

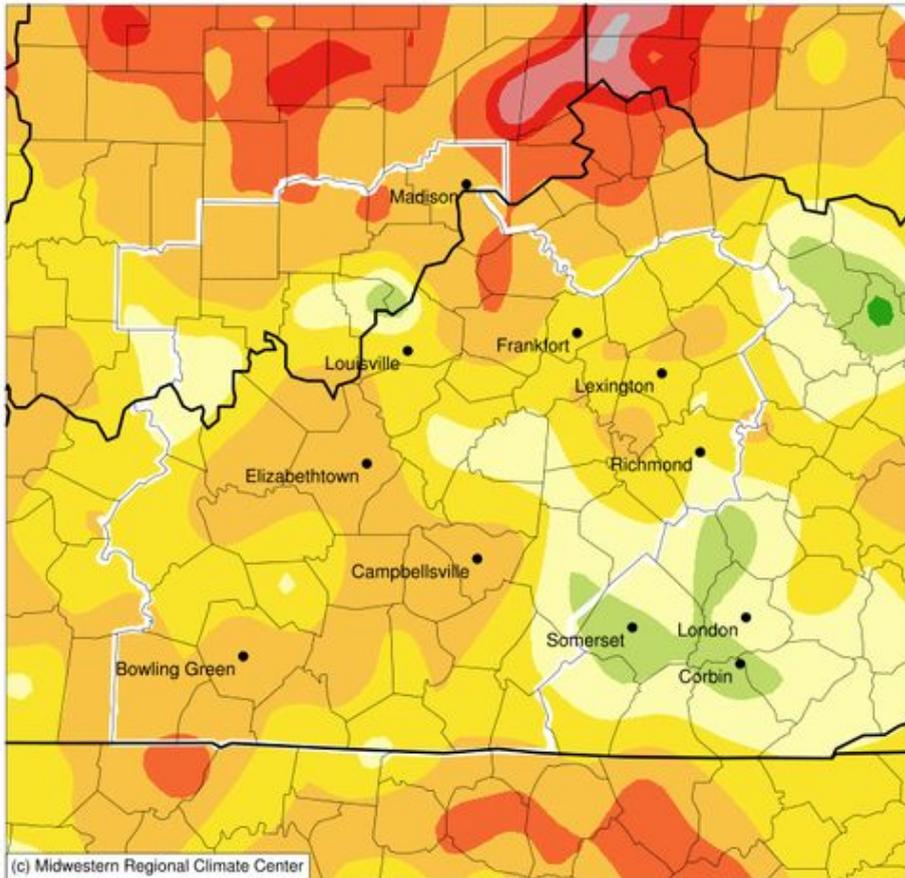


# September 2024 Monthly Summary

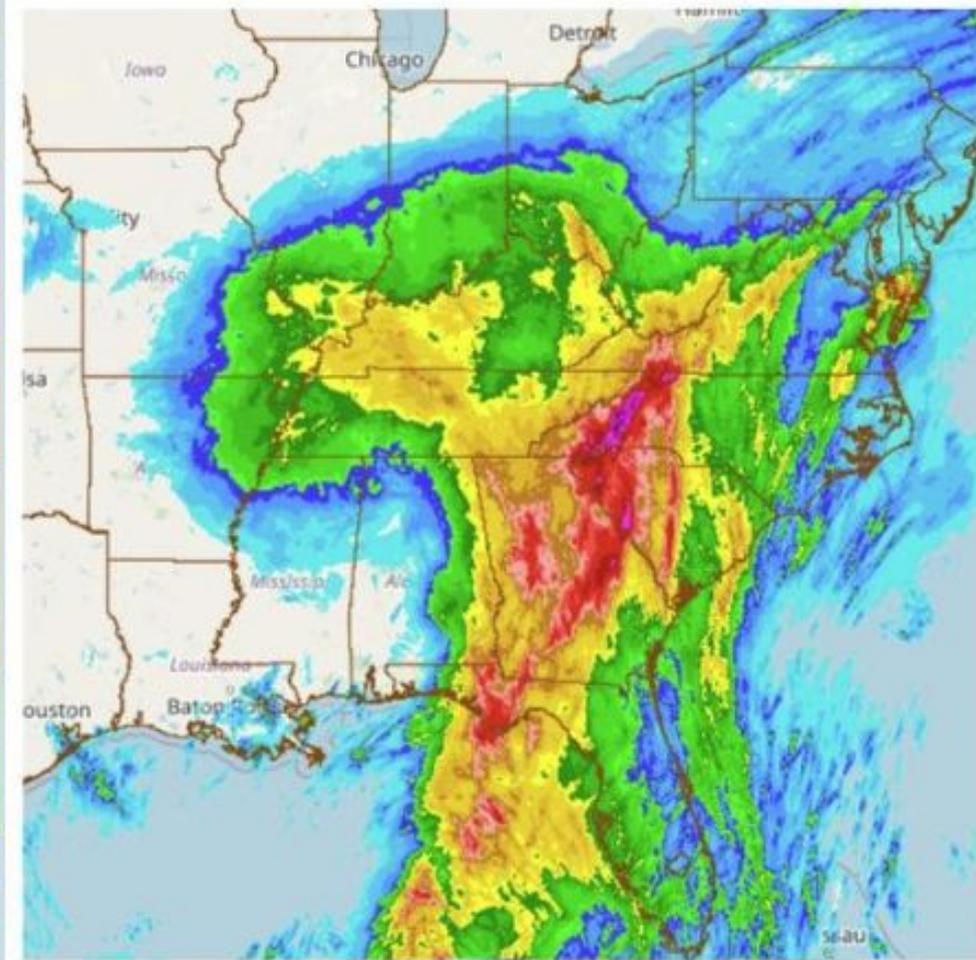
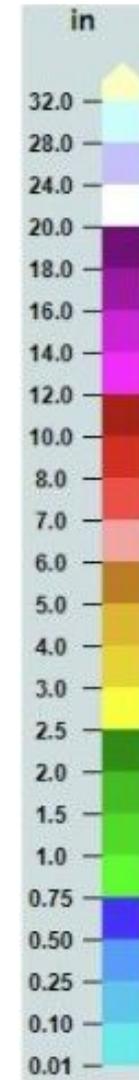
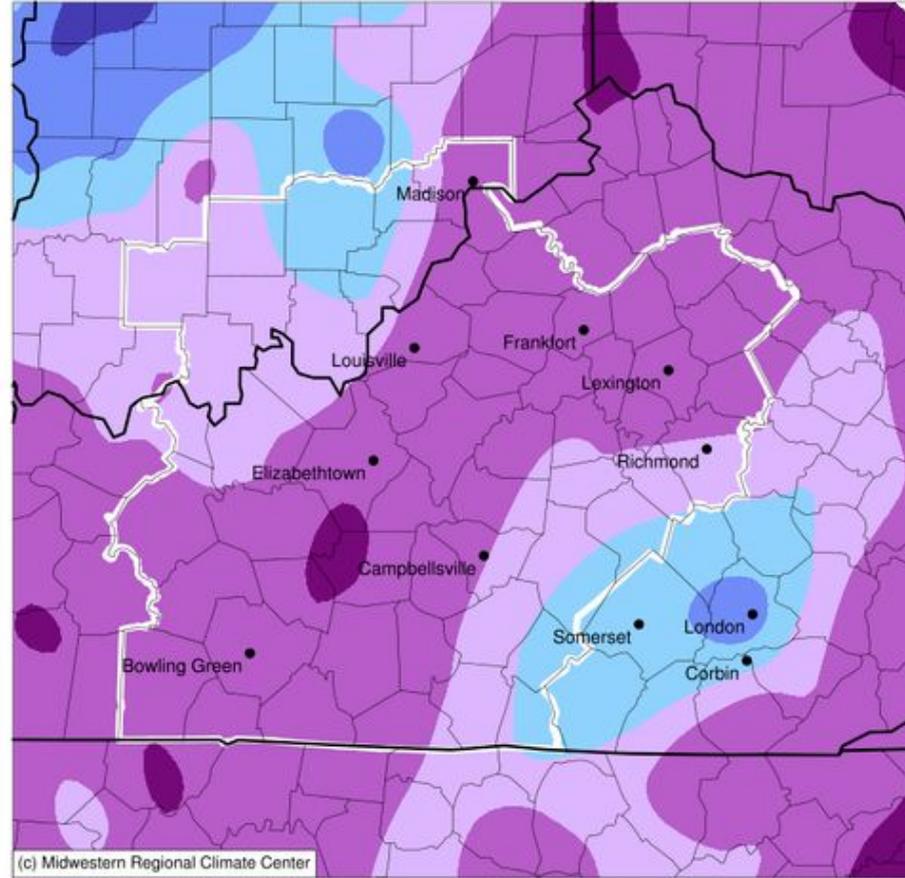
October 2, 2024  
7:09 AM

Much of September was quite dry, as depicted on the map below, left, showing percent of normal precipitation for the first 23 days of the month. A storm system then brought significant rains on the 24th, followed by widespread soaking rains from the remnants of Hurricane Helene on the 27th (map below, center). Hurricane Helene brought devastating rainfall amounts to much of the southeastern United States (map below, right). The 3 to 5 inches of rain that fell on much of southern Indiana and central Kentucky, however, was very beneficial and erased the severe to extreme drought that had set in by the third week of the month.

Accumulated Precipitation (in): Percent of 1991-2020 Normals  
September 01, 2024 to September 23, 2024



Accumulated Precipitation (in): Percent of 1991-2020 Normals  
September 24, 2024 to September 30, 2024



2 5 10 25 50 75 100 125 150 175

125 150 175 200 300 400 500 750





# Averages, Departures, & Records

October 2, 2024  
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## Station Values

	Average Temperature	Departure from Normal	Precipitation	Departure from Normal	Snow	Departure from Normal
<b>Bowling Green</b>	73.7°	+2.3°	5.82"	+2.18"	0"	0"
<b>Frankfort</b>	71.4°	+2.2°	5.86"	+2.51"		
<b>Lexington</b>	72.1°	+3.0°	6.33"	+2.91"	0"	0"
<b>Louisville Ali</b>	75.1°	+3.1°	6.71"	+3.05"	0"	0"
<b>Louisville Bowman</b>	71.6°	+1.2°	7.54"	+3.93"		

## Records

- 9th: Low of 43° at Frankfort and 45° at Lexington
- 21st: Warm low of 75° at Louisville
- 27th: Daily rainfall of 1.95" at Frankfort, 2.29" at Lexington, and 2.97" at Bowling Green

7th wettest September on record at Lexington, 6th wettest September on record at Louisville  
 10th warmest September on record at Louisville

Source: [NWS Louisville Climate](#)



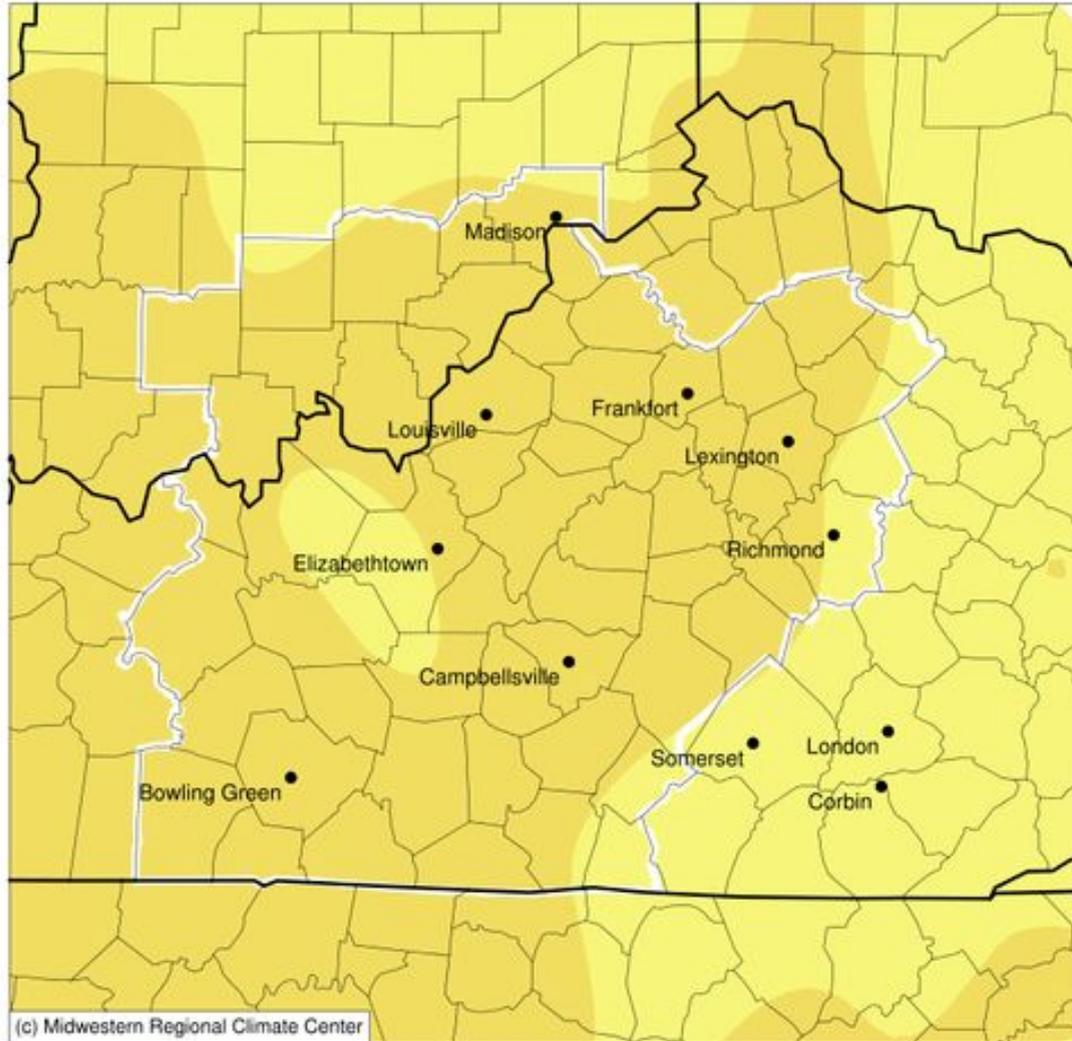


# Temperature Maps

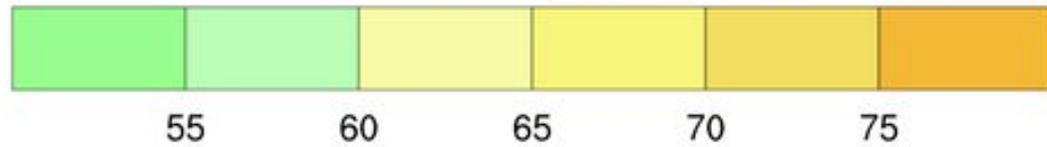
October 2, 2024  
7:09 AM

### Average Temperature (°F)

September 01, 2024 to September 30, 2024

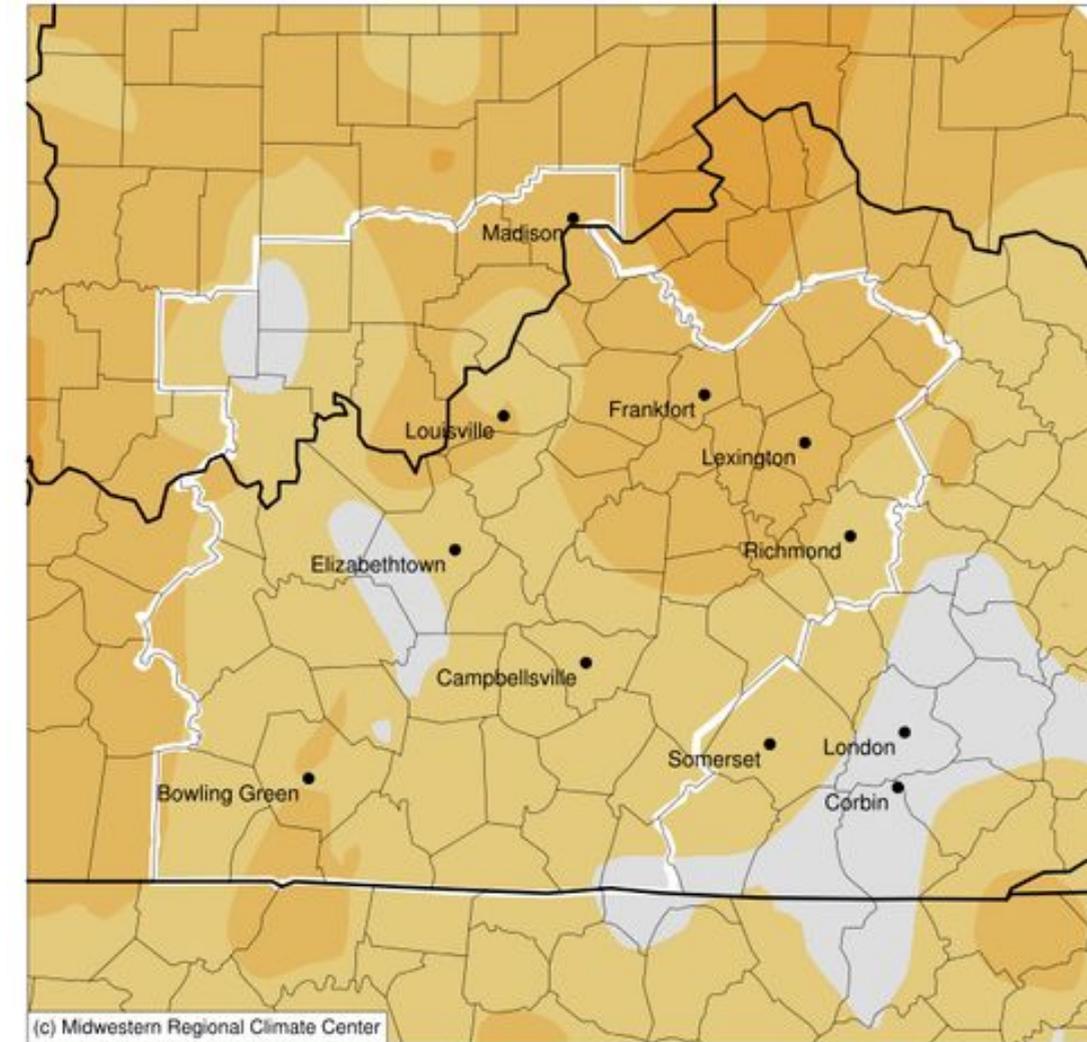


(c) Midwestern Regional Climate Center

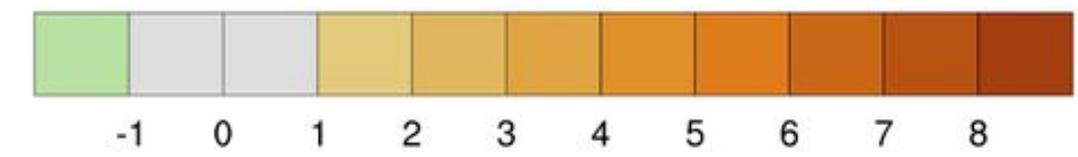


### Average Temperature (°F): Departure from 1991-2020 Normals

September 01, 2024 to September 30, 2024



(c) Midwestern Regional Climate Center



September was warmer than normal for most of the region.

Source: [MRCC](#)



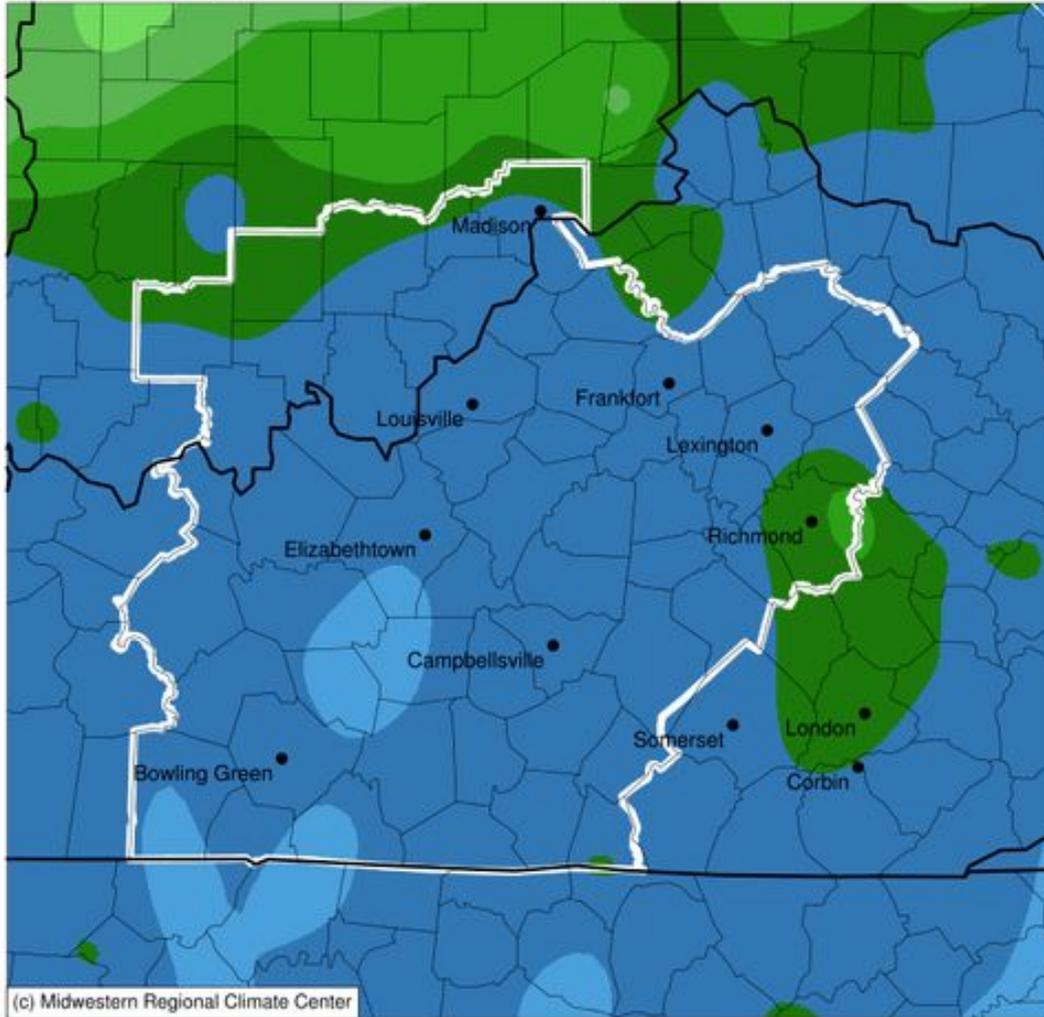


# Precipitation Maps

October 2, 2024  
7:09 AM

## Accumulated Precipitation (in)

September 01, 2024 to September 30, 2024



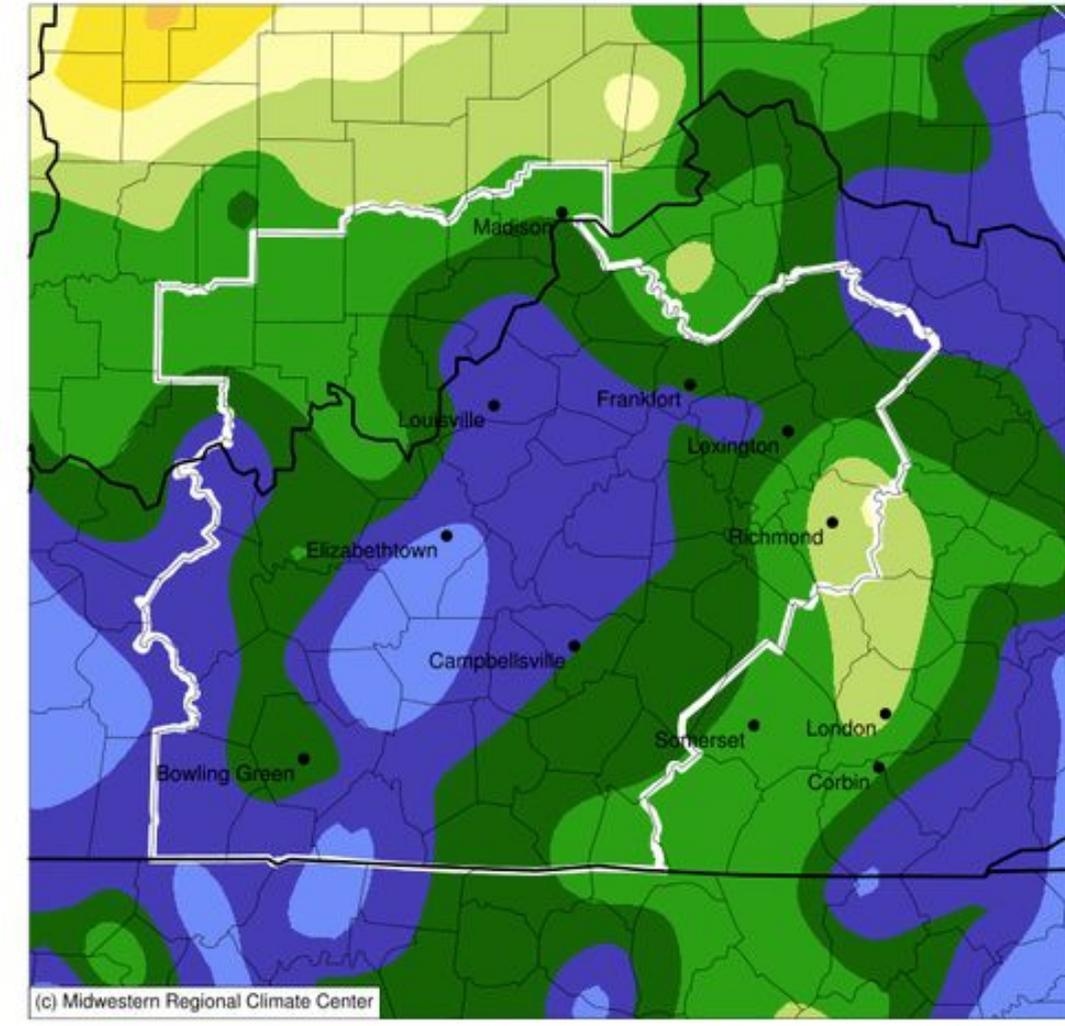
0.01 0.1 0.5 1 1.5 2 3 4 5 7.5 10 12.5 15

Though the month was predominately dry, the remnants of Hurricane Helene brought heavy rain to the area on the 27th and caused monthly totals to be wetter than normal.

Source: [MRCC](#)

## Accumulated Precipitation (in): Percent of 1991-2020 Normals

September 01, 2024 to September 30, 2024



50 75 100 125 150 175 200 300

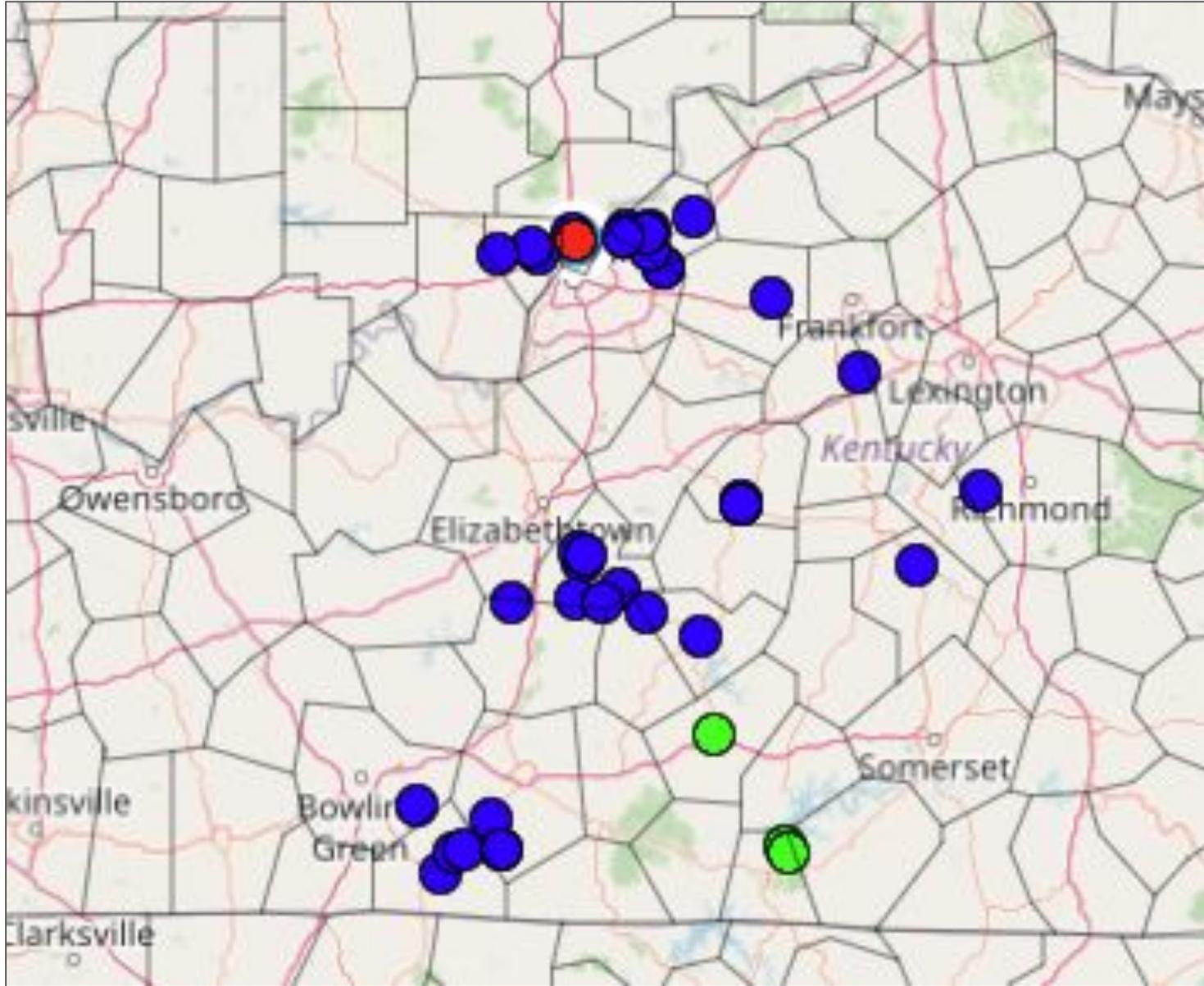




# Preliminary Severe Weather Reports

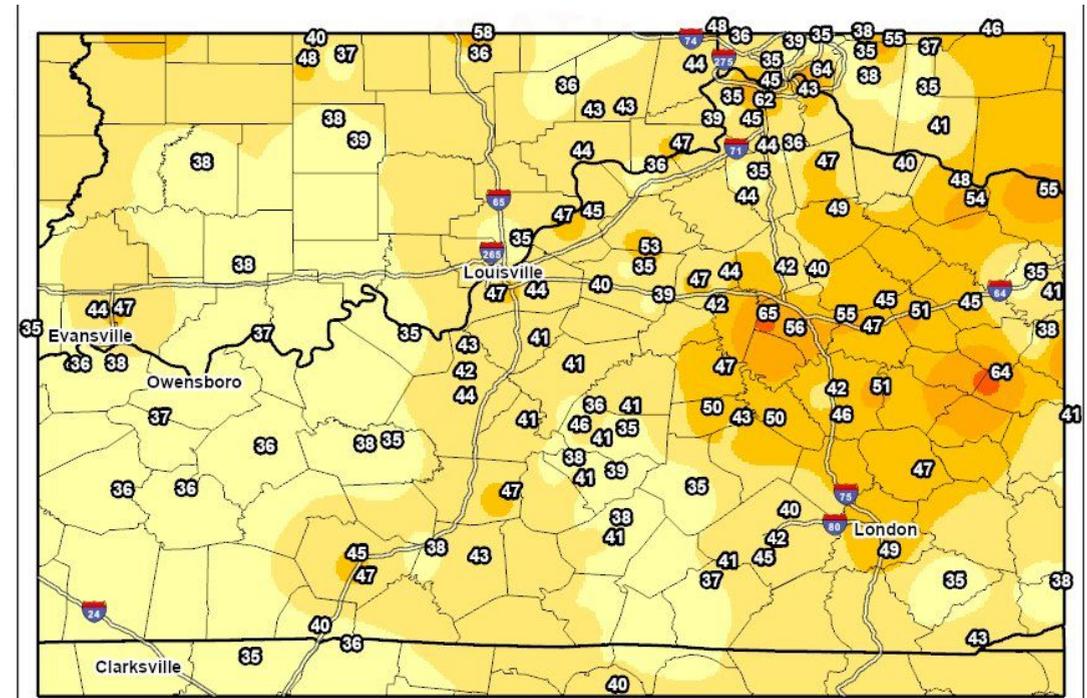
October 2, 2024  
7:09 AM

September 1-30, 2024



The only significant severe weather event of the month occurred on the 24th as low pressure traveling from Illinois to Michigan pulled a cold front through the Ohio Valley. Severe weather was reported from southern Michigan to the lower Mississippi Valley and southern Appalachians. A small tornado produced EF-0 damage from Cementville to Prather in southern Clark County, Indiana. Golf ball sized hail fell from a severe storm in northern Clinton County, Kentucky.

On the 27th the remnants of Hurricane Helene entered Kentucky and brought powerful wind gusts (see map below) and heavy rain. NWS Louisville received many reports of tree damage, and power outages were widespread. Antecedent drought conditions prevented any flooding from occurring despite 3-5" of rain drenching the region.



● Wind ● Hail ● Tornado ● Flash Flood

Source: [NWS Severe Verification Helper](#)



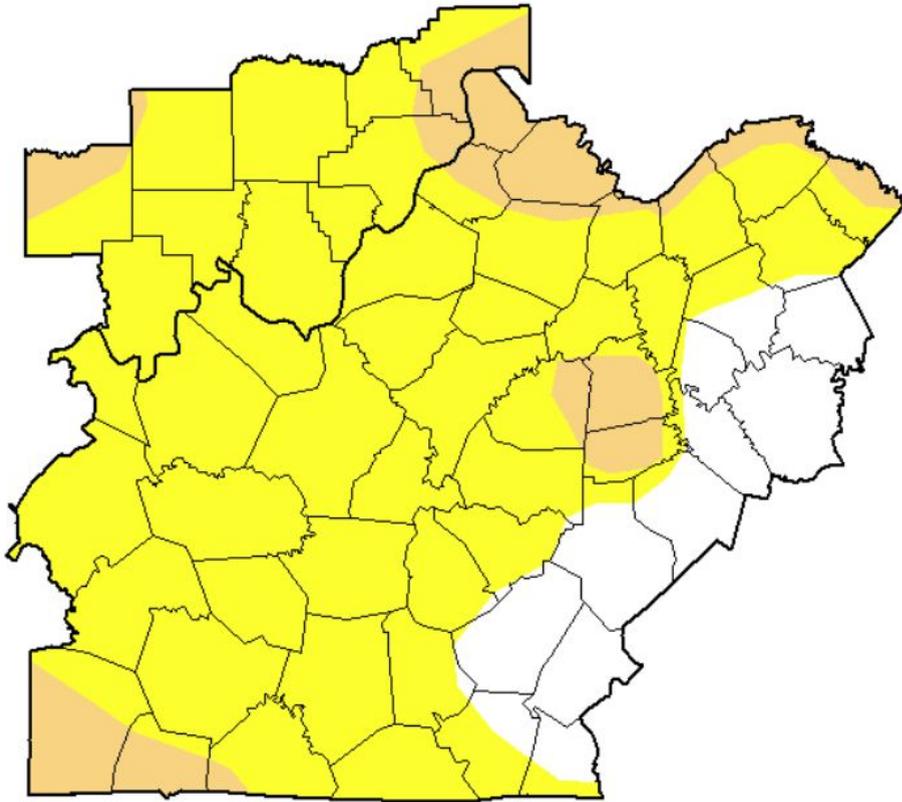
National Oceanic and Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Louisville, KY

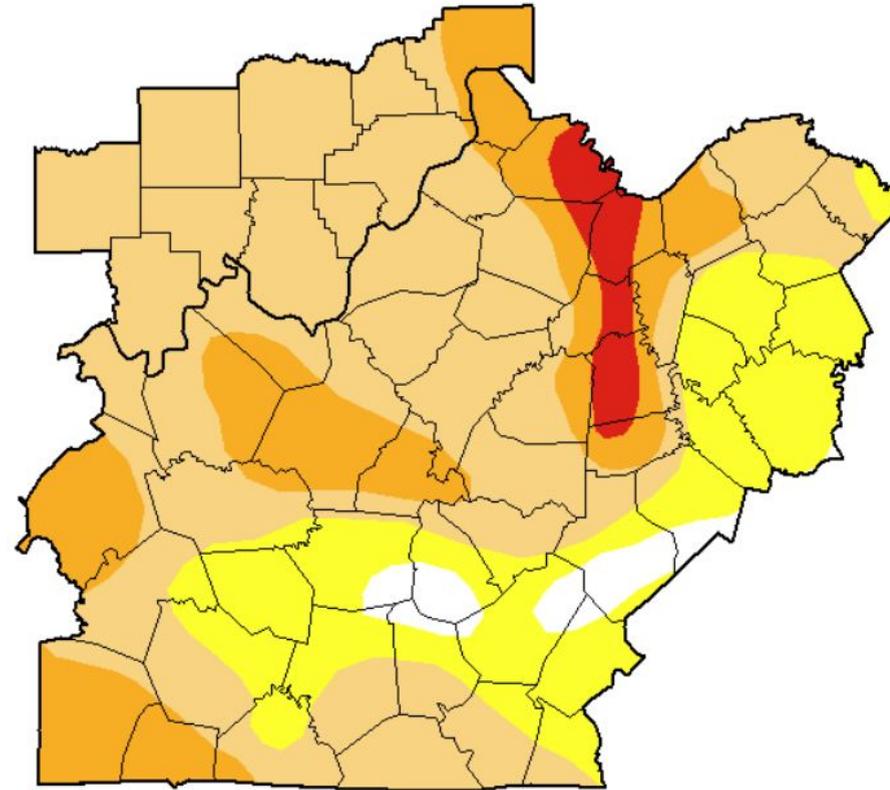


# U.S. Drought Monitor Maps & Class Change

October 2, 2024  
7:09 AM

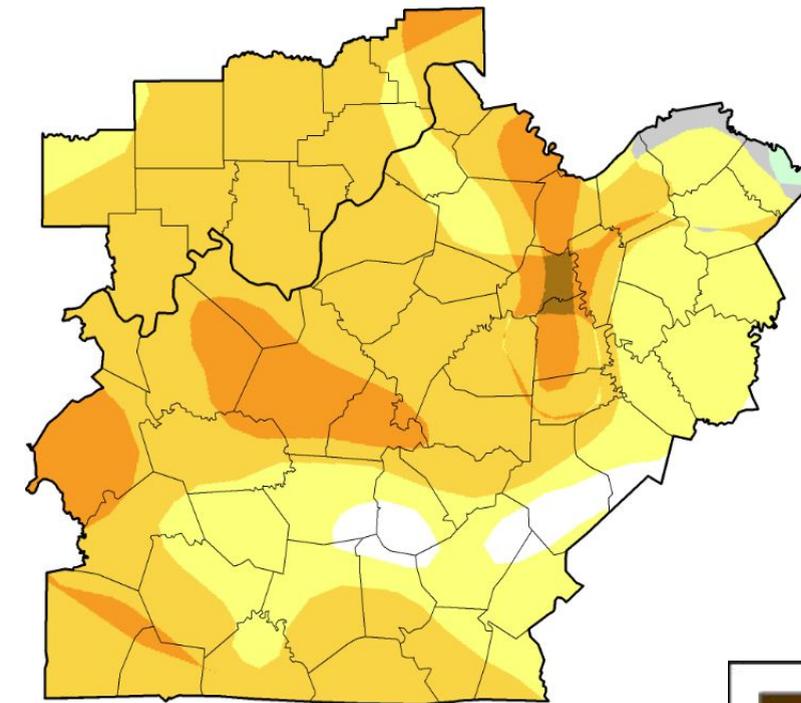


September 3, 2024



September 24, 2024

U.S. Drought Monitor Class Change - Louisville, KY WFO  
4 Week



From August 27 to  
September 24

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

Source: [USDM](#)



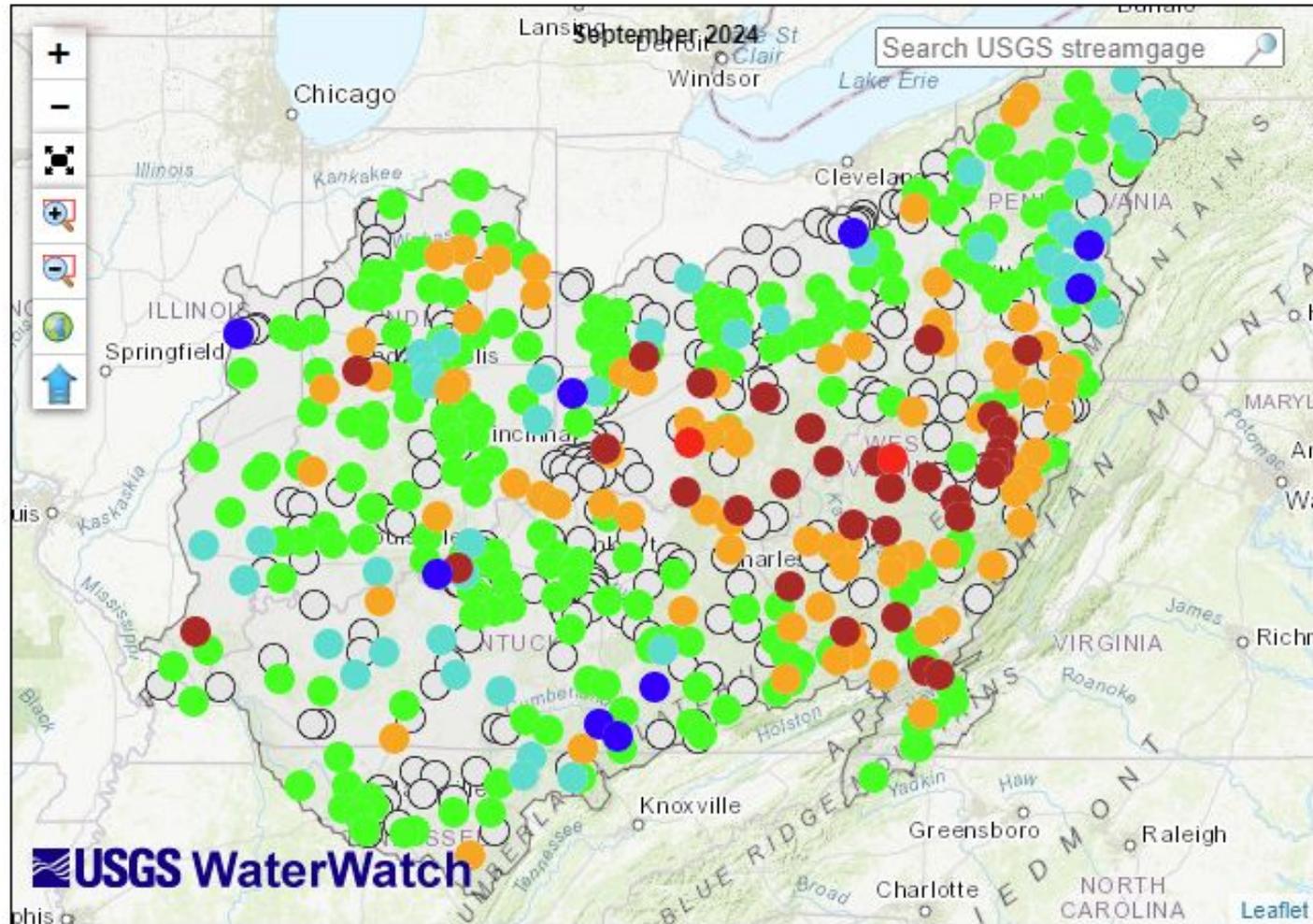


# Monthly Streamflow Anomalies for the Ohio Valley

October 2, 2024  
7:09 AM

September 2024

### Map of monthly average streamflow compared to historical streamflow for the month of the year

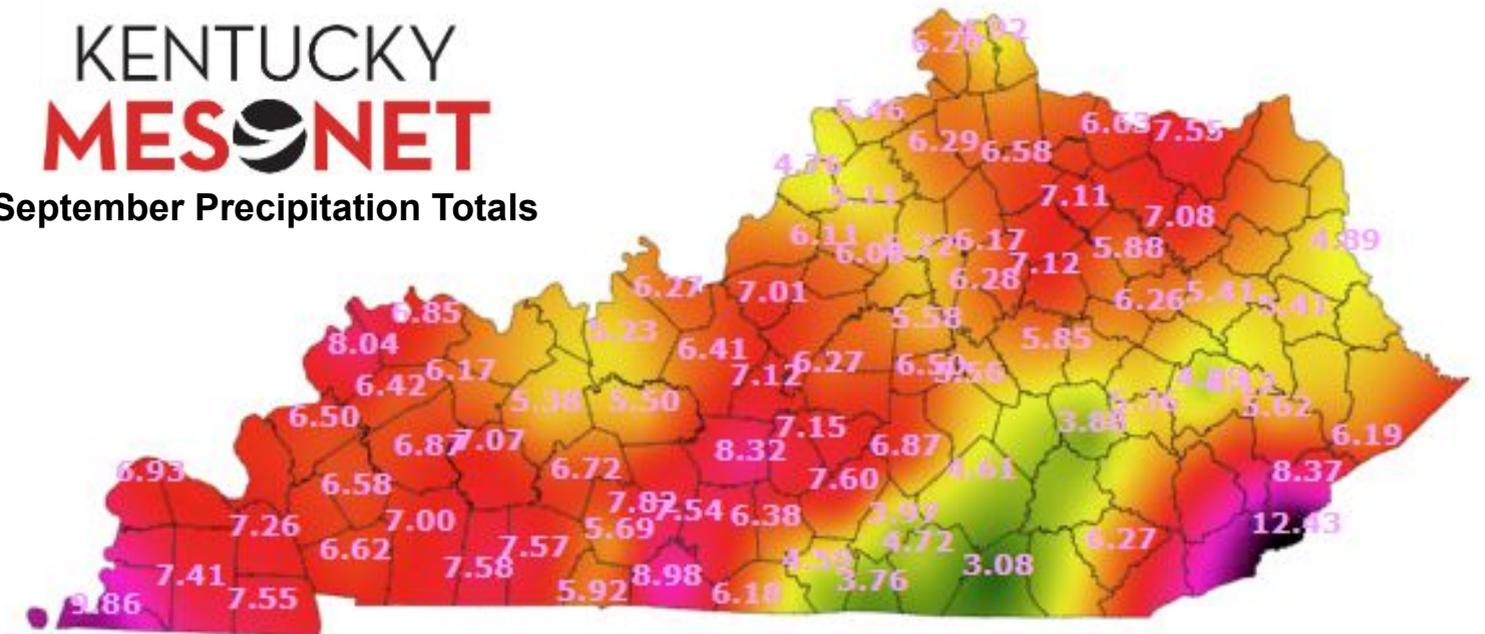


Explanation - Percentile classes							
<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span>
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Source: [USGS](#)

Very dry conditions during the first three weeks of the month caused streams to run quite low. However, the remnants of Hurricane Helene brought 3-5" of rain to the region and replenished rivers, creeks, and farm ponds. The Green River at Mammoth Cave rose from a stage of about 10' on the 27th to above Action Stage (20'), cresting at 21.1' on the 29th.

### KENTUCKY MESONET September Precipitation Totals





# CPC Monthly Outlook - October 2024

October 2, 2024  
7:09 AM

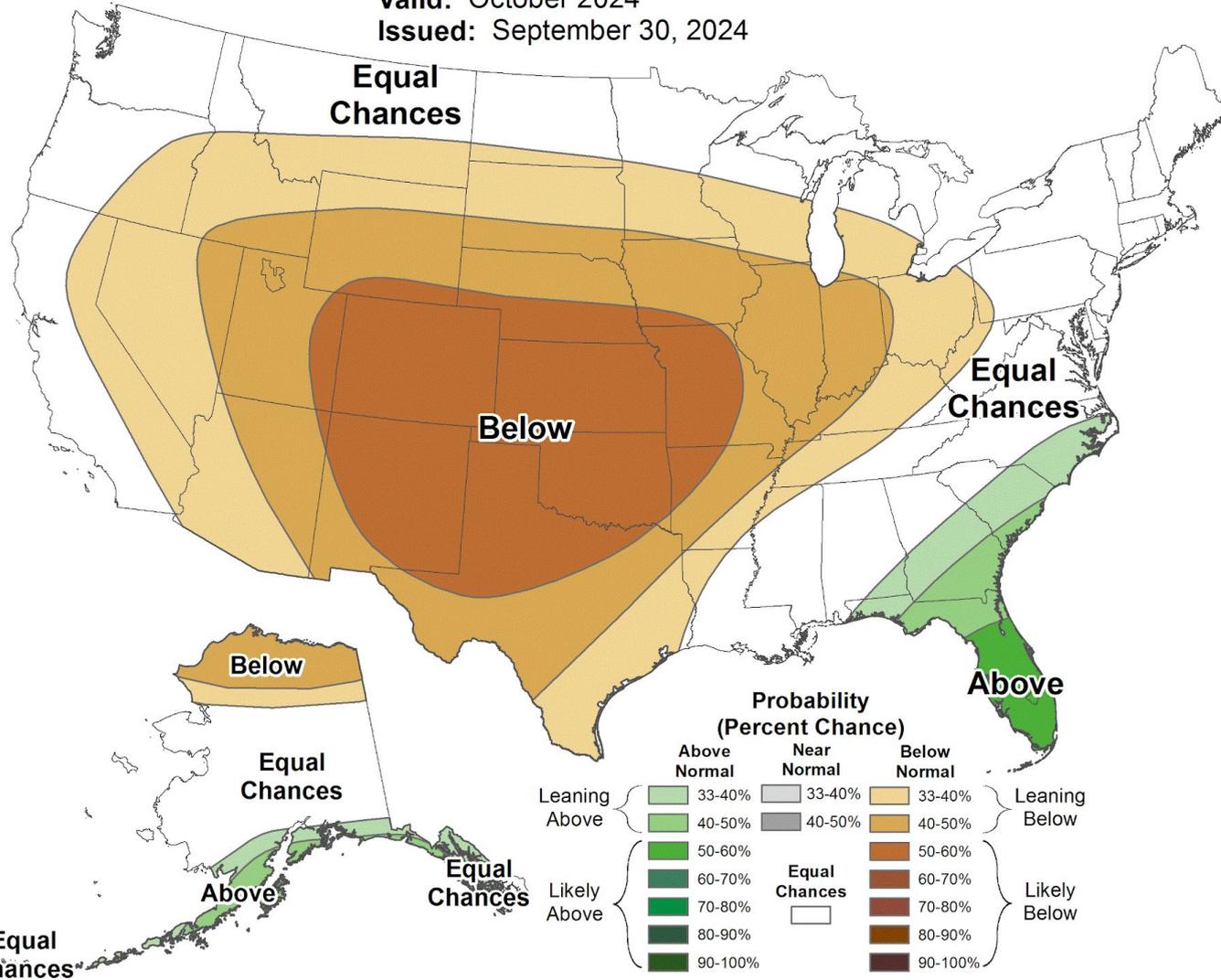
Odds are leaning towards a drier than normal October, but there's no clear signal for temperature



## Monthly Precipitation Outlook



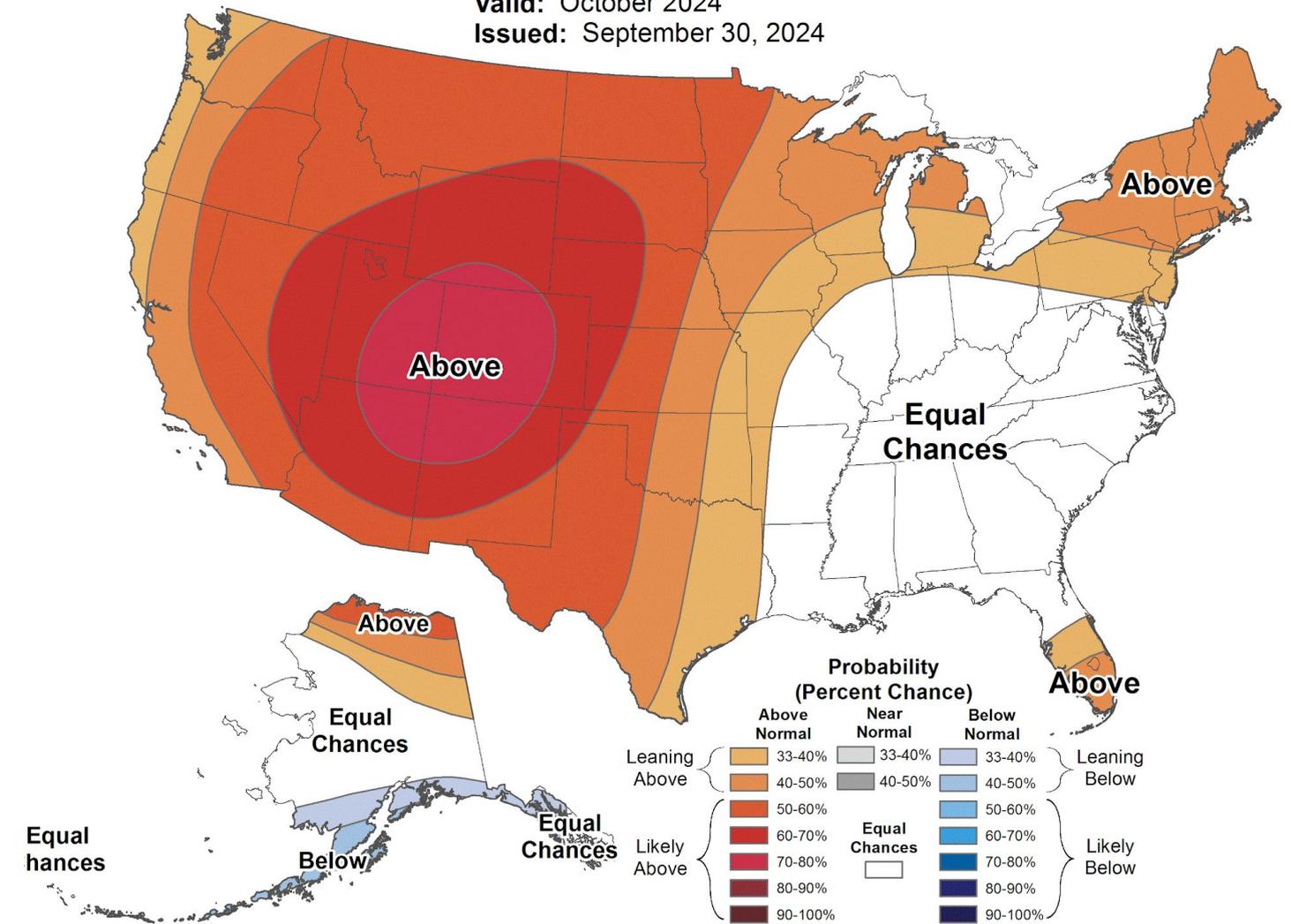
Valid: October 2024  
Issued: September 30, 2024



## Monthly Temperature Outlook



Valid: October 2024  
Issued: September 30, 2024



Source: [Climate Prediction Center, NOAA](https://www.cpc.ncep.noaa.gov)

