\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 May YEAR 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 06/07/2019

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).

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

River Conditions for May 2019

Summary

May was a story of two halves. The first half of the month brought near normal temperatures and rainfall. The second half of the month brought much above normal temperatures and little to no rainfall to the area. Most of the area received between 2 and 4 inches of rainfall, although there were a few higher amounts across the northern Midlands especially Lancaster County. This produced low flows on the area rivers by the end of the month along with increased drought coverage. The worst drought developed across the Lowcountry and extended into the southern and eastern Midlands.

Precipitation

The total precipitation at Columbia Metro Airport was 2.35 inches. The total precipitation at Augusta Bush Field was 3.70 inches. Precipitation records for Columbia began in 1878. Precipitation records for Augusta began in 1871.

Here are a few reports from NWS Coop Stations:

Barnwell 5 ENE (BNLS1) – 4.50 inches
Graniteville 1.2 NE (GNTS1) – 3.83 inches
Aiken 2 E (AKIS1) – 3.67 inches

Cheraw Water Plant (CEWS1) – 1.02 inches
Thomson 1.5 SSE (THMG1) – 1.02 inches
Orangeburg 2 (ORBS1) – 1.12 inches

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

South Carolina:

SC-LN-8 Lancaster 0.4 WSW – 7.39 inches
SC-CF-5 Pageland 9.0 WNW – 5.64 inches
SC-AK-77 Aiken 2.6 NW – 5.00 inches

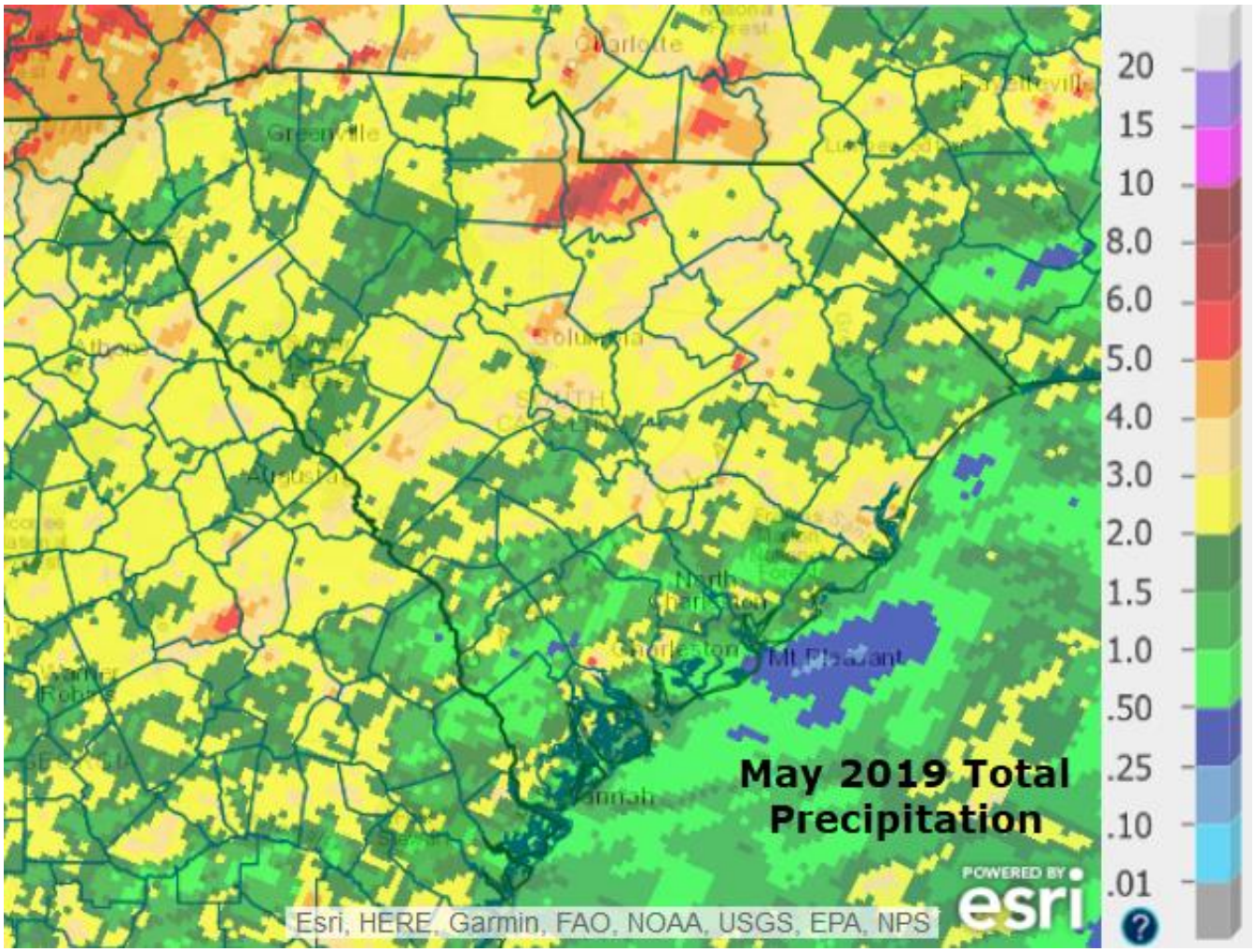
SC-OR-37 Orangeburg 0.4 WNW – 0.84 inches
SC-AK-83 Springfield 4.0 WNW – 1.26 inches
SC-LX-69 Lexington 3.0 WSW – 1.33 inches

Georgia:

GA-BK-9 S. Augusta 4.1 S – 3.32 inches
GA-LC-2 Tignall 10.2 NE – 2.62 inches

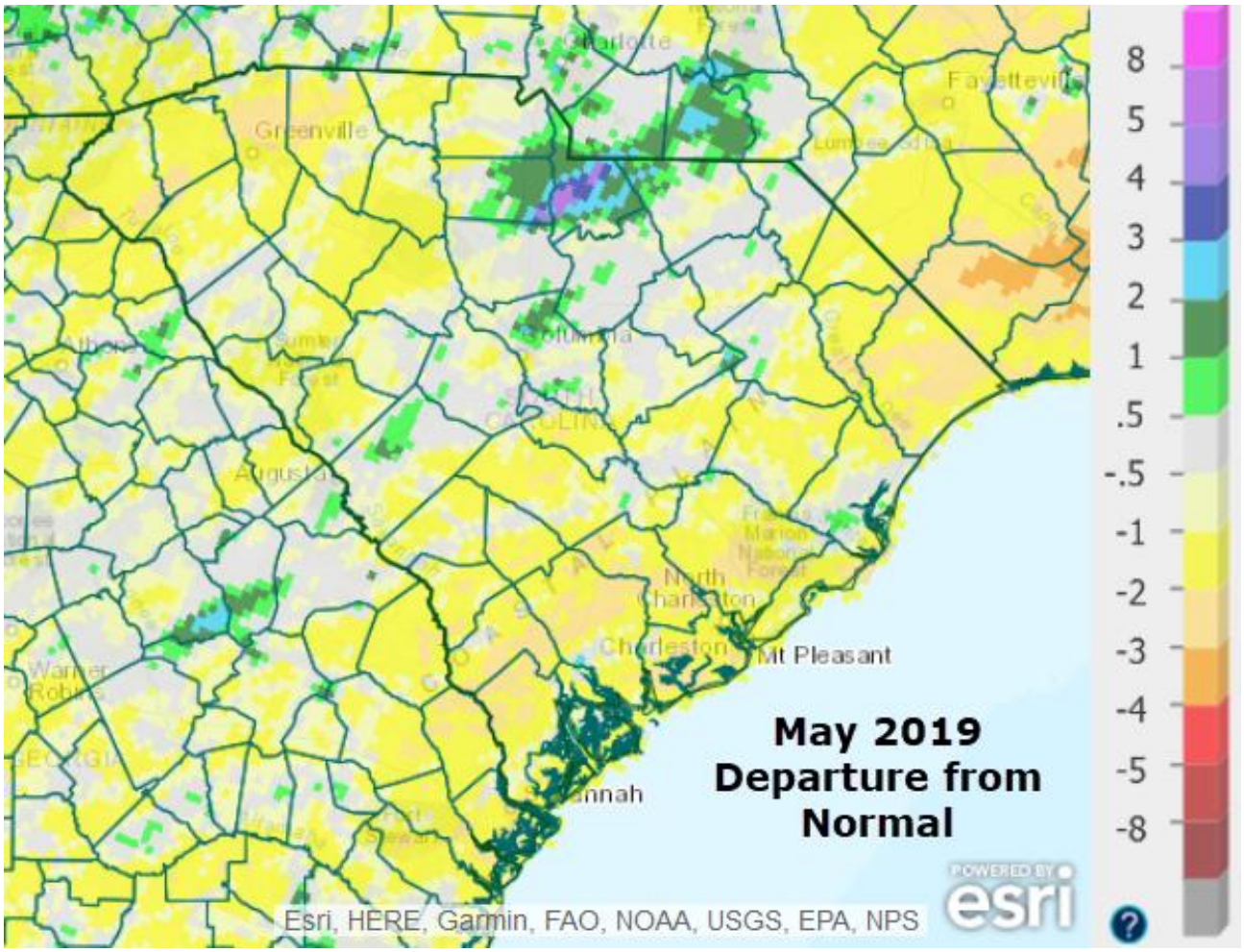
GA-CU-6 Martinez 0.9 NW – 1.52 inches
GA-RC-9 W. Augusta 0.9 NW – 1.99 inches

(Please see the precipitation maps below).



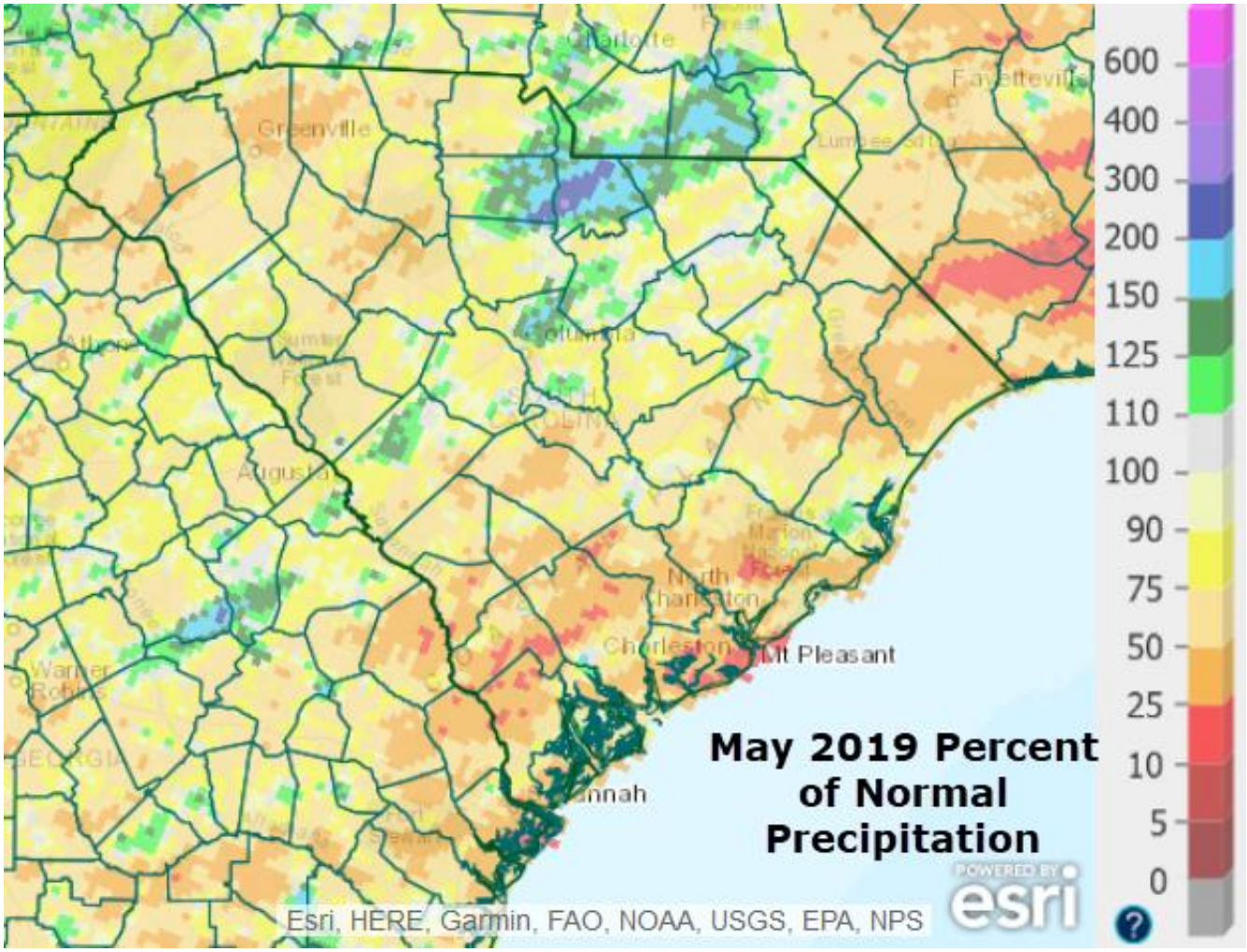
May 2019 Total Precipitation (inches)

Source: Advanced Hydrologic Prediction Service, NWS



May 2019 Precipitation Departure from Normal (inches)

Source: Advanced Hydrologic Prediction Service, NWS



May 2019 Percent of Normal Precipitation

Source: Advanced Hydrologic Prediction Service, NWS

May 2019 precipitation at observation sites was as follows:

Station	Rainfall	Normal	Departure From Normal
Augusta (AGS)	3.70	2.65	+1.05
Augusta (DNL)	2.46	3.18	-0.72
Columbia (CAE)	2.35	2.97	-0.62
Columbia (CUB)	1.80	2.97	-1.17
Orangeburg (CUB)	1.30	3.22	-1.92

River/Flood Conditions

Due to the fact that most areas received below normal rainfall for the month, there was no river flooding across the Midlands and Central Savannah River Area. There was one episode of flash flooding that occurred in Lancaster County on the evening of the 11th and into the early morning hours of the 12th. The heavy rainfall produced flash flooding in the City of Lancaster, where people had to be evacuated from Dalton Ridge Apartments.

Here are some of the highest rainfall totals from Lancaster and Chesterfield Counties:

Lancaster 0.4 WSW (CoCoRaHS).....4.80 inches
Lancaster 2.0 NNW (CoCoRaHS).....3.67 inches
Lancaster 7.1 ENE (CoCoRaHS).....2.56 inches
Pageland 0.9 WNW (CoCoRaHS).....1.78 inches
Indian Land 4.7 S (CoCoRaHS).....1.72 inches

Drought Conditions

Drought continued to expand and worsen during the month of May. Conditions deteriorated rapidly during the last two weeks of the month with temperatures in the 90s to low 100s, which produced increased evaporation and dry soils. Additionally, little to no rain fell across the area during the period. The “Flash Drought” damaged crops and was as stress on livestock. By the end of May into early June, most of the state was under some form of drought. The only area free of drought was along the North Carolina border from the mountains to the northern Midlands. D1 conditions, Moderate Drought, had developed across an area along and south of I-20. D2 conditions, Moderate Drought, had developed along the Lowcountry and into eastern Georgia.

(Please see the maps below).

Drought in South Carolina

Residents in drought:
1,808,000

2,025,000 more in abnormally dry areas.

This is:
41%

of the state's population,
45% more in abnormally dry areas.

Report Your Drought Impacts

Last Month | Last Week | Current

Enter a city or zip code to add location to map

Add to Map | Clear All

The U.S. Drought Monitor (USDM) is a map that shows the location and intensity of drought across the country. The data is updated each Tuesday and released on Thursday. This map shows the drought conditions on June 4, 2019.

Learn more about the US Drought Monitor

D0 - Abnormally Dry
- Short-term dryness slowing planting, growth of crops
- Some lingering water deficits
- Pastures or crops not fully recovered

38.4% of State | 88.2% D0-D4

D1 - Moderate Drought
- Some damage to crops, pastures
- Some water shortages developing
- Voluntary water-use restrictions requested

33.6% of State | 49.8% D1-D4

D2 - Severe Drought
- Crop or pasture loss likely
- Water shortages common
- Water restrictions imposed

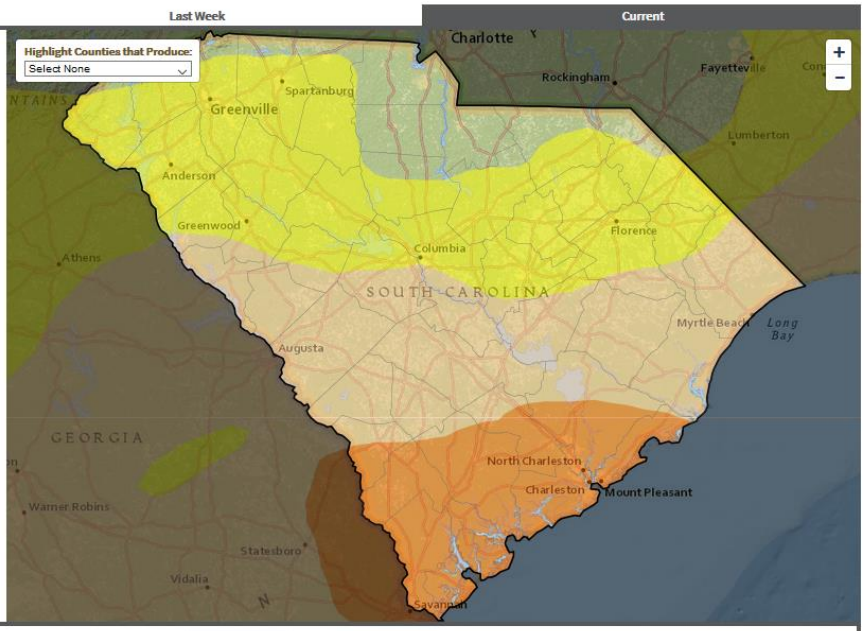
16.2% of State | 16.2% D2-D4

D3 - Extreme Drought
- Major crop/pasture losses
- Widespread water shortages or restrictions

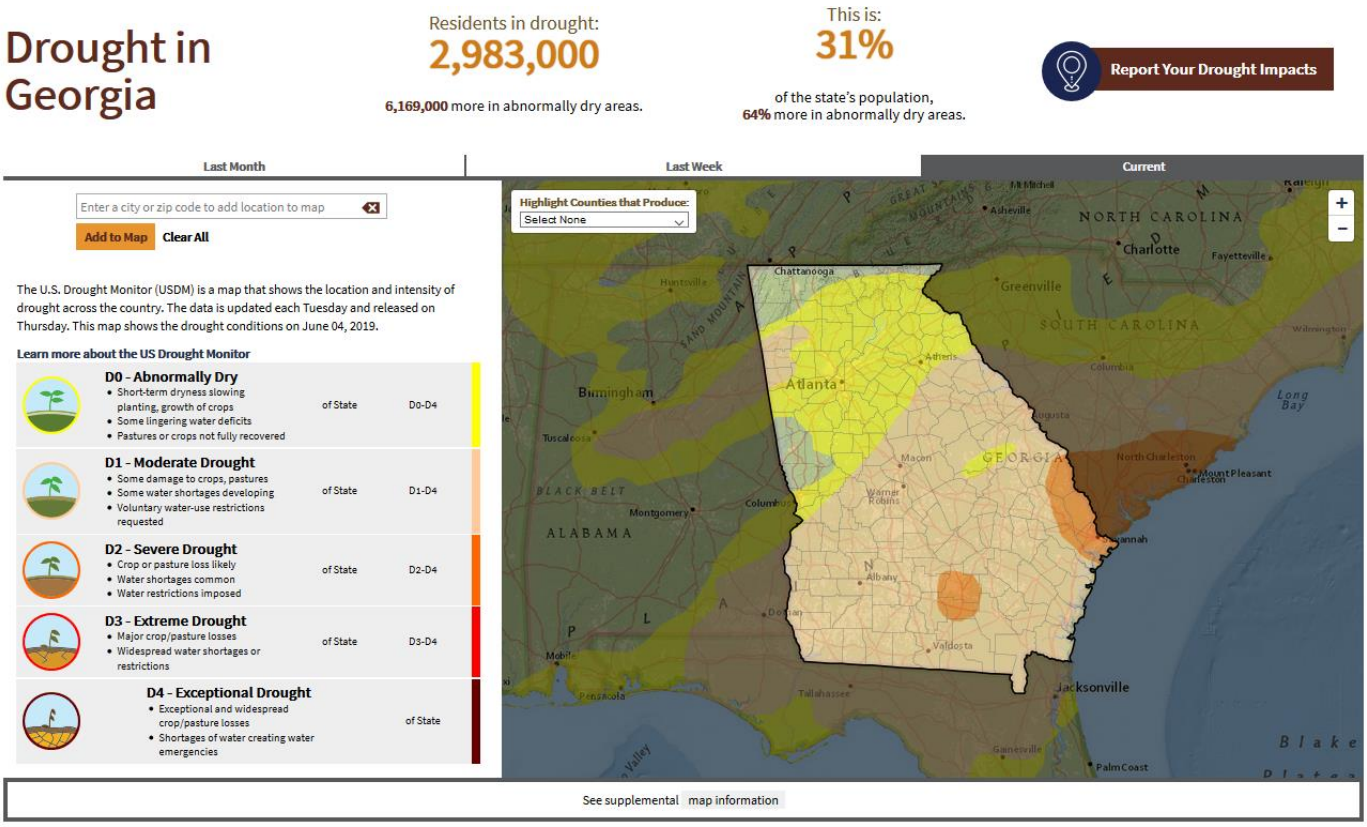
0.0% of State | 0.0% D3-D4

D4 - Exceptional Drought
- Exceptional and widespread crop/pasture losses
- Shortages of water creating water emergencies

0.0% of State



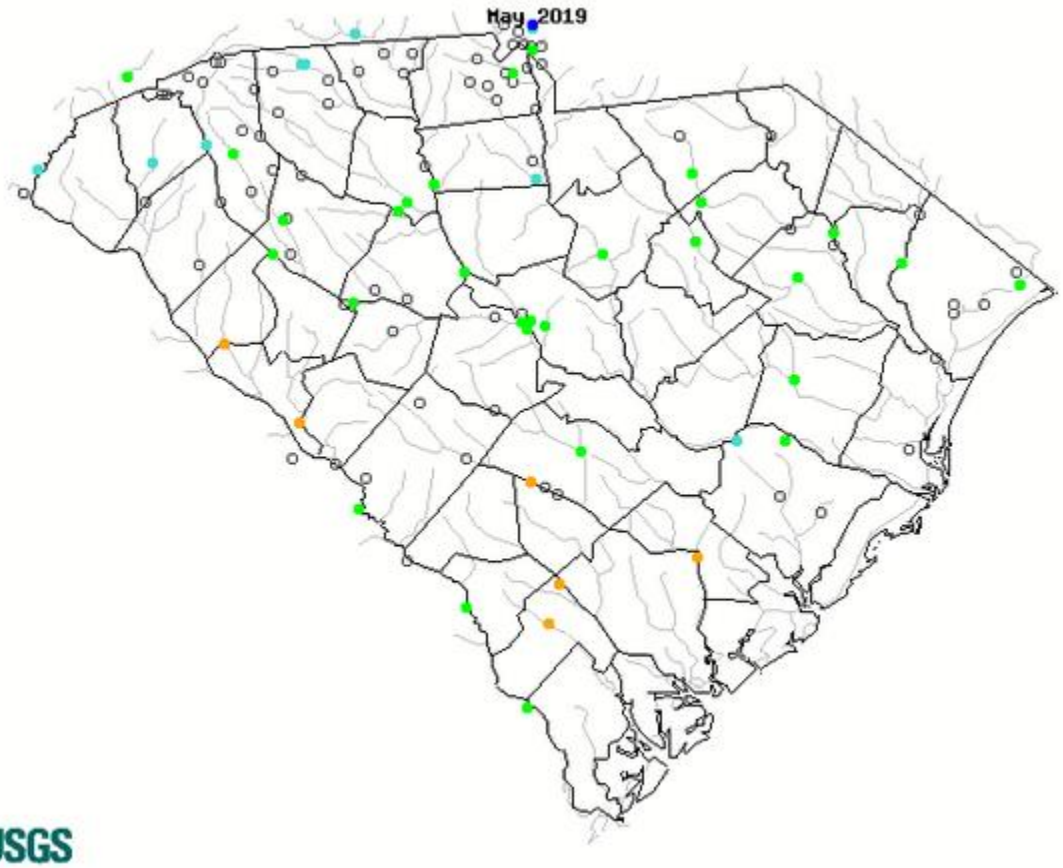
See supplemental map information



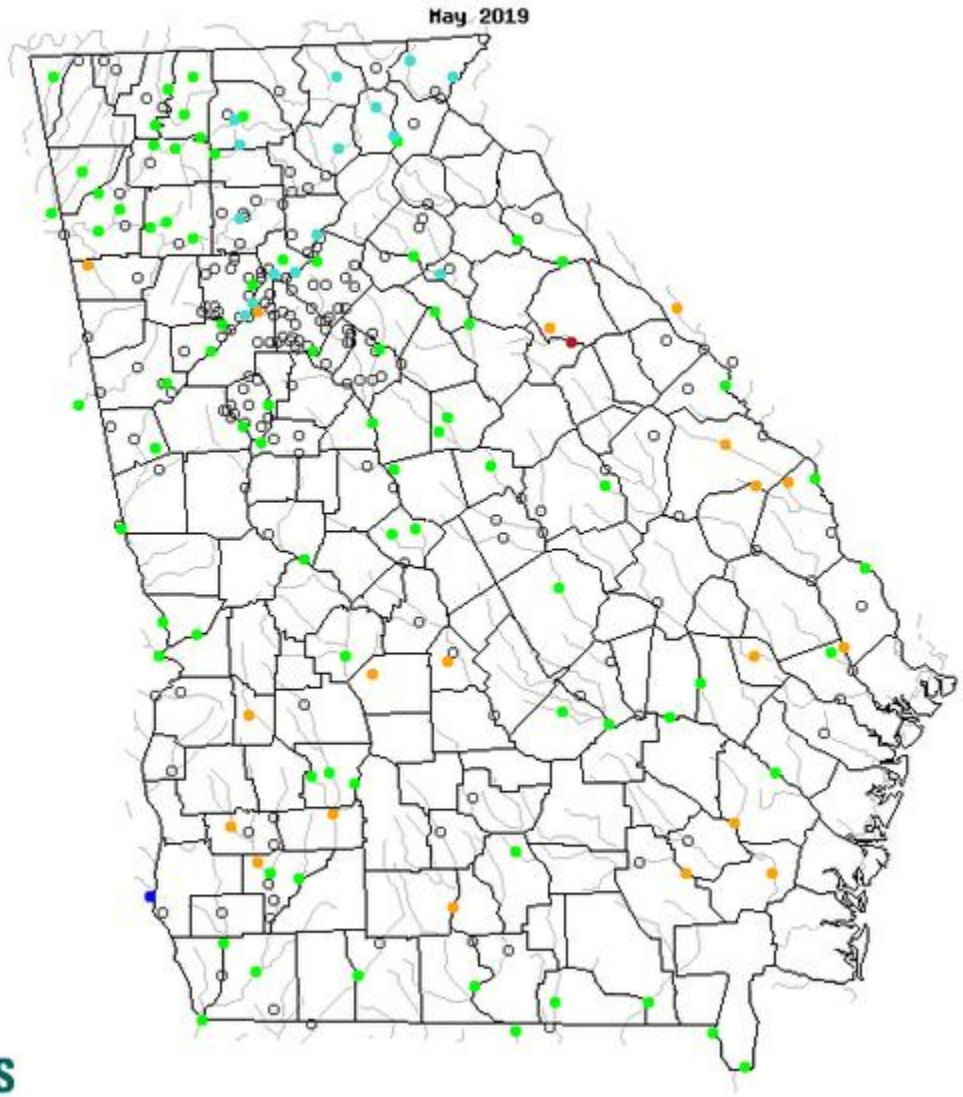
Streamflow Conditions

Monthly average stream flows during May across the Midlands and Central Savannah River Area ranged from Normal to Below Normal across the Broad River, Santee River, Savannah River, Catawba/Wateree River, Lynches River and Edisto River Basins. However, looking at the 7 day and 14 day averages many stream flows had fallen dramatically into Below Normal and Much Below Normal. This includes the Edisto River Basin, Savannah River Basin and Lynches River Basin.

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		



USGS

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		

Temperatures

May 2019 temperatures were much above normal for the month. Temperatures averaged from 4 to 7 degrees above normal across the region.

The monthly average temperature at Columbia (CAE) was 77.3 degrees. This value was 5.6 degrees above the normal of 71.7 degrees. This tied for the 2nd highest monthly average temperature at Columbia with 1953. The highest monthly average temperature was 77.5 degrees set in 1896. The highest temperature during the month was 101 degrees reached on the 28th. The century mark was reached on 5 days of the month. The lowest temperature was 47 degrees that occurred on the 15th.

The average temperature for the month at Augusta (AGS) was 77.5 degrees. This value was 6.4 degrees above the normal of 71.1 degrees. This was the 2nd highest monthly average temperature at Augusta. The highest monthly average temperature was 77.9 degrees set in 1933. The highest temperature during the month was 101 degrees reached on the 26th, 28th and 29th. The century mark was reached on 5 consecutive days of the month. The lowest temperature was 50 degrees that occurred on the 15th.

The average temperature for the month at Orangeburg (OGB) was 76.6 degrees. This value was 5.0 degrees above the normal of 71.6 degrees. The highest temperature during the month was 100 degrees reached on the 28th and 29th. The lowest temperature was 50 degrees that occurred on the 15th.

Hydrological Products

The following products were issued during May 2019.

DGT	Drought Statements	0
ESF	Hydrologic Outlooks	1
FFA	Flash Flood Watches	0
FFS	Flash Flood Statements	0
FFW	Flash Flood Warnings	0
FLS	Flood Statements	2
FLW	Flood Warnings	2
FLS	Areal Flood Advisories	1