TEAM KENTUCKY
ENERGY AND ENVIRONMENT CABINET

MONTHLY WATER RESOURCE REPORT

Kentucky Division of Water
Water Supply Section

August 2026

Precipitation

Overall, Kentucky experienced its fourth straight month of above normal precipitation, though precipitation was not evenly distributed. The majority of the rain in August came from rounds of convective thunderstorms across central and eastern Kentucky and the Purchase Region. However, west central Kentucky experienced little rainfall resulting in below normal precipitation in that region for the month.

The Commonwealth averaged 4.26 inches of precipitation for August, 0.53 inches above normal. It was the 42nd wettest August on record. For the summer, June through August, Kentucky averaged 16.39 inches of precipitation, 4.07 inches above average. It was the 11th wettest summer on record.

As of the September 1st U.S. Drought Monitor, the Commonwealth was drought free. August saw the first time the Drought Monitor depicted no drought in Kentucky in 2026. However, abnormally dry conditions (D0) were present across much of west central Kentucky.

According to the Kentucky Mesonet, Harlan county recorded the highest monthly rainfall for August at 8.74 inches, while Christian County had the lowest at 1.02 inches.

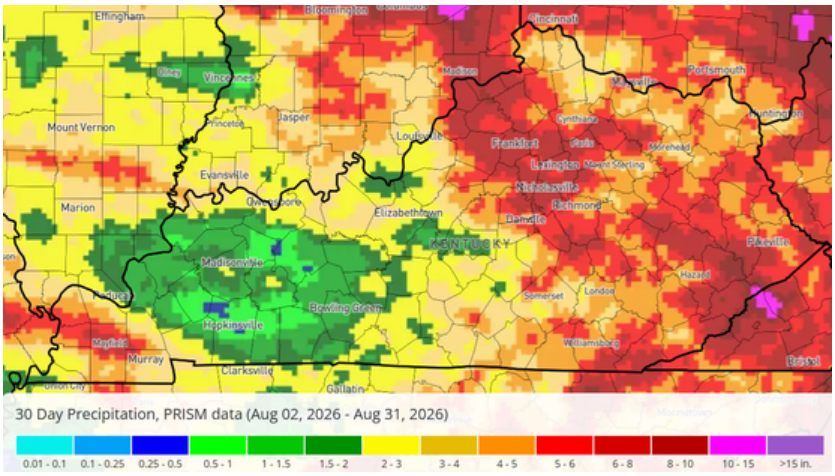


Figure 1. *Monthly precipitation map.*

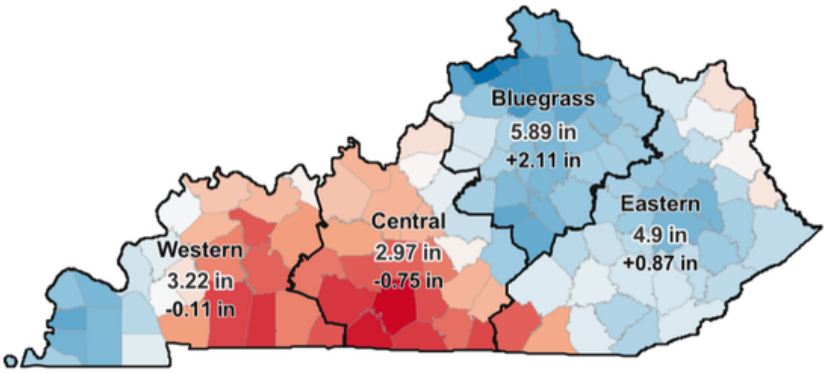


Figure 2. *Departure from normal precipitation by county and climate division.*

Table 1. *Regional precipitation patterns.*

Climate Region	Departure From Normal (inches)					Palmer Drought Severity Index*
	This Month	Past 2 Mos.	Past 3 Mos	Past 6 Mos	Past 12 Mos	
Western	-0.11	2.89	5.89	3.93	-3.93	-0.34
Central	-0.75	1.99	4.46	2.00	-1.52	1.09
Bluegrass	2.11	2.43	5.05	6.09	5.12	1.74
Eastern	0.87	0.91	1.74	-1.13	-2.59	-1.14

*4.0 and above (Extremely Moist)
3.0 to 3.9 (Very Moist Spell)
2.0 to 2.9 (Unusual Moist Spell)
-1.9 to 1.9 (Near Normal)
-2.0 to -2.9 (Moderate Drought)
-3.0 to -3.9 (Severe Drought)
-4.0 or less (Extreme Drought)

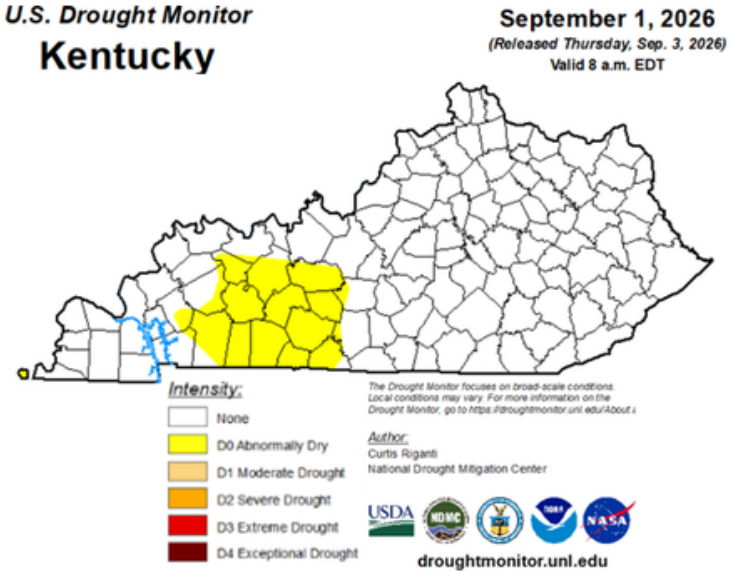


Figure 3. *Current US Drought Monitor Map.*

Streamflow

Streamflow in August started the month at or above normal in most areas. Rivers and streams across much of the state experienced larges spikes in flow associated with the heavy rains. Flows in those areas had returned to near normal flows by the end of the month. Streamflows in west central Kentucky did not get the benefit of the big precipitation events in the middle of the month, resulting in flows that dropped below normal by the end of the month.

While flows in west central Kentucky were below normal, there are currently no immediate concerns with water supplies in the region. Flows will need to be watched closely, especially considering that the state had been in drought earlier in the year and base flows could still be lower than normal in the absence of precipitation.

The Division of Water's Water Supply Section will continue to monitor conditions closely.

Table 2. *Mean Stream Discharge select stream gages.*

River and Location	Drainage Area (mi2)	7 Day		28 Day	
		Average Flow (cfs)	% of Normal	Average Flow (cfs)	% of Normal
Levisa Fork at Pikeville	1,232	324	39	834	105
Tygarts Creek near Greenup	242	17	10	31	19
Licking River at Blue Lick Springs	1,785	550	29	681	39
North Fork Kentucky River at Jackson	1,101	345	50	1127	172
Kentucky River at Lock 10	3,955	812	28	2,845	104
Elkhorn Creek near Frankfort	473	201	41	851	186
Cumberland River at Cumberland Falls	1,977	721	33	1,483	73
Beaver Creek near Monticello	43	3	11	7	24
Beech Fork at Maud	436	27	6	313	84
Barren River at Bowling Green	1,849	95	4	162	8
Green River at Lock 2	7,566	1,338	16	2,815	38
Pond River near Apex	194	12	6	22	13
Tradewater River at Olney	255	29	13	53	27
Bayou De Chien near Clinton	69	26	30	47	60
Ohio River at Greenup Dam	62,000	61,188	106	100,362	185
Ohio River at Louisville	91,170	118,843	142	149,561	189
Mississippi River at Thebes, IL	713200	155875	87	166862	91

* Base Period 1980-2023

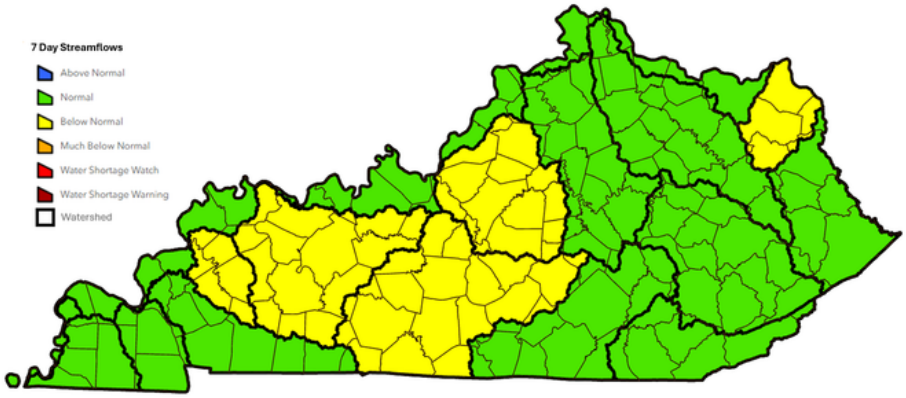


Figure 4. *Average streamflow by watershed over the past 7-days (August 25-31).*

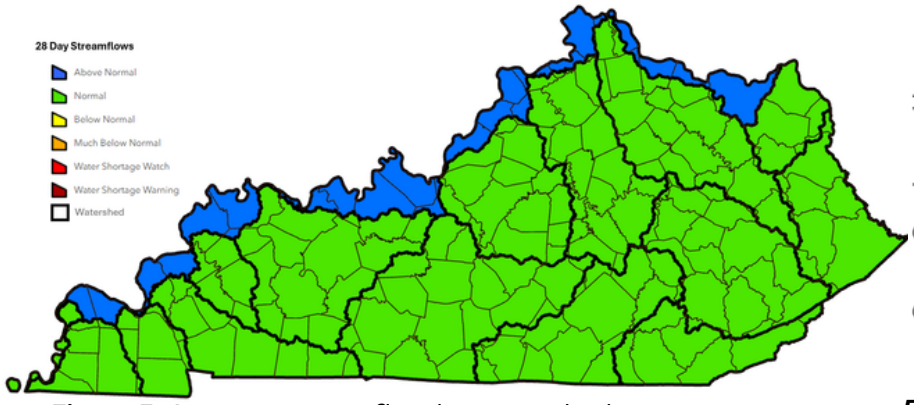


Figure 5. *Average streamflow by watershed over the past 28-days (August 4-31).*

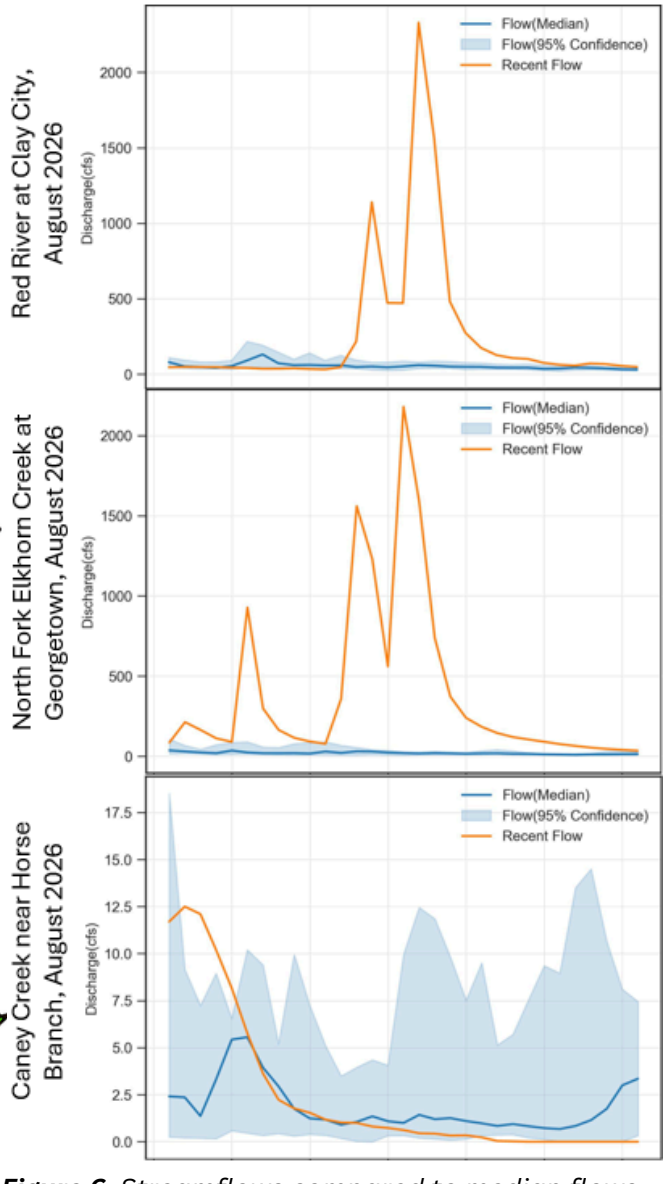


Figure 6. *Streamflows compared to median flows for the month.*

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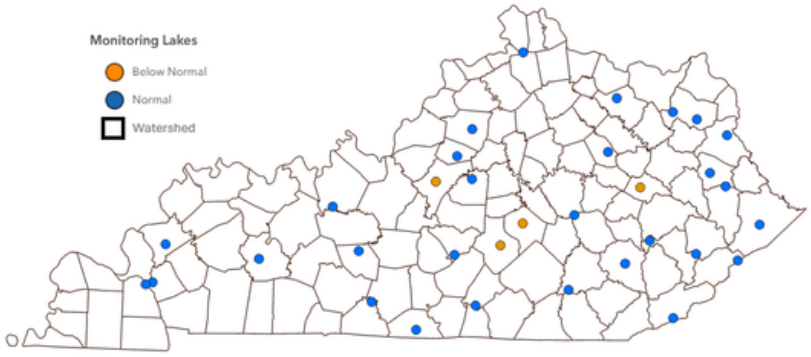
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Reservoir Storage

Most reservoirs in the state remain near normal for this time of year. However, a few small water supply reservoirs remain below normal due to the historically low precipitation this past winter and spring, resulting in an inadequate supply for the rest of the year. The above normal precipitation this summer, along with conservation measures and alternative supplies, has helped slow the rate of decline of these reservoirs and prolong the supply. During the summer, evaporation and evapotranspiration typically outpace precipitation, resulting in most precipitation being taken up by soils. This makes it nearly impossible for reservoirs with small drainage areas to receive enough precipitation to refill this time of year. As we move into late fall and winter, and evaporative demand drops, the reservoirs will begin to refill, provided there is adequate precipitation.

Figure 7. *Locations of reference reservoirs across the state. Status of reservoir levels indicated by color.*



Groundwater

General Statement: Kentucky is a geologically, and hydrogeologically, diverse state. Groundwater data is limited in availability and where available may only be applicable to the immediate area given regional geologic variability. Local conditions may not be accurately reflected by the reference locations selected and local rainfall and surface water conditions may provide additional or more representative information. Current data is compared to a 30-year reference period (1980 – 2010) or the longest available period of continuous data.

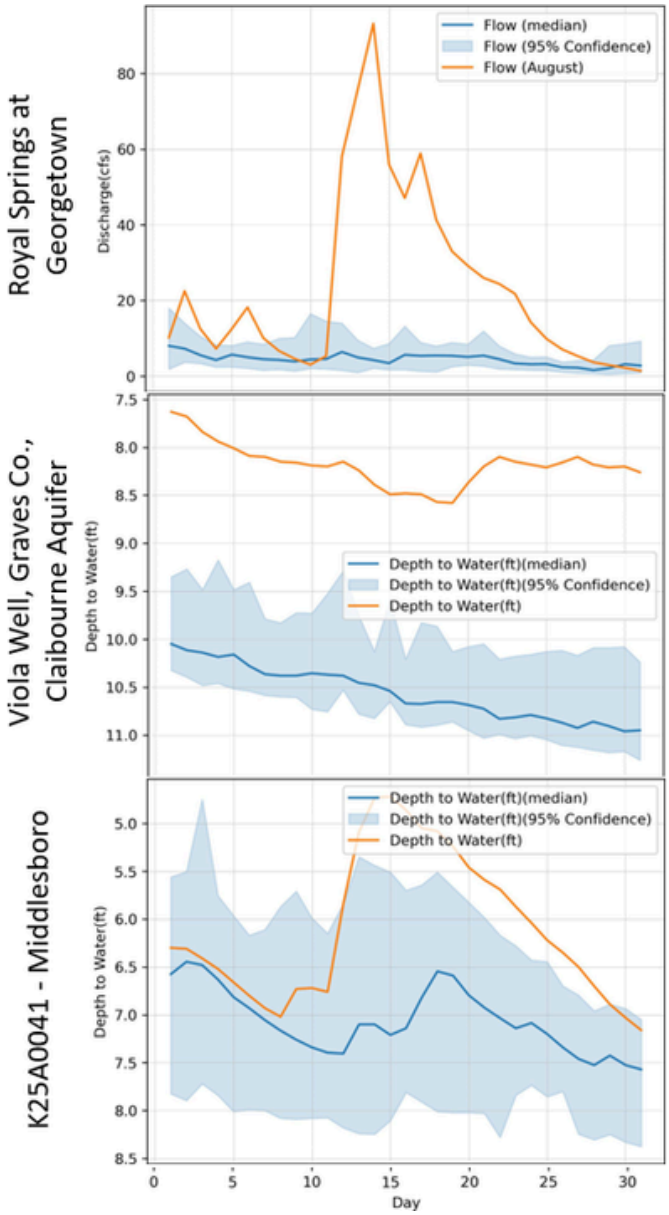
Inner Bluegrass: Flow at Royal Springs (Scott Co.) was above normal flow for most of August and well above normal flow following heavy rains between August 12th -17th. Moving into September, flows between 2 and 20 cfs are expected with higher flows possible following heavy rainfall. Flow is expected to trend towards a seasonal low over the fall and into the winter months

Jackson Purchase: Water levels in the Viola Well (Graves Co.) remained above the historical median across August. Falling water levels across the month followed the historical trend and are expected to continue falling towards seasonal lows in late fall and early winter. Decreasing water levels were also seen in the Henderson Co. shallow well, Marshall Co. well (McNairy aquifer), Hickman Co. (Claibourne aquifer) and Calloway Co. (McNairy aquifer).

Middlesboro: Water levels within the Middlesboro well (Bell Co.) stayed at or above the historical normal range for August with a peak of a following rainfall on August 15th. Overall, water levels trended down following historical patterns. Water levels are expected to continue to drop to a seasonal low as fall advances.

Additional data can be found at:
https://www.uky.edu/KGS/water/water-groundwater-monitoring.php

Figure 9. *Groundwater observations compared to normal for the month.*



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Forecast

The Climate Prediction Center (CPC) is currently predicting above normal chances for below normal precipitation in western Kentucky and equal chances for above normal and below normal precipitation during September. For September through November, the entire Commonwealth is predicted to have equal chances for above normal and below normal precipitation . Short-term forecasts are predicting below normal precipitation chances and above normal temperatures the first half of September.

The current U.S. Monthly Drought Outlook shows no drought predicted in September for Kentucky.

Note: These forecasts do not provide the quantity above or below normal, just the probability it will occur.

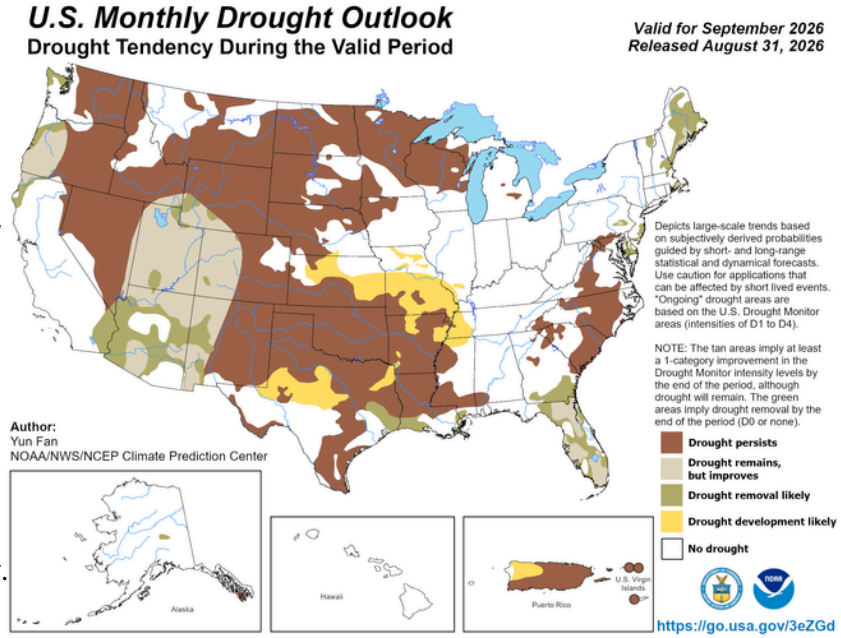


Figure 10. *Monthly drought outlook.*

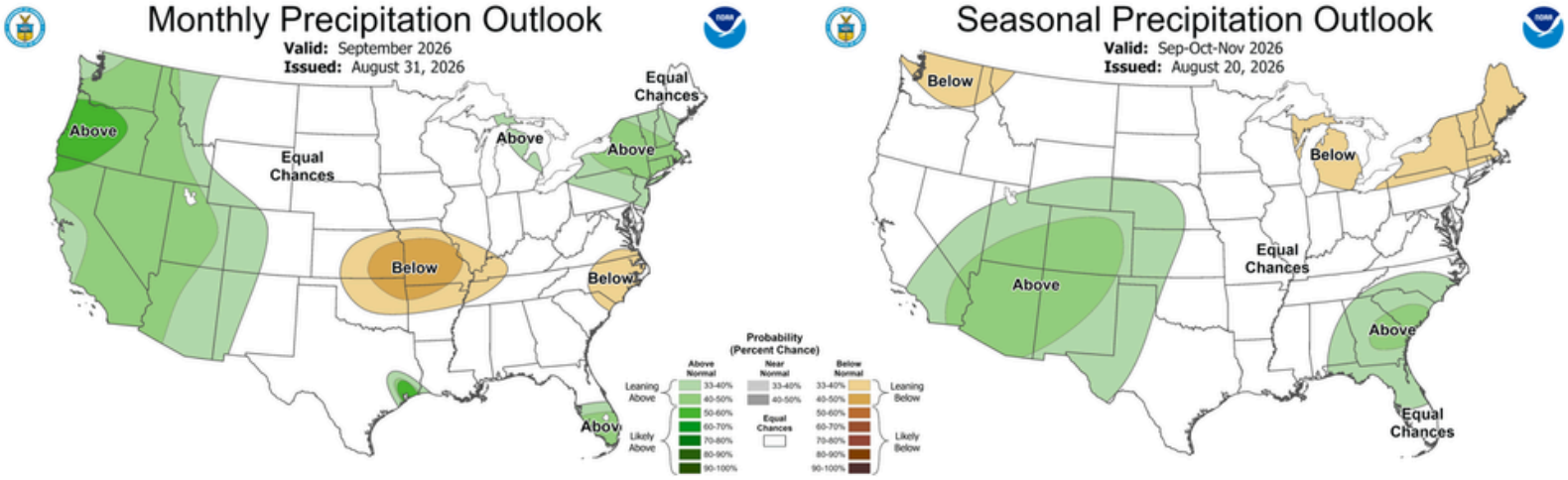


Figure 11. *Monthly and seasonal precipitation outlooks.*

Contact Us

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Report Drought Conditions

Acknowledgments

Precipitation Data:
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Centers for Environmental Information; Kentucky Mesonet; Midwest Regional Climate Center; Southern Regional Climate Center.
Streamflow Data:
U.S. Geological Survey, Water Resources Division.
Reservoir Data:
U.S. Army Corps of Engineers, Huntington, Louisville, and Nashville Districts; Kentucky Division of Water, Water Supply Section.
Forecast Data:
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Climate Prediction Center.