

# South Carolina Water Resources Monthly Summary

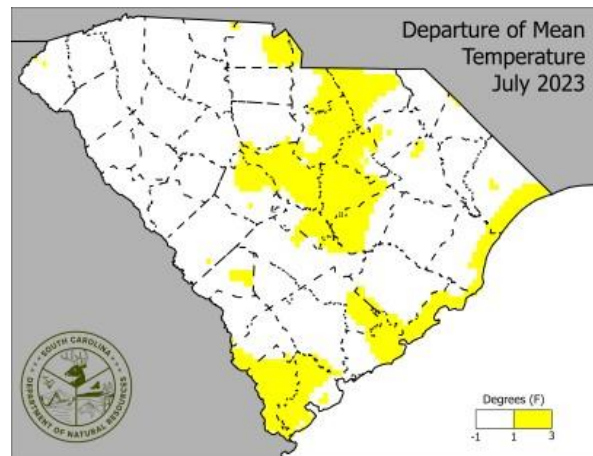
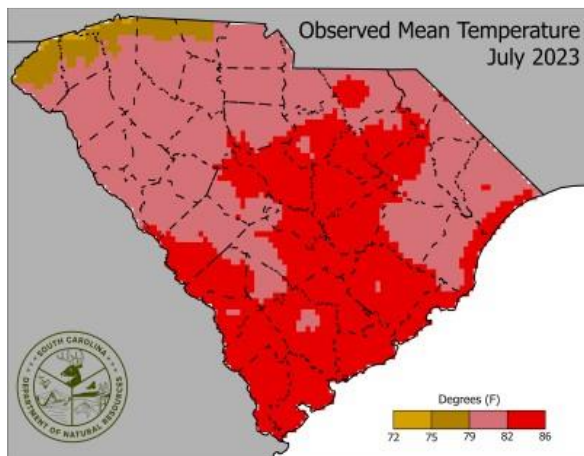
## For July 2023

Provided by

The South Carolina Department of Natural Resources

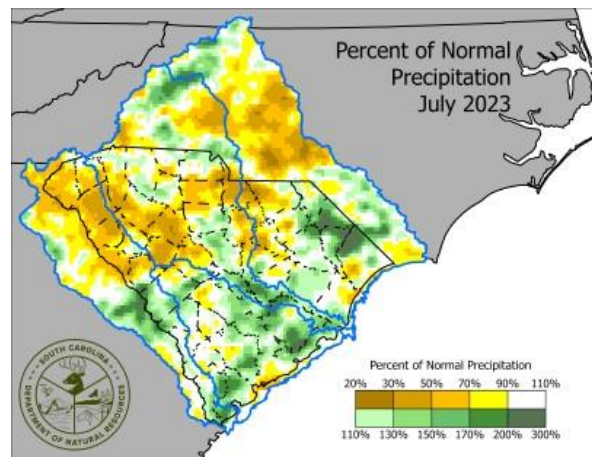
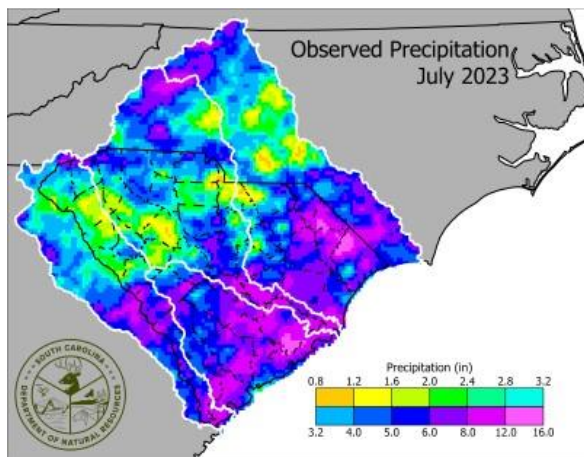
### Temperature

Statewide, South Carolina had an average temperature of 81.6 degrees, 1.6 degrees above the long-term average (1895-2022) of 80.0 degrees for July. While most of the state had temperatures in the near normal range, portions of the coast, Midlands, and Pee Dee Region had average temperatures of 1 to 3 degrees above normal. This was the 20<sup>th</sup> warmest July on record for the State since 1895. The highest daily maximum temperature recorded in July was 100 degrees at the NWS Barnwell 5 ENE station in Barnwell County. The lowest daily minimum temperature recorded in July was 52 degrees at the NWS Jocassee 8 WNW station in Oconee County.



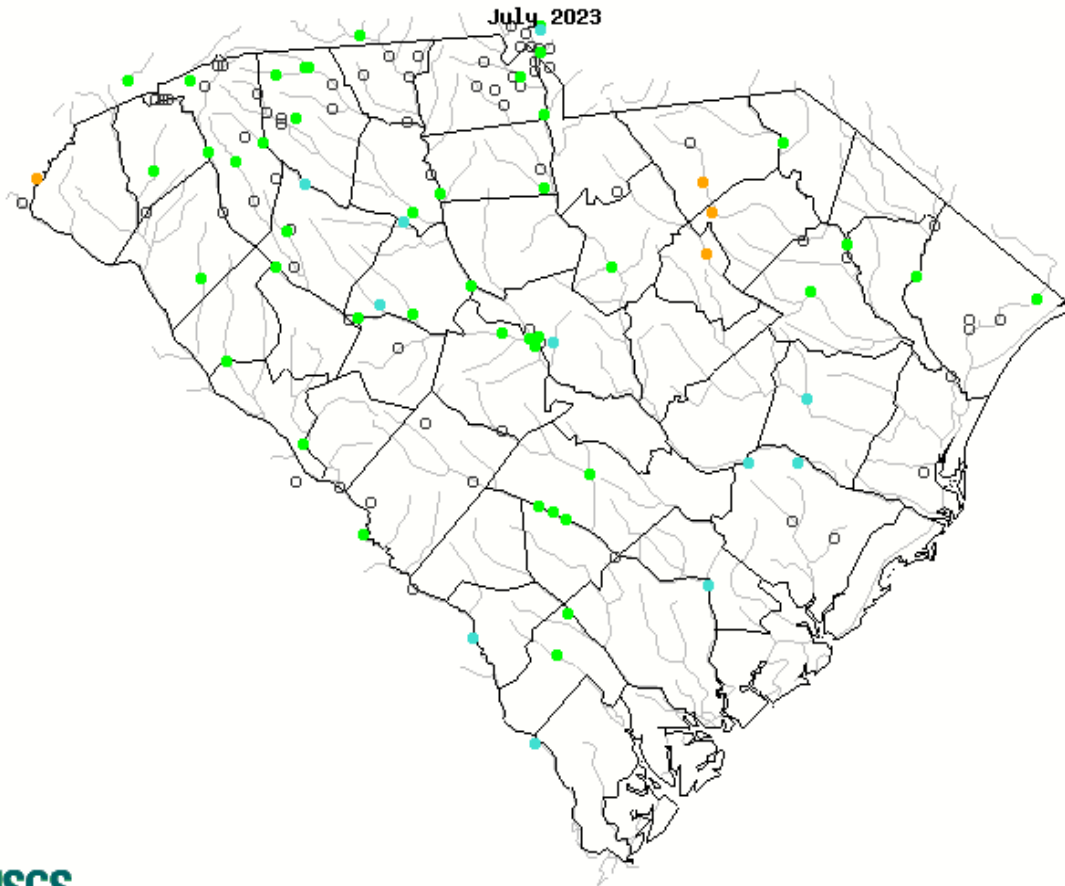
## Precipitation

The statewide average precipitation for July 2023 was 4.78 inches, -0.71 inches below the long-term average for the month (1895-2022) of 5.49 inches. Precipitation totals were mixed across the state, with some areas receiving less than 50% of normal rainfall for July and other areas receiving over 170% of normal rainfall. The driest parts of the state were generally above the Fall Line, and the wettest areas were in the interior coastal plain. The Huger 7.7S CoCoRaHS reporter in Berkeley County recorded 14.86 inches for July 2023, the highest recorded total for the month. The Due West 0.6SE CoCoRaHS reporter in Abbeville County recorded only 0.52 inches for July, the lowest recorded total for the month.



## Streamflow

The USGS's monthly streamflow map compares the current monthly average streamflow to its historical monthly average streamflow conditions for the same month over the gage's period of record. Most of the gages in the State recorded at normal or above normal streamflow conditions in July. Although a few gages in Chesterfield, Darlington, and Lee County observed below normal conditions from the lack of enough rain in some of these counties.



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		



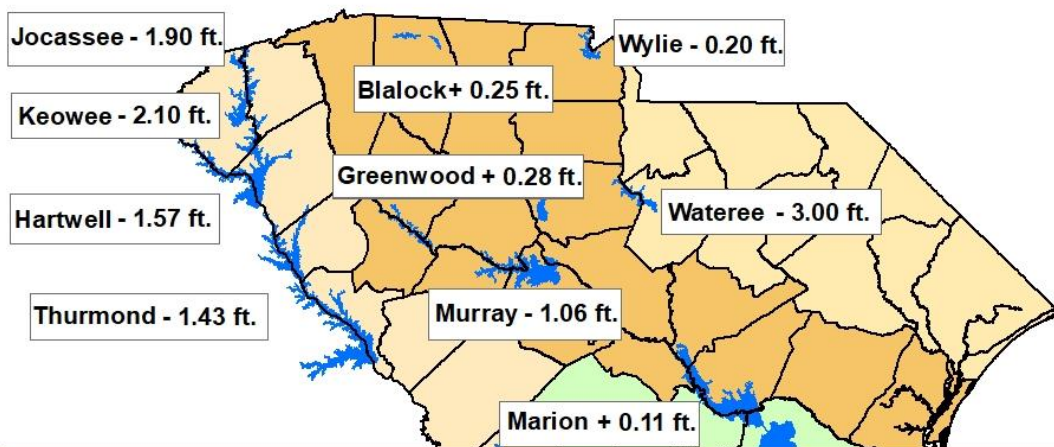
## Reservoirs

The map below shows a surplus or deficit from the guide curves or full-pool elevations for the major reservoirs in the State, based on conditions for July 31st. Eight out of ten reservoirs were below their target or full-pool elevations. As of the end of July, the monthly average lake elevations of seven out of the ten lakes dropped from the last month but are within the expected range for this time of the year.

### Lake Level Deficit/Surplus on July 31, 2023

(Deficit/surplus values are referenced to guide curves, except Jocassee and Keowee which are referenced to full pool)

Key: Lake Name, Current lake level deviation from GC/FP

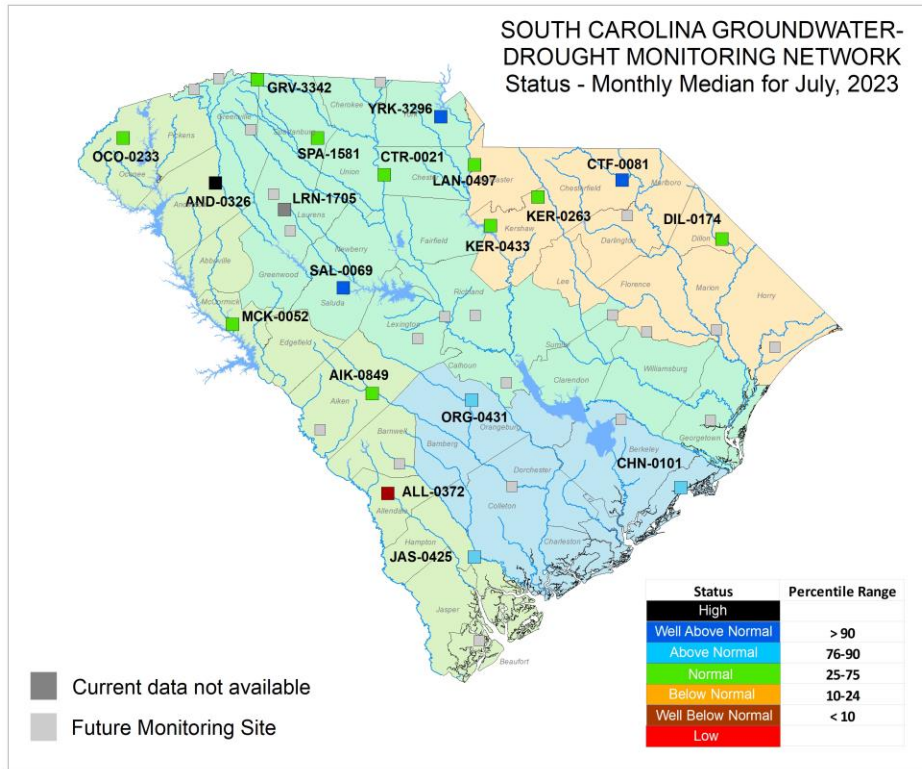


Lake	Current Elevation (ft)	Target (ft)	Full Pool (ft)	Deviation from		Avg Monthly Difference (ft)
				Guide Curve	Full Pool	
Greenwood	439.28	439.00	439.00	0.28	0.33	0.26
Murray	356.94	358.00	360.00	-1.06	-2.43	-0.73
Marion	75.77	75.66	75.60	0.11	0.13	0.34
Jocassee	98.10	NA	100.00	NA	-1.90	-0.02
Keowee	97.90	NA	100.00	NA	-2.10	-0.03
Waterree	94.00	97.00	100.00	-3.00	-3.00	-0.39
Wylie	96.80	97.00	100.00	-0.20	-2.40	-0.09
Hartwell	658.43	660.00	660.00	-1.57	1.84	-1.08
Thurmond	328.57	330.00	330.00	-1.43	0.42	-2.26
Blalock	710.25	710.00	710.00	0.25	-0.15	0.17



## Groundwater

The groundwater condition map for July is based on the monthly medians for the data collected by the USGS and SCDNR. Thirteen of the eighteen wells observed a drop in the monthly medians from June to July. Groundwater levels at Allendale well continued to stay at much below normal conditions but the rest of the wells have recorded groundwater levels at normal or above normal conditions in July.



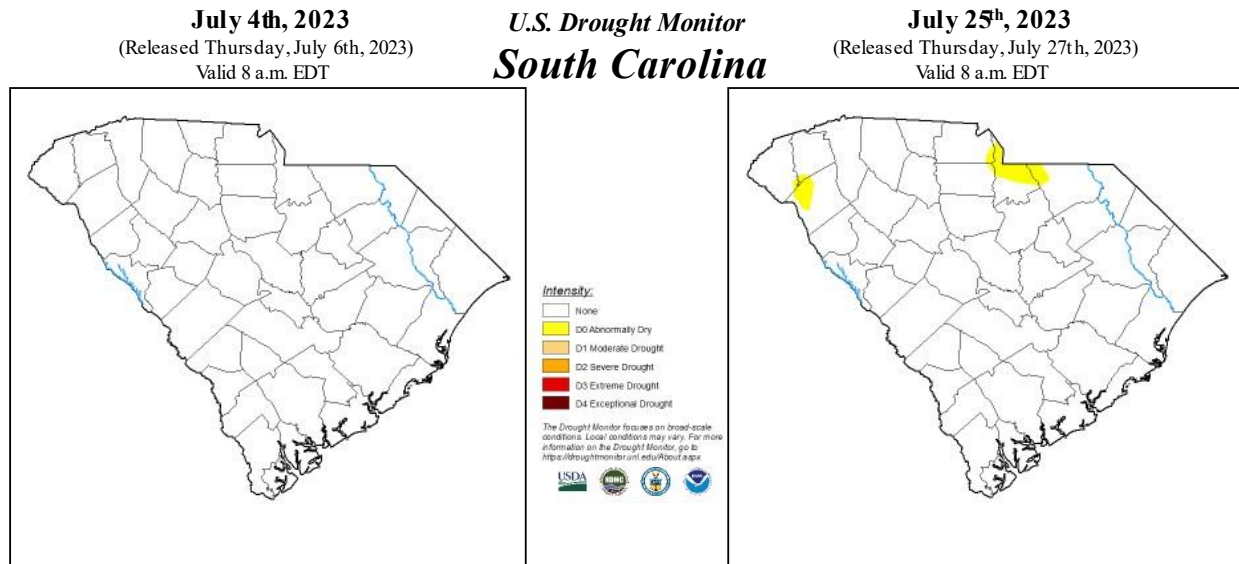
	USGS well sites										DNR Telemetry sites								
	MCK-0052	AND-326	OCO-233	KER-0433	SPA-1581	CTR-0021	YRK-3296	LAN-0497	JAS-0425	CHN-0101	DIL-0174	CTF-0081	GRV-3342	KER-0263	LRN-1705	SAL-0069	ORG-0431	AIK-0849	ALL-0372
June 2023 Monthly median (ft, below land surface)	38.13	2.54	28.56	51.63	43.61	90.47	17.99	27.69	55.15	13.34	5.10	86.40	44.91	34.65		14.40	27.00	42.54	57.99
July 2023 Monthly median (ft, below land surface)	37.88	2.96	28.98	51.80	43.45	90.70	17.47	28.43	56.29	13.52	4.91	86.58	45.06	34.94		15.69	26.09	43.10	58.02
Difference in monthly median from past month (ft)	0.24	-0.42	-0.43	-0.17	0.16	-0.23	0.52	-0.75	-1.14	-0.18	0.20	-0.18	-0.15	-0.29	0.00	-1.29	0.91	-0.57	-0.03



## Drought

At the start of July, none of the state was classified in any U.S. Drought Monitor (USDM) conditions (D0-D4). The state stayed in normal conditions through July until the last USDM map of the month (7/25), where 1.89% of the state was classified in abnormally dry (D0) conditions. The addition of the D0 conditions were due to short-term precipitation deficits that ranged from 2.00 to 3.00 inches.

The South Carolina Drought Response Committee (DRC) did not meet in July of 2023.



## Summary

July was a mixed for temperature and precipitation for the entire state. Temperatures ranged from near normal to 3 degrees above normal. Precipitation totals ranged from 20% to 300% of normal. Hydrologically, the state was in near normal conditions, except for 3 stream gages in the northern Pee Dee Region that had below normal flows for the month of July, which was probably due to below normal precipitation near the headwaters. Abnormally dry (D0) conditions on the U.S. Drought Monitor made their way back into a small portion of the state by the end of July, but it covered less than 2% of the state.

## Looking Forward

To date, (8/16) August daily mean temperatures have been near normal to 5 degrees above normal. Above normal daily mean temperatures are mainly due to minimum daily temperatures that have been 1 to 3 degrees above normal, particularly in the Coastal Plain. Daily Maximum temperatures have generally been near normal. Please note, the temperature comparisons are based on actual temperature values and do not account for heat index or relative humidity.

For this period, precipitation totals have been mixed across the state. The Upstate has generally received 130% or more of normal precipitation. The other regions of the state (Midlands, Pee Dee, and Lowcountry) have generally received below normal precipitation, ranging from 30 to 90% of expected rainfall.

The forecast for the rest of August indicates that temperatures are likely to be above normal, while precipitation will range from near normal to below normal. Given that abnormally dry (D0) conditions are increasing across the state on the U.S. Drought Monitor, it is possible that D0 conditions could continue to expand in the state if the forecast holds.

## Contact

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