River Conditions for January 2020

Summary

The month of January continued the trend of above normal temperatures along with above normal rainfall. Rainfall averaged from 2 to 6 inches across the Midlands and Central Savannah River area for January. The heaviest rain fell in the Upstate, where some places received more than 10 inches. This led to Minor to Moderate river flooding across many of the area rivers during the early to middle portion of the month.

Precipitation

The total precipitation at Columbia Metro Airport was 5.84 inches. The total precipitation at Augusta Bush Field was 4.56 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 2 NE (LUGS1) – 6.95 inches
Newberry WKDK (NWYS1) – 6.62 inches
Lake Greenwood (CHPS1) – 6.53 inches
North 5 NE (NRTS1) – 6.25 inches
Columbia Univ. of South Carolina (USCS1) – 6.12 inches

Here are a few reports from the CoCoRaHS (Community, Collaborative, Rain, Hail and Snow Network) observers in South Carolina and Georgia.

SC-KR-14 Lugoff 2.2 NNW – 8.50 inches
SC-RC-62 Columbia 7.4 N – 7.64 inches
SC-NW-13 Newberry 1.0 N – 7.49 inches
SC-OR-35 North 5.1 NE – 7.38 inches
SC-MC-8 McCormick 0.5 NW – 7.02 inches

GA-LC-2 Tignall 10.2 NE – 7.71 inches
GA-CU-3 Evans 2.1 NNW – 6.01 inches
GA-MD-1 Thomson 2.5 S – 5.60 inches
GA-BK-1 Waynesboro 3.3 SW – 5.40 inches
GA-RC-12 Augusta 4.2 W – 4.54 inches

(Please see the precipitation maps below).
January 2020 Total Precipitation (inches)

Source: Advanced Hydrologic Prediction Service, NWS
January 2020 Precipitation Departure from Normal (inches)

Source: Advanced Hydrologic Prediction Service, NWS
January 2020 Percent of Normal Precipitation

Source: Advanced Hydrologic Prediction Service, NWS
January 2020 precipitation at observation sites was as follows:

<table>
<thead>
<tr>
<th>Station</th>
<th>Rainfall</th>
<th>Normal</th>
<th>Departure From Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augusta (AGS)</td>
<td>4.56</td>
<td>3.91</td>
<td>+0.65</td>
</tr>
<tr>
<td>Augusta (DNL)</td>
<td>4.19</td>
<td>4.21</td>
<td>-0.02</td>
</tr>
<tr>
<td>Columbia (CAE)</td>
<td>5.84</td>
<td>3.58</td>
<td>+2.26</td>
</tr>
<tr>
<td>Columbia (CUB)</td>
<td>5.80</td>
<td>3.63</td>
<td>+2.17</td>
</tr>
<tr>
<td>Orangeburg (OGB)</td>
<td>3.13</td>
<td>3.98</td>
<td>-0.85</td>
</tr>
</tbody>
</table>

**River/Flood Conditions (January)**

Rainfall was much above normal across the headwaters of the area rivers. Rainfall was above normal to near normal across much of the Midlands and CSRA. This produced river flooding across much of the Midlands and Central Savannah River Area during the first half of January. The Congaree River at Carolina Eastman crested at 117.45 feet on the evening of the 5th producing minor flooding. The river fell below flood stage over the next 36 hours only to rise again and crest at 115.4 feet on the evening of the 7th. Flood Stage is 115.0 feet. The Congaree River at Gadsden-Congaree National Park crested at 16.23 feet on the evening of the 6th producing minor flooding. Flood stage is 15.0 feet. The North Fork of the Edisto River at Orangeburg crested at 8.97 feet on the overnight hours of the 15th producing minor flooding. Flood stage is 8.0 feet. The Congaree River at Carolina Eastman crested during the morning hours of the 15th producing moderate flooding. The Congaree River at Gadsden-Congaree National Park crested at
17.39 feet on the late evening of the 15\textsuperscript{th} producing minor flooding. Stevens Creek at Modoc crested at 19.78 feet on the late evening hours of the 14\textsuperscript{th} producing minor flooding. Flood Stage is 19.0 feet. The Great Pee Dee River at Cheraw crested at 30.30 feet on the afternoon of the 15\textsuperscript{th} producing minor flooding. Flood Stage is 30 feet.

The Congaree River at Columbia reached Advisory Stage three times during the month of January. Advisory Stage at Columbia is 10.0 feet. The river crested at 11.53 feet on the afternoon of the 5\textsuperscript{th}. The river fell then rose again cresting at 11.64 feet on the afternoon of the 6\textsuperscript{th}. The river crested for a third time on the evening of the 14\textsuperscript{th} at 15.36 feet. At these stages the river inundates portions of the West Columbia-Cayce Riverwalk.
Here are a few new stories, Facebook posts and Twitter posts about the impact of the flooding during January. Courtesy of the Congaree Riverkeeper, Congaree National Park, Chasing Snapshots and Leonard Vaughan

The Congaree River at Columbia is currently at 21.23 ft (75,800 cfs) and is expected to crest Sunday morning just above 28 feet, which is moderate flood stage.
Chasing Snapshots @JStewie85 · Jan 7
Slowly working toward my goal to visit each National Park. Unexpectedly got to check another one off the list yesterday while returning home from vacation with a stop at Congaree National Park. Beautiful park, easy to access, and exceeded my expectations! Have you ever been?
Over the last several days the Midlands & the upper parts of our watersheds have received several inches of rain. River levels are on the rise as that water works its way down the basins.

You can see river levels & flood forecasts across SC here: water.weather.gov/ahps/region.ph...

The Congaree River at Columbia is currently at 14.96 ft (43,100 cfs), and is expected to crest at 15.8 ft tomorrow. While this is below the official flood stage, there will still be flooding along much of the Cayce and West Columbia Riverwalk.
Thanks to our volunteer Jessica for sharing this video she took this afternoon (near the Weston Lake Overlook).

Jessica Nielsen  •  Congaree National Park
January 15 at 4:51 PM

Took a walk on the elevated boardwalk around 3 today! Water levels are really high today, and rising!
**Drought Conditions**

The much above rainfall during the month of December removed all areas of drought from the Midlands and Central Savannah River Area. This trend of no drought continued for much of January, but below normal rain fell across the Coastal Plain by the middle of the month. An area of D0, Abnormally Dry, developed along and east of the I-95 corridor.

(Please see the maps below).
South Carolina

January 28, 2020
(Released Thursday, Jan. 30, 2020)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>D2-D3</th>
<th>D1-D4</th>
<th>D2-D4</th>
<th>D3-D4</th>
<th>D4</th>
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<tbody>
<tr>
<td>Current</td>
<td>76.53</td>
<td>23.47</td>
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<tr>
<td>Last Week</td>
<td>100.00</td>
<td>0.00</td>
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<td>0.00</td>
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<tr>
<td>5 Months Ago</td>
<td>69.98</td>
<td>30.02</td>
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<tr>
<td>Start of Year</td>
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<td>0.00</td>
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<tr>
<td>Start of Year</td>
<td>22.28</td>
<td>77.72</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>One Year Ago</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Intensity:
- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/about.aspx

Author:
Richard Heim
NCEI/NOAA

droughtmonitor.unl.edu
Streamflow Conditions

Monthly average stream flows for January across the Midlands and Central Savannah River Area showed all of the major rivers and streams in good shape. Above Normal flows were noted along the N. Fork of the Edisto River, Wateree River, Broad River, Santee River, Lynches River and Savannah River. Normal flows were noted along Stevens Creek and the Saluda River.
Stream Flow Compared to Historical Stream Flow for the Month

Explanation - Percentile classes

<table>
<thead>
<tr>
<th>Low</th>
<th>&lt;10</th>
<th>10-24</th>
<th>25-75</th>
<th>76-90</th>
<th>&gt;90</th>
<th>High</th>
<th>Not-ranked</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Much below normal</td>
<td>Below normal</td>
<td>Normal</td>
<td>Above normal</td>
<td>Much above normal</td>
<td>High</td>
<td>Not-ranked</td>
</tr>
</tbody>
</table>
Temperatures

January 2019 temperatures were above normal for the month.

The monthly average temperature at Columbia (CAE) was 51.1 degrees. This value was 6.3 degrees above the normal of 44.8 degrees. The highest temperature during the month was 77 degrees reached on the 3\textsuperscript{rd}. The lowest temperature was 25 degrees that occurred on the 22\textsuperscript{nd}.

The average temperature for the month at Augusta (AGS) was 52.7 degrees. This value was 7.3 degrees above the normal of 45.4 degrees. The highest temperature during the month was 82 degrees reached on the 3\textsuperscript{rd}. The lowest temperature was 26 degrees that occurred on the 21\textsuperscript{st} and 22\textsuperscript{nd}.

The average temperature for the month at Orangeburg (OGB) was 52.4 degrees. This value was 6.5 degrees above the normal of 45.9 degrees. The highest temperature during the month was 77 degrees reached on the 3\textsuperscript{rd} and 14\textsuperscript{th}. The lowest temperature was 27 degrees that occurred on the 21\textsuperscript{st}. 
Hydrological Products

The following products were issued during January 2020.

- **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 54
- **FLW** Flood Warnings 11
- **FLS** Areal Flood Advisories 2