09-26-2023</i>	7.30	10.81	13.65	8.95	22.09	37.20
One Year Ago <i>02-28-2023</i>	0.95	13.56	31.74	22.87	20.72	10.15

Intensity:





One Month Outlook



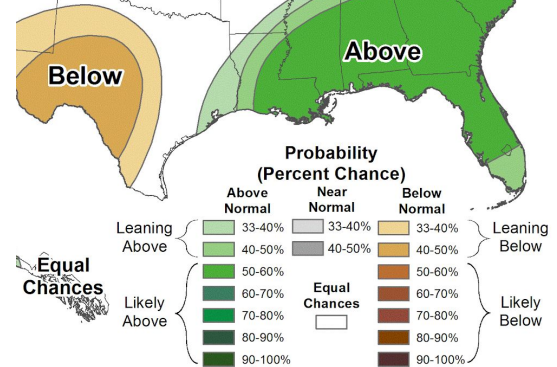
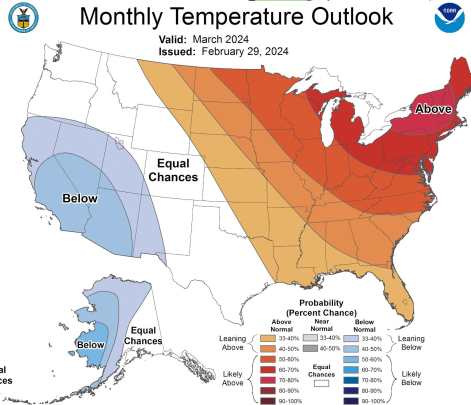
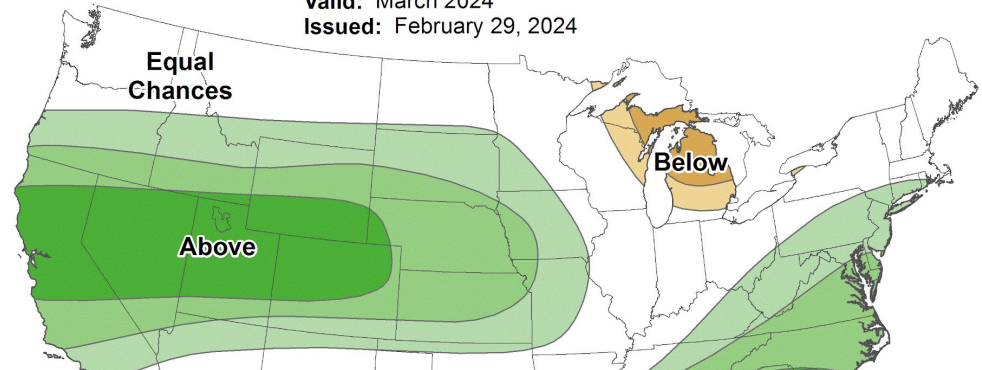
Monthly Precipitation Outlook



The most recent Monthly Outlook

- The Precipitation Outlook for the month of March shows below normal rainfall for much of the area with only the far eastern Coastal Plains and I-35 Corridor having equal chances for above, below, or near normal rainfall chances.
- The Temperature Outlook for March shows equal chances for at, below, or near normal values.

Valid: March 2024
Issued: February 29, 2024



[Click for latest graphics](#)





Three Month Outlook

Looking at the Seasonal Outlooks

- The Precipitation Outlook shows equal chances of above, below, or near normal precipitation for the eastern half of the service area
 - However, the western half is shown to lean towards below normal rainfall
- The Temperature Outlook shows equal chances for either above, below, or near normal across the service area.

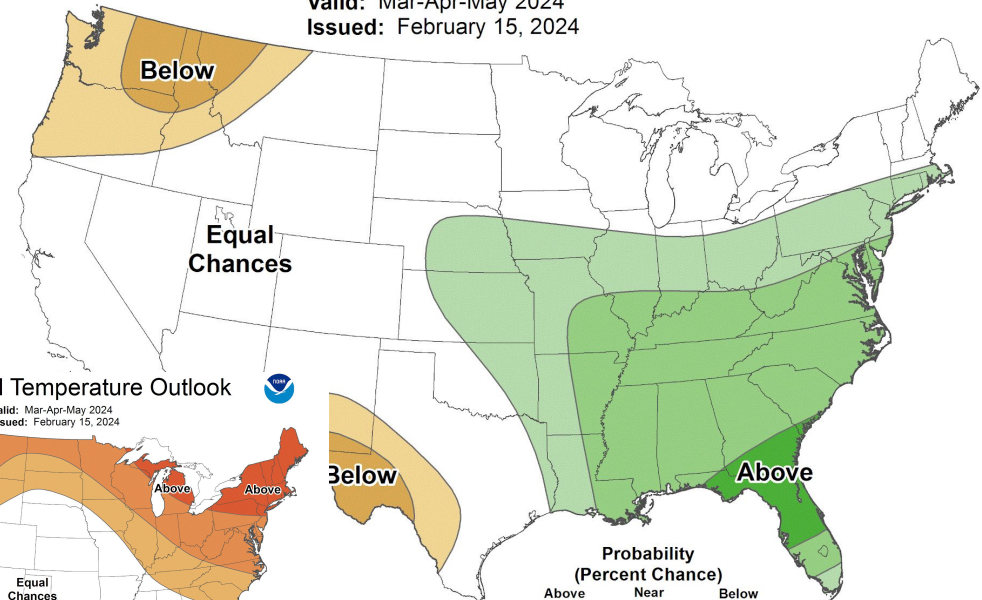
[Click for latest graphics](#)



Seasonal Precipitation Outlook

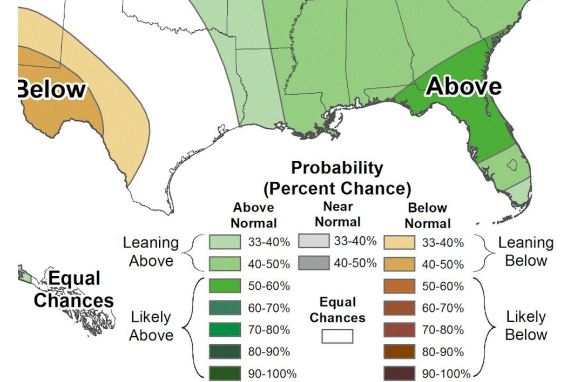
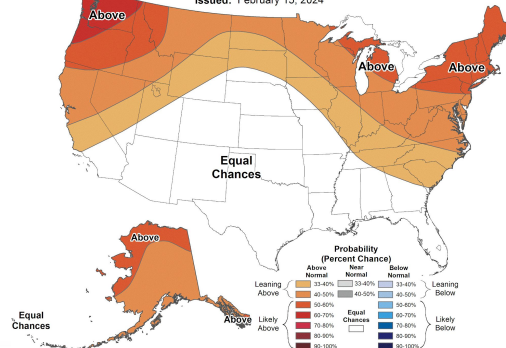


Valid: Mar-Apr-May 2024
Issued: February 15, 2024



Seasonal Temperature Outlook

Valid: Mar-Apr-May 2024
Issued: February 15, 2024





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/>