

NWS Form E-5 (04-2006) (PRES. BY NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) Columbia, SC
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH YEAR Sept. 2019
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		SIGNATURE Leonard Vaughan DATE 10/10/2019
<i>When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).</i>		

☒ An X inside this box indicates that no flooding occurred within this hydrologic service area.

River Conditions for September 2019

Summary

September brought record temperatures and abnormally dry conditions to the Midlands and Central Savannah River Area. Temperatures averaged 4 to 6 degrees above normal, while rainfall averaged 1 to 3 inches below normal. The only relief in precipitation came as Hurricane Dorian moved northward along the South Carolina coast on the 5th. The dry conditions across much of the state, especially west of the I-95 corridor, resulted in a continued expansion and degradation of drought conditions. It was the 4th warmest September on record at Columbia and the 5th warmest on record at Augusta.

Precipitation

The total precipitation at Columbia Metro Airport was 1.95 inches. The total precipitation at Augusta Bush Field was 0.77 inches. Precipitation records for Columbia began in 1878. Precipitation records for Augusta began in 1871.

Here are a few reports from NWS Coop Stations:

Holly Hill 1 SW (HHLS1) – 3.53 inches

Elliott 0.8 NW (ELTS1) – 2.72 inches

Little Mountain (LIMS1) – 2.39 inches

McCormick (MCCS1) – 0.00 inches

Lincolnton 4.4 S (LNCG2) – 0.00 inches

Barnwell 5 ENE (BNLS1) – 0.15 inches

Here are a few reports from the CoCoRaHS (Community, Collaborative, Rain, Hail and Snow Network) observers:

South Carolina/Georgia:

SC-LX-35 Lexington 2.9 NE – 4.31 inches

SC-CD-6 Manning 1.9 SSE – 4.18 inches

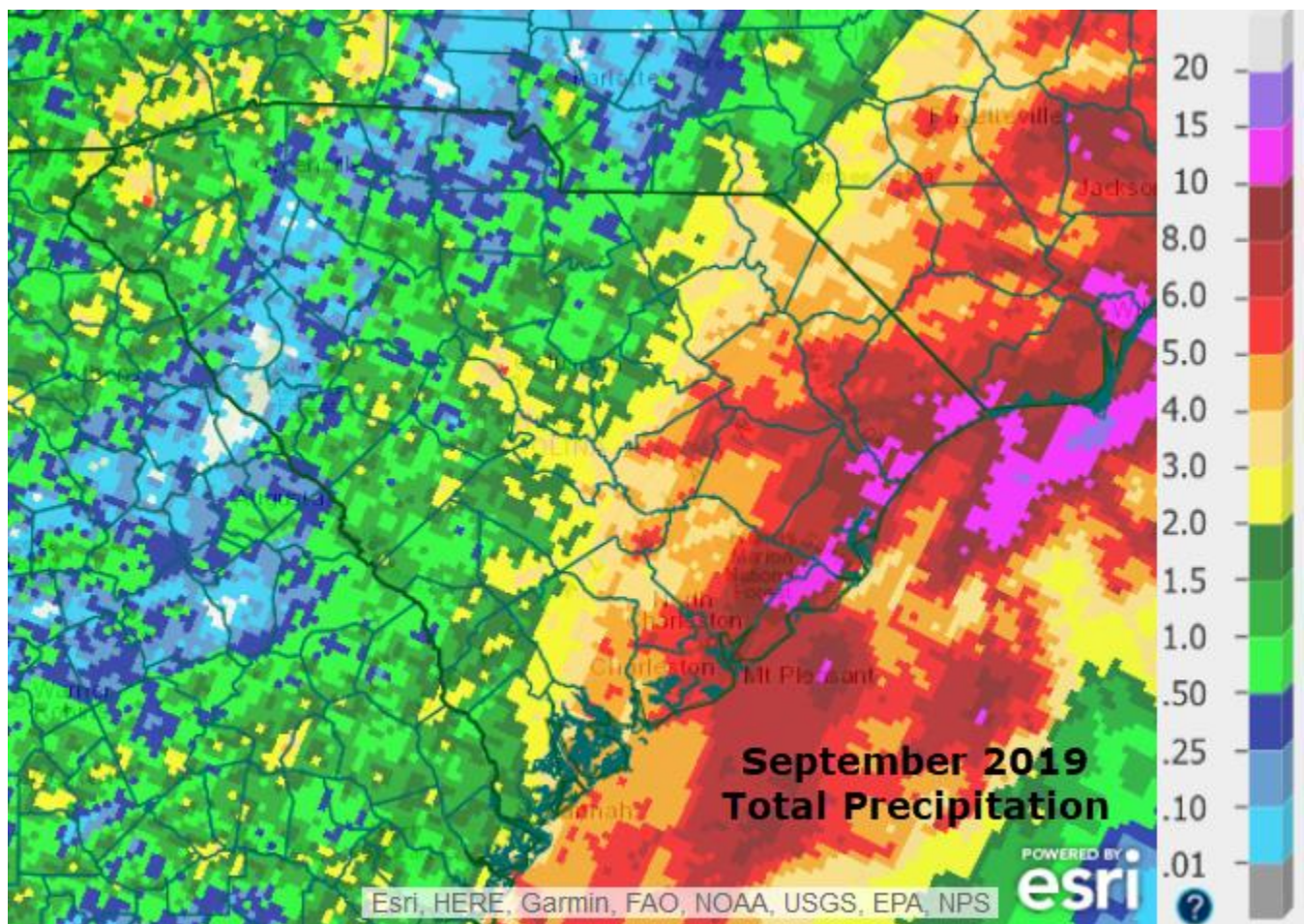
SC-OR-41 Elloree 2.2 WSW – 3.88 inches

GA-CU-6 Martinez 4.5 NNW – 0.00 inches

GA-LC-2 Tignall 10.2 ENE – 0.09 inches

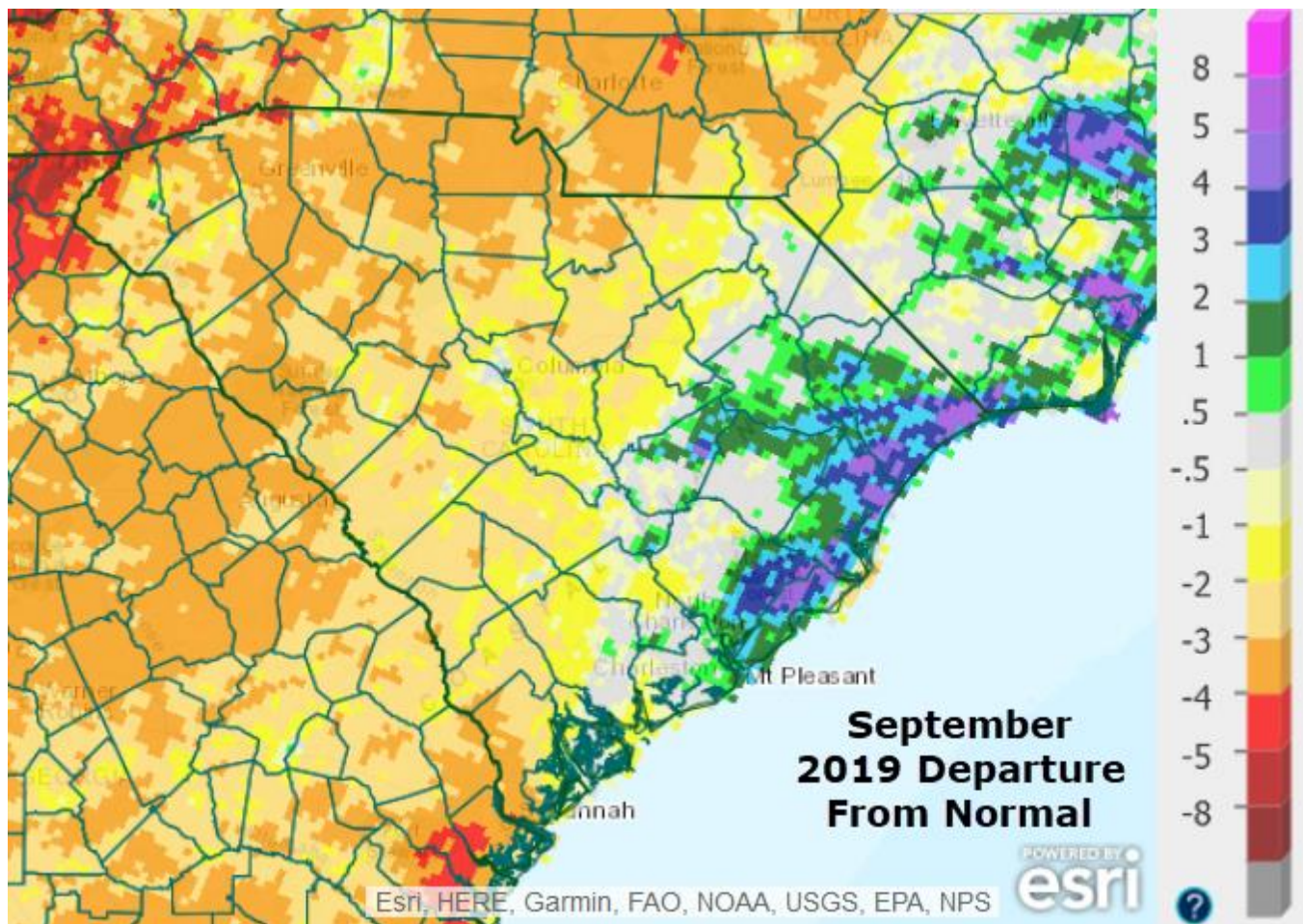
GA-RC-12 Augusta 4.2 S – 0.15 inches

(Please see the precipitation maps below).



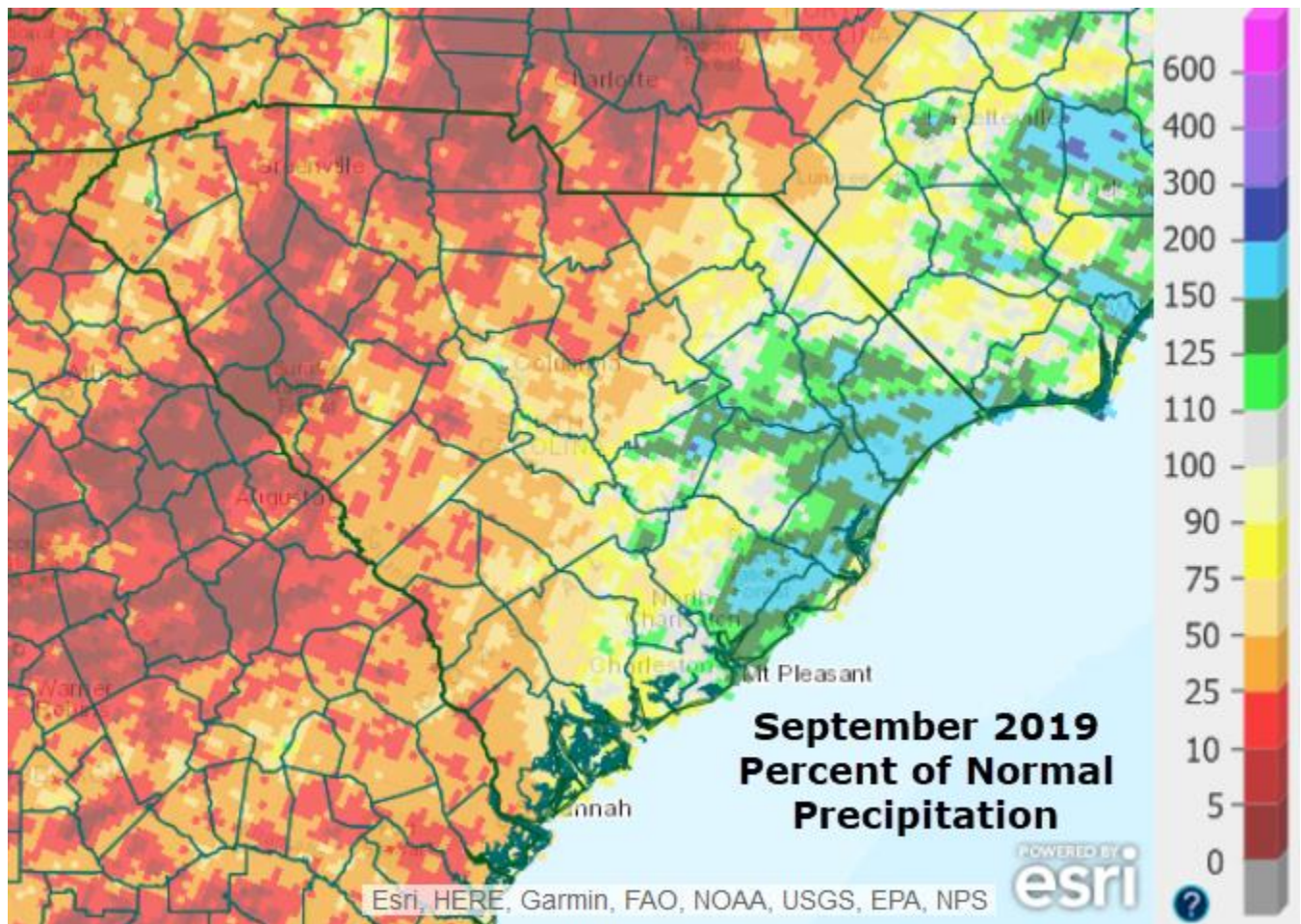
September 2019 Total Precipitation (inches)

Source: Advanced Hydrologic Prediction Service, NWS



September 2019 Precipitation Departure from Normal (inches)

Source: Advanced Hydrologic Prediction Service, NWS



September 2019 Percent of Normal Precipitation

Source: Advanced Hydrologic Prediction Service, NWS

September 2019 precipitation at observation sites was as follows:

Station	Rainfall	Normal	Departure From Normal
Augusta (AGS)	0.77	3.22	-2.45
Augusta (DNL)	0.10	3.27	-3.37
Columbia (CAE)	1.95	3.54	-1.59
Columbia (CUB)	1.91	4.04	-2.13
Orangeburg (OGB)	0.10	3.37	-3.27

River/Flood Conditions

Rainfall was well below normal across the headwaters and much of the main stems of the rivers. Therefore, there were no high water events along any of the rivers across the Midlands or Central Savannah River Area.

Drought Conditions

The only significant rain fell along and east of the I-95 corridor associated with Hurricane Dorian. West of this region little to no rain fell. Because of this, the area of drought expanded and worsened across the western two-thirds of the state. No drought continued along and east of the I-95 corridor. Drought continued west of this line. An area of D2 (Severe Drought) and D3 (Extreme Drought) developed from the lower Central Savannah River Area into Jasper county and extended northward into Orangeburg County and then into the western portion of the Columbia Metropolitan Area and Richland County. Additionally, the area of D1 (Moderate Drought) and D2 (Severe Drought) expanded across the Upstate and Piedmont.

(Please see the maps below).

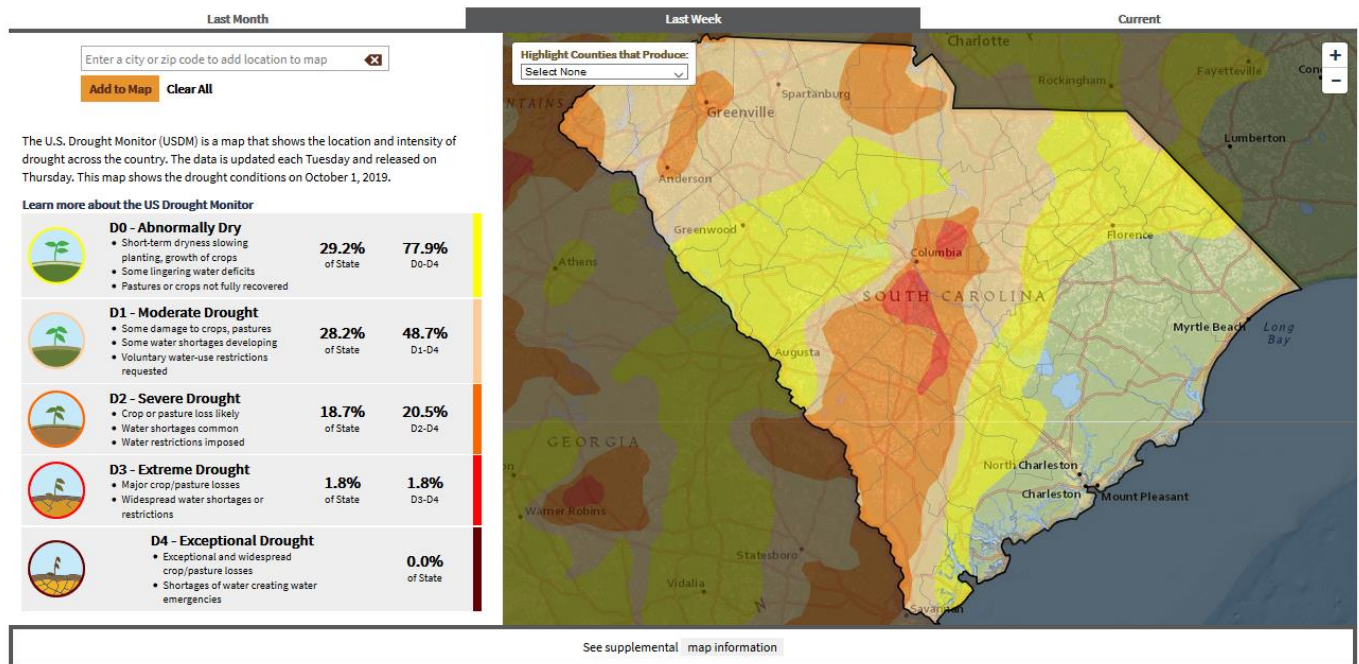
Drought in South Carolina

Residents in drought:
2,988,000
430,000 more in abnormally dry areas.

This is:
67%
of the state's population,
10% more in abnormally dry areas.



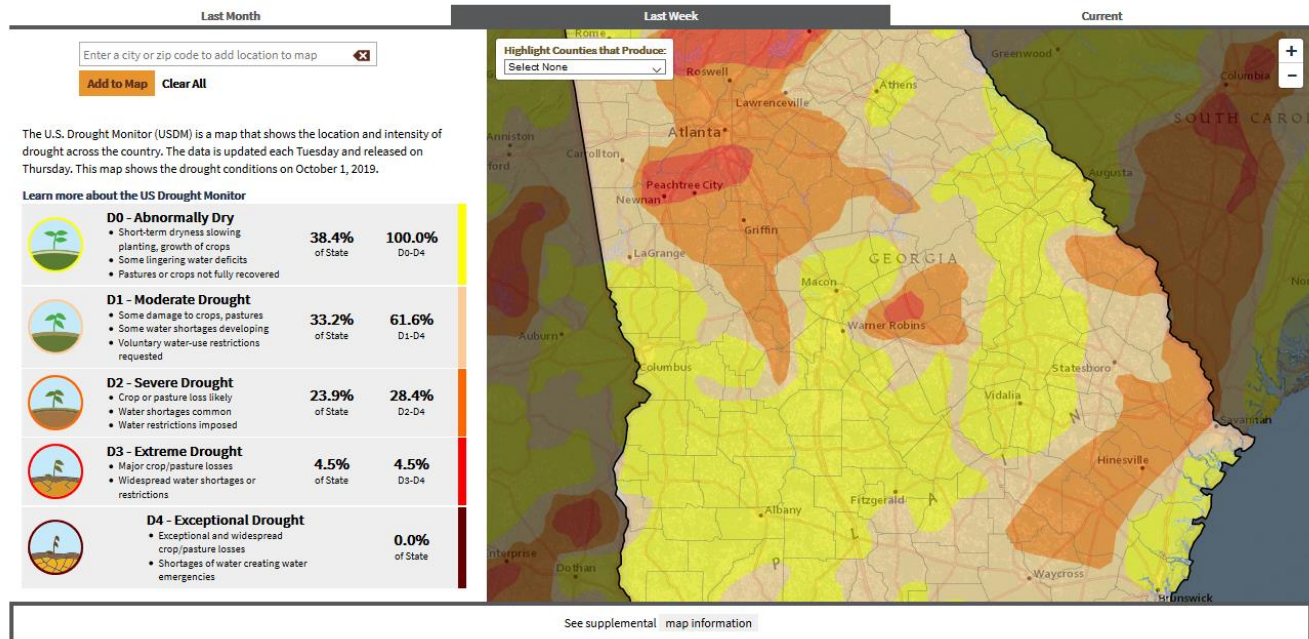
Report Your Drought Impacts



Drought in Georgia

Residents in drought:
9,441,000
235,000 more in abnormally dry areas.

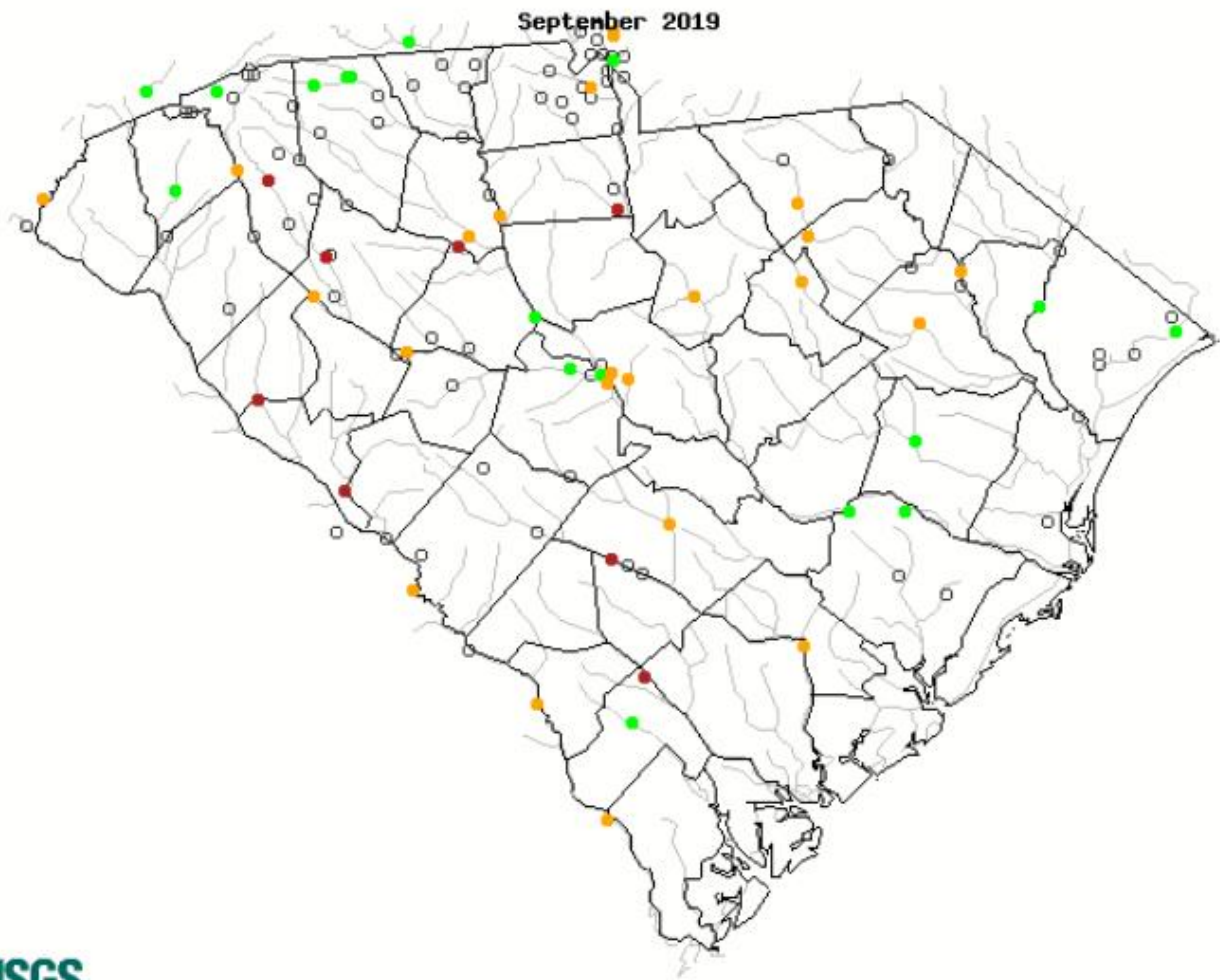
This is:
98%
of the state's population,
2% more in abnormally dry areas.



Streamflow Conditions

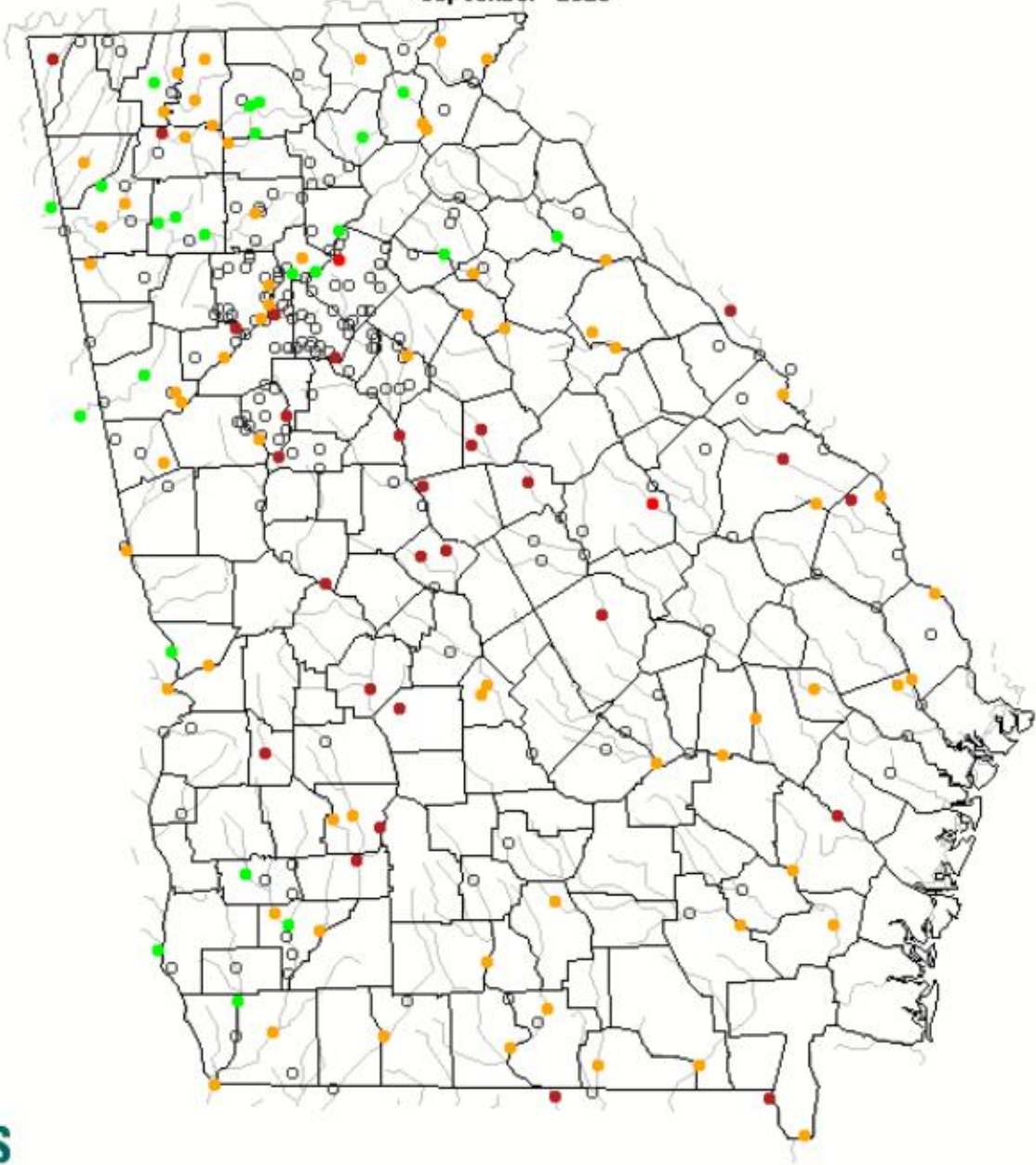
Monthly average stream flows for September across the Midlands and Central Savannah River Area show diminishing flows due to the below normal rainfall for the month. Average stream flows for September ranged from Normal to Much Below Normal across the region. Normal conditions were noted along sections of the Broad River and Saluda River near Columbia. Below Normal conditions were noted along the Savannah River Basin, Congaree River Basin, Wateree River Basin, Lynches River Basin, North Fork of the Edisto River and Pee Dee River Basin. Much Below Normal conditions were observed along the South Fork of the Edisto River, Stevens Creek and Little River.

Stream Flow Compared to Historical Stream Flow for the Month



Explanation - Percentile classes							
●	●	●	●	●	●	●	○
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

September 2019



Explanation - Percentile classes							
●	●	●	●	●	●	●	○
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Temperatures

September 2019 temperatures were above normal for the month.

The monthly average temperature at Columbia (CAE) was 80.9 degrees. This value was 6.2 degrees above the normal of 74.7 degrees. The highest temperature during the month was 99 degrees reached on the 9th, 26th and 30th. The lowest temperature was 51 degrees that occurred on the 20th.

The average temperature for the month at Augusta (AGS) was 80.2 degrees. This value was 5.6 degrees above the normal of 80.2 degrees. The highest temperature during the month was 101 degrees reached on the 30th. The lowest temperature was 50 degrees that occurred on the 20th.

Hydrological Products

The following products were issued during September 2019.

DGT	Drought Statements	0
ESF	Hydrologic Outlooks	0
FFA	Flash Flood Watches	0
FFS	Flash Flood Statements	0
FFW	Flash Flood Warnings	0
FLS	Flood Statements	0
FLW	Flood Warnings	0
FLS	Areal Flood Advisories	4