

South Carolina Water Resources Monthly Summary

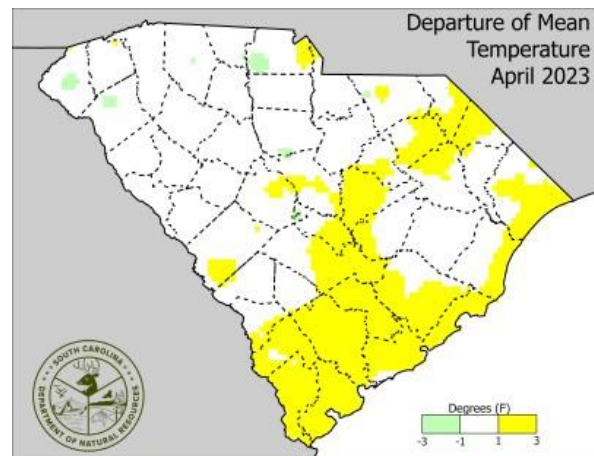
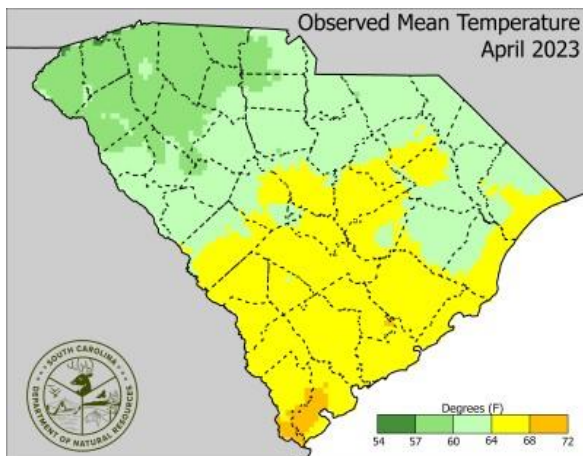
For April 2023

Provided by

The South Carolina Department of Natural Resources

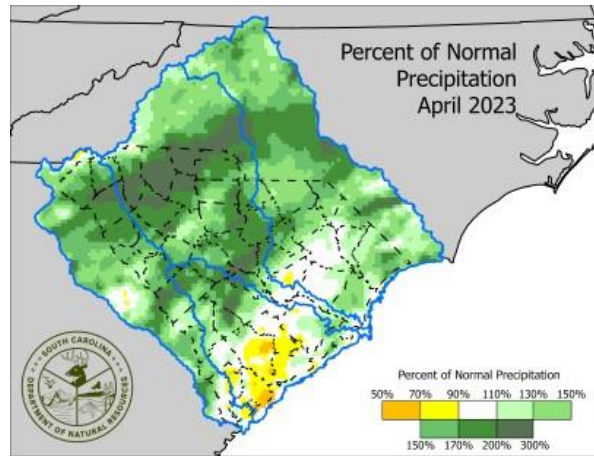
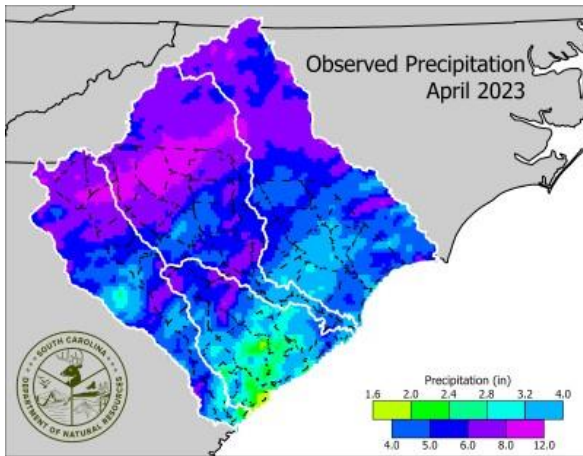
Temperature

Statewide, South Carolina had an average temperature of 63.4 degrees 1.3 degrees above the long-term average (1895-2022) of 62.1 degrees for April. Most of the state experienced average temperatures of 1 to 3 degrees above normal. Average temperature for April ranged from near normal to 3 degrees above normal across the state. Generally, above the Fall Line temperatures were near normal, while below the Fall Line temperatures were 1 to 3 degrees above normal. The highest daily maximum temperature recorded in April was 90 degrees at the NWS Barnwell 5 ENE Station in Barnwell County. The lowest daily minimum temperature recorded in April was 19 degrees at the NWS Jocassee 8 WNW Station in Oconee County.



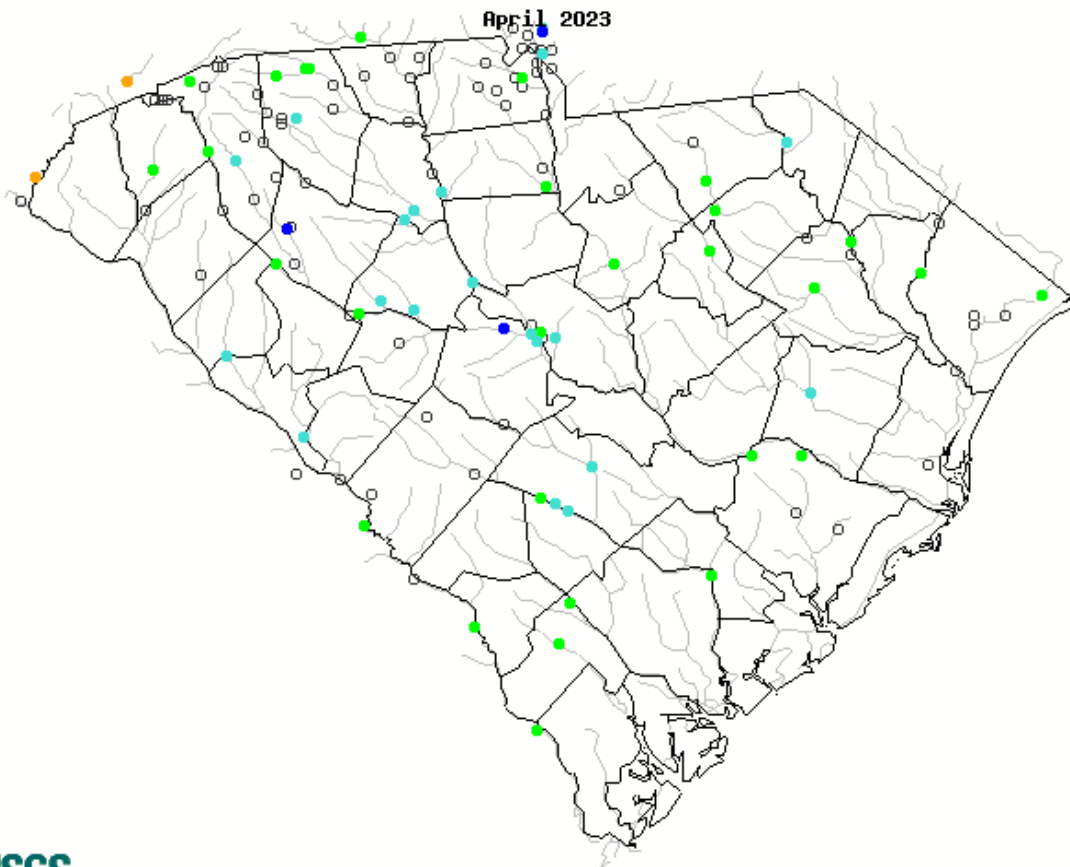
Precipitation

The statewide average precipitation for April 2023 was 5.03 inches, 1.67 inches above the long-term average for the month (1895-2022) of 3.36 inches. Most of the state saw above normal precipitation, ranging from 110% to 300% of normal for the month. Some portions of the Coastal Plain received near normal rainfall, while portions of the Lowcountry Coast received between 50% to 90% of normal rainfall. The Spartanburg 0.9 E CoCoRaHS reporter in Spartanburg County recorded 12.15 inches for April 2023, the highest recorded total for the month. The Saint Helena 7.0 E CoCoRaHS reporter in Beaufort County recorded only 1.78 inches for April, the lowest recorded total for the month.



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 State received multiple beneficial rain events in April which helped relieve some of the dryness experienced in March. 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		



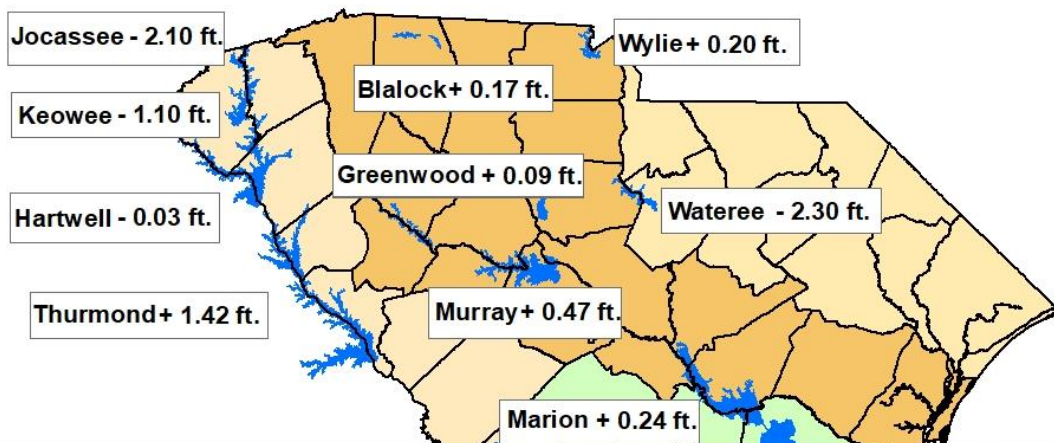
Reservoirs

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 April 30th. Four out of ten reservoirs were below their target or full-pool elevations. As of the end of April, the monthly average lake elevations of three out of the ten lakes dropped from the last month. Overall, the lakes were maintained close to their target or full pool elevations in April.

Lake Level Deficit/Surplus on March 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

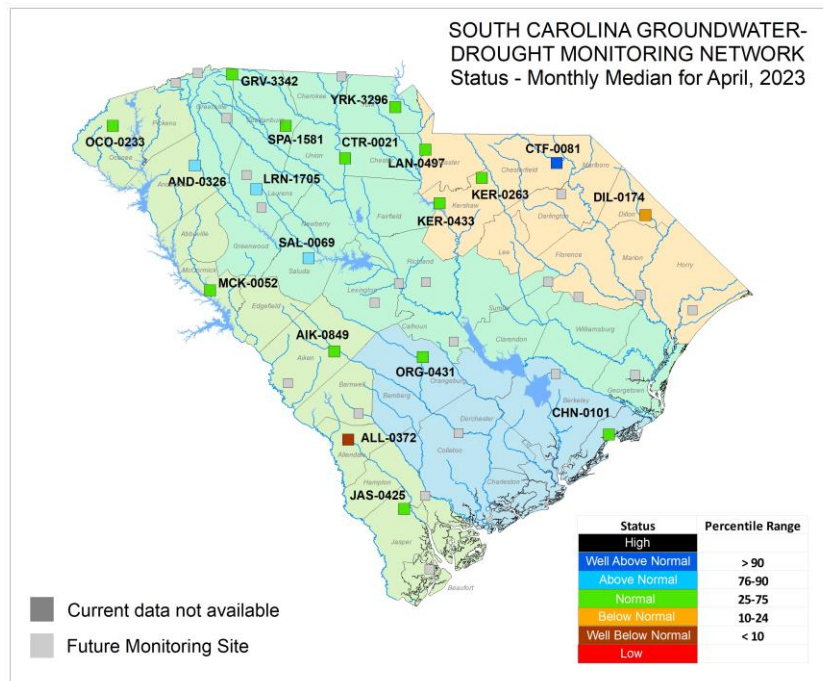


Lake	Current Elevation (ft)	Target (ft)	Full Pool (ft)	Deviation from		Avg Monthly Difference (ft)
				Guide Curve	Full Pool	
Greenwood	438.18	438.09	439.00	0.09	0.33	1.84
Murray	358.47	358.00	360.00	0.47	-2.43	2.11
Marion	75.54	75.30	75.60	0.24	0.13	0.10
Jocassee	97.90	NA	100.00	NA	-2.10	-0.61
Keowee	98.90	NA	100.00	NA	-1.10	0.14
Wateree	94.70	97.00	100.00	-2.30	-3.00	-1.57
Wylie	97.20	97.00	100.00	0.20	-2.40	-0.24
Hartwell	659.88	659.91	660.00	-0.03	1.84	1.87
Thurmond	331.33	329.91	330.00	1.42	0.42	0.74
Blalock	710.17	710.00	710.00	0.17	-0.15	2.55



Groundwater

The groundwater condition map for April is based on the monthly medians for the data collected by the USGS and SCDNR. The beneficial rain in April helped relieve the dryness experienced in March and most of the groundwater wells now have their median levels at or above normal. Six of the nineteen wells observed a drop in the monthly medians from March to April. Dillon and Allendale wells continued to stay below and much below normal in April. Some of these wells are slower to recover and respond to rainfall events, once they are 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. Water levels at the Jasper well dropped below historical low values around the end of last year but have been improving and are currently at normal conditions. Similarly, water levels at the Allendale well dropped below normal conditions last year and are still at below normal conditions. As of the end of April, while most wells have groundwater levels at or above normal, the drier wells will take longer to recover.



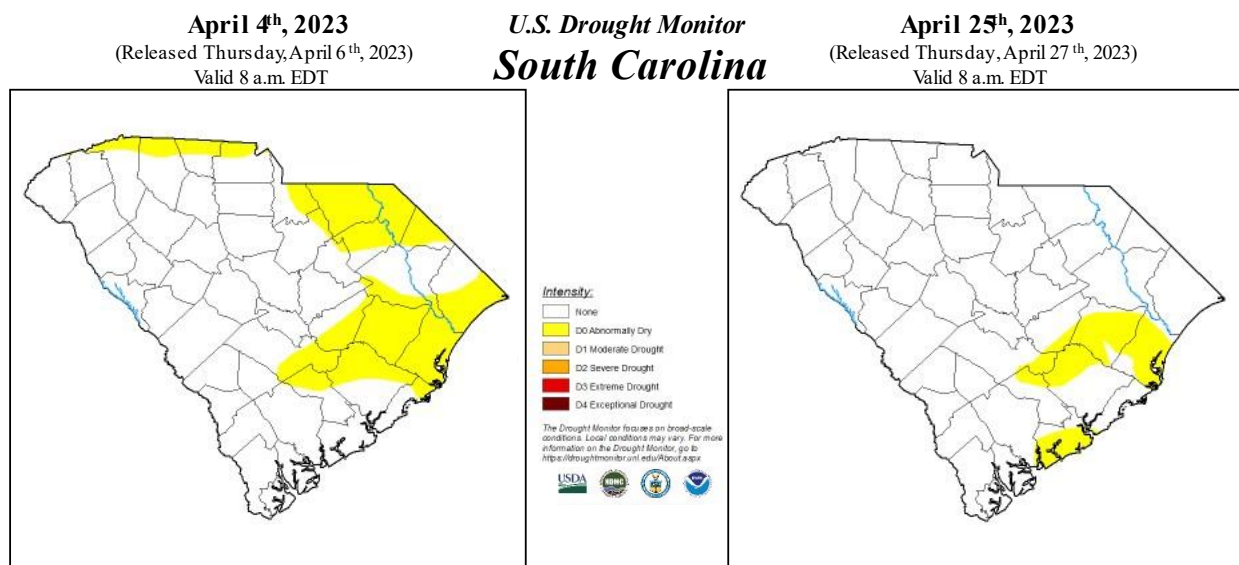
	USGS well sites										DNR Telemetry sites								
	MCK-0052	AND-326	OCO-233	KER-0433	SPA-1581	CTR-0021	YRK-3296	LAN-0497	JAS-0425	CHN-0101	DIL-0174	CTF-0081	GRV-3342	KER-0263	LRN-1705	SAL-0069	ORG-0431	AIK-0849	ALL-0372
March 2023 Monthly median (ft, below land surface)	39.63	2.56	28.36	52.18	43.72	90.17	18.58	27.35	55.34	12.98	4.38	86.41	45.31	34.58	13.51	11.80	29.22	42.14	57.36
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
Difference in monthly median from past month (ft)	0.61	0.08	0.65	0.32	-0.07	-0.12	-0.59	1.02	0.53	-0.26	0.04	0.10	0.22	0.18	0.29	0.34	2.77	-0.28	-0.10



Drought

The first U.S. Drought Monitor (USDM) in April (4/4) had 25.29% of the state in abnormally dry (D0) conditions. The following week's map (4/11) saw major reductions in D0 conditions due to precipitation, reducing the D0 coverage to 10.30%. The last USDM had 8.56% of the state in D0 conditions. The areas that were in D0 conditions by the end of the month had received below normal precipitation for the last 30- and 60-day periods. Luckily, no negative impacts were reported.

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



Summary

After a warm and dry March, April produced near normal temperatures and wetter conditions. These conditions helped to improve streamflows and soil moisture conditions from the previous month, as well as kept reservoir levels in relatively good condition. The precipitation through April helped to minimize the growing abnormally (D0) dry conditions in March, with only 8.56% of the state in D0 by the end of April. Although portions of the state did receive below normal precipitation, no negative impacts were reported.

Looking Forward

To date (5/20), May has been cool with the entire state having experienced average temperatures 1 to 5 degrees below normal. Precipitation has been mixed. Portions of the Upstate, Central Savannah River Area (CSRA), and the Coastal Plain have received over 300% of normal precipitation. Contrastingly, other portions of the Upstate, Midlands, Coastal Plain, and Pee Dee have only received 30% of normal rainfall. The lack in consistency in precipitation totals across the state indicates how spotty rain totals can be from thunderstorms.

The forecast for the rest of the month of April indicates temperature conditions ranging from cool to normal, and precipitation conditions ranging from normal to wet. If these conditions hold, it could help to alleviate some of the expanding abnormally dry (D0) conditions on the U.S. Drought Monitor.

Contact

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