

South Carolina Water Resources Monthly Summary

For May 2023

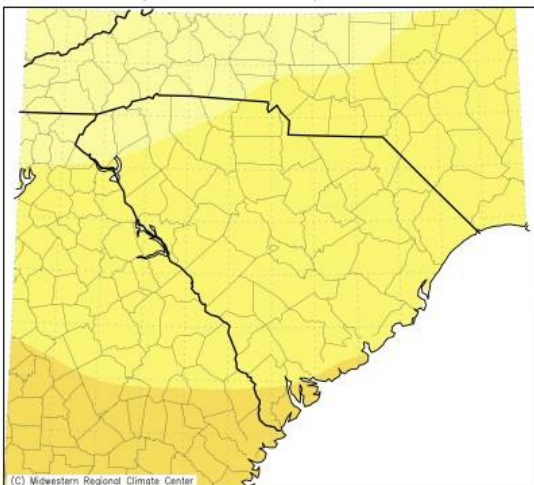
Provided by

The South Carolina Department of Natural Resources

Temperature

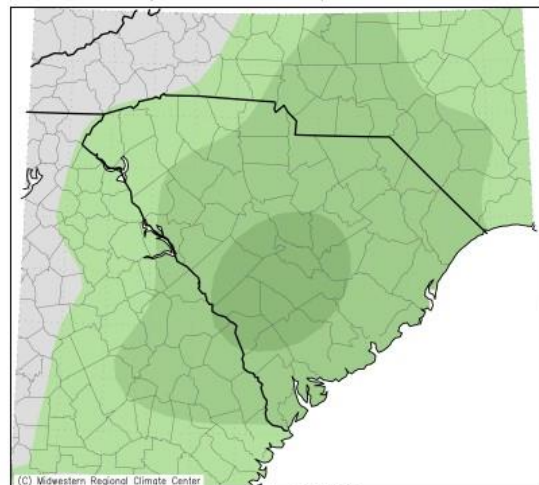
Statewide, South Carolina had an average temperature of 67.5 degrees, 3.0 degrees below the long-term average (1895-2022) of 70.5 degrees for May. The entire State experienced average temperatures of 1 to 3 degrees below normal, with some portions experiencing average temperatures of 3 to 4 degrees below normal. May 2023 was the 10th coldest may on record and the coldest May since 2005. The highest daily maximum temperature recorded in May was 96 degrees at the NWS Longtown Station in Fairfield County. The lowest daily minimum temperature recorded in May was 33 degrees at the NWS Jocassee 8 WNW Station in Oconee County.

Average Temperature (°F)
May 1, 2023 to May 31, 2023



Midwestern Regional Climate Center
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Average Temperature (°F): Departure from Mean
May 1, 2023 to May 31, 2023

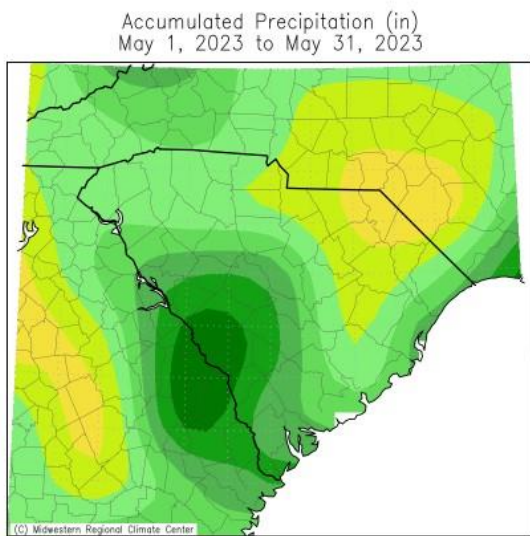


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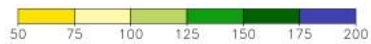
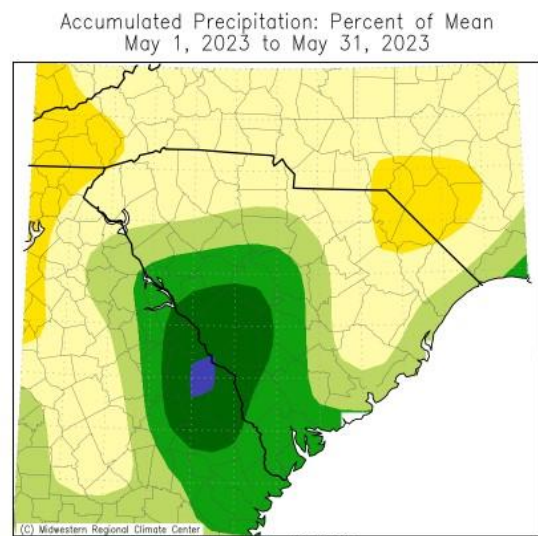


Precipitation

The statewide average precipitation for May 2023 was 3.54 inches, 0.04 inches below the long-term average for the month (1895-2022) of 3.58 inches. Precipitation totals were regionally mixed for the State. Portions of the Central Savannah River Area (CSRA), the Lower Savannah, and the Coast received 100% to 175% of normal precipitation for the month, while portions of the Upstate and Pee Dee Region received between 50% and 100% of normal precipitation. The McClellanville 0.5 ESE CoCoRaHS reporter in Charleston County recorded 11.06 inches for May 2023, the highest recorded total for the month. The Loris 2.9 WSW CoCoRaHS reporter in Horry County recorded only 0.88 inches for May, the lowest recorded total for the month.



Midwestern Regional Climate Center
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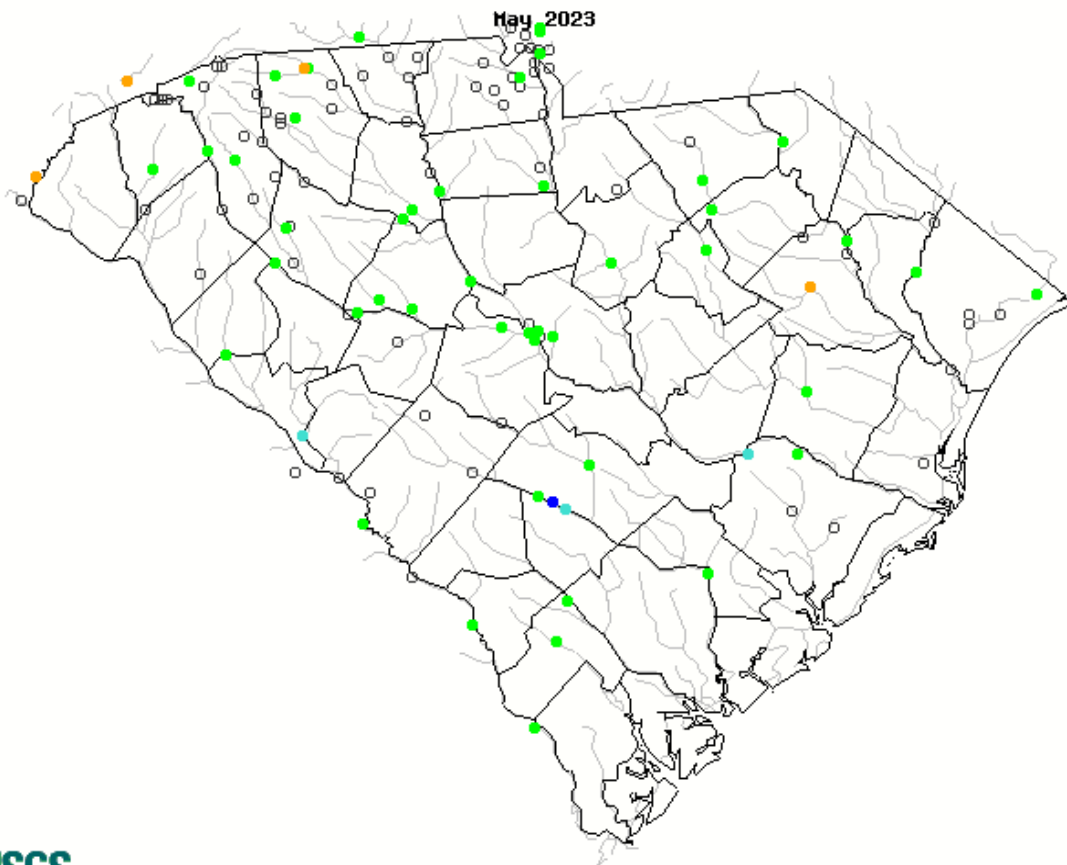


Midwestern Regional Climate Center
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Streamflow

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 streamflow for the same month over the gage's period of record. The beneficial rain received in the past couple of months has helped the streamflow gages in most parts of the State to remain within normal conditions. The Pee Dee region has experienced slightly below-normal conditions, especially at the Little Pee Dee and Lynches River at Effingham gages. The monthly average map indicates the gage at Lynches River was at below-normal status, but overall, most of the streamflow gages in the State recorded on average normal to above normal streamflow conditions.



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			



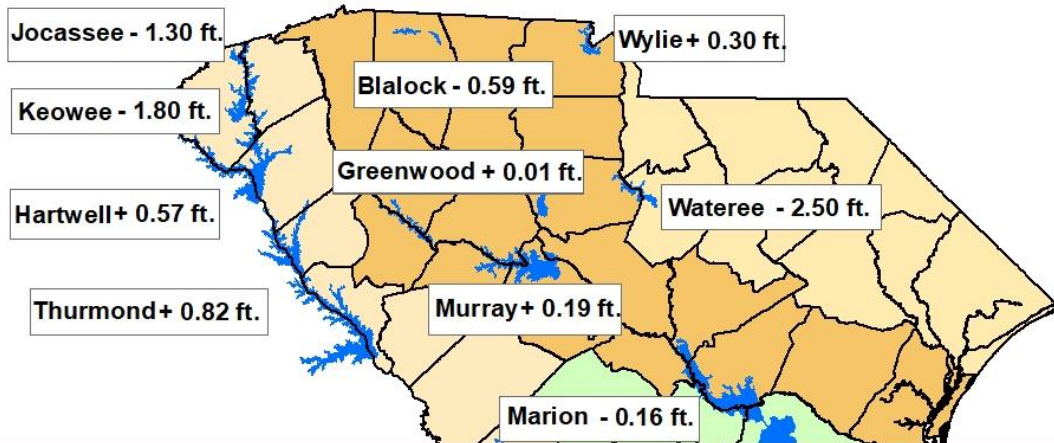
Reservoirs

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 May 31st. Five out of ten reservoirs were below their target or full-pool elevations. Duke Energy has started a Fish Habitat Enhancement Project at Lake Wateree in May and during this process the lake will be managed between 93 to 94 ft for about five months. As of the end of May, the monthly average lake elevations of six out of the ten lakes dropped from the last month. Overall, the lakes were maintained close to their target or full pool elevations and the deviation from target or full pool is within the expected range for this time of the year.

Lake Level Deficit/Surplus on May 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

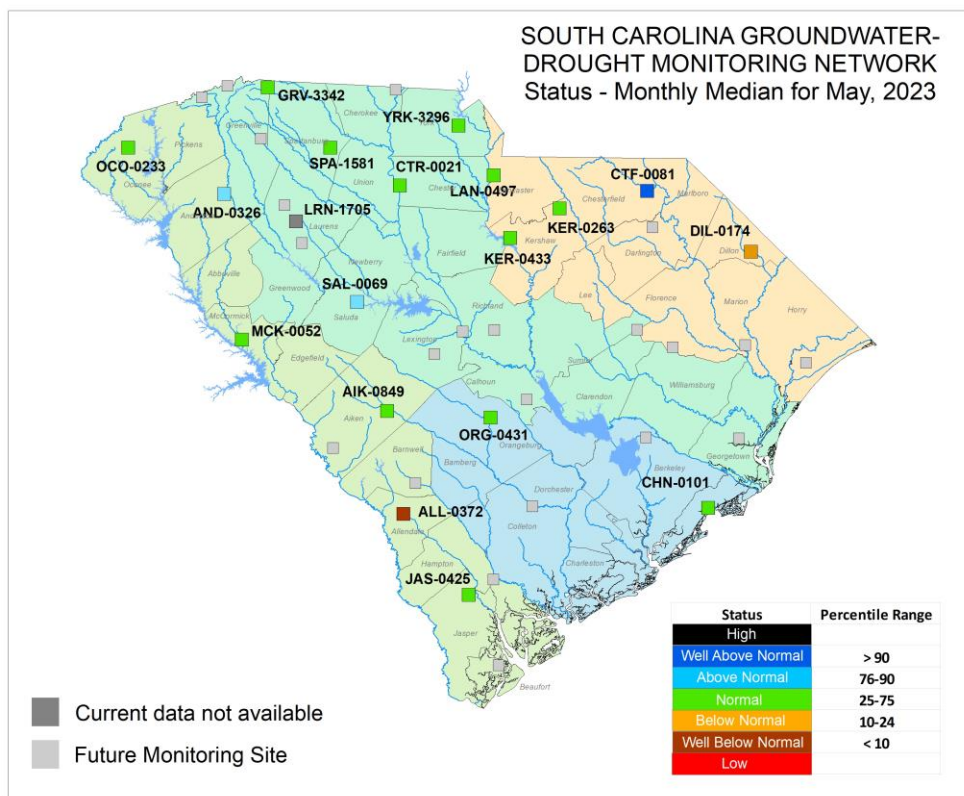


Lake	Current Elevation (ft)	Target (ft)	Full Pool (ft)	Deviation from		Avg Monthly Difference (ft)
				Guide Curve	Full Pool	
Greenwood	439.01	439.00	439.00	0.01	0.33	0.17
Murray	358.19	358.00	360.00	0.19	-2.43	-0.65
Marion	75.53	75.69	75.60	-0.16	0.13	-0.66
Jocassee	98.70	NA	100.00	NA	-1.30	0.04
Keowee	98.20	NA	100.00	NA	-1.80	0.03
Wateree	94.50	97.00	100.00	-2.50	-3.00	-0.76
Wylie	97.30	97.00	100.00	0.30	-2.40	-0.23
Hartwell	660.57	660.00	660.00	0.57	1.84	-1.10
Thurmond	330.82	330.00	330.00	0.82	0.42	0.22
Blalock	709.41	710.00	710.00	-0.59	-0.15	-0.13



Groundwater

The groundwater condition map for May is based on the monthly medians for the data collected by the USGS and SCDNR. The beneficial rain in the past couple of months helped to maintain the groundwater levels at most of the wells within normal or above normal range. Nine of the eighteen wells observed a drop in the monthly medians from April to May. Dillon and Allendale wells continued to stay below and much below normal. Some of these wells are slower to recover and respond to rainfall events once they dry. The Dillon well has recorded data only from 2014 onwards and is missing some of the record droughts of the past. Therefore, its percentile values are not exactly comparable to other wells with long periods of record. As of the end of May, most wells have groundwater levels at or above normal.



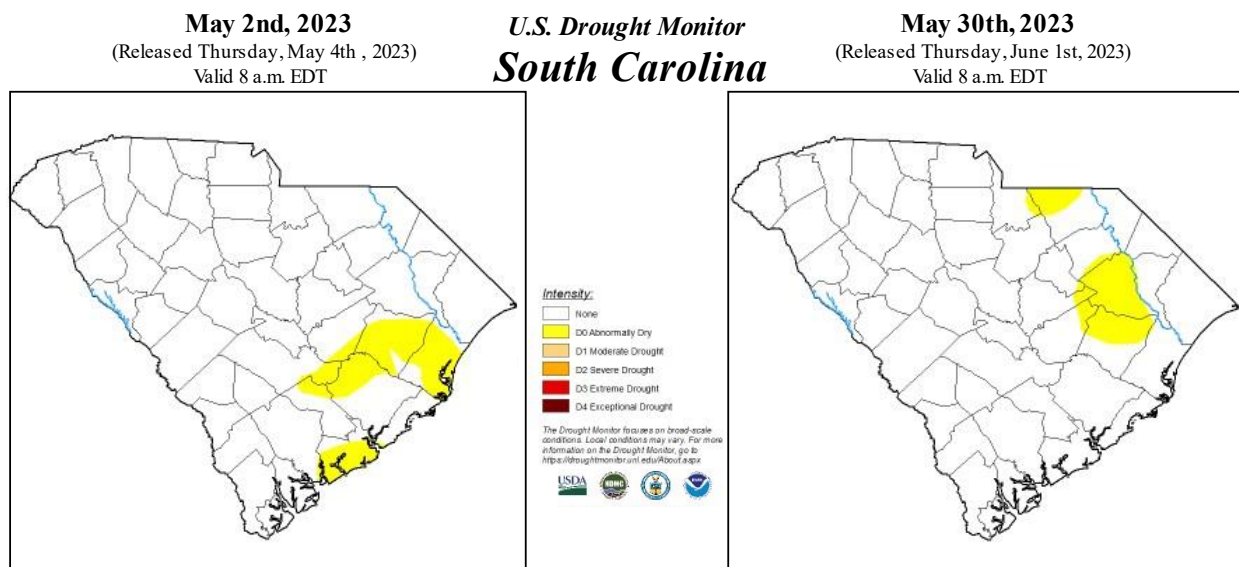
	USGS well sites										DNR Telemetry sites								
	MCK-0052	AND-326	OCO-233	KER-0433	SPA-1581	CTR-0021	YRK-3296	LAN-0497	JAS-0425	CHN-0101	DIL-0174	CTF-0081	GRV-3342	KER-0263	LRN-1705	SAL-0069	ORG-0431	AIK-0849	ALL-0372
April 2023 Monthly median (ft, below land surface)	39.03	2.49	27.72	51.86	43.79	90.29	19.17	26.34	54.81	13.24	4.34	86.31	45.08	34.40	13.21	11.46	26.45	42.42	57.46
May 2023 Monthly median (ft, below land surface)	38.58	2.47	27.80	51.63	43.79	90.28	19.14	26.52	55.96	13.43	4.61	86.35	44.97	34.36		13.50	26.78	42.36	57.65
Difference in monthly median from past month (ft)	0.45	0.01	-0.09	0.23	0.00	0.01	0.02	-0.18	-1.15	-0.19	-0.28	-0.04	0.11	0.03	13.21	-2.03	-0.33	0.06	-0.20



Drought

The first U.S. Drought Monitor (USDM) in May (5/2) had 8.56% of the State in abnormally dry (D0) conditions. The following two USDM maps saw an expansion of abnormally dry conditions with 11.95% of the State in D0 on 5/9 and 22.92% of the State in D0 on 5/16. Luckily, there was a reduction of D0 conditions for the 5/23 map, due to portions of the Coastal Plain receiving beneficial rainfall. For the last USDM map for the month of May, only 6.18% of the State was still in D0 conditions.

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



Summary

May was cool for the entire state, however, precipitation totals were mixed. Precipitation in most of the Pee Dee Region and parts of the Upstate were below normal, allowing for abnormally dry (D0) conditions to expand and remain in portions of these regions on the U.S. Drought Monitor. No hydrologic issues arose in May. The cooler conditions provided a nice precursor to the start of Climatological Summer (June 1st – August 31st).

Looking Forward

To date, (6/16) June has been cool and dry, compared to normal. Across the state, average temperatures have been 2 to 5 degrees below normal. Precipitation totals in portions of the Savannah River basin range from 1 inch below to 1 inch above normal, however, the rest of the State has had precipitation totals that are 0.25 to 2 inches below normal.

The forecast for the rest of June indicates below normal temperature conditions and above normal precipitation conditions. If these conditions hold, it could help to alleviate the drier conditions for the first half of the month and possibly remove the abnormally dry (D0) conditions on the U.S. Drought Monitor.

Contact

For questions about:	Person to contact	Email	Phone
Drought, General	Elliot D. Wickham	Wickhame@dnr.sc.gov	(803)-734-8311
Climate Data	Melissa Griffin	Griffinm@dnr.sc.gov	(803)-734-9091
Hydrologic Data	Priyanka More	MoreP@dnr.sc.gov	(803)-734-3945
General Hydrology	Scott Harder	harders@dnr.sc.gov	(864)-986-6254

