02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC

LOCATION.--Lat 36°27'37.80", long 77°38'04.03", 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 mi^2.

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 good 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 ft^3; since September 1950 by John H. Kerr Reservoir, usable capacity, 101,247,000,000 ft^3; 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 ft^3/s, Aug. 18, 1940; gage height: 39.0 ft, from floodmarks; minimum discharge: about 250 ft^3/s, Dec. 16, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877, discharge, 212,000 ft^3/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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,400	2,350	8,450	19,700	3,070	22,000	28,300	28,000	20,200	24,400	14,500	11,400
2	2,440	2,780	e9,400	19,200	2,830	21,500	26,600	24,700	20,300	24,500	13,100	11,000
3	2,440	2,690	8,980	e19,500	4,190	21,400	24,300	24,600	20,300	24,500	11,500	9,550
4	2,440	2,360	e7,700	13,000	5,960	21,400	24,200	24,200	20,000	24,300	11,400	9,570
5	2,440	3,120	9,330	13,200	3,820	21,300	24,100	20,900	20,300	24,300	11,500	9,480
6	2,430	3,560	4,940	8,680	5,130	21,300	24,100	20,200	20,200	24,300	11,400	9,520
7	2,310	3,920	2,630	8,650	2,230	21,300	24,300	19,100	20,300	24,300	11,500	7,720
8	2,300	3,980	2,320	8,460	2,190	21,200	24,500	16,700	20,400	24,300	12,100	7,430
9	2,300	2,870	2,130	8,390	2,170	20,200	24,700	14,600	20,300	24,300	14,400	7,420
10	2,300	2,220	2,030	8,480	2,170	21,100	24,700	14,900	21,500	24,300	14,400	7,470
11	2,420	3,110	6,880	8,550	2,520	21,100	24,500	14,900	24,100	24,200	16,900	7,470
12	2,320	2,980	5,150	8,470	4,390	21,100	27,600	14,700	24,300	24,300	19,700	7,560
13	2,290	5,310	5,720	8,310	4,180	20,200	34,200	14,900	24,300	24,200	19,700	7,570
14	2,260	7,760	8,740	9,210	e2,480	19,700	34,400	14,600	24,300	24,300	19,500	7,560
15	2,250	8,070	8,010	8,310	2,170	15,400	33,800	13,500	24,400	24,300	18,600	6,770
16	2,260	2,220	14,700	8,770	2,150	14,900	33,800	11,700	24,500	24,400	19,000	7,870
17	2,240	2,260	19,600	8,490	7,520	14,900	33,800	11,800	24,500	24,200	19,000	9,530
18	2,560	8,830	19,600	8,660	8,710	15,100	33,800	11,900	24,500	24,200	19,200	9,940
19	3,190	14,600	19,700	8,740	14,800	14,900	33,900	11,900	24,500	24,200	19,300	9,760
20	2,420	19,700	19,400	8,880	15,700	16,100	34,000	16,200	24,500	24,300	19,200	8,840
21	2,500	19,600	19,700	8,780	15,900	21,600	34,100	20,000	24,600	24,300	19,200	8,830
22	2,490	18,200	17,500	9,120	15,500	21,500	34,400	20,200	24,400	24,300	19,000	9,740
23	2,470	17,900	18,500	8,190	16,700	21,500	34,400	20,300	24,300	24,300	15,500	11,100
24	2,450	17,000	12,300	8,030	22,200	24,100	34,300	20,100	24,300	23,900	14,400	20,000
25	2,450	15,800	e9,810	6,350	22,200	28,000	34,500	20,200	24,300	20,700	14,300	20,000
26	2,440	e15,100	e14,900	5,410	22,300	28,100	34,300	20,200	24,400	19,600	14,300	20,100
27	2,420	7,220	e19,800	3,500	22,500	28,000	34,300	20,300	24,300	19,500	12,000	20,100
28	2,420	8,470	e19,700	4,740	22,400	28,100	34,500	20,300	24,300	19,500	11,600	20,200
29	2,420	8,340	e19,700	6,280	---	28,200	32,600	20,300	24,400	17,200	11,500	20,100
30	2,410	8,590	e19,700	5,600	---	28,200	30,100	20,300	24,300	14,300	11,500	20,100
31	2,370	---	19,700	e2,770	---	28,400	---	20,300	---	15,400	11,300	---
TOTAL	74,850	240,910	376,720	282,420	258,080	671,800	911,100	566,500	691,300	709,100	470,500	343,700
MEAN	2,415	8,030	12,150	9,110	9,217	21,670	30,370	18,270	23,040	22,870	15,180	11,460
MAX	3,190	19,700	19,800	19,700	22,500	28,400	34,500	28,000	24,600	24,500	19,700	20,200
MIN	2,240	2,220	2,030	2,770	2,150	14,900	24,100	11,700	20,000	14,300	11,300	6,770
†	1,040	840	319	-153	894	-753	863	-781	126	444	-511	-714

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003,* BY WATER YEAR (WY)

MEAN	5,528	6,218	7,249	9,587	10,380	10,940	11,540	10,430	7,764	6,244	5,319	5,445
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)

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003*	
ANNUAL TOTAL	1,352,710		5,596,980			
ANNUAL MEAN	3,706		15,330	‡16,900	7,916	UNADJUSTED)
HIGHEST ANNUAL MEAN					15,330	2003
LOWEST ANNUAL MEAN					2,361	2002
HIGHEST DAILY MEAN	19,800	Dec 27	34,500	Apr 25	36,000	Sep 11, 1996
LOWEST DAILY MEAN	1,870	Mar 22	2,030	Dec 10	818	Nov 15, 1970
ANNUAL SEVEN-DAY MINIMUM	1,880	Apr 3	2,290	Oct 11	989	Nov 5, 1986
MAXIMUM PEAK FLOW			35,100	Apr 25	37,700	Apr 16, 1993
MAXIMUM PEAK STAGE			10.96	Apr 25	11.87	Apr 16, 1993
INSTANTANEOUS LOW FLOW			1,630	Nov 27	760	Nov 23, 1970
10 PERCENT EXCEEDS	7,720		24,500		19,000	
50 PERCENT EXCEEDS	2,520		15,700		5,910	
90 PERCENT EXCEEDS	1,910		2,440		2,010	

e Estimated.
* Regulated period only (1964-2003). See REMARKS.
† Change in contents, equivalent in cubic feet per second, in Leesville and Smith Mountain Lakes, provided by Appalachian Power Co.; Pilpott and Kerr Reservoirs, provided by U.S. Army Corps of Engineers; and Lake Gaston and Roanoke Rapids Lake, provided by North Carolina Power Company.
‡ Adjusted for change in contents.