South Carolina Water Resources Monthly Summary

For August 2021

Provided by

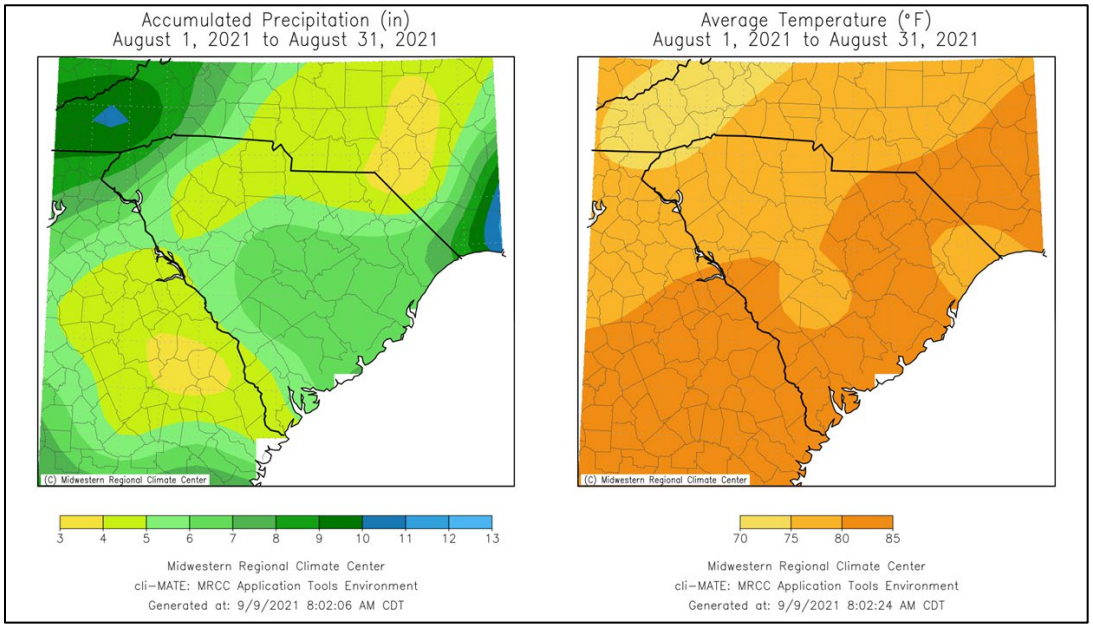
The South Carolina Department of Natural Resources

Precipitation and Temperature

Overall, August's temperatures were above normal, and precipitation was varied. Statewide, South Carolina had an average temperature of 80.1 degrees, one (1) degree above the long-term average (1895-2020) of 79 degrees. Average temperatures ranged from 1.5 degrees below normal to 2.5 degrees above normal. No stations recorded an ambient air temperature at or above 100 degrees.

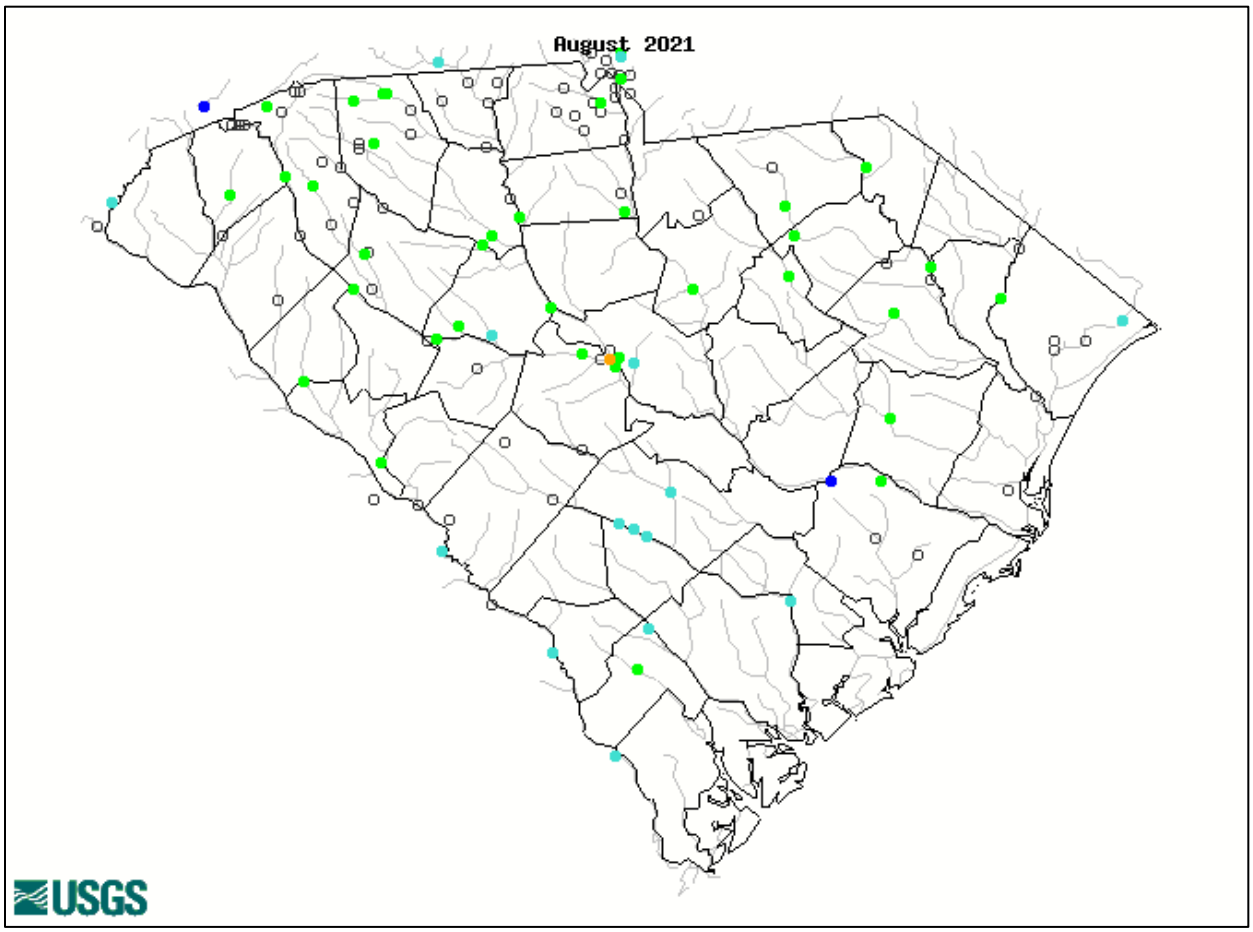
The statewide average precipitation for August was 5.50 inches or 0.25 inches above the long-term average of 5.25 inches (1895-2020). The statewide average precipitation for August was 5.50 inches or 0.25 inches above the long-term average of 5.25 inches (1895-2020). During the month, the rainfall varied widely across the state. Some Upstate locations near the Fall Line recorded a little more than two inches, less than 50% of the normal monthly precipitation. The NWS station at the Greenwood County Airport measured 0.97 inches in August, 2.28 inches less than the monthly normal. Other sites recorded more than 150% of the normal monthly rainfall. The NWS station near Jocassee reported a monthly total of 16.27 inches and a CoCoRaHS observer in Horry County measured 15.46 inches for the month.

Please note, the image below shows broadscale precipitation and temperature conditions.



Streamflow

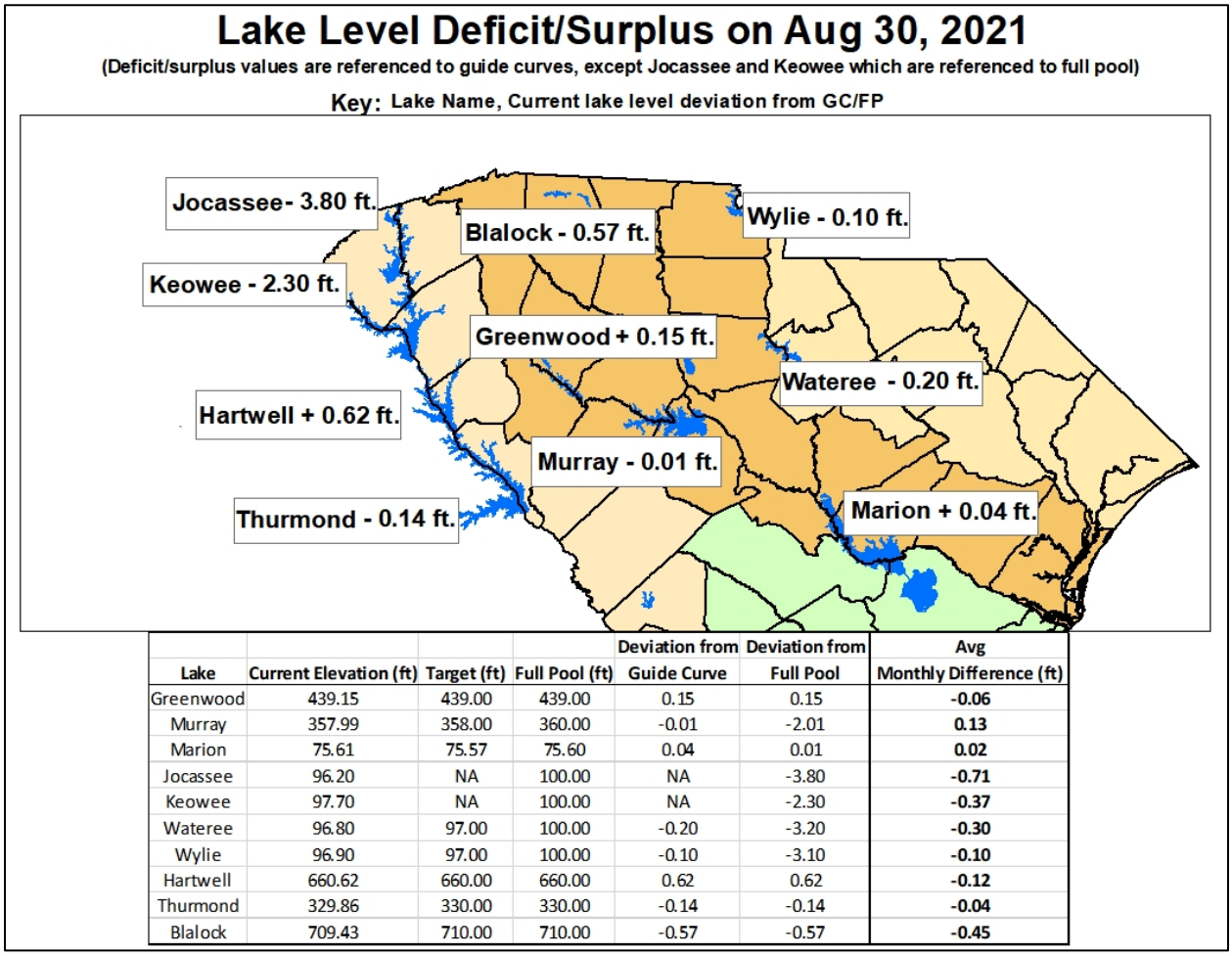
The USGS's monthly streamflow map compares the current monthly average streamflow at each gage for a given month to each gage's historical monthly average streamflows for the same month over the gage's period of record. While most of the gages on the map showed a normal status, at least fourteen gages displayed above normal to much above normal conditions. The map shows only one gage, Saluda River near Columbia, with a below normal status. However, this gage measures a heavily regulated stream, and therefore, the streamflow levels recorded for August at this gage likely do not indicate an actual drought condition. Overall, streamflows across the state remained at or above normal levels and are in good standing.



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		

Reservoir

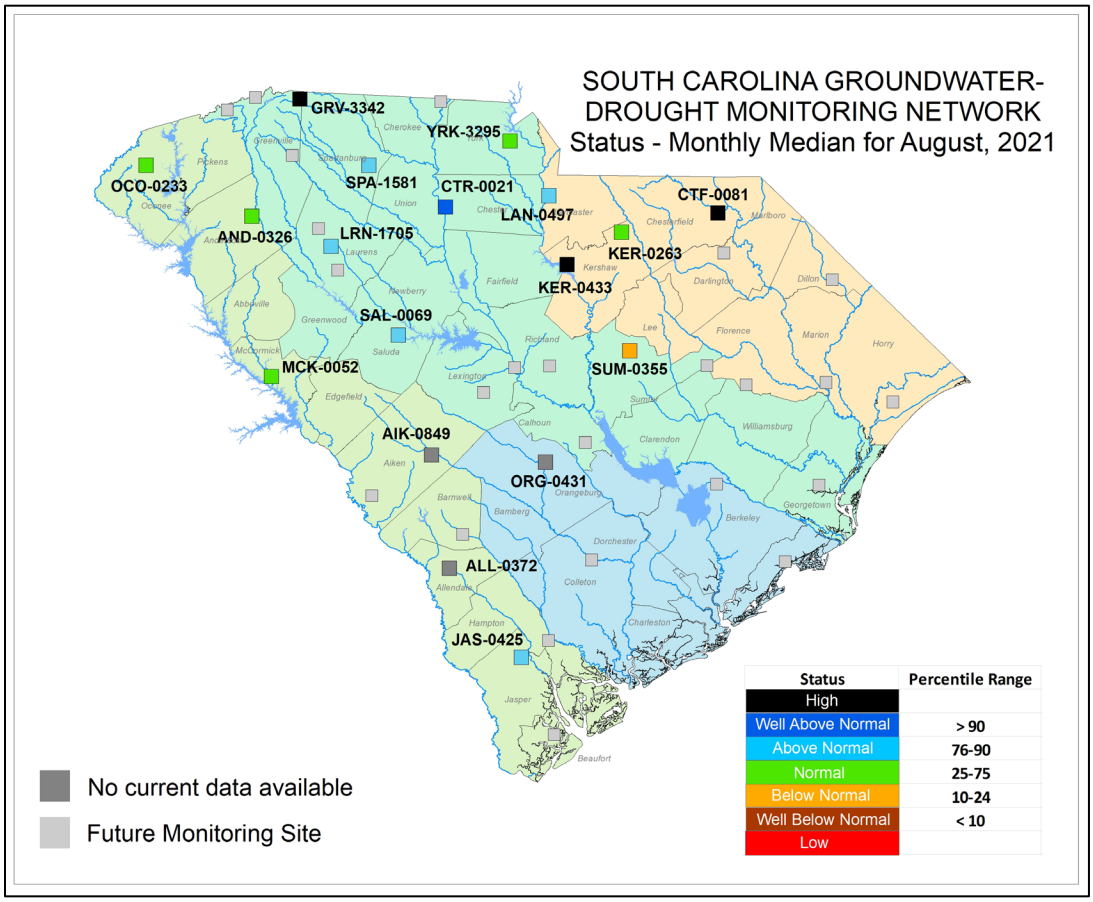
The map below shows the reservoir level surplus or deficit for each major reservoir and is based on conditions for August 30th. Seven of the ten major reservoirs in South Carolina are below their target or full pool elevation but within their normal fluctuation ranges for the summer months. For most of the reservoirs, the average lake levels for August were lower than those observed in July but are still within the expected range of summer fluctuations. As of August, lake elevations throughout the state are in good standing.



Lake	Current Elevation (ft)	Target (ft)	Full Pool (ft)	Deviation from Guide Curve	Deviation from Full Pool	Avg Monthly Difference (ft)
Greenwood	439.15	439.00	439.00	0.15	0.15	**-0.06**
Murray	357.99	358.00	360.00	-0.01	-2.01	**0.13**
Marion	75.61	75.57	75.60	0.04	0.01	**0.02**
Jocassee	96.20	NA	100.00	NA	-3.80	**-0.71**
Keowee	97.70	NA	100.00	NA	-2.30	**-0.37**
Wateree	96.80	97.00	100.00	-0.20	-3.20	**-0.30**
Wylie	96.90	97.00	100.00	-0.10	-3.10	**-0.10**
Hartwell	660.62	660.00	660.00	0.62	0.62	**-0.12**
Thurmond	329.86	330.00	330.00	-0.14	-0.14	**-0.04**
Blalock	709.43	710.00	710.00	-0.57	-0.57	**-0.45**

Groundwater

The groundwater conditions map for August is based on data collected by both the USGS and the SCDNR. Groundwater levels at most of the wells shown on the map are at normal to above normal conditions. As noted in the table below, thirteen out of the fifteen wells show a slight drop in the monthly median levels from July to August. Winter recharge has helped groundwater levels remain at or above normal through the summer months, and the slight decrease from the past month is consistent with seasonal declines typically observed with groundwater levels at this time of year. Overall, the groundwater levels at the wells shown on the map are in good standing for August.

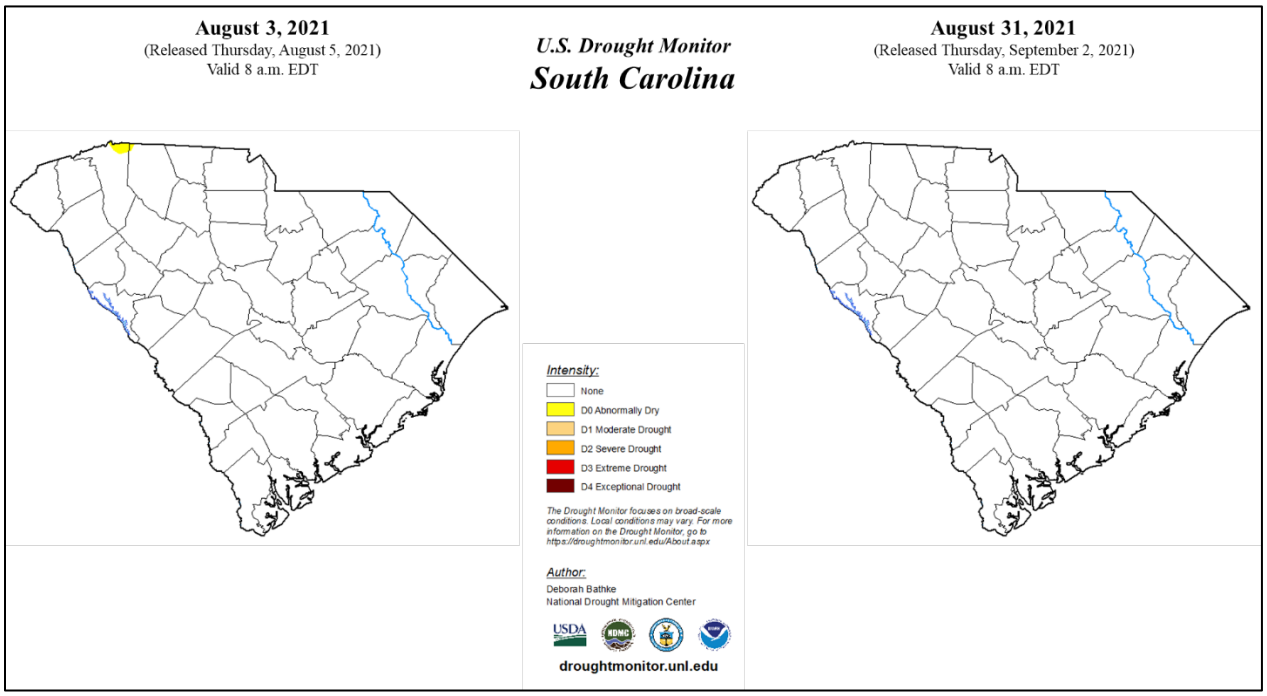


	SUM-0355	MCK-0052	AND-326	OCO-233	KER-0433	SPA-1581	CTR-0021	YRK-3295	LAN-0497	JAS-0425	CTF-0081	GRV-3342	KER-0263	LRN-1705	SAL-0069
July 2021 Monthly median (ft, below land surface)	13.93	37.65	2.95	27.51	44.51	40.57	85.60	22.36	29.12	54.85	86.22	39.05	32.87	15.01	16.36
August 2021 Monthly median (ft, below land surface)	14.33	37.85	3.49	28.03	44.69	40.38	85.52	23.31	30.61	55.07	87.03	39.57	33.87	15.41	17.13
Difference in monthly median from past month (ft)	-0.40	-0.20	-0.54	-0.52	-0.18	0.19	0.08	-0.95	-1.49	-0.22	-0.81	-0.52	-1.00	-0.40	-0.78

Drought

The first U.S. Drought Monitor (USDM) map in August (8/3/2021) had 0.19% of South Carolina in abnormally dry (D0) conditions. The D0 was limited to the northern portions of Greenville and Spartanburg Counties and were due to below normal precipitation from 60- and 90-day periods. The D0 conditions lasted in this portion of the state until the USDM map released on 8/17/2021, where all of South Carolina was categorized as normal conditions. This was the first USDM map since mid-April that no portion of South Carolina was designated in any USDM category. These conditions stayed the same through the rest of the month, with none of South Carolina in any USDM category in the last map of August (8/31/2021).

Given the conditions across the state, the South Carolina Drought Response Committee did not convene in August.



Summary

Temperature and Precipitation were a mixed bag for South Carolina in August. Most of the state saw near normal temperatures, but portions of the Midlands, Pee Dee, and Upstate experienced an August that was up to 2 degrees above normal. Precipitation totals were above normal for most of the state, while portions of the Lowcountry, Pee Dee, and Midlands were below normal. Surface water (streamflows and reservoirs) and groundwater were generally in good shape across the state.

At the end of August, the state was a bit drier than it was during June and July, due to varied precipitation and some above normal temperatures throughout the month. However, these dry conditions were mainly climatological, with minimal effect on August water resources.

Looking Forward

The first eight days of September were dry, continuing the developing pattern from August. Rain totals ranged from 0.00 to 3 inches across the state. Excluding the Upstate, precipitation was below normal, ranging from 0.25 to 1.75 inches below normal, with deficits higher towards the coast. The building dryness has started to reduce short-term streamflows across portions of the state The first U.S. Drought Monitor map for September shows Abnormally dry (D0) conditions in the lower Savannah River Basin and portions of the Pee Dee and Midlands.

The rest of September is a bit of a tossup. Currently, Tropical Storm Mindy has brought rain to South Carolina east of I-95. This should help to at least curb the building dry conditions. After Mindy passes through, the models are indicating that temperatures will be above normal for much of September. However, there is no model significance for whether September will be wet or dry for South Carolina. With equal chances for above or below normal precipitation for September, combined with the projection of above normal temperatures, water resources in September could hold steady or continue to decline.

Contact

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