

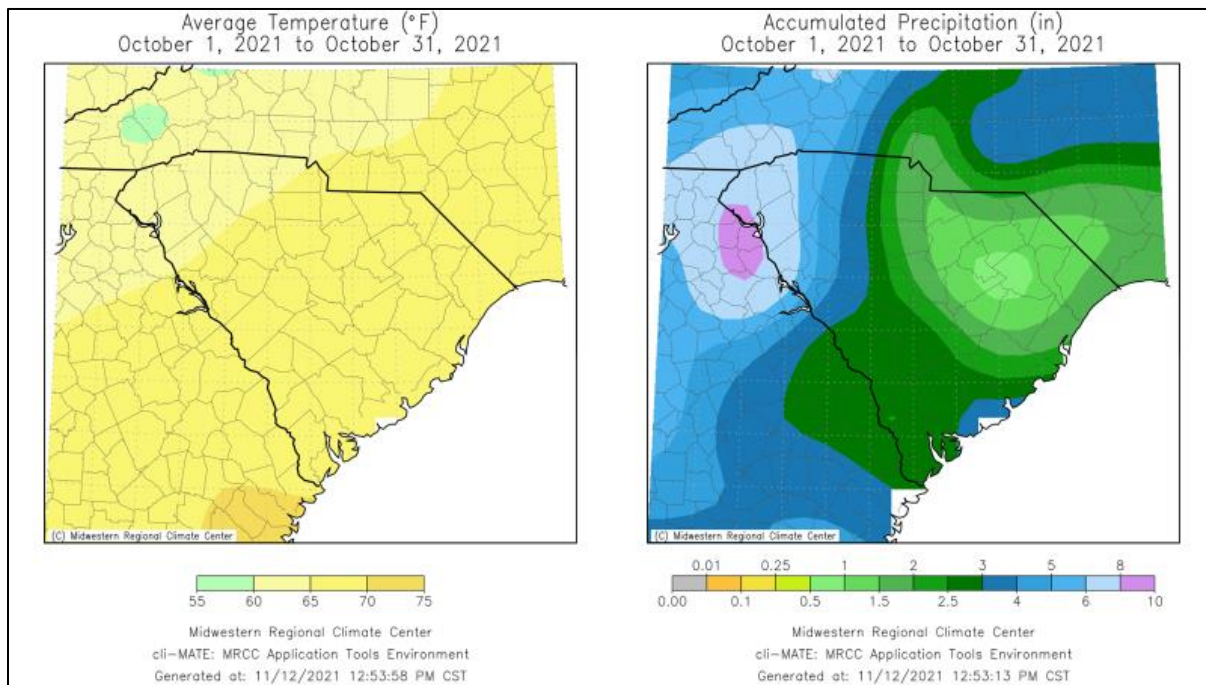
# South Carolina Water Resources Monthly Summary For October 2021

Provided by  
The South Carolina Department of Natural Resources

## Precipitation and Temperature

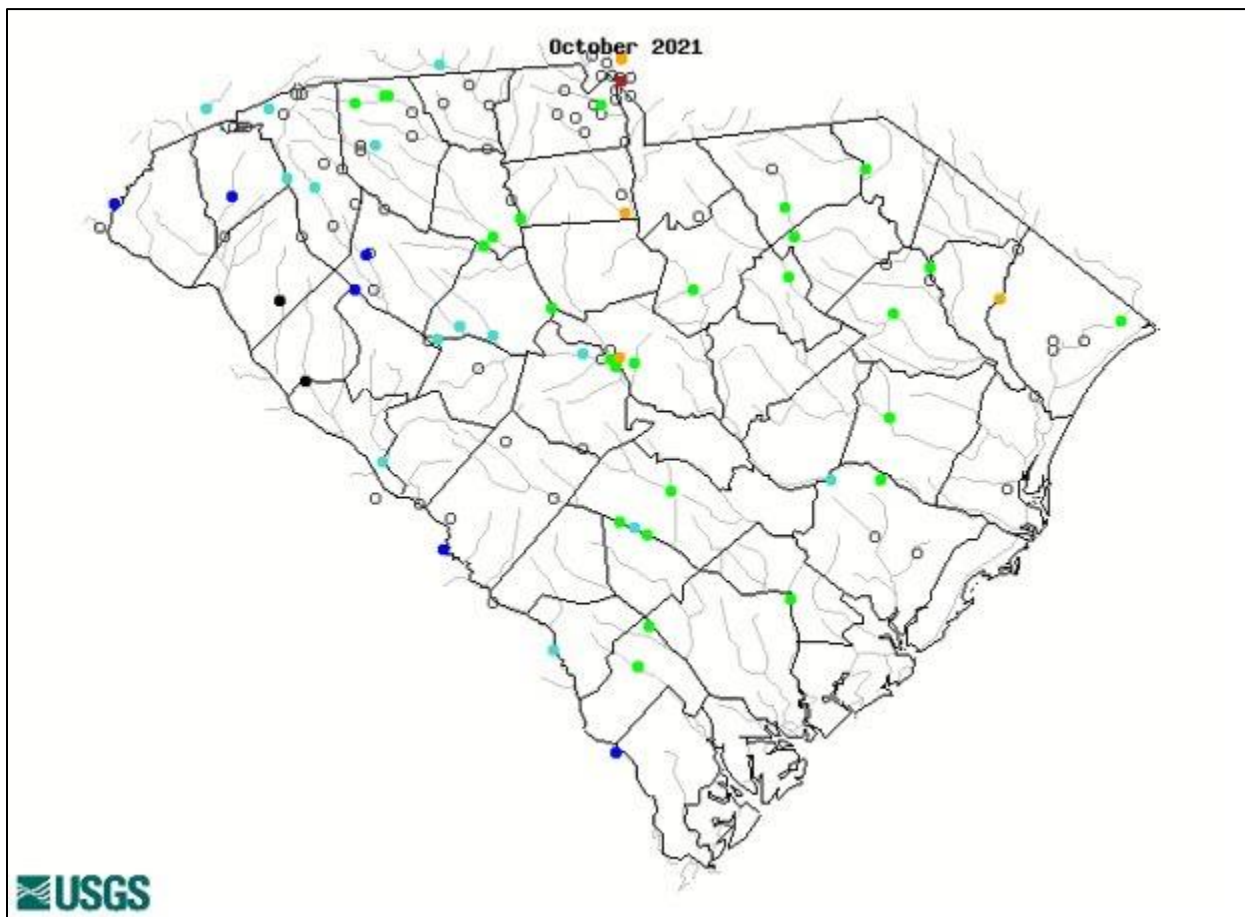
Overall, October's temperatures were well above average, and precipitation was varied. Statewide, South Carolina had an average temperature of 67.0 degrees, 3.8 degrees above the long-term average (1895-2020) of 63.4 degrees. October 2021 became the eleventh warmest October on record due to warmer than the normal minimum (4 – 6°F) and maximum temperatures (2 – 3°F).

The statewide average precipitation for October was 2.48 inches, which is 0.51 inches below the long-term average for the month (1895-2020) of 3.08 inches. During the month, the coastal portions of Beaufort and Colleton counties reported slightly above-normal precipitation. Areas in the Upstate measured rainfall totals well above normal, with some sites in these regions recorded more than 200% of the normal monthly rainfall. Outside of these areas, most stations across the state received less than three inches of rain. The Catawba and Pee Dee regions reported less than 25% of the normal monthly precipitation, equaling less than an inch of rain at some locations. For the second month in a row, the NWS station at Winthrop University reported below normal rainfall. In October, the station measured 1.10 inches, 1.84 inches less than the monthly normal, creating a two-month deficit of 3.95 inches.



## 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 sites on the map show a normal status, several gages in the Upper Savannah and Saluda basins show above normal to much above normal conditions. Three sites in South Carolina show below normal status (Rocky Creek at Great Falls (02147500), Smith Branch at North Main St (02162093), and Little Pee Dee at Galivants Ferry (02135000)). Below normal conditions recorded at these gages are consistent with other drought indicators showing dryness in portions of the Catawba and Pee Dee basins. Overall, streamflow conditions at the vast majority of sites across the State have remained at or above normal levels and are generally in good standing for October.

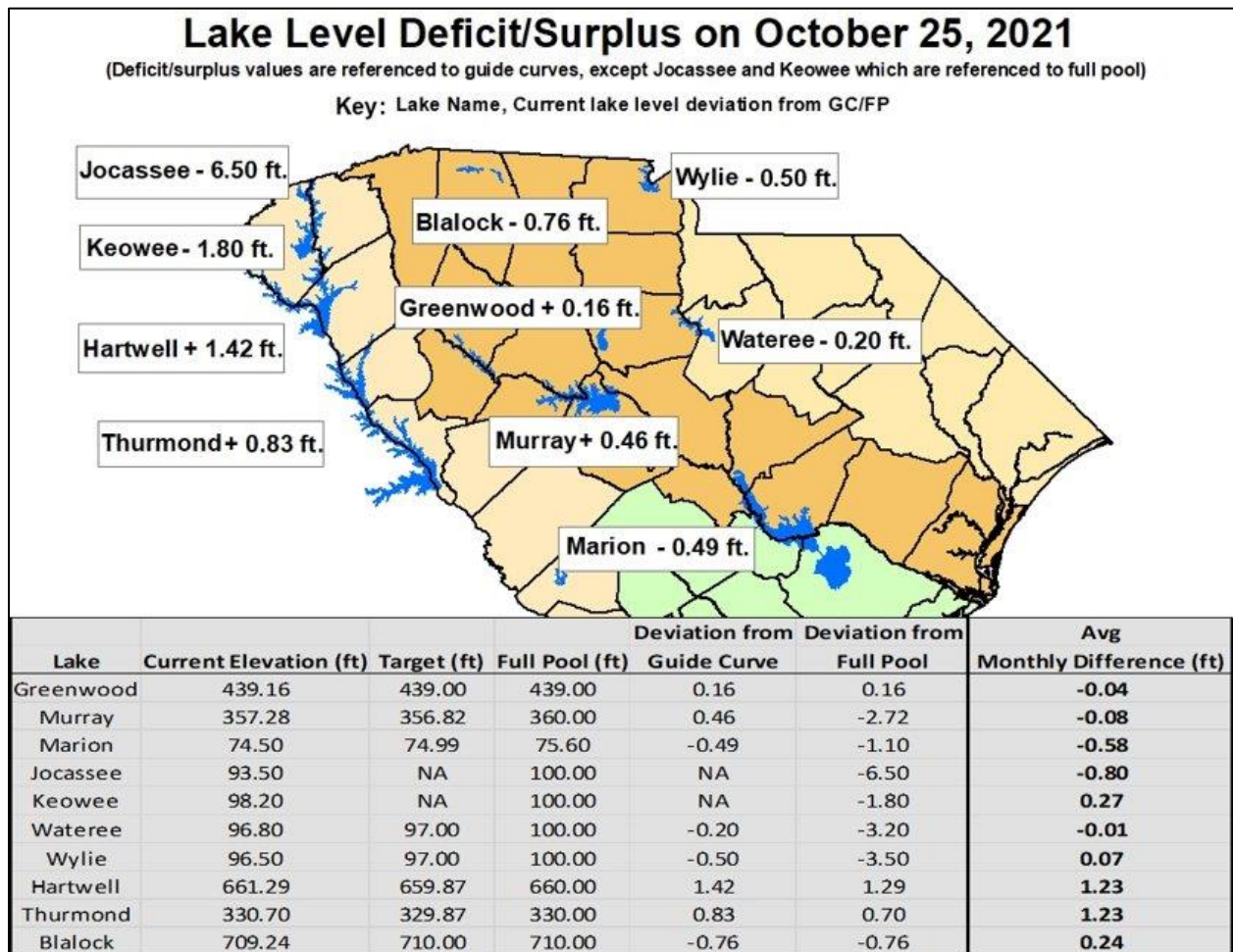


Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		



## Reservoirs

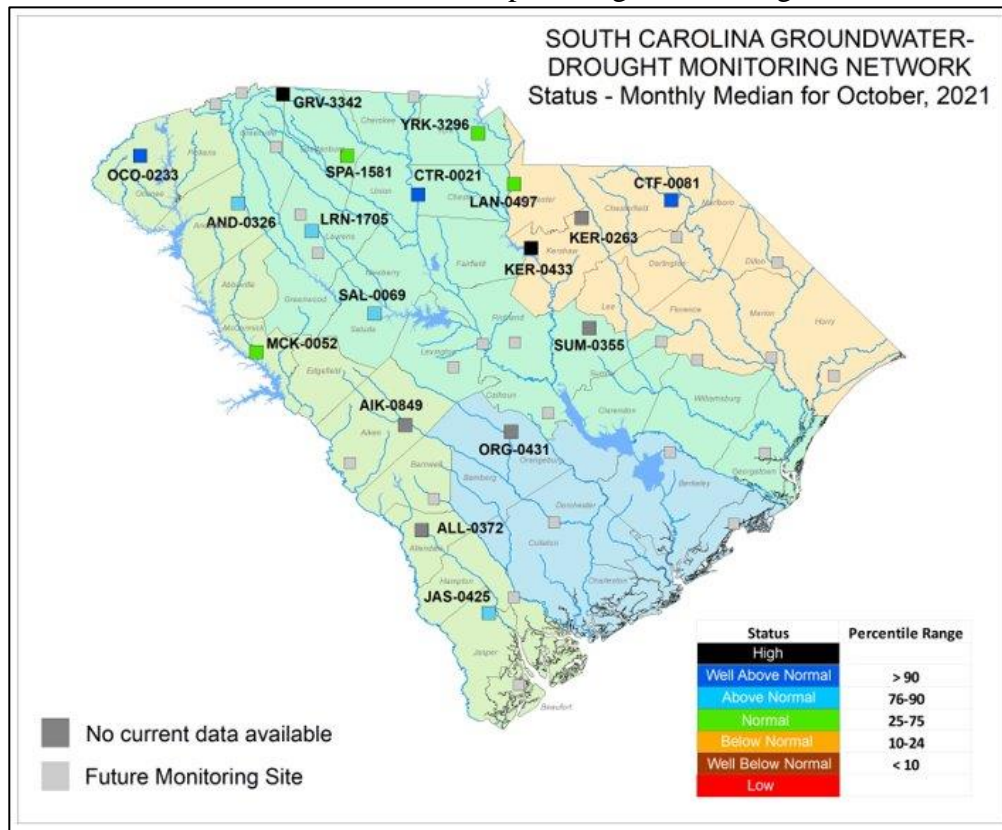
The map below shows the reservoir level surplus or deficit for each major reservoir and is based on conditions for October 25th. Six of the ten major reservoirs in South Carolina are below their target or full pool elevation but within their normal fluctuation range for the fall months. Half of the major lakes shown on the map had average lake levels in October higher than levels observed in September, while the other half had average levels in October lower than observed in September, but still within the expected range of seasonal fluctuations. As of October, lake elevations throughout the state are in good standing with levels remaining near guide curve elevations.





## Groundwater

The groundwater conditions map for October is based on data collected by both the USGS and the SCDNR. Groundwater levels for the wells shown on the map are at normal or above normal conditions. As noted in the table below, ten out of the fifteen wells show a slight drop in the monthly median levels from September to October. The Sumter 0355 well showed below normal status as of early October and was trending towards much below normal status. Unfortunately, due to the lack of data after 10/11, a current drought status based on the monthly medians could not be determined for this site. For rest of the sites, past winter recharge has helped groundwater levels remain at or above normal, and the slight decrease from the past month is consistent with seasonal declines typically observed with groundwater levels in summer and fall. Overall, the groundwater levels at the wells shown on the map are in good standing for October.



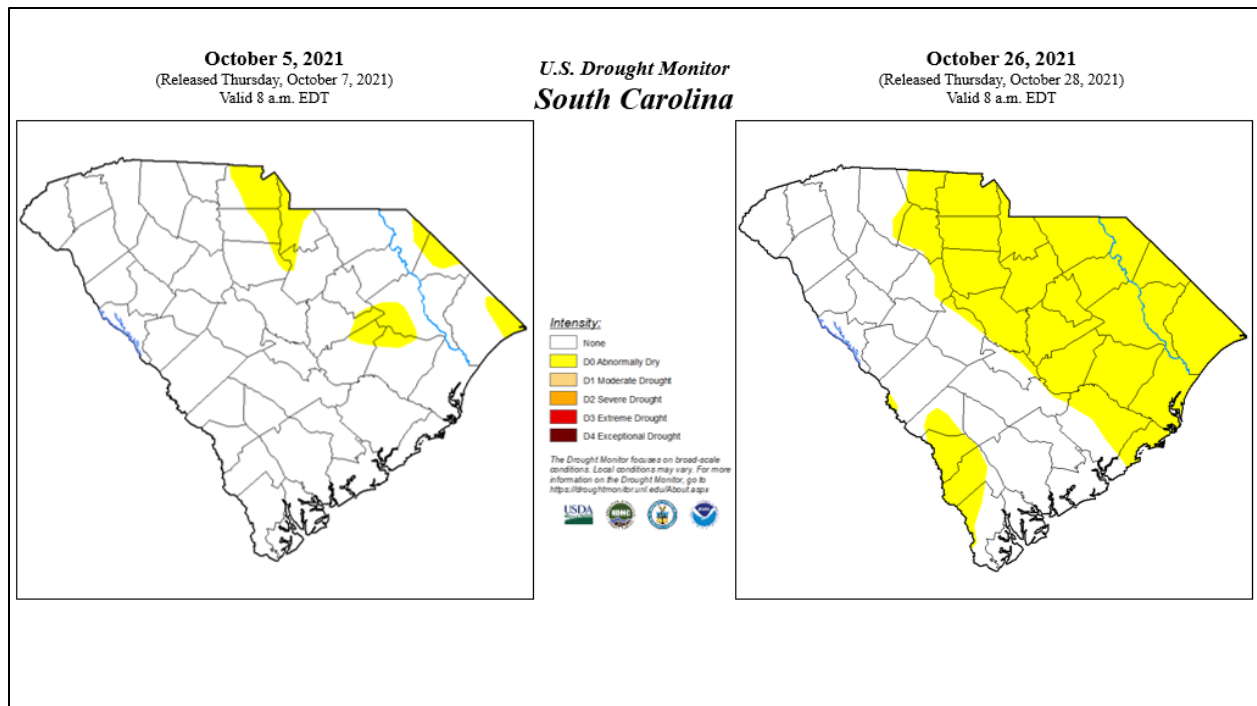
	SUM-0355	MCK-0052	AND-326	OCO-233	KER-0433	SPA-1581	CTR-0021	YRK-3295	LAN-0497	JAS-0425	CTF-0081	GRV-3342	KER-0263	LRN-1705	SAL-0069
September 2021 Monthly median (ft, below land surface)	14.88	38.14	3.44	28.40	45.04	40.33	85.51	24.03	31.64	56.05	87.51	40.20	NA	15.76	16.82
October 2021 Monthly median (ft, below land surface)	NA	38.39	3.18	28.11	45.41	40.36	85.57	24.89	32.71	56.51	87.92	40.79	NA	15.52	18.01
Difference in monthly median from past month (ft)	NA	-0.25	0.26	0.29	-0.38	-0.03	-0.06	-0.86	-1.08	-0.46	-0.41	-0.59	NA	0.23	-1.19



## Drought

The first U.S. Drought Monitor (USDM) in October (10/5) had 7.79% of the state in abnormally dry (D0) conditions. The D0 conditions in the state were due to building precipitation deficits over August and September. Due to a warm and dry October, abnormally dry conditions continued to increase in coverage across the state, particularly in the eastern half of the state. The October 19<sup>th</sup> USDM map added abnormally dry conditions to Hampton and Jasper Counties in the Lowcountry and continued to expand abnormally dry conditions in the Pee Dee. This map (10/19) had 15.03% of the state in abnormally dry conditions. The last USDM map for October (10/26) had 51.59% of the state in abnormally dry conditions, with virtually all of the eastern half of the state designated in D0 conditions. The large expansion of D0 designations in the eastern half of the state between the 10/19 and 10/26 maps were due to precipitation deficits at 30-, 60-, and 90-days, along with soil moisture deficits.

Although abnormally dry conditions expanded significantly throughout the state in October, the South Carolina Drought Response Committee did not convene, as there were no reports of widespread impacts and streamflow conditions remained in near normal conditions across the state.



## Summary

October was warm across the state, while precipitation varied. The Upstate and the Lowcountry received above normal precipitation while much of the eastern and Northern Midlands and the Pee Dee region received below normal precipitation. The dry conditions caused soil moisture values to drop in most of the eastern half of the state and did cause some of the streams to have below normal flows for the month of October. The streams for the rest of state are in good standing. In general, groundwater and reservoirs, are in good standing for the state at the end of October.

## Looking Forward

The first two weeks of November have been cool and dry. Within the past two weeks, some streams in the Pee Dee region have started to have below normal flows for multiple time frames (7-, 14-, and 28-days). This, combined with precipitation and soil moisture deficits have allowed portions of the Midlands and Pee Dee regions to fall into moderate drought (D1) conditions on the U.S. Drought Monitor. Since the models for the rest of November show that precipitation will range from normal to below normal and while temperature will range from normal to above normal, SCDNR, along with partnering agencies, will continue to monitor conditions. Due to lack of impacts, the S.C. Drought Response Committee has decided conditions do not warrant a meeting as of now but are on standby for future meetings in case dry conditions continue to intensify.

## Contact

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