02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC

LOCATION.--Lat 36°27'36", long 77°38'01", Halifax County, Hydrologic Unit 03010107, on right bank 1.2 mi downstream of bridge on State Highway 48 at Roanoke Rapids, 2.5 mi upstream from Chockoyotte Creek, 2.8 mi downstream of Roanoke Rapids dam, and 133.6 mi upstream from mouth in Albemarle Sound.

DRAINAGE AREA.--8,384 mi².

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- PERIOD OF RECORD.--December 1911 to current year. Prior to January 1933, published as "Roanoke River at Old Gaston". Records published for both sites February 1930 to December 1932. Gage-height records collected at site of auxiliary gage since November 1890 are contained in reports of National Weather Service, NOAA, U.S. Department of Commerce.
- REVISED RECORDS.--WSP 712: 1930. WSP 822: 1936. WSP 1032: 1912, 1928(M), 1930(M), 1932-33(M). WSP 1433: 1912-23, 1925-28, 1930, 1932-33, 1935, 1937-39. WSP 1904: 1958, 1960. WDR NC-83-1: Drainage area.
- GAGE.--Water-stage recorder. Datum of gage is 43.84 ft above NGVD of 1929. Dec. 7, 1911, to Nov. 21, 1921, and Apr. 7 to Dec. 31, 1932, nonrecording gage and Nov. 21, 1921, to Apr. 7, 1932, water-stage recorder, both at site 9 mi upstream at different datum. Aug. 6, 1941, to Mar. 1, 1973, auxiliary water-stage recorder, 3.6 mi downstream of base gage. Satellite telemetry at station.
- REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated since August 1950 by Philpott Lake on Smith River, usable capacity, 6,325,000,000 ft³; since September 1950 by John H. Kerr Reservoir, usable capacity, 101,247,000,000 ft³; since June 1955 by Roanoke Rapids Lake (station 02080100); since September 1962 by Leesville Lake; since October 1962 by Lake Gaston (station 02079964); and since September 1963 by Smith Mountain Lake. Prior to regulation, maximum discharge: 261,000 ft³/s, Aug. 18, 1940; gage height: 39.0 ft, from floodmarks; minimum discharge: about 250 ft³/s, Dec. 16, 1955. Minimum discharge for current water year also occurred Mar. 28.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877, discharge, 212,000 ft³/s, reached a stage about 2 ft lower at Old Gaston than flood in August 1940 which was 21.5 ft. Flood in August 1940 is the maximum known since at least 1771.

DISCHARGE, CUBIC FEET PER SECOND WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAD	4 DD	3.5.4.37	** ** *	****	4.7.7.0	
				37 11 1	FED	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20,100	7,660	8,230	20,500	2,420	8,690	2,870	8,110	6,020	6,970	5,820	18,100
2	20,000	8,080	8,680	19,800	4,420	8,460	3,820	8,150	6,090	6,250	6,380	9,250
3	18,600	7,970	8,470	14,800	3,840	8,530	3,820	8,120	6,060	6,460	6,870	10,600
4	14,600	e8,380	8,380	14,500	3,790	8,570	3,860	8,090	6,120	6,480	6,510	9,880
5	14,700	e8,350	8,190	11,800	10,900	8,570	3,820	8,060	6,200	6,370	6,370	8,420
6	14,700	8,200	8,350	9,970	10,000	2,350	4,290	8,030	6,220	6,650	6,790	8,400
7	14,800	8,130	8,430	9,950	9,370	2,120	4,290	8,000	6,070	6,540	8,200	5,710
8	11,100	8,180	8,250	10,300	8,130	2,920	4,300	7,990	5,490	6,450	10,300	5,620
9	12,000	8,280	8,240	7,940	8,470	2,970	4,280	8,030	6,040	6,540	10,500	12,200
10	12,000	8,100	8,250	8,050	15,100	2,990	4,350	7,990	8,150	4,310	10,300	15,500
11	12,000	7,980	12,300	7,910	17,800	2,980	4,370	8,030	8,180	4,170	10,200	12,100
12	12,000	8,130	16,100	7,960	17,500	4,990	4,460	8,200	8,220	4,740	10,300	12,000
13	12,000	8,390	20,500	7,910	20,200	3,790	4,660	8,090	8,100	4,670	11,300	12,200
14	9,770	8,200	20,600	7,950	16,500	3,880	4,630	7,910	7,980	3,300	10,700	12,100
15	9,610	8,210	20,500	7,810	8,770	3,010	12,100	7,410	8,030	2,870	4,040	8,390
16	9,620	8,160	20,500	7,810	18,200	2,230	14,900	6,970	8,710	2,750	10,800	9,860
17	9,600	8,200	20,400	7,860	18,200	6,030	14,800	6,280	8,840	2,830	19,700	10,500
18	9,510	8,290	20,500	7,850	18,400	8,190	14,800	6,000	8,630	2,890	14,700	9,920
19	8,150	8,190	20,300	7,740	17,800	2,760	14,800	5,990	5,900	3,550	14,600	8,380
20	7,370	8,340	20,400	4,500	18,400	3,890	14,700	5,980	5,920	5,930	14,500	8,520
21	8,010	8,230	20,300	4,050	20,200	2,460	14,800	5,980	5,960	5,060	12,500	12,100
22	6,240	8,090	20,100	3,780	20,100	4,340	14,700	6,880	8,500	6,120	11,700	12,000
23	8,370	8,040	20,400	3,810	19,000	2,330	14,800	8,040	4,110	5,560	8,170	11,900
24	8,190	8,250	20,400	2,220	18,200	6,120	14,800	8,000	9,250	4,580	8,130	12,100
25	7,650	8,220	20,400	2,210	18,200	2,780	10,600	7,980	8,890	4,500	5,380	8,770
26 27 28 29 30 31	6,830 8,420 7,150 7,690 8,160 7,690	8,040 8,270 8,150 8,170 8,280	20,500 20,500 20,500 20,500 20,400 20,400	3,950 4,110 13,500 9,990 5,340 2,390	18,300 18,200 9,230 8,600	2,320 2,230 2,130 2,190 2,070 2,080	10,000 10,000 8,050 8,060 8,070	8,020 8,120 8,090 7,010 6,030 6,070	8,860 9,060 9,410 9,010 8,510	3,570 4,600 4,630 5,320 5,850 4,410	5,410 5,340 4,040 3,900 8,460 16,700	6,730 8,940 8,430 8,330 12,500
TOTAL	336,630	245,160	499,970	258,260	398,240	128,970	257,800	231,650	222,530	154,920	288,610	309,450
MEAN	10,860	8,172	16,130	8,331	13,730	4,160	8,593	7,473	7,418	4,997	9,310	10,320
MAX	20,100	8,390	20,600	20,500	20,200	8,690	14,900	8,200	9,410	6,970	19,700	18,100
MIN	6,240	7,660	8,190	2,210	2,420	2,070	2,870	5,980	4,110	2,750	3,900	5,620
†	+224	-114	+119	-101	-59	+39	+319	+35	-337	+113	+171	+941
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004,* BY WATER YEAR (WY)												
MEAN	5,665	6,266	7,465	9,556	10,460	10,780	11,470	10,360	7,756	6,213	5,416	5,564
MAX	20,360	17,690	18,380	17,850	26,800	27,350	32,660	31,750	23,040	22,870	15,180	25,970
(WY)	(1980)	(1986)	(1973)	(1991)	(1998)	(1998)	(1993)	(1978)	(2003)	(2003)	(2003)	(1996)
MIN	2,031	1,987	2,046	2,037	2,014	1,910	1,951	2,446	2,365	2,581	2,519	2,186
(WY)	(1971)	(1987)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1977)	(1970)	(1993)	(1968)

ROANOKE RIVER BASIN

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC-Continued

SUMMARY STATISTICS	FOR 2003 CALE	ENDAR YEAR	FOR 2004 WA	ΓER YEAR	WATER YEARS 1964 - 2004*		
ANNUAL TOTAL ANNUAL MEAN HIGHEST ANNUAL MEAN	5,986,260 16,400		3,332,190 9,104	‡9216	7,947 15,330	(UNADJUSTED) 2003	
LOWEST ANNUAL MEAN HIGHEST DAILY MEAN LOWEST DAILY MEAN	34,500 2,150	Apr 25 Feb 16	20,600 2,070	Dec 14 Mar 30	2,361 36,000 818	2002 Sep 11, 1996 Nov 15, 1970	
ANNUAL SEVEN-DAY MINIMUM MAXIMUM PEAK FLOW	2,840	Feb 7	2,260 21,000	Mar 25 Sep 24	989 37,700	Nov 5, 1986 Apr 16, 1993	
MAXIMUM PEAK STAGE INSTANTANEOUS LOW FLOW 10 PERCENT EXCEEDS	24,500		8.54 1,440 18,200	Sep 24 Jun 23	11.87 760 18,900	Apr 16, 1993 Nov 23, 1970	
50 PERCENT EXCEEDS 90 PERCENT EXCEEDS	16,700 7,620		8,160 3,820		5,980 2,020		

 [†] Change in contents, equivalent in cubic feet per second, in Leesville and Smith Mountain Lakes, provided by Appalachian Power Co.; Philpott and Kerr Reservoirs, provided by U.S. Army Corps of Engineers; and Lake Gaston and Roanoke Rapids Lake, provided by North Carolina Power Company.
* Regulated period only (1964-2004). See REMARKS.
‡ Adjusted for change in contents.
e Estimated.

