

Streamflow conditions across North Carolina

*Assessment of hydrologic
conditions observed since
April 2019...*

Presented by:

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USGS South Atlantic Water Science Center (Raleigh office)

<https://www2.usgs.gov/water/southatlantic/>



Presented to:

North Carolina Drought Management Advisory Council

Virtual presentation (year of the COVID-19 pandemic)

September 29, 2020

Access to

Streamflow (2)
[https://waterda](https://waterdata.usgs.gov/nc/nwis/rt)

Groundwater (3)
[https://waterda](https://waterdata.usgs.gov/nc/nwis/rt)

Water quality (4)
[https://waterda](https://waterdata.usgs.gov/nc/nwis/rt)

Precipitation (5)
[https://waterda](https://waterdata.usgs.gov/nc/nwis/rt)

USGS Current Water Data for No x +

https://waterdata.usgs.gov/nc/nwis/rt

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National Water Information System: Web Interface

USGS Water Resources (District Access)

Click to hide News Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

USGS Current Water Data for North Carolina

Click to hide state-specific text

*****PLEASE BOOKMARK THIS PAGE FOR EASE OF ACCESS*****

- USGS Water Resources of the South Atlantic Water Science Center: the place to go for all USGS water information in the SAWSC.
- Real-time Data Streamflow || Water-Quality || Groundwater Levels || Precipitation
- Statewide Reach Map
- Live Streaming River Cams
- StreamStats - online tool for basin and flow characteristics
- USGS Flood Event Viewer
- Sign up for custom Water Alerts by text or email

Questions about data? [Click here.](#)

Predefined displays

Introduction go

Daily Streamflow Conditions

Select a site to retrieve data and station information.

Wednesday, April 03, 2019 10:30ET

USGS Explanation

Statewide Streamflow Table

Current data typically are recorded at 15- to 60-minute intervals, stored onsite, and then transmitted to USGS offices every 1 to 4 hours, depending on the data relay technique used. Recording and transmission times may be more frequent during critical events. Data from current sites are relayed to USGS offices via satellite, telephone, and/or radio telemetry and are available for viewing within minutes of arrival.

All real-time data are **provisional and subject to revision.**

Build Current Conditions Table	Show a custom current conditions summary table for one or more stations.
Build Custom Graphs or Tables	Show custom graphs or tables for a series of

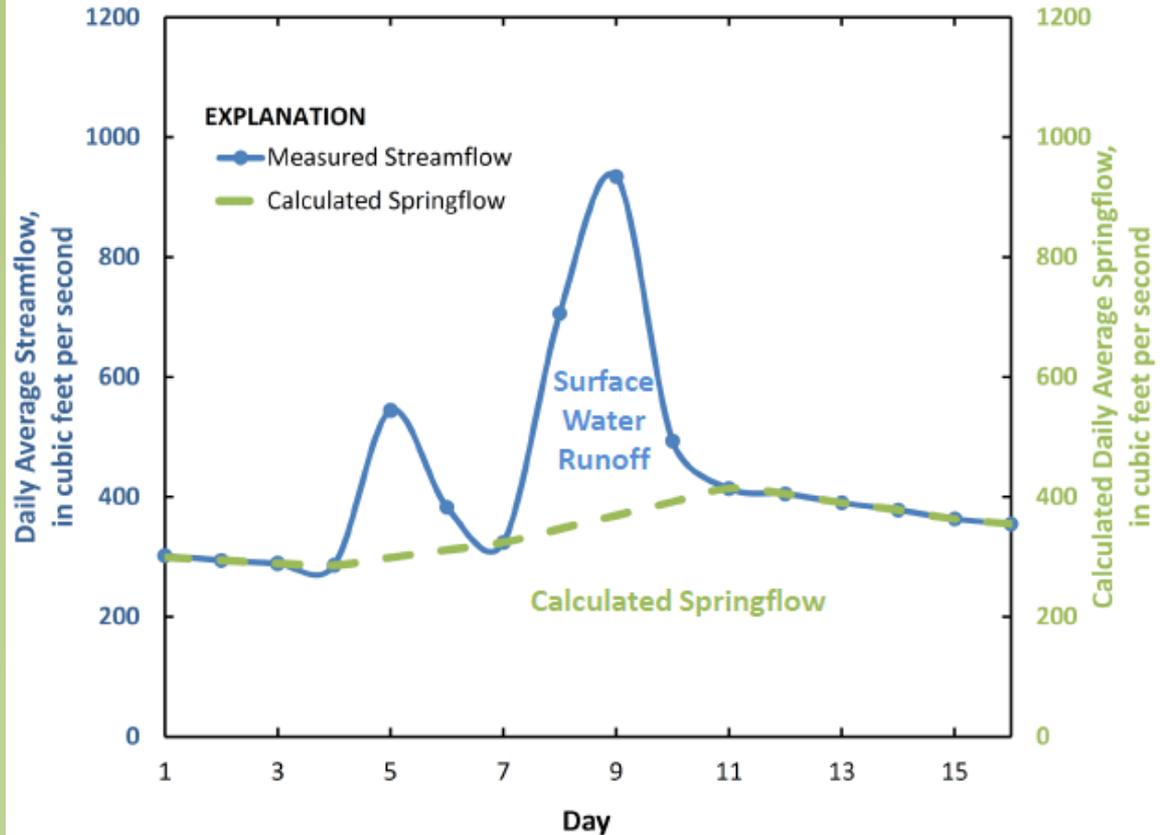


Visualizing the components in streamflow

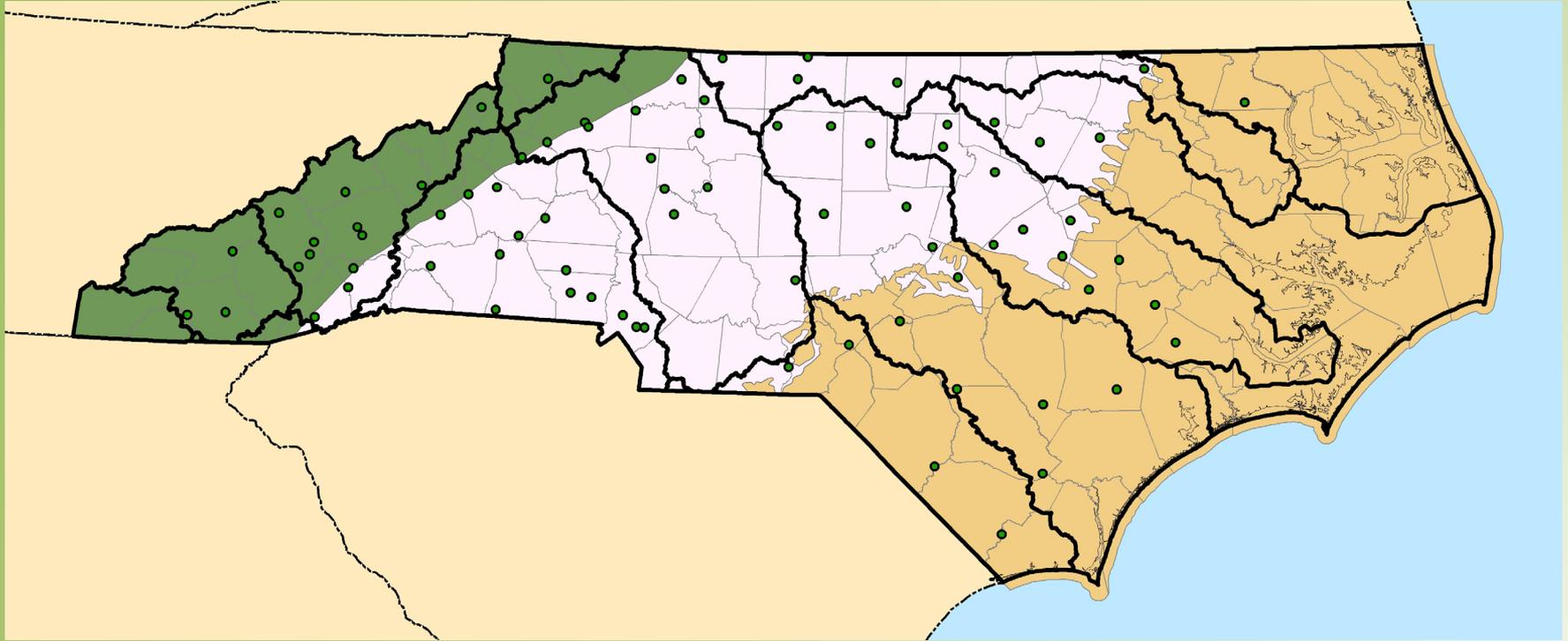
Overland
runoff

Base flow
(ground-water
discharge to
streams)

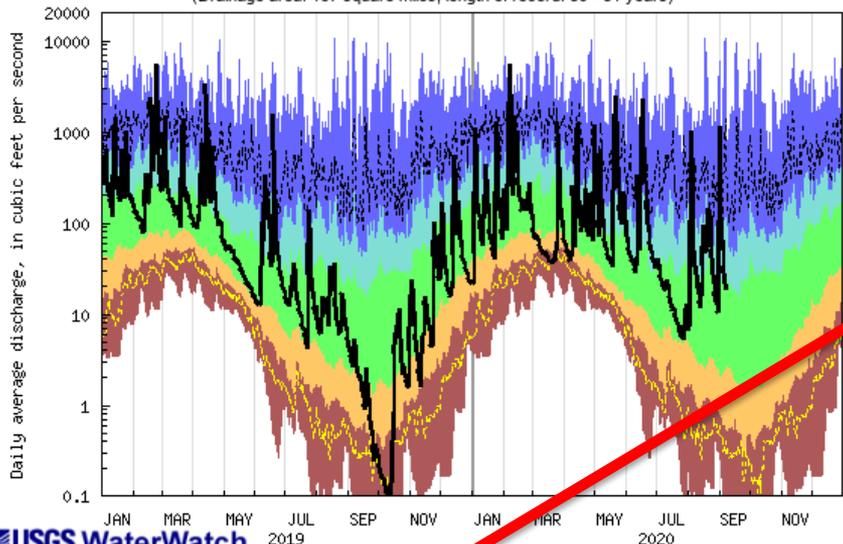
Example Streamflow Hydrograph



New record minimum monthly average discharges



USGS 02081500 TAR RIVER NEAR TAR RIVER, NC
(Drainage area: 167 square miles, length of record: 80 - 81 years)

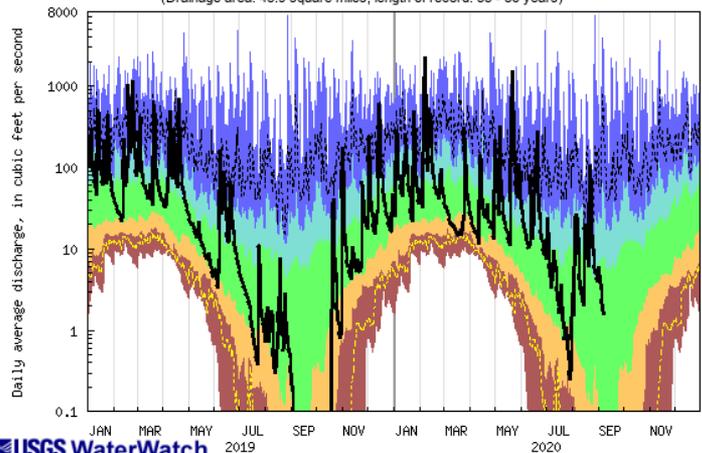


USGS WaterWatch

Last updated: 2020-09-08

Minimum d

USGS 02077200 HYCO CREEK NEAR LEASBURG, NC
(Drainage area: 45.9 square miles, length of record: 55 - 56 years)



USGS WaterWatch

Last updated: 2020-09-08

USGS Sta.
POR since
POR min
zero flow,

USGS Sta. 02077200 Hyco Creek near Leasburg in Caswell County
POR since July 1964, DA = 45.9 sqmi
POR min daily Q = 0 cfs for 46 consecutive days September 4 through
October 19, 2019 (previous at zero flow on numerous days)



sites during April 2

USGS

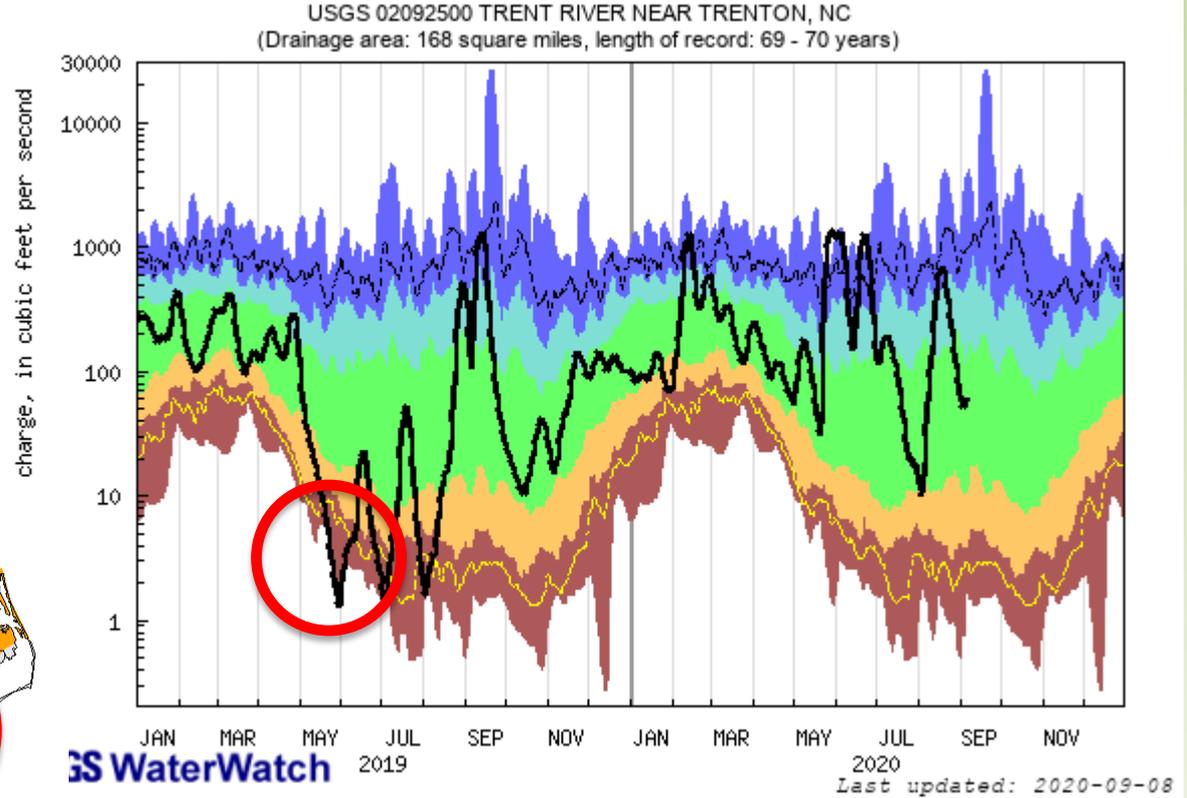
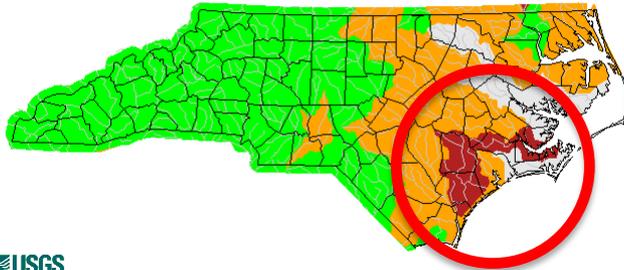
New record POR minimum 7-day average streamflow



USGS Sta. 02092500 Trent River at Trenton in Jones County
 POR since January 1951, DA = 168 sqmi

POR min 7-day flow= 4.03 cfs down to 1.29 cfs, May 23-30, 2019 (previous at 4.14 cfs, 05/13/1986)

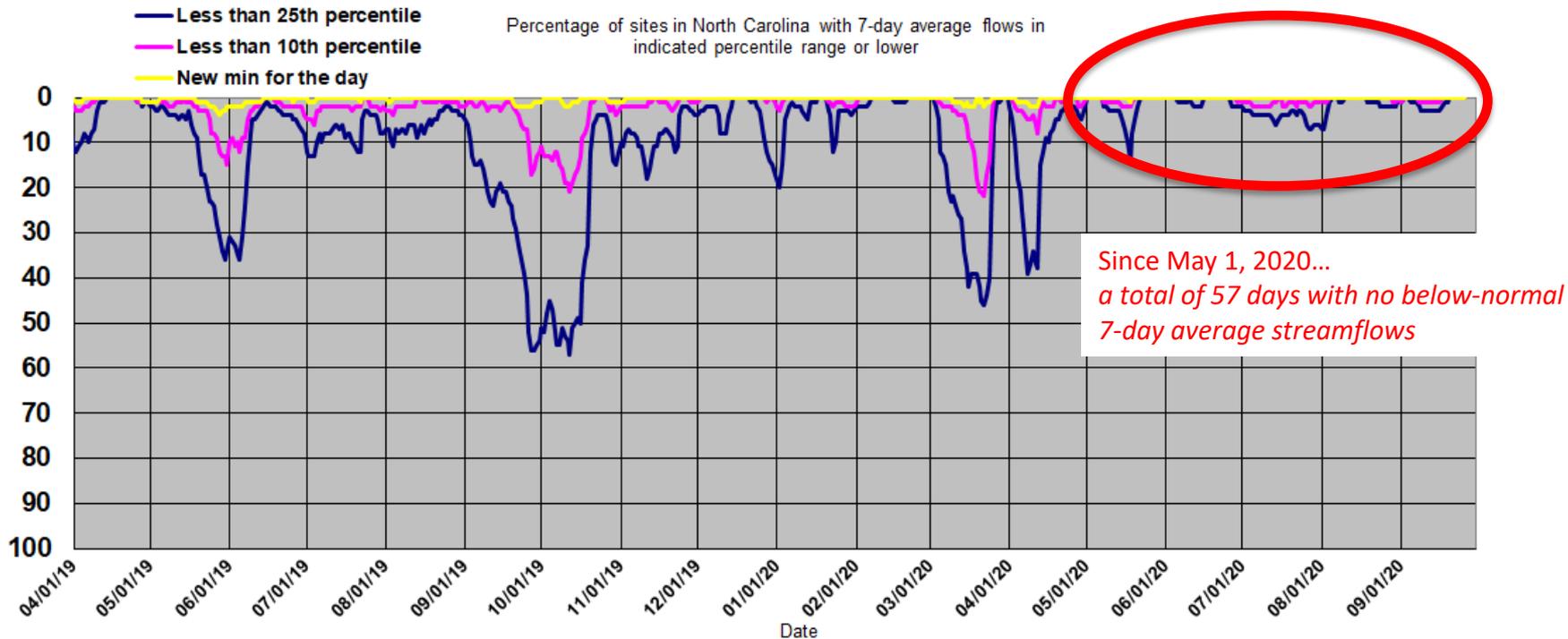
Thursday, May 30, 2019



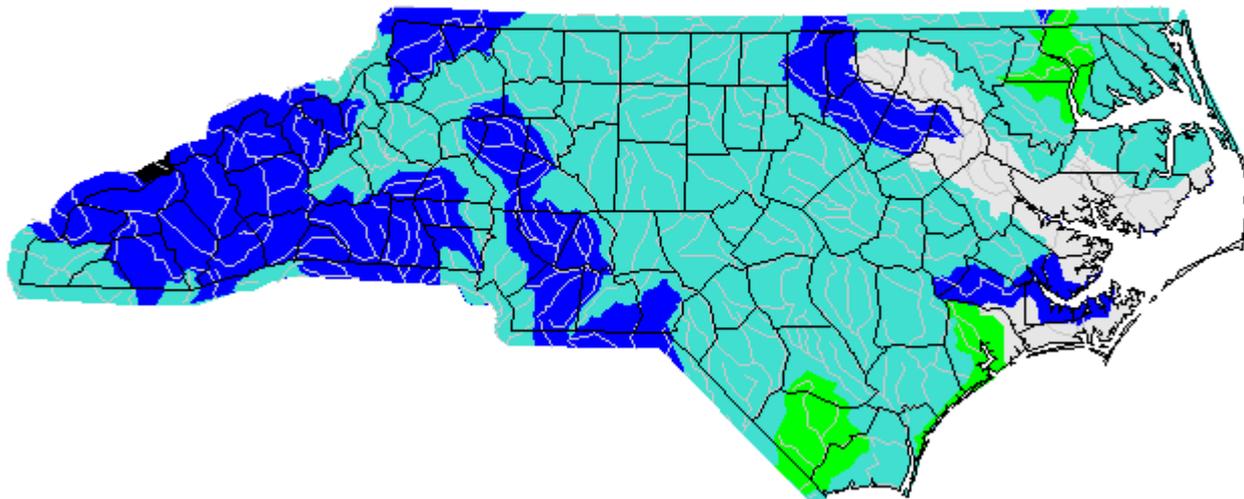
Explanation - Percentile classes

						Flow	
lowest-10th percentile	5	10-24	25-75	76-90	95		90th percentile - highest
Much below Normal	Below normal	Normal	Above normal	Much above normal			

Percentage of sites with 7-day average flows below normal (< 25th percentile)



Sunday, September 27, 2020



Overall
7-day
average
flows

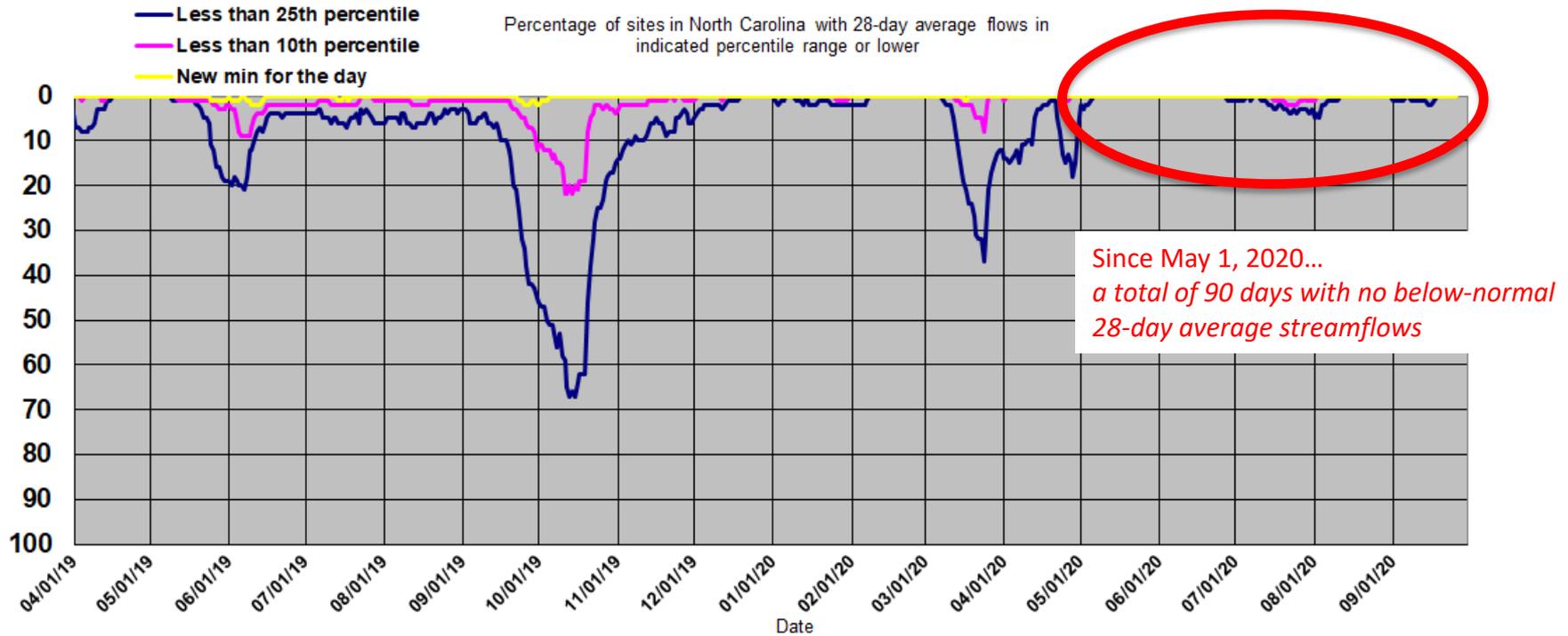
*...as of
Sept 27*

Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

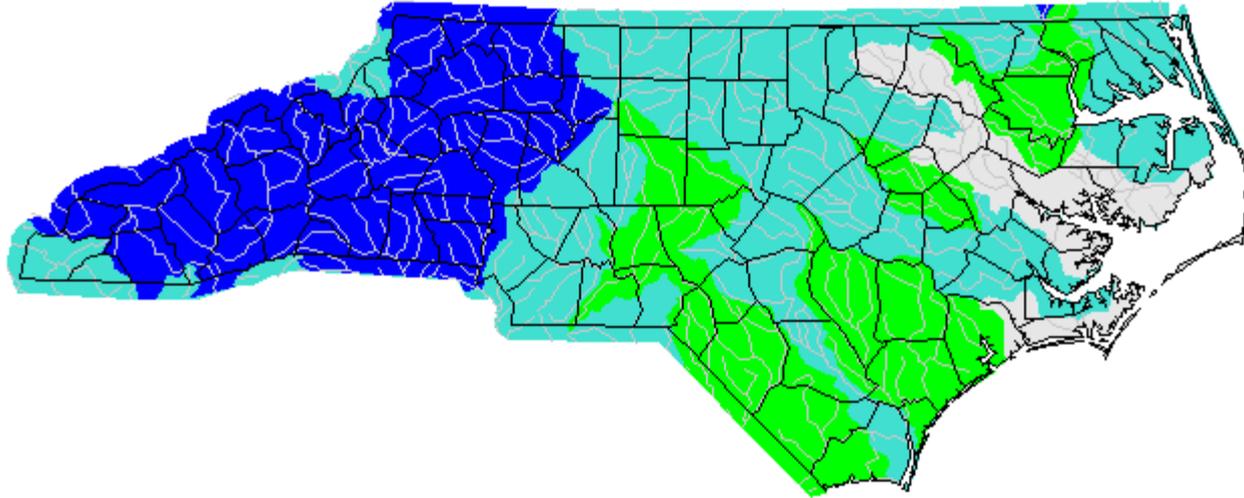


Available at URL <http://waterwatch.usgs.gov/index.php>

Percentage of sites with 28-day average flows below normal (< 25th percentile)



Sunday, September 27, 2020



Overall
28-day
average
flows

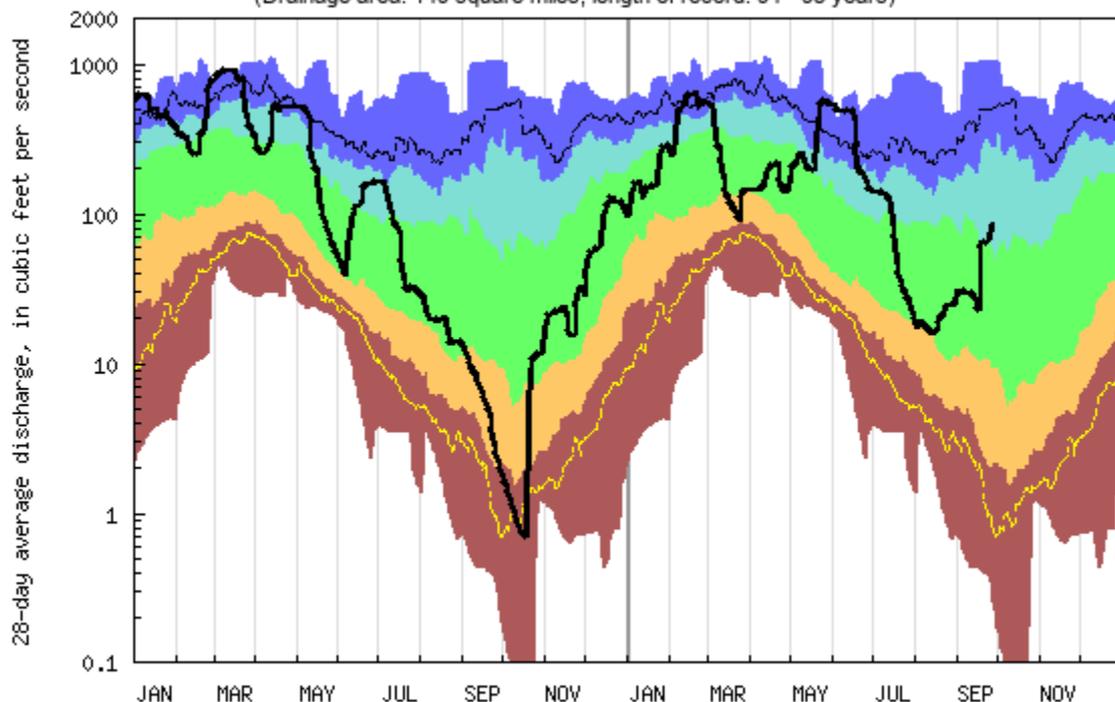
*...as of
Sept 27*

Explanation - Percentile classes						
						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	



Available at URL <http://waterwatch.usgs.gov/index.php>

USGS 02085500 FLAT RIVER AT BAHAMA, NC
 (Drainage area: 149 square miles, length of record: 94 - 95 years)



USGS WaterWatch

2019

2020

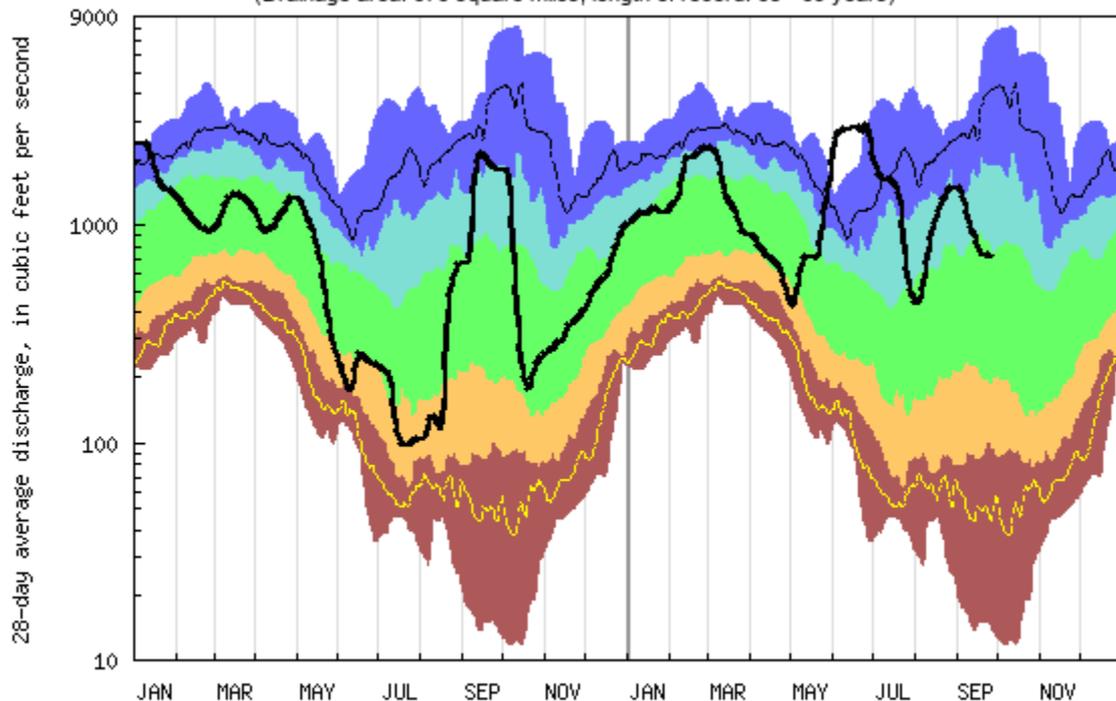
Last updated: 2020-09-28

Explanation - Percentile classes

lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest
Much below Normal		Below normal	Normal	Above normal	Much above normal	Flow



USGS 02106500 BLACK RIVER NEAR TOMAHAWK, NC
 (Drainage area: 676 square miles, length of record: 68 - 69 years)



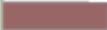
USGS WaterWatch

2019

2020

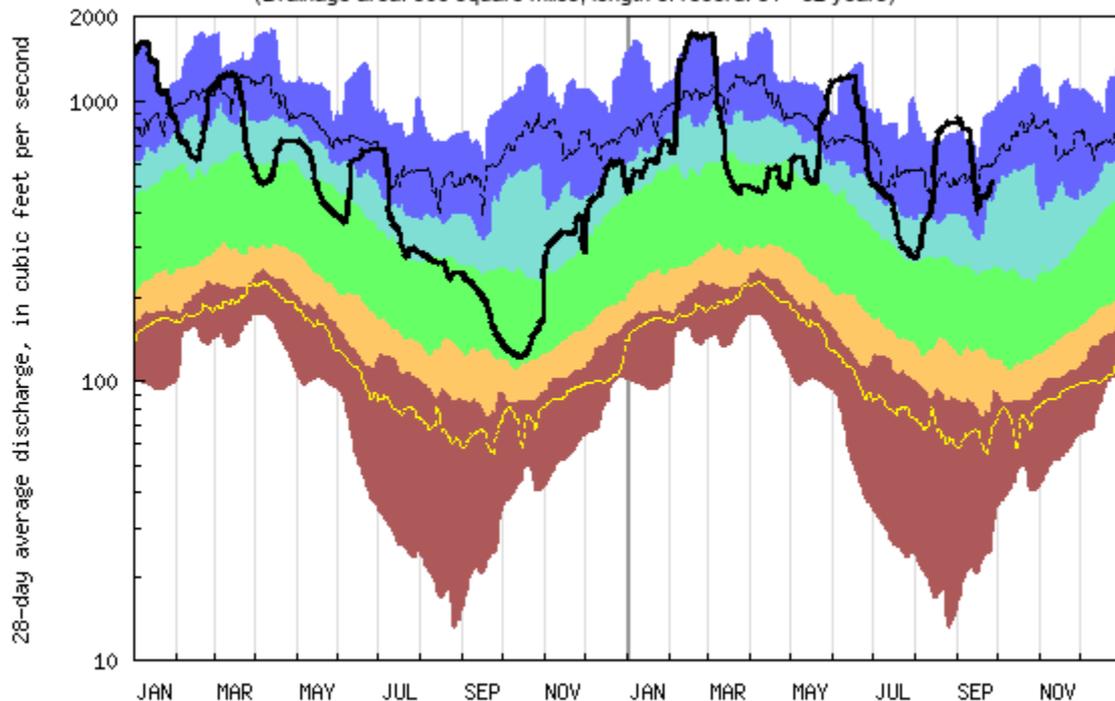
Last updated: 2020-09-28

Explanation - Percentile classes

							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Flow
Much below Normal		Below normal	Normal	Above normal		Much above normal	



USGS 02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC
 (Drainage area: 306 square miles, length of record: 81 - 82 years)



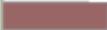
USGS WaterWatch

2019

2020

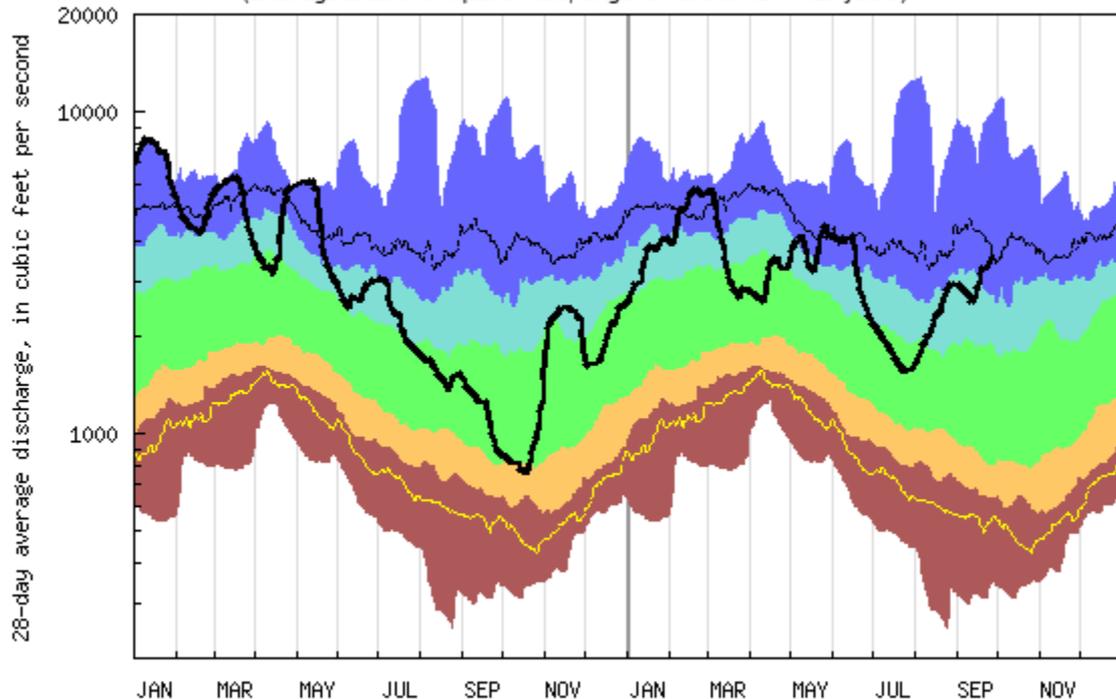
Last updated: 2020-09-28

Explanation - Percentile classes

							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest	Flow
Much below Normal	Below normal	Normal	Above normal	Much above normal			



USGS 03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC
 (Drainage area: 945 square miles, length of record: 124 - 125 years)



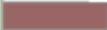
USGS WaterWatch

2019

2020

Last updated: 2020-09-28

Explanation - Percentile classes

							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest	Flow
Much below Normal		Below normal	Normal	Above normal		Much above normal	



- Questions?
- Concerns?
- Complaints?

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Flat River at Bahama
Durham County