

HYDROLOGIC SERVICE AREA (HSA)

Austin/San Antonio (EWX)

MONTHLY REPORT OF HYDROLOGIC CONDITIONS

REPORT FOR:
MONTH YEAR
January 2023

TO: Hydrologic Information Center, W/OS31
NOAA's National Weather Service
1325 East West Highway
Silver Spring, MD 20910-3283

SIGNATURE

Chris Morris

DATE

February 14, 2023

When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).

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

The month of January began on a warm and dry note and this trend largely continued well into the middle of the month. The above normal warmth resulted in record high temperatures being set at Austin and Del Rio. Light precipitation amounts did occur on January 2nd and 3rd for areas mainly east of Interstate 35 and north of Interstate 20. Portions of the Coastal Plains did see locally heavy rainfall on the 7th of January as very moist conditions and an approaching cold front resulted in several rounds of thunderstorms. Most of the rain fell over Karnes, DeWitt and Lavaca counties, with radar estimated widespread amounts of ½-1 inch, with a few pockets of 4-6 inches.

The next round of light rainfall occurred on the 18th which primarily brought rainfall of ¼ to ½ inch to Bastrop and Fayette Counties before a fast moving upper low would sweep across the southern high plains the 24th of January. This helped to bring isentropic showers to the area during the early morning hours of the 24th as a warm front slowly spread across the coastal plains. Convection developed along and just north of this front, during the mid-morning hours before this convection moved southeastern Texas as the upper low lifted into the central Plains. Rainfall totals ranged from trace to ½ inch across the Southern Edwards Plateau, Rio Grande Plains, and western Hill County. The eastern Hill County, I-35 corridor saw amounts of ½ - 1 ½ inches while the Coastal Plains saw amounts of 1-3 inches.

Weak southwesterly flow aloft and return flow off the Gulf brought light rainfall to the area the 28th primarily east of the I-35 corridor. A Canadian cold front surged through the area on the 29th that brought renewed showers and freezing rain to a greater portion of the HSA. This frontal inversion would remain over the area and become the focus for repeated rounds of showers and freezing rain through the end of the month. In total rainfall amounts through this period were mostly less than 1/10 inch with isolated amounts of ½ to 1 inch. While the cold rains over the southern half of the HSA were beneficial for drought relief, the freezing rains over much of the northern part of the forecast area resulted in significant ice accumulation on vegetation that perhaps did more harm than good.

Given the lack of sufficient rainfall across the Rio Grande Plains, southern Edwards Plateau, and the northeastern Hill County drought conditions degraded compared to December. D0 spread to encompass

the western half of Val Verde County while D2 crept into the far southeastern portion of the county. D4 expanded to cover the northwestern half of Bexar County and the northeastern corner of Medina County. D2 spread northward to cover the eastern half of Burnett County. While drought categories maintained or degraded across the majority of the area, the Coastal Plains saw drought improvement due to multiple +200 percent normal rainfalls over the past 45 days. Lavaca County saw a one category improvement across the northwestern half of the county while D0 remained across the southeastern half.

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/>

Rainfall and Reservoir Data:

Austin/San Antonio HSA:

	Monthly Rainfall	Monthly Average	2023 Rainfall Through Month	1991-2020 Normal Through Month	Percent of Normal
Austin – Bergstrom	1.53”	2.82”	1.53”	2.82”	54%
Austin – Mabry	1.26”	2.64”	1.26”	2.64”	48%
Del Rio	0.14”	0.61”	0.14”	0.61”	23%
San Antonio	0.69”	1.96”	0.69”	1.96”	35%

Nearby offices:

	Monthly Rainfall	Monthly Average	2023 Rainfall Through Month	1991-2020 Normal Through Month	Percent of Normal
College Station	2.04”	3.43”	2.04”	3.43”	59%
Corpus Christi	0.72”	1.39”	0.72”	1.39”	52%

Laredo	0.31''	0.90''	0.31''	0.90''	34%
San Angelo	0.55''	0.92''	0.55''	0.92''	60%
Victoria	6.17''	2.67''	6.17''	2.67''	231%
Waco	1.43''	2.59''	1.43''	2.59''	55%

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

HSA Reservoir Elevations:

	Conservation Elevation (feet)	End of Month Elevation (feet)	Monthly Change (Feet)
Lake Buchanan	1020	1002.36	-0.61
Lake Travis	681	639.32	-0.60
Canyon Lake	909	898.33	-0.59
Medina Lake	1064.2	983.55	-0.88
Lake Amistad	1117	1081.52	0.22

Hydro products:

River Flood Warning (FLW) – 0

River Flood Statement / Flood Advisory (FLS) – 0

(0 Urban / Small Stream Flood Advisory / 0 River Flood Statement)

Hydrologic Statement (RVS) – 0

Flash Flood Watch (FFA) – 0

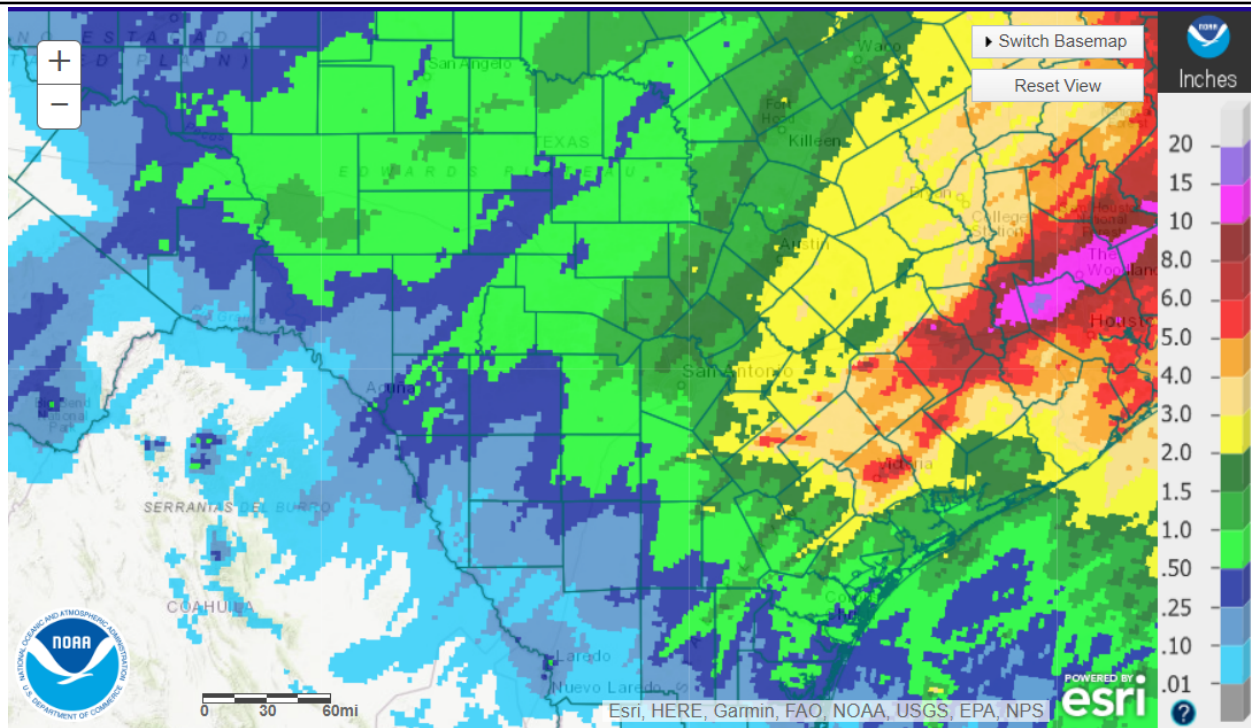
Flash Flood Warning (FFW) – 0

Flash Flood Statement (FFS) – 0

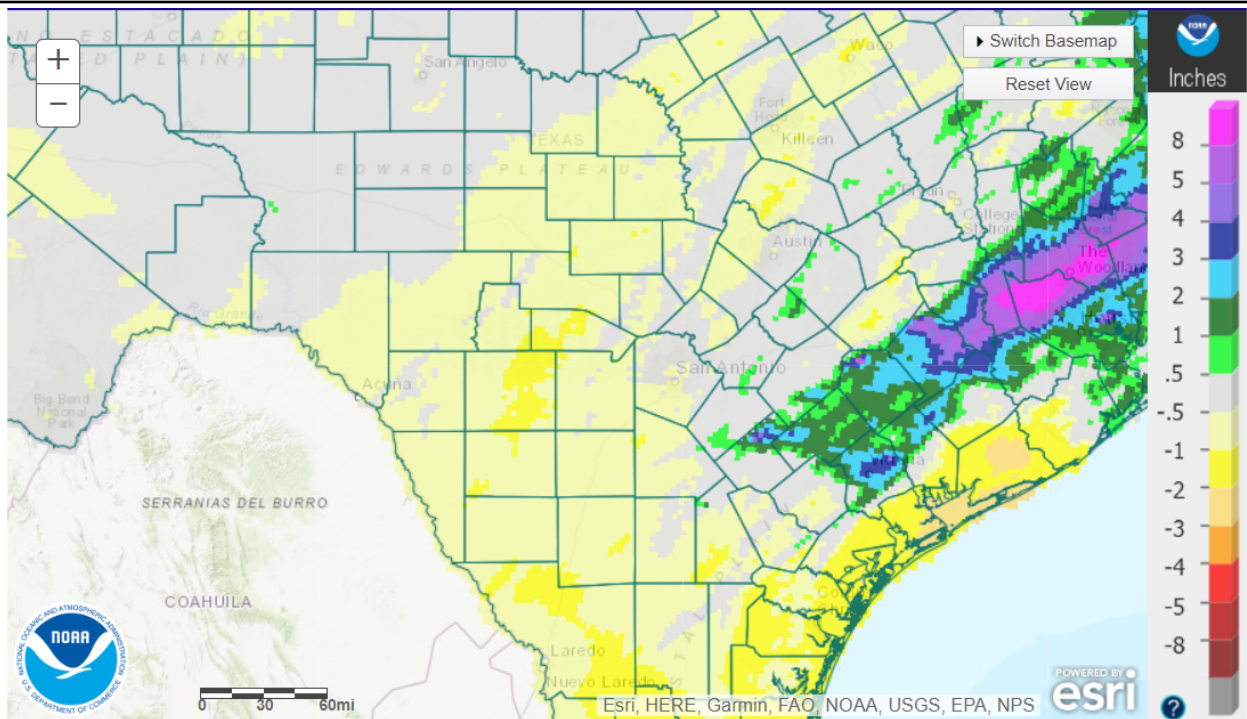
Hydrologic Outlook (ESF) – 6

- 1 AHPS Probabilistic Forecast for Brazos River
- 1 AHPS Probabilistic Forecast for Colorado River
- 1 AHPS Probabilistic Forecast for Guadalupe River
- 1 AHPS Probabilistic Forecast for San Antonio River
- 1 AHPS Probabilistic Forecast for Pecos River
- 1 AHPS Probabilistic Forecast for Nueces River

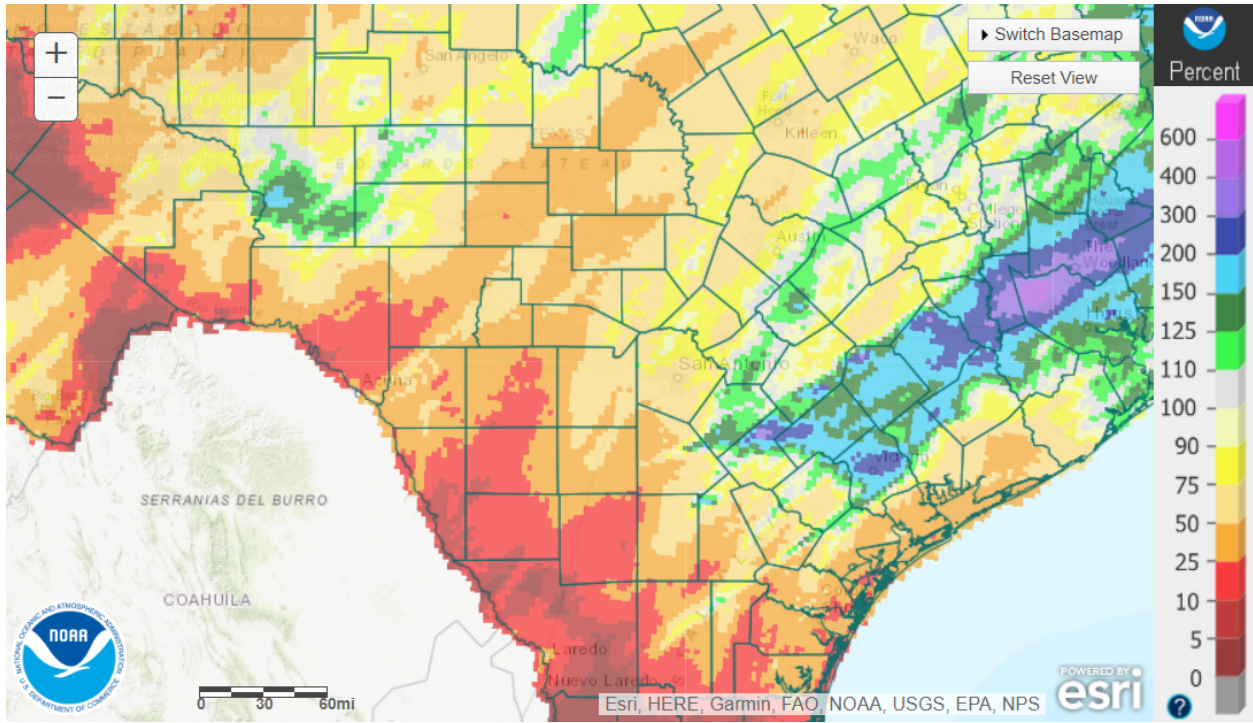
January 2023 - Observed Rainfall (Inches)



January 2023 - Departure from Normal Rainfall (Inches)



January 2023 - Percent of Normal Rainfall



January 2023 - Streamflow Comparison with Historical Flows

January 2023

