# SUMMARY OF STREAMFLOW CONDITIONS FOR CALENDAR YEAR 2000 IN GEORGIA

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**Abstract.** Streamflow conditions for calendar year 2000 in Georgia were monitored at 15 U.S. Geological Survey (USGS) streamflow gaging stations throughout the State as part of the drought-monitoring network. These gaging stations have 30 or more years of record and are useful as drought-index stations (fig. 1, table 1). Data used in these comparisons for the year 2000 are considered "Provisional Data" and subject to change.

During January–April, monthly mean streamflow continued to decline Statewide from the previous year. Many streams were approaching or dropping below long-term monthly mean flows. Streamflow in central and southern Georgia were the lowest levels in the State.

In May, most streams in central and southern Georgia were well below long-term normal (average) monthly flows. Monthly streamflow in the central and southern parts of the State ranged from about 7-40 percent of normal, with the lowest streamflow occurring in south-central and southwestern Georgia. Streamflow gaging stations in the northern part of the State had flows ranging from about 50-65 percent of normal. During May 2000, 6 of the 15-index streamflow stations recorded new minimum monthly flows of record.

- Flint River near Culloden—375 cubic feet per second ($ft^3/s$);
- Flint River near Montezuma—840 $ft^3/s$;
- Flint River at Oakfield—1,189 $ft^3/s$;
- Flint River near Newton—1,934 $ft^3/s$;
- Ichawaynochaway Creek near Milford—124 $ft^3/s$;
- Spring Creek near Iron City—25 $ft^3/s$.

Ichawaynochaway Creek reached an all time minimum daily flow of 38 $ft^3/s$ on May 31. The previous minimum flow was 48 $ft^3/s$ in July 1986.

During June, streamflow continued to decline statewide. Streamflow stations in the northern part of the State showed some decline from the previous monthly flows (50-65 percent of normal), and ranged from about 40-45 percent of normal. Monthly streamflow in the central and southern parts of the State also continued to decline from the previous monthly flows (7-40 percent of normal), and ranged from about 1-35 percent of normal. During June, the lowest flows were still occurring in south–central and southwestern Georgia. For the month, 8 of 15-index streamflow stations recorded new minimum monthly flows of record.

- Flint River near Culloden—147 $ft^3/s$;
- Flint River near Montezuma—509 $ft^3/s$;
- Flint River at Oakfield—697 $ft^3/s$;
- Flint River near Newton—1,211 $ft^3/s$;
- Ichawaynochaway Creek near Milford—42 $ft^3/s$;
- Spring Creek near Iron City—1.8 $ft^3/s$;
- Altamaha River near Doctortown—1,940 $ft^3/s$;
- Upatoi Creek near Columbus—89 $ft^3/s$.

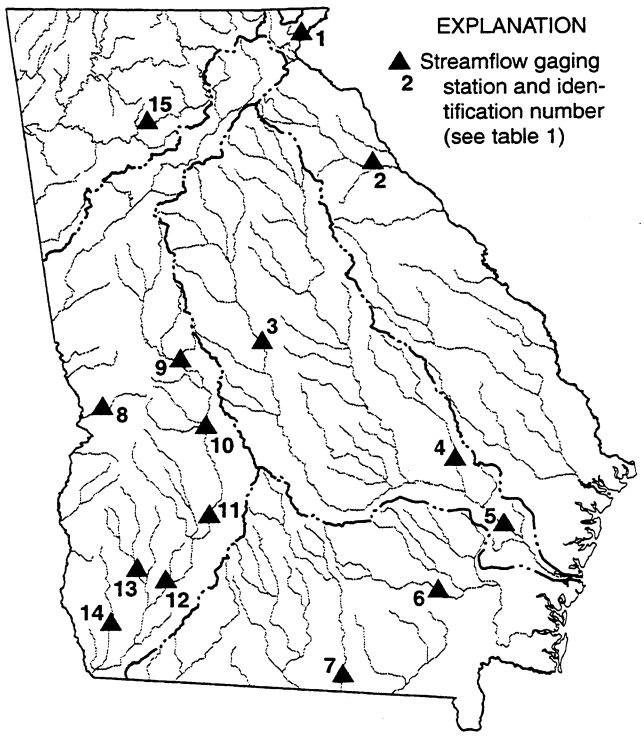


**Figure 1. Location of drought-monitoring gaging stations.**

Table 1. Minimum daily discharges for period of record at drought monitoring gaging stations

[—, no new minimum; $ft^3/s$, cubic feet per second; na, not applicable]

| Map number | Station name | Minimum daily discharge | | | |
|---|---|---|---|---|---|
| | | Previous minimum ($ft^3/s$) | Year | New minimum in 2000 ($ft^3/s$) | Month |
| | Savannah River basin | | | | |
| 1 | Chattooga River near Clayton | 88 | 1954 | — | na |
| 2 | Broad River near Bell | 96 | 1986 | — | na |
| | Altamaha River basin | | | | |
| 3 | Ocmulgee River at Macon | 128 | 1954 | — | na |
| 4 | Ohoopee River near Reidsville | 19 | 1954 | — | na |
| 5 | Altamaha River at Doctortown | 1,430 | 1954 | 1,410 | August |
| | Satilla/Alapaha River basins | | | | |
| 6 | Satilla River near Waycross | 5.5 | 1990 | — | na |
| 7 | Alapaha River near Statenville | 17 | 1954 | — | na |
| | Chattahoochee/Flint River basins | | | | |
| 8 | Upatoi Creek near Columbus | 74 | 1986 | 66 | July |
| 9 | Flint River near Culloden | 68 | 1999 | 39 | July |
| 10 | Flint River near Montezuma | 448 | 1986 | 408 | July |
| 11 | Flint River at Oakfield | 512 | 1999 | — | na |
| 12 | Flint River near Newton | 832 | 1999 | — | na |
| 13 | Ichawaynochaway Creek near Milford | 48 | 1986 | 6.6 | August |
| 14 | Spring Creek near Iron City | 5.1 | 1986 | 0 | August |
| | Coosa River basin | | | | |
| 15 | Etowah River near Canton | 122 | 1986 | — | na |

Ichawaynochaway Creek near Milford and Spring Creek near Iron City reached their all time minimum daily flow of 16 $ft^3/s$ and 0.6 $ft^3/s$, respectively. The previous minimum daily flow for Ichawaynochaway Creek of 38 $ft^3/s$ occurred at the end of the previous month (May 2000). Prior to the 2000 drought, the previous minimum daily flows for the period of record, for Ichawaynochaway and Spring Creek were 48 $ft^3/s$ and 5.1 $ft^3/s$, respectively, both of which occurred during the 1986 drought.

During July, streamflow stations in the northern part of the State continued to decline from the previous monthly flows (40-45 percent of normal), and ranged from about 30-35 percent of normal. Monthly streamflow in the central and southern parts of the State also continued to slowly decline from the previous monthly flows (1-35 percent of normal), and ranged from about less than 1-30 percent of normal. The lowest flows were still occurring in south-central and southwestern Georgia. For the month, 5- of the 15-index streamflow stations recorded new minimum monthly flows of record.

- Flint River near Culloden—85 $ft^3/s$;
- Flint River near Montezuma—477 $ft^3/s$;
- Flint River at Oakfield—688 $ft^3/s$;
- Spring Creek near Iron City—0.8 $ft^3/s$;
- Altamaha River near Doctortown—1,736 $ft^3/s$.

Three of the 15-index streamflow stations recorded an all time minimum daily flow.

- Flint River near Culloden—39 $ft^3/s$ (previous minimum – 87 ft3/s in 1986);
- Spring Creek near Iron City—0.17 $ft^3/s$ (previous minimum – 0.8 ft3/s in 2000);
- Upatoi Creek near Columbus—66 $ft^3/s$ (previous minimum—74 $ft^3/s$ in 1986).

During August, the monthly declines in streamflow slowed, and in some parts of north and central Georgia, some minor increases in streamflow occurred. Scattered rainfall across most of the State in the first and last

weeks of the month helped to sustain streamflow in many areas. Streamflow gaging stations in the northern part of the State showed small increases from the previous monthly flows (30-35 percent of normal), and ranged from about 35-40 percent of normal. Monthly streamflow in the central also increased form the previous monthly flows (15-20 percent of normal), and ranged from about 25-40 percent of normal. Monthly streamflow in the southern part of the State remained about the same as the previous monthly flows (less than 1-30 percent of normal), with only minor increases at a few streamflow stations. The lowest flows were still occurring southwestern Georgia. For the month, 4- of the 16-index streamflow stations recorded new minimum monthly flows of record.

- Flint River near Montezuma—506 $ft^3/s$;
- Ichawaynochaway Creek near Milford—87 $ft^3/s$;
- Spring Creek near Iron City—0.14 $ft^3/s$;
- Altamaha River near Doctortown—1,773 $ft^3/s$.

Two of the 15-index streamflow stations recorded an all time minimum daily flow.

- Spring Creek near Iron City— 0.0 $ft^3/s$ (previous minimum—0.17 $ft^3/s$ in 2000);
- Ichawaynochaway Creek near Milford—6.6 $ft^3/s$ (previous minimum – 20 $ft^3/s$ in 2000).

During September, the previous monthly declines in streamflow were reversed, with significant increases in streamflow occurring throughout the State. Some streams had above normal monthly flows in parts of central and southern Georgia. Rainfall amounts as much as about 3.5 inches were reported across several areas of the State and in September helped to increase or sustain streamflow in most areas. Streamflow stations in the northern part of the State showed an overall increase from the previous monthly flows (35-40 percent of normal), and ranged from about 40-95 percent of normal. Monthly streamflow in central Georgia also increased from the previous monthly flows (25-40 percent of normal), and ranged from about 55-120 percent of normal. Monthly streamflow in the southern part of the State increased from the previous monthly flows (less than 1-30 percent of normal), and ranged from about less than 1-240 percent of normal. The lowest flows were still occurring in southwestern Georgia. For the month, only 1- of the 15-index-streamflow stations recorded a new minimum monthly flow of record.

- Spring Creek near Iron City—0.08 $ft^3/s$.

One of the 15 index streamflow stations recorded an all time minimum daily flow that previously occurred in August 2000.

- Spring Creek near Iron City—0.0 $ft^3/s$.

During October, the previous monthly increases in streamflow were reversed, with significant decreases in streamflow occurring throughout most of the State. No significant amounts of rainfall occurred across the State in October, and most streamflow fell below long-term normal monthly flows throughout the State. Streamflow stations in the northern part of the State showed a drastic decrease from the previous monthly flows (40-95 percent of normal), and ranged from about 25-30 percent of normal. Monthly streamflow in central Georgia also decreased from the previous monthly flows (55-120 percent of normal), and ranged from about 25-55 percent of normal. Monthly streamflow in the southern part of the State decreased from the previous month's flows (less than 1-240 percent of normal), and ranged from about less than 1-70 percent of normal. Overall, the lowest flows were still occurring in southwestern Georgia, with dramatic declines across central and northern parts of the State. For the month, only 1- of the 15-index streamflow stations recorded new minimum monthly flows of record.

- Spring Creek near Iron City—1.1 $ft^3/s$.

None of the 15-index streamflow stations recorded an all time minimum daily flow, but several stations were approaching the period of record minimum flows.

During November, some areas of the State received as much as about 3 inches of rainfall, but most streams still remained below long-term normal monthly flows throughout the State. Streamflow stations in the northern part of the State showed an increase from the previous monthly flows (25-30 percent), and ranged from about 50-75 percent of normal. Monthly streamflow in central Georgia also increased from the previous monthly flows (25-55 percent of normal), and ranged from about 50-60 percent of normal. Monthly streamflow in the southern part of the State showed some increases, but remained about the same as the previous monthly flows (less than 1-70 percent of normal), and ranged from about 5-75 percent of normal. Overall, the lowest flows were still occurring in southwestern Georgia, with some continued declines across the southeastern part of the State.

For the month, only 1- of the 15-index streamflow stations recorded a new minimum monthly flow of record.

• Spring Creek near Iron City—10 $ft^3/s$.

None of the 15-index streamflow stations recorded an all time minimum daily flow because baseflow conditions across the State began to stabilize.

During December, additional amounts of rainfall as much as about 2.5 inches occurred across parts of the State, but most streams still remained below long-term normal monthly flows. Streamflow stations in the northern part of the State showed minor decreases from the previous monthly flows (50-75 percent of normal), and ranged from about 35-50 percent of normal. Monthly streamflow in central Georgia also showed an overall decrease from the previous monthly flows (50-60 percent of normal), and ranged from about 35-65 percent of normal. Monthly streamflow in the southern part of the State showed some increases, but remained about the same as the previous monthly flows (5-75 percent of normal), and ranged from about 15-50 percent of normal. Overall, the lowest flows were still occurring in southwestern Georgia, with some continued declines across the southeastern part of the State. During December, none of the 15-index streamflow stations recorded new minimum monthly flows of record or an all time minimum daily flow. December 2000 was the first time since May 2000 that no record low-flows were recorded at any of the index sites. It appears that base-flow conditions across most of the State had begun to stabilize due to some increased precipitation and no extensive irrigation in progress.