

South Carolina Water Resources Monthly Summary

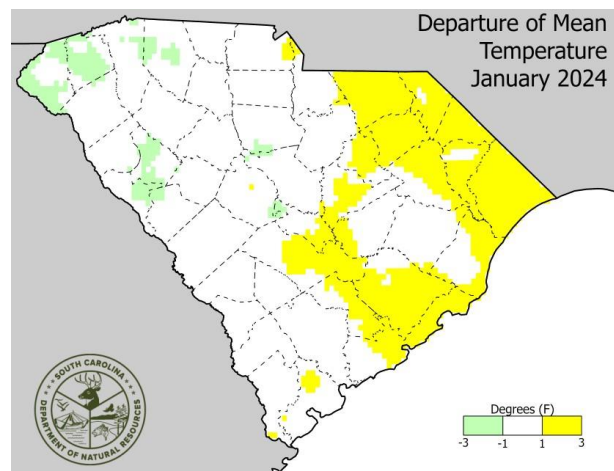
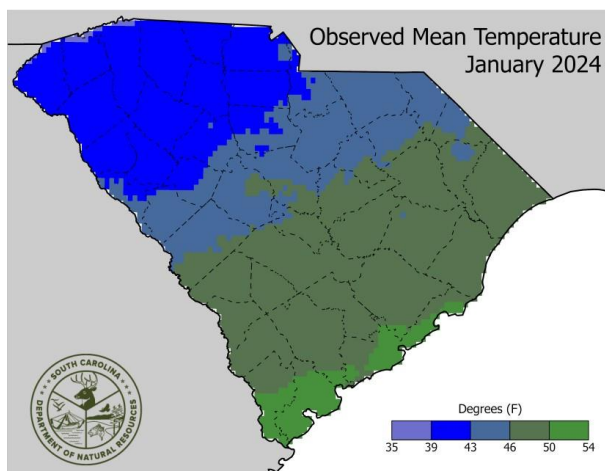
For January 2024

Provided by

The South Carolina Department of Natural Resources

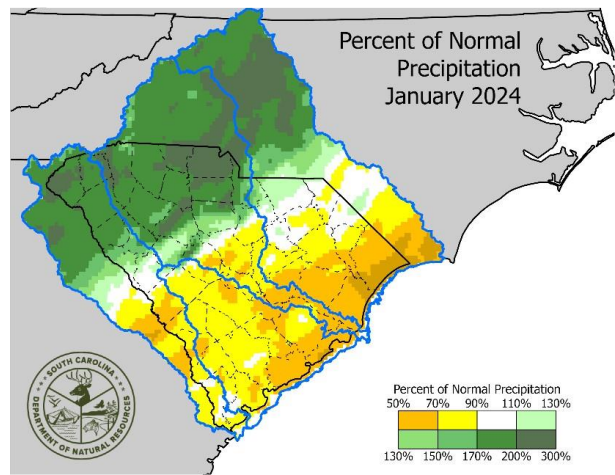
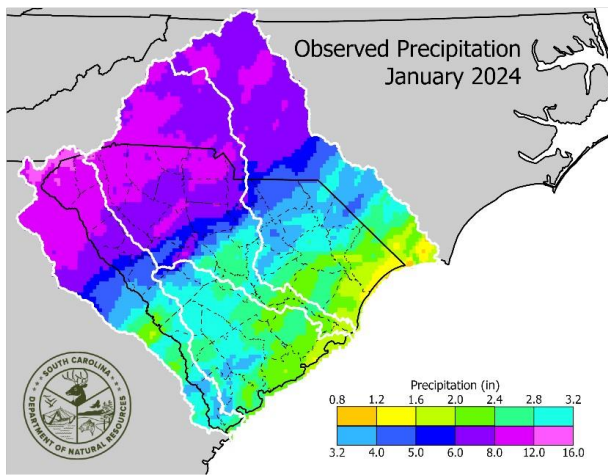
Temperature

Statewide, South Carolina had an average temperature of 45.5 degrees, 0.8 degrees above the long-term average (1895-2023) of 44.7 degrees for January. Average temperatures ranged across the state. While most of the state experienced near normal temperatures, portions of the coast and the Pee Dee Region experienced temperatures 1 to 3 degrees above normal and portions in the Upstate experienced temperatures 1 to 3 degrees below normal. The highest daily maximum temperature recorded in January was 83 degrees at both the WBAN station at Charleston International Airport in Charleston County and the Yemassee 1 N NWS station in Hampton County. The lowest daily minimum temperature recorded in January was 4 degrees at both the Jocassee 8 WNW NWS station in Oconee County and Caesars Head NWS station in Greenville County.



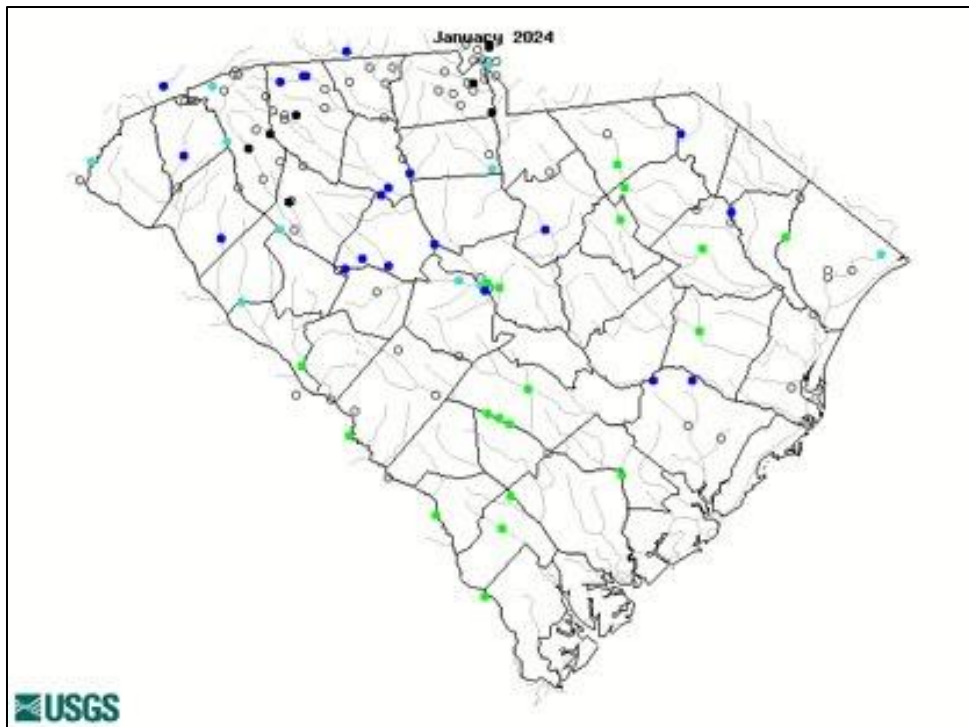
Precipitation

The statewide average precipitation for January 2024 was 4.67 inches, 0.96 inches above the long-term average for the month (1895-2022) of 3.71 inches. The Fall Line provides a general split of rain totals for the month of January, where areas north of the Fall Line received above normal rainfall and areas south of the Fall Line received below normal precipitation. The highest recorded precipitation total for January was at the Caesars Head NWS station in Greenville County with 16.31 inches of rain, which was 10.29 inches above normal. The lowest recorded precipitation total for January was at the Andrews NWS station in Georgetown County with 0.90 inches of rain, which was -3.02 inches below normal.



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. Following December, January was also a good recharge month with parts of the State receiving multiple rain events. As observed in the map, several gages in the Upstate counties were at much above normal to high status. Streamflows at gages in the southern counties stayed at normal or above normal levels. Overall, rainfall received in January kept the streamflows at normal to much above normal status.

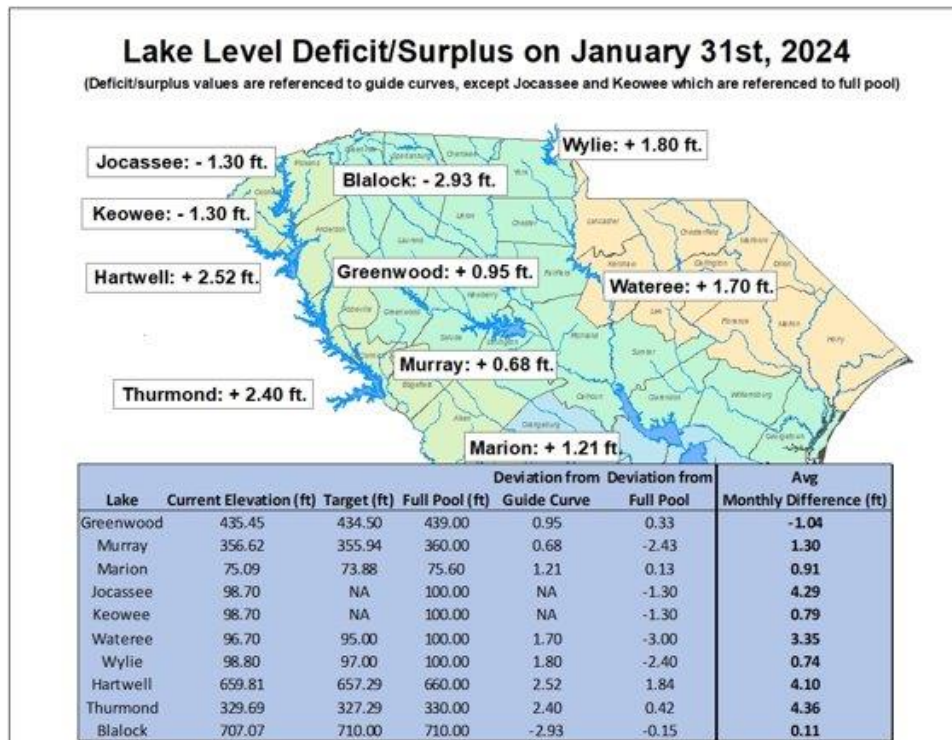


Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		



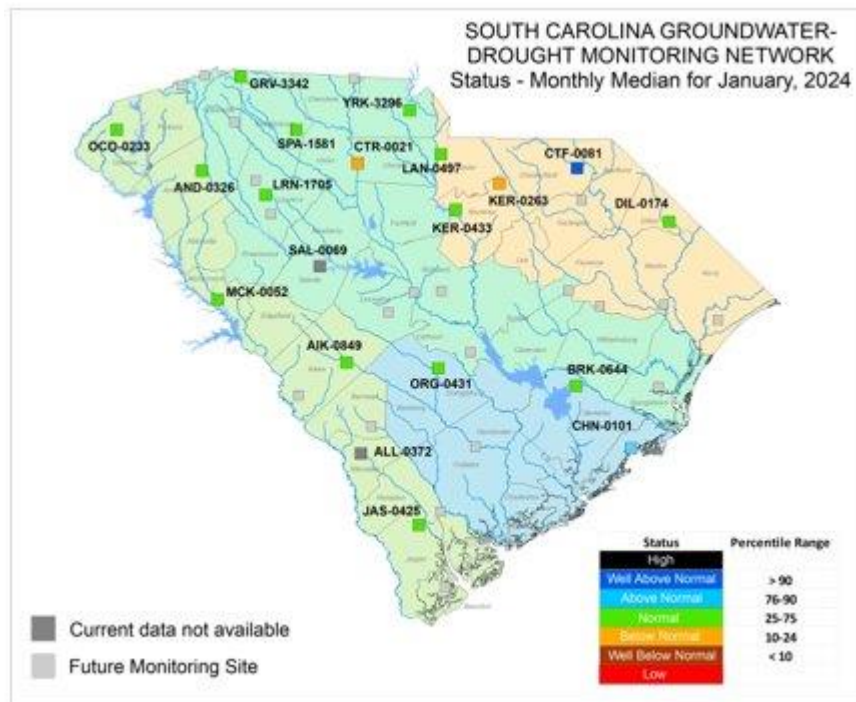
Reservoirs

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 January 31st. Multiple rain events in January following the rain events in December brought relief to the stressed lake levels in the past couple of months. The Duke Energy and USACE lake levels improved and so did the drought trigger levels. As of the end of January, the Catawba-Wateree lakes are still at stage 0 of the Low Inflow Protocol (LIP), while the rest of the Duke Energy lakes are operating at normal conditions. Although, as of January 12th the USACE website lists their operation at drought trigger level 1, the lake levels at Hartwell and Thurmond improved in second week of January and have stayed above their target levels since.



Groundwater

The groundwater condition map for January is based on the monthly medians for the data collected by the USGS and SCDNR. Multiple rain events in December and January improved recharge in the State. Only five of the nineteen wells observed a drop in the monthly medians from December to January, while groundwater levels improved for the rest of the wells. Prior to December, several counties in the upstate did not receive enough rainfall which lowered the groundwater levels. Although in January there was some good recharge, the monthly median for a couple of wells continued to remain at below normal levels. Groundwater levels at the Chester well have been fluctuating at below normal since November, there were some improvements in December but continued to remain below normal. Groundwater levels at Kershaw-0263 dropped below normal in October but have been improving since mid of December. Although it's monthly median for January is at below normal conditions, the levels are improving and at normal since the last week of January.



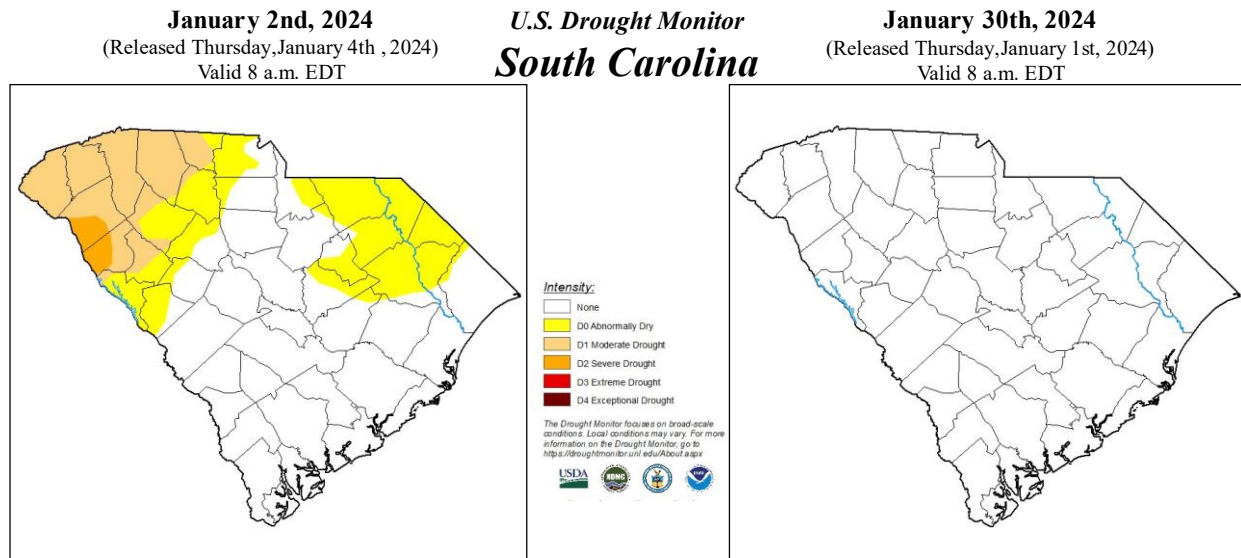
	USGS well sites										DNR Telemetry sites									
	MCK-0052	AND-326	OCO-233	KER-0433	SPA-1581	CTR-0021	YRK-3296	LAN-0497	JAS-0425	CHN-0101	DIL-0174	CTF-0081	GRV-3342	KER-0263	LRN-1705	SAL-0069	ORG-0431	AIK-0849	ALL-0372	BRK-0644
Dec 2023 Monthly median (ft, below land surface)	38.87	3.17	30.30	54.05	43.44	91.63	23.74	30.97	63.15	13.35	4.97	86.83	46.61	37.18	15.76	21.45	27.53	42.58	58.58	12.64
January 2024 Monthly median (ft, below land surface)	38.91	2.92	30.11	54.02	43.63	91.97	20.92	28.01	57.21	12.93	4.33	86.56	46.92	36.58	14.24	--	26.65	42.43	58.63	9.89
Difference in monthly median from past month (ft)	-0.04	0.25	0.19	0.03	-0.19	-0.34	2.82	2.96	5.94	0.42	0.64	0.27	-0.31	0.61	1.51	--	0.87	0.15	-0.05	2.74



Drought

Dry and drought conditions from fall of 2023 persisted at the beginning of January. On the first U.S. Drought Monitor (USDM) map of the month, (1/2)23.10% of the state was in abnormally dry (D0) conditions, 14.47% was in moderate drought (D1), and 1.61% was in severe drought (D2). Rain totals through the month helped to remove dry and drought conditions, minimizing precipitation deficits, as well as replenishing soil moisture and streamflows. By the end of the month, none of the state was in any USDM conditions.

The South Carolina Drought Response Committee (DRC) met on January 11th and put all 46 counties in normal status. In the Upstate, rain totals between December and the first part of January were almost double the rain totals of the entire fall. The return to wet conditions helped to improve soil moisture and streamflows, as well as reduce the potential for wildfire.



Summary

In January, the state experienced a mix of conditions. Average temperatures and precipitation totals ranged from above normal to below normal. Generally, conditions north of the Fall Line were wetter than normal, while conditions south of the Fall Line were drier than normal. However, rain totals at the beginning of the month, in conjunction with the wet conditions in December (2023) allowed for further improvement to soil moisture and streamflows, as well as reducing the potential for wildfire. These changes in conditions allowed for full removal of dry and drought conditions both on the U.S. Drought Monitor as well as the S.C. Drought Response Committee map.

Looking Forward

As of February 12th, the entire state has received rain, with totals ranging from 0.50 to 3.00 inches. Precipitation totals have been highest in the Lowcountry and Savannah River basin and decreasing towards the northern Pee Dee Region. Although precipitation totals have been below normal for most of the Pee Dee Region over the past 30-day period, soil moisture and streamflow values are still in good condition.

For the rest of the month, the entire state should receive rain with totals generally over an inch. Average temperatures should be near normal to slightly above normal. The Pee Dee Region will continue to be monitored closely as below normal precipitation totals could lead to the emergence of impacts.

Contact

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