\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 Mar. 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 04/08/2019

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).

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

River Conditions for March 2019

Summary

As the area began the transition from winter into spring, precipitation has been below normal. March continued in the footsteps of February with the Midlands and Central Savannah River Area receiving below normal precipitation for the month. It was not as dry as February, but still below normal. Most of the area received between 2 and 3 inches of precipitation, although there were a few higher amounts across the northern Midlands. There were also lower amounts across the CSRA and southern Midlands. Most of the rain that did fall in March occurred within the first 1 to 2 weeks, with the remainder of the month rather dry.

Precipitation

The total precipitation at Columbia Metro Airport was 2.61 inches. The total precipitation at Augusta Bush Field was 2.23 inches. Precipitation records for Columbia began in 1878. Precipitation records for Augusta began in 1871.

Here are a few reports from NWS Coop Stations:

Lugoff (LUGS1) – 4.48 inches
Cheraw Water Plant (CEWS1) – 4.21 inches
Newberry WKDK (NWYS1) – 3.69 inches
Barnwell 5 ENE (BNLS1) – 1.79 inches
Lincolnton (LNCG1) – 1.50 inches
Holly Hill 1 SW (HHLS1) – 1.43 inches

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

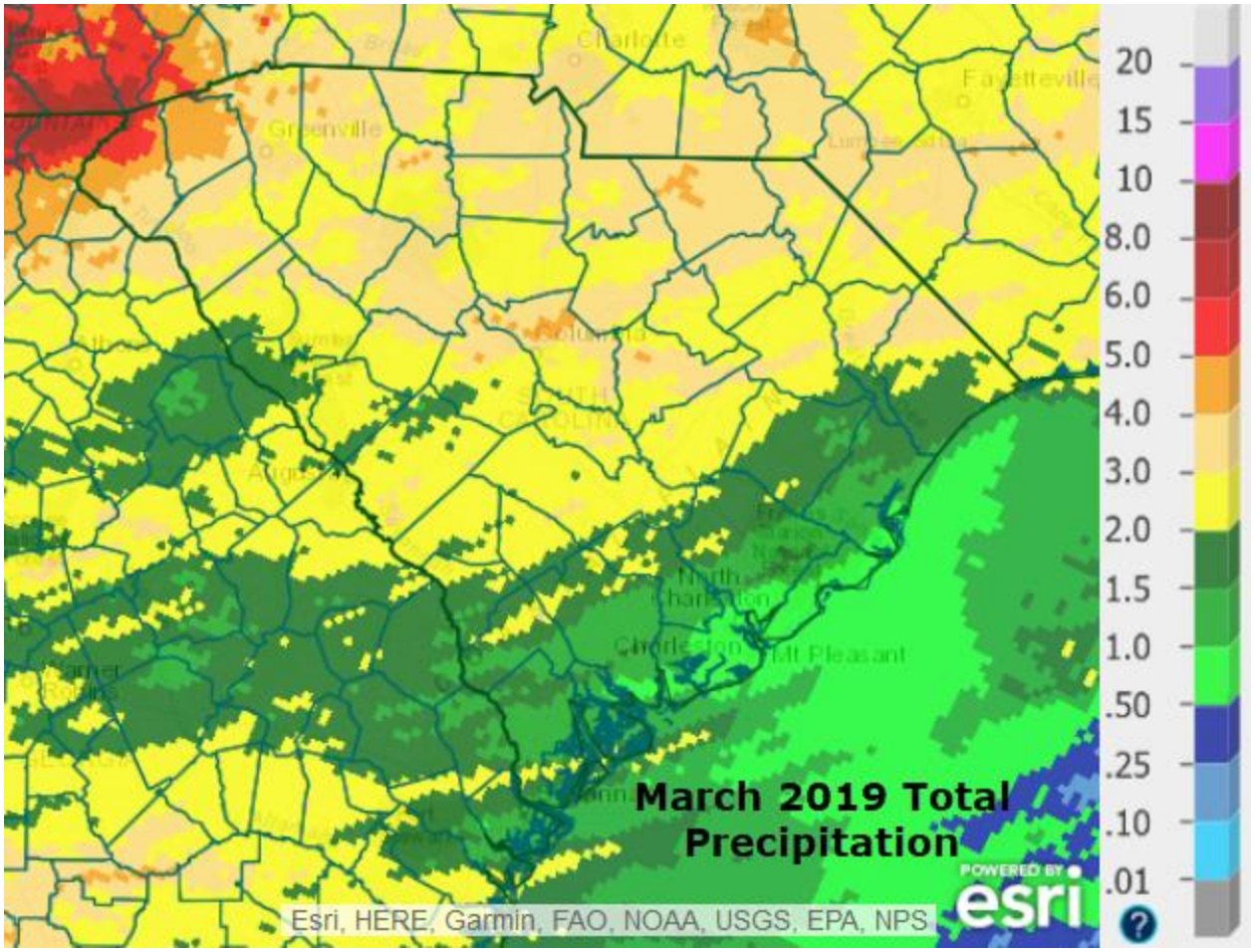
South Carolina:

SC-KR-14 Lugoff 2.2 NNW – 4.60 inches
SC-RC-93 Chapin 5.0 ESE – 4.56 inches
SC-LX-128 Irmo 1.3 SE – 4.29 inches
SC-CF-5 Pageland 9.0 WNW – 4.24 inches
SC-LN-4 Lancaster 2.0 NNW – 3.83 inches

Georgia:

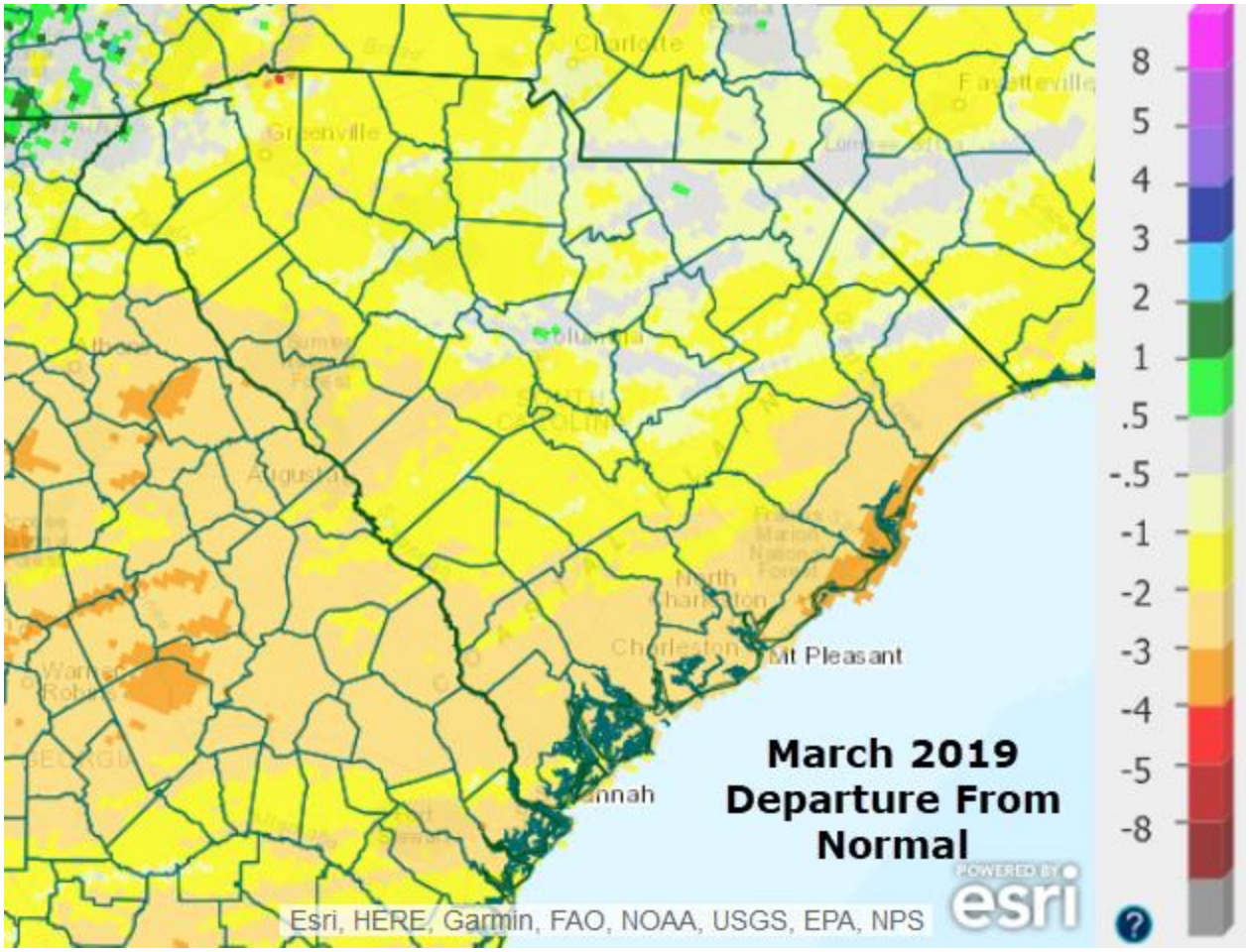
GA-CU-7 Grovetown 3.4 NE – 2.57 inches
GA-MD-1 Thomson 2.5 S – 2.49 inches
GA-BK-9 S. Augusta 4.1 S – 2.39 inches
GA-BK-1 Waynesboro 3.3 SW – 1.79 inches
GA-CU-21 Martinez 3.0 NE – 1.59 inches

(Please see the precipitation maps below).



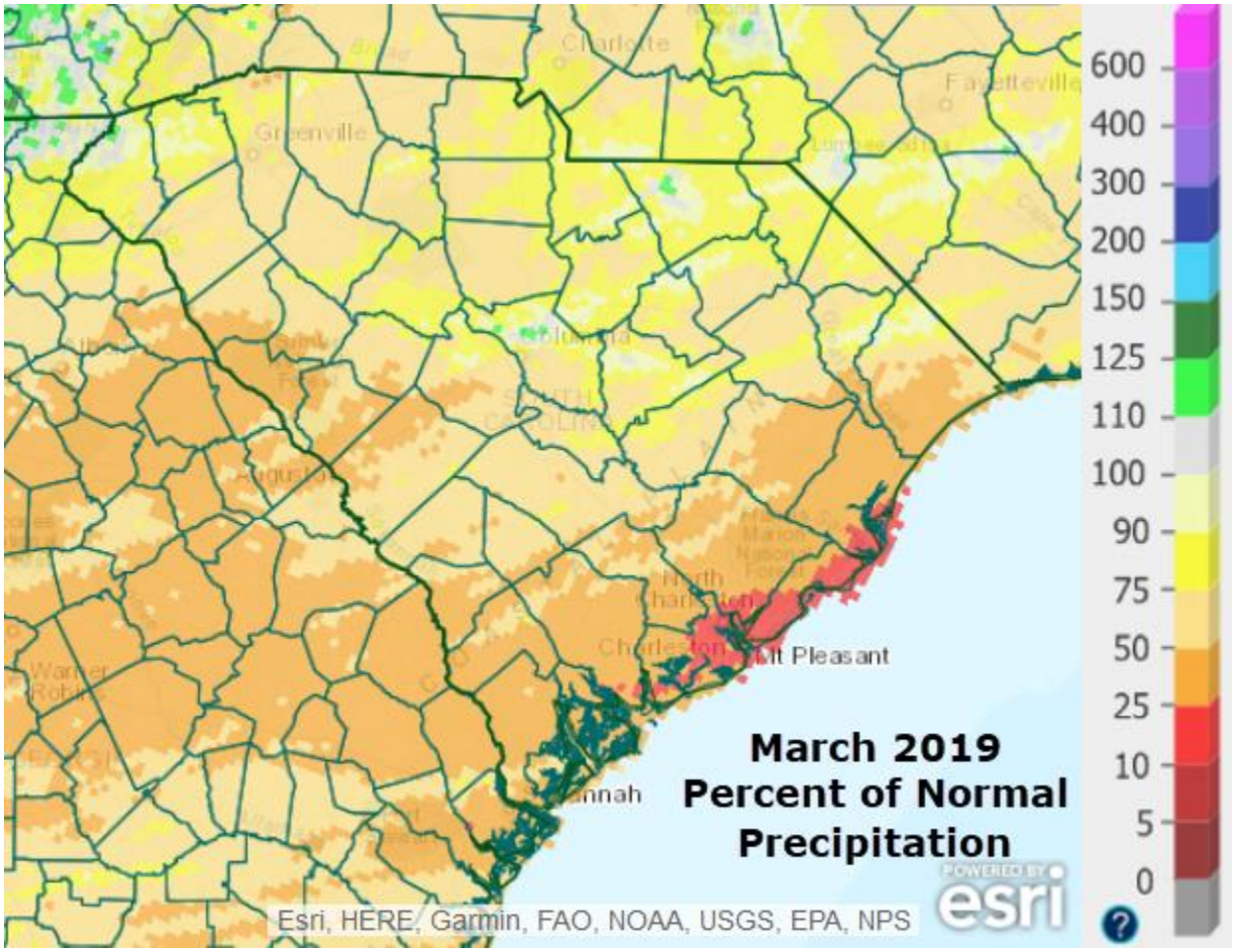
March 2019 Total Precipitation (inches)

Source: Advanced Hydrologic Prediction Service, NWS



March 2019 Precipitation Departure from Normal (inches)

Source: Advanced Hydrologic Prediction Service, NWS



March 2019 Percent of Normal Precipitation

Source: Advanced Hydrologic Prediction Service, NWS

March 2019 precipitation at observation sites was as follows:

Station	Rainfall	Normal	Departure From Normal
Augusta (AGS)	2.23	4.18	-1.95
Augusta (DNL)	1.80	4.31	-2.51
Columbia (CAE)	2.61	3.73	-1.12
Columbia (CUB)	1.86	3.88	-2.02
Orangeburg (CUB)	1.83	3.98	-2.15

River/Flood Conditions

Minor flooding occurred along the Saluda River, Congaree River and Great Pee Dee River during the first week of March. A slow moving frontal boundary lingered along the Appalachian Mountains on the 1st and slowly pushed across the region through the 2nd. A second cold front moved across the region on the afternoon of the 3rd. These systems produced rainfall amounts between 1 and 2 inches across the Carolinas and Georgia.

Along the Congaree River, minor flooding occurred at Carolina Eastman and the Congaree NP-Gadsden. At Carolina Eastman, the river reached the flood stage of 115.0 feet on the morning of the 2nd. The river crested at 115.2 feet on the morning of the 2nd. The river rose again as additional runoff moved down the basin. The river reached flood stage once again just after midnight on the 3rd. The river crested

at 118.20 feet on the morning of the 8th. At the Congaree NP-Gadsden, the river reached the flood stage of 15.0 feet on the early morning of the 3rd. The river crested at 16.99 feet on the morning of the 6th. At Cheraw on the Great Pee Dee River, the river reached the flood stage of 30.0 feet on the early morning hours of the 3rd. The river crested at 31.31 feet overnight on the 5th. The Saluda River at Chappells reached the flood stage of 14.0 feet on the early morning hours of the 4th. The river crested at 18.05 feet during the evening hours of the 4th.

Drought Conditions

Drought has continued to increase in areal coverage and category over the past month. Rainfall has been well below normal for February and March across the Midlands and CSRA. Drought category D0 (Abnormally Dry) has developed along and south of I-20 across the area. A small portion of the southern Midlands and southern CSRA is in D1 (Moderate Drought). This covers southern Burke County in Georgia and southern portions of Barnwell, Bamberg and Orangeburg counties in South Carolina.

(Please see the maps below).

Drought in South Carolina

Residents in drought:
1,074,000

1,569,000 more in abnormally dry areas.

This is:
24%

of the state's population,
35% more in abnormally dry areas.

Report Your Drought Impacts

Last Month | Last Week | Current

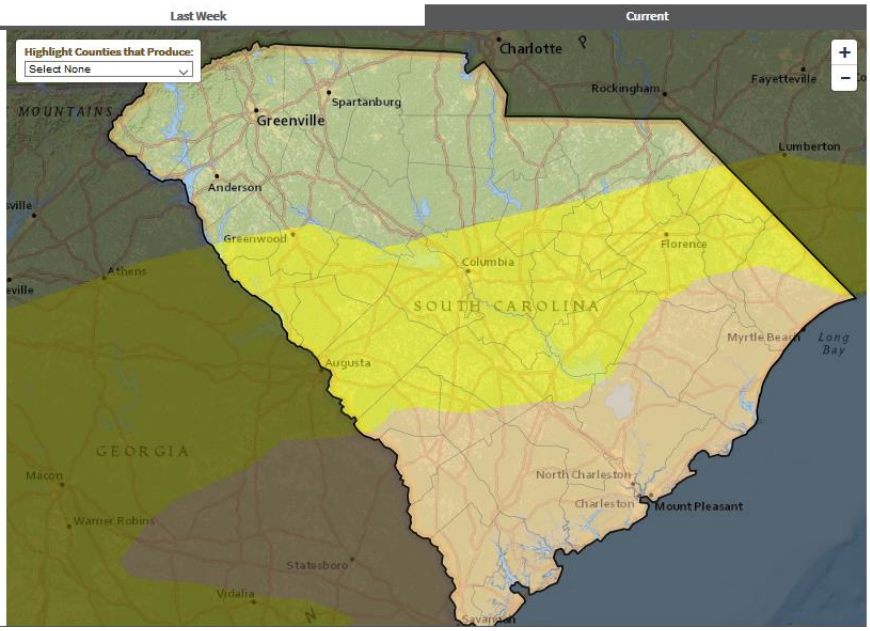
Enter a city or zip code to add location to map

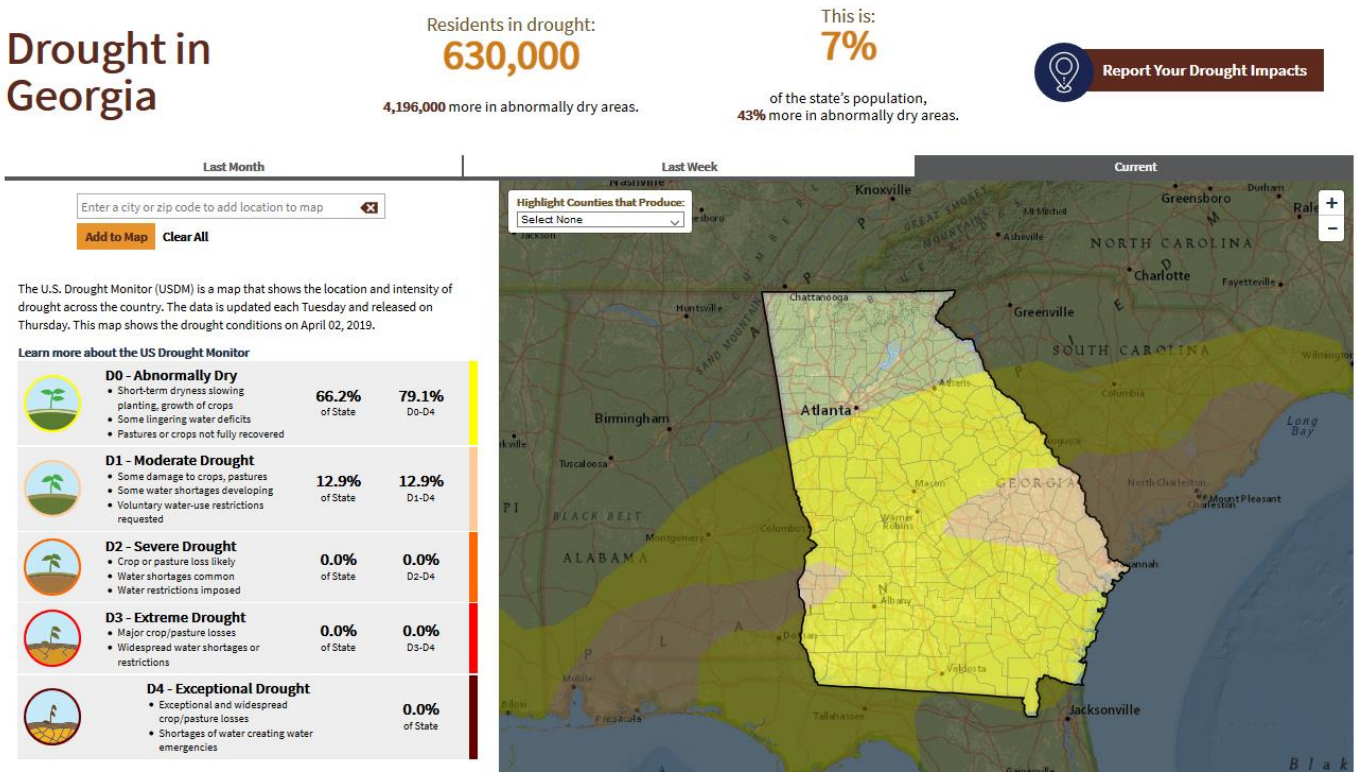
Add to Map | Clear All

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 April 02, 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	**36.1%** of State	**66.1%** D0-D4	
D1 - Moderate Drought • Some damage to crops, pastures • Some water shortages developing • Voluntary water-use restrictions requested	**30.0%** of State	**30.0%** D1-D4	
D2 - Severe Drought • Crop or pasture loss likely • Water shortages common • Water restrictions imposed	**0.0%** of State	**0.0%** 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	

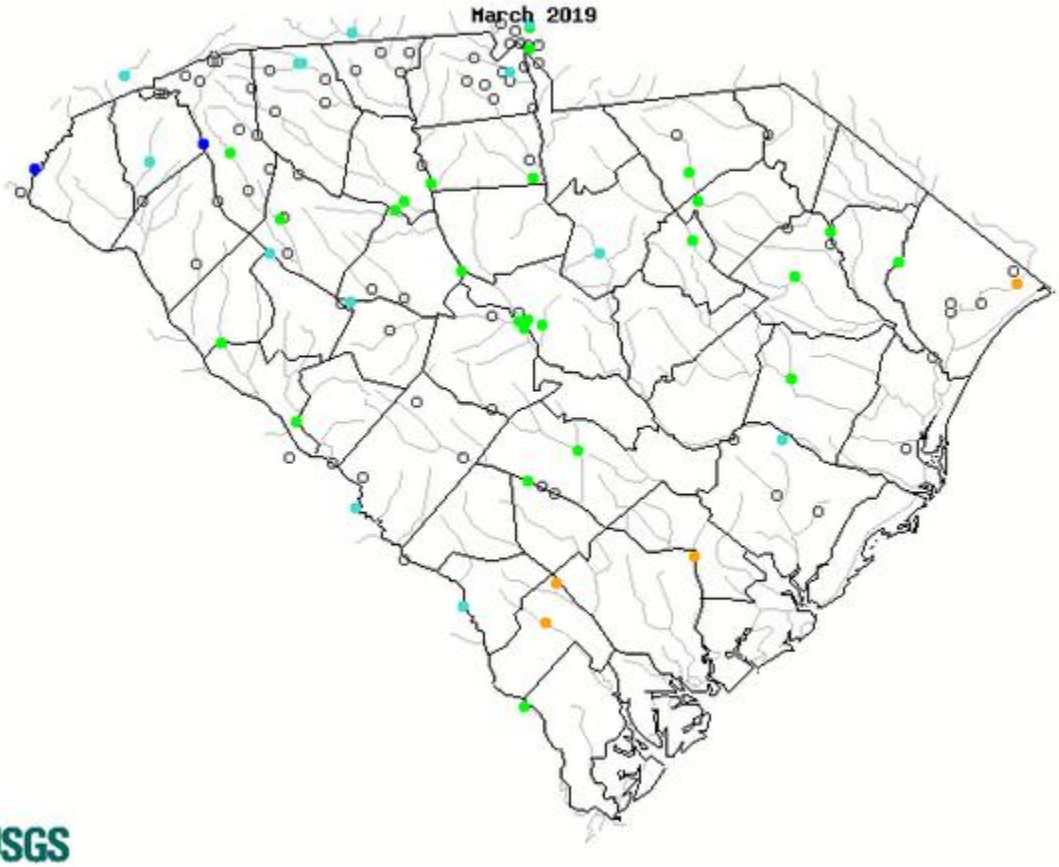




Streamflow Conditions

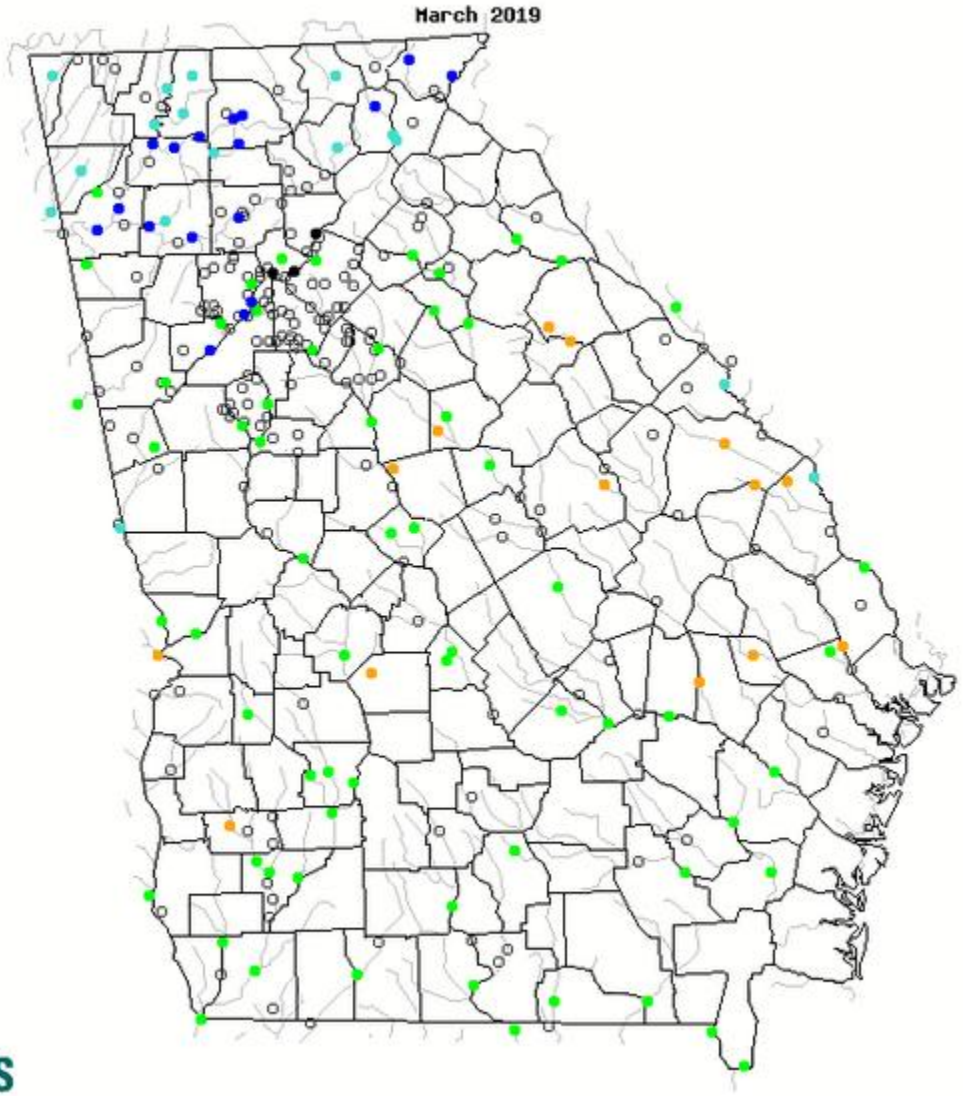
Monthly average stream flows during March across the Midlands and Central Savannah River Area ranged from Normal to Above Normal across the Broad River, Santee River, Savannah River, Catawba/Wateree River, Lynches River and Edisto River Basins. Even with the below normal rainfall, higher rainfall totals in the headwaters produced flows at or above normal for this time of year across the area.

Stream Flow Compared to Historical Stream Flow for the Month



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		



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

March 2019 temperatures were just slightly below normal for the month. Temperatures averaged around 1 degree below normal across the region.

The monthly average temperature at Columbia (CAE) was 55.1 degrees. This value was 0.5 degrees below the normal of 55.6 degrees. The highest temperature during the month was 82 degrees reached on the 15th. The lowest temperature was 27 degrees that occurred on the 6th and 7th.

The average temperature for the month at Augusta (AGS) was 57.0 degrees. This value was 1.1 degrees above the normal of 55.9 degrees. The highest temperature during the month was 84 degrees reached on the 15th. The lowest temperature was 27 degrees that occurred on the 7th.

The average temperature for the month at Orangeburg (OGB) was 56.3 degrees. This value was 0.3 degrees below the normal of 56.6 degrees. The highest temperature during the month was 82 degrees reached on the 15th. The lowest temperature was 28 degrees that occurred on the 7th.

Hydrological Products

The following products were issued during March 2019.

DGT	Drought Statements	0
ESF	Hydrologic Outlooks	2
FFA	Flash Flood Watches	0
FFS	Flash Flood Statements	0
FFW	Flash Flood Warnings	0
FLS	Flood Statements	30
FLW	Flood Warnings	7
FLS	Areal Flood Advisories	0