



# 2004 Water Year APALACHICOLA RIVER BASIN

## 02334430 CHATTAHOOCHEE RIVER AT BUFORD DAM, NEAR BUFORD, GA

Latitude: 34° 09 ' 25"  
Gwinnett County

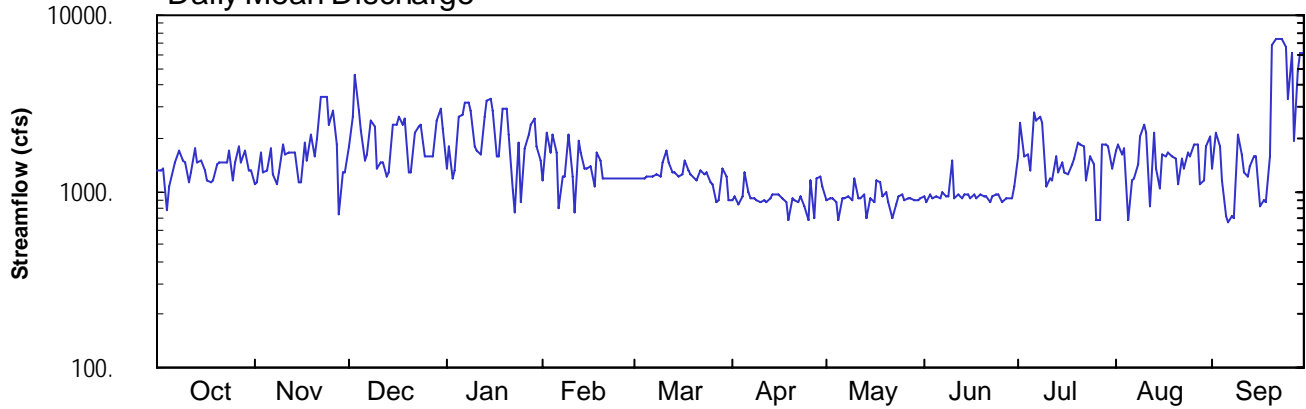
Longitude: 084° 04 ' 44"

Datum: 912.04 feet

Hydrologic Unit Code: 03130001

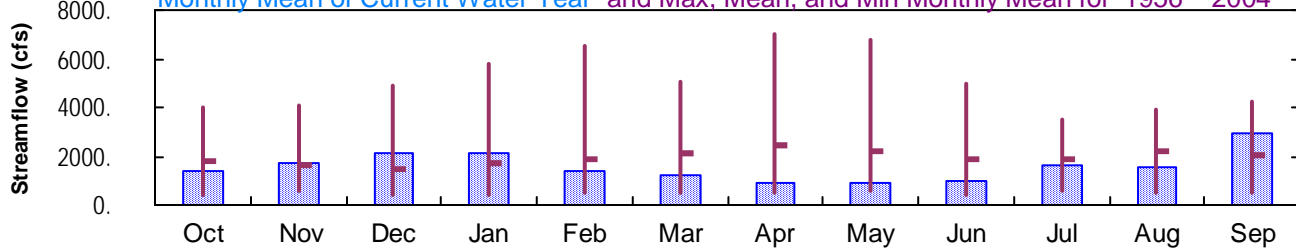
Drainage Area: 1040. mi<sup>2</sup>

### Daily Mean Discharge

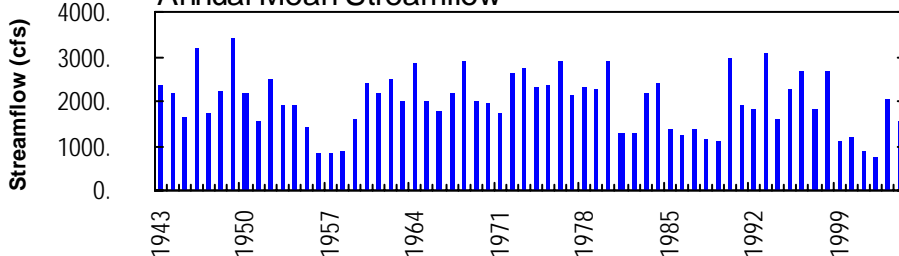


### Monthly Statistics

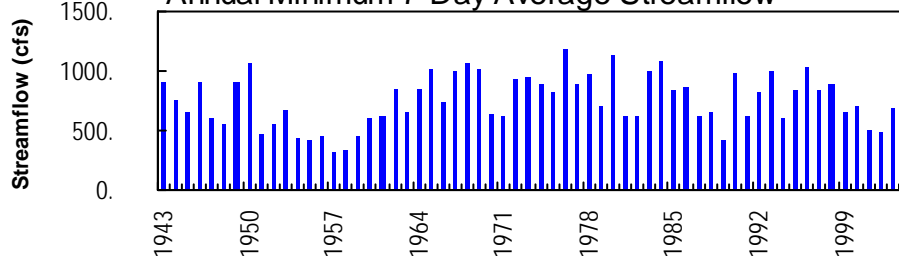
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1956 – 2004



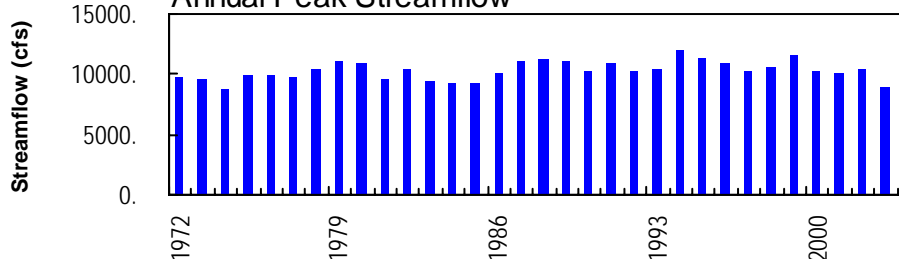
### Annual Mean Streamflow



### Annual Minimum 7-Day Average Streamflow



### Annual Peak Streamflow



02334430 - Chattahoochee River at Buford Dam near Buford, GA

**APALACHICOLA RIVER BASIN**  
**2004 Water Year**

**02334430 CHATTAHOOCHEE RIVER AT BUFORD DAM, NEAR BUFORD, GA**

**LOCATION.**—Lat 34°09'25", long 84°04'44" referenced to North American Datum (NAD) of 1983, Gwinnett-Forsyth County line, Hydrologic Unit 03130001, on right bank 1,200 feet downstream from Buford Dam, 2.4 miles upstream from bridge on GA 20, 4.0 miles northwest of Buford, and at mile 348.1.

**DRAINAGE AREA.**—1,040 square miles, approximately.

**COOPERATION.**—U.S. Army Corps of Engineers, Mobile District.

**WATER-DISCHARGE RECORDS**

**PERIOD OF RECORD.**—July to December 1901 (figures of daily discharge for the months of August and December, published in WSP 197, are unreliable and should not be used), October 1941 to current year. Prior to October 1971, published as 02334500, Chattahoochee River "near Buford". Monthly discharge only for July to December 1901, October 1941 to January 1942, published in WSP 1304.

**REVISED RECORDS.**—WDR GA-79-1: 1972-78 (maximum gage heights only). WDR GA-90-1: 1986-89 (maximum gage heights only). See also PERIOD OF RECORD.

**GAGE.**—Satellite telemetry with a water-stage recorder. Datum of gage is 912.04 feet above National Geodetic Vertical Datum (NGVD) of 1929 (levels by U.S. Army Corps of Engineers). From June 24 to December 21, 1901, and January 27, 1942, to December 3, 1944, a non-recording gage was installed, and from December 4, 1944, to December 31, 1947, a water-stage recorder was located at site 2.5 miles downstream, and from January 1, 1948, to September 30, 1971, a water-stage recorder was located at site 2.4 miles downstream, all at different datum.

**REMARKS.**—Records good, except for periods of estimated discharge, which are fair. Statistics prior to regulation are available upon request.

**EXTREMES OUTSIDE PERIOD OF RECORD.**—Maximum stage known since at least 1921, that of Jan. 8, 1946, gage-height of 32.60 feet, from floodmarks, at site and datum then in use; discharge, 55,000 cfs, from rating curve extended above 13,000 cfs, on basis of peak flows passing upstream and downstream of station.

**APALACHICOLA RIVER BASIN**  
**2004 Water Year**

**02334430 CHATTAHOOCHEE RIVER AT BUFORD DAM, NEAR BUFORD, GA--continued.**

**WATER-STAGE RECORDS**

**PERIOD OF RECORD.**—July to December 1901 (figures of daily discharge for the months of August and December, published in WSP 197, are unreliable and should not be used), October 1941 to current year. Prior to October 1971, published as 02334500, Chattahoochee River "near Buford". Monthly discharge only for July to December 1901, October 1941 to January 1942, published in WSP 1304.

**GAGE.**—Satellite telemetry with a water-stage recorder. Datum of gage is 912.04 feet above National Geodetic Vertical Datum (NGVD) of 1929 (levels by U.S. Army Corps of Engineers). From June 24 to December 21, 1901, and January 27, 1942, to December 3, 1944, a non-recording gage was installed, and from December 4, 1944, to December 31, 1947, a water-stage recorder was located at site 2.5 miles downstream, and from January 1, 1948, to September 30, 1971, a water-stage recorder was located at site 2.4 miles downstream, all at different datum.

**REMARKS.**—Records good.

**EXTREMES FOR CURRENT YEAR.**—Maximum gage-height recorded, 4.61 feet, November 21; minimum gage-height recorded, -0.99 feet, December 22, June 10.

U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 02334430 CHATTAHOOCHEE RIVER AT BUFORD DAM, NEAR BUFORD, GA STREAM SOURCE AGENCY USGS STATE 13 COUNTY 135  
 LATITUDE 340925 LONGITUDE 0840444 NAD83 DRAINAGE AREA 1040.00 CONTRIBUTING DRAINAGE AREA 1040\* DATUM 912.04 NGVD29

Discharge, cubic feet per second  
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1330	1100	1810	1350	1140	1190	897	896	939	1590	1710	1350
2	1330	1120	2650	1800	2140	1190	935	922	876	2450	1850	2170
3	1330	1670	4570	1200	1680	1190	844	910	966	1590	1600	1800
4	776	1290	2900	1320	2120	1190	938	875	922	1630	1760	1140
5	1050	1300	2210	2630	1640	1200	1300	694	938	1300	684	720
6	1310	1770	1490	2720	793	1230	981	915	924	2780	1150	671
7	1470	1240	1620	3180	1210	1220	909	908	979	2490	1190	714
8	1690	1090	2510	3180	1210	1240	908	941	927	2660	1410	699
9	1500	1280	2350	2830	2110	1220	889	889	934	2450	2040	2100
10	1440	1840	1350	1800	1220	1440	871	1170	1490	1070	2420	1620
11	1120	1640	1470	1720	755	1710	891	916	908	1180	2160	1280
12	1270	1670	1460	1620	1930	1460	866	906	962	1160	829	1200
13	1730	1660	1210	2640	1670	1290	916	950	919	1580	2170	1370
14	1480	1660	1290	3230	1350	1270	967	700	953	1290	1350	1590
15	1510	1130	2420	3330	1350	1220	954	901	957	1440	1050	1590
16	1330	1120	2390	2890	1380	1240	971	876	911	1280	1600	833
17	1140	1890	2680	1580	1070	1480	919	1150	954	1240	1580	888
18	1130	1510	2390	1580	1650	1300	868	1140	924	1410	1640	871
19	1140	2080	2590	2970	1480	1240	685	934	969	1530	1590	1590
20	1440	1590	1290	2950	1170	1180	914	979	949	1870	1530	6720
21	1450	1970	1270	2090	1170	1140	885	874	935	1860	1100	7260
22	1450	3450	2140	1020	1170	1310	877	700	867	1810	1530	7290
23	1470	3440	2320	753	1180	1240	940	851	934	1170	1360	7320
24	1690	3460	2390	1900	1180	1260	819	937	974	1560	1640	6620
25	1160	2390	1570	876	1190	1120	694	961	967	1410	1590	3380
26	1470	2900	1570	1760	1190	1110	1150	890	875	688	1860	6050
27	1780	1830	1570	2110	1190	872	698	917	918	685	1820	1960
28	1470	748	1570	2390	1190	893	1190	923	918	1840	1090	4800
29	1690	1280	2510	e2600	1190	1350	1210	886	914	1840	1150	6040
30	1320	1300	2940	e1800	---	1210	1060	882	1070	1780	1810	6050
31	1300	---	2250	1500	---	900	---	908	---	1350	2030	---
TOTAL	42766	52418	64750	65319	39718	38105	27946	28301	28673	49983	48293	87686
MEAN	1380	1747	2089	2107	1370	1229	932	913	956	1612	1558	2923
MAX	1780	3460	4570	3330	2140	1710	1300	1170	1490	2780	2420	7320
MIN	776	748	1210	753	755	872	685	694	867	685	684	671
CFSM	1.33	1.68	2.01	2.03	1.32	1.18	0.90	0.88	0.92	1.55	1.50	2.81
IN.	1.53	1.87	2.32	2.34	1.42	1.36	1.00	1.01	1.03	1.79	1.73	3.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	1791	1665	1461	1742	1887	2106	2452	2172	1863	1906	2184	2033																																					
MAX	3983	4093	4900	5833	6504	5077	6996	6799	4968	3483	3921	4266																																					
(WY)	1992	1975	1993	1993	1996	1990	1964	1964	1973	2003	1971	1967																																					
MIN	427	536	432	431	507	463	481	565	424	532	486	483																																					
(WY)	1958	1958	1958	1958	1957	1959	1959	1958	1957	1957	1957	1957																																					

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1956 - 2004
ANNUAL TOTAL	826394	573958	
ANNUAL MEAN	2264	1568	1938
HIGHEST ANNUAL MEAN			3089
LOWEST ANNUAL MEAN			757
HIGHEST DAILY MEAN	7610	May 9	7320
LOWEST DAILY MEAN	501	May 7	671
ANNUAL SEVEN-DAY MINIMUM	767	Jan 1	831
MAXIMUM PEAK FLOW			8640
MAXIMUM PEAK STAGE			4.61
ANNUAL RUNOFF (CFSM)	2.18		1.51
ANNUAL RUNOFF (INCHES)	29.56		20.53
10 PERCENT EXCEEDS	4800		2500
50 PERCENT EXCEEDS	1710		1300
90 PERCENT EXCEEDS	823		880

e Estimated

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Gage height, feet  
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	-0.13	0.37	-0.01	-0.11	0.05	-0.32	-0.31	-0.28	0.17	0.29	0.00
2	0.03	-0.12	0.98	0.30	0.58	0.05	-0.30	-0.29	-0.32	0.77	0.35	0.57
3	0.04	0.27	2.25	-0.10	0.25	0.05	-0.35	-0.30	-0.26	0.17	0.17	0.34
4	-0.37	0.00	1.09	-0.03	0.56	0.05	-0.29	-0.32	-0.29	0.20	0.29	-0.15
5	-0.15	0.01	0.66	0.90	0.23	0.06	-0.02	-0.46	-0.28	-0.03	-0.47	-0.45
6	0.02	0.34	0.15	0.96	-0.35	0.08	-0.24	-0.29	-0.29	1.01	-0.14	-0.49
7	0.13	-0.03	0.23	1.27	-0.07	0.08	-0.31	-0.30	-0.25	0.82	-0.11	-0.44
8	0.29	-0.14	0.88	1.28	-0.06	0.10	-0.31	-0.28	-0.29	0.93	0.07	-0.45
9	0.15	-0.01	0.77	1.04	0.56	0.08	-0.32	-0.31	-0.28	0.79	0.49	0.52
10	0.13	0.39	-0.01	0.31	-0.06	0.23	-0.33	-0.11	0.13	-0.19	0.75	0.21
11	-0.11	0.25	0.06	0.27	-0.39	0.36	-0.32	-0.30	-0.31	-0.11	0.56	-0.04
12	0.00	0.27	0.05	0.19	0.43	0.12	-0.34	-0.30	-0.27	-0.13	-0.37	-0.08
13	0.34	0.26	-0.12	0.89	0.25	-0.01	-0.30	-0.27	-0.30	0.19	0.56	0.01
14	0.14	0.27	-0.08	1.33	0.04	-0.02	-0.27	-0.45	-0.28	-0.02	0.02	0.16
15	0.16	-0.11	0.76	1.40	0.03	-0.05	-0.27	-0.30	-0.27	0.09	-0.21	0.16
16	0.03	-0.12	0.75	1.05	0.05	-0.04	-0.27	-0.32	-0.30	-0.03	0.17	-0.32
17	-0.10	0.44	0.99	0.15	-0.09	0.12	-0.30	-0.13	-0.27	-0.05	0.16	-0.25
18	-0.11	0.18	0.77	0.15	0.47	0.02	-0.33	-0.14	-0.29	0.06	0.20	-0.26
19	-0.10	0.60	0.84	1.11	0.32	-0.05	-0.47	-0.28	-0.27	0.14	0.16	0.22
20	0.12	0.20	-0.08	1.11	0.03	-0.11	-0.30	-0.25	-0.28	0.36	0.14	3.62
21	0.12	0.48	-0.09	0.68	0.03	-0.13	-0.32	-0.32	-0.29	0.36	-0.17	3.92
22	0.12	1.48	0.56	-0.21	0.03	-0.02	-0.33	-0.45	-0.33	0.32	0.12	3.93
23	0.14	1.47	0.70	-0.39	0.04	-0.07	-0.28	-0.34	-0.28	-0.12	0.00	3.95
24	0.29	1.48	0.73	0.40	0.04	-0.06	-0.37	-0.28	-0.26	0.15	0.20	3.57
25	-0.09	0.79	0.15	-0.29	0.05	-0.16	-0.46	-0.27	-0.26	0.04	0.17	1.42
26	0.15	1.16	0.15	0.32	0.05	-0.18	-0.13	-0.31	-0.32	-0.47	0.35	3.26
27	0.38	0.41	0.14	0.56	0.05	-0.34	-0.46	-0.29	-0.29	-0.47	0.32	0.44
28	0.14	-0.40	0.14	0.76	0.05	-0.32	-0.11	-0.29	-0.29	0.34	-0.18	2.40
29	0.29	-0.01	0.81	---	0.05	-0.01	-0.06	-0.32	-0.29	0.34	-0.15	3.26
30	0.03	0.00	1.11	---	---	-0.09	-0.19	-0.32	-0.18	0.30	0.32	3.26
31	0.01	---	0.63	0.13	---	-0.32	---	-0.30	---	0.03	0.47	---