02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA

LOCATION.--Lat 36°54'54", long 78°44'28", Halifax County, Hydrologic Unit 03010102, on right bank 6 ft downstream from bridge on State Highway 746, 2.8 mi northwest of Randolph, 3.6 mi upstream from Roanoke Creek, and at mile 227.3.

DRAINAGE AREA.--2,977 mi^2.

PERIOD OF RECORD.--August 1900 to September 1906, October 1927 to September 1930, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to October 1902, published as Staunton River at Randolph. Gage heights collected since 1905 at this site or at former site are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1203: 1928-30. WSP 1303: 1901-6. WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 307.59 ft above sea level. Aug. 27, 1900, to Oct. 13, 1902, nonrecording gage at site 3.2 mi downstream at datum about 5.9 ft lower. Oct. 14, 1902, to Aug. 11, 1906, and Oct. 1, 1927, to Mar. 31, 1930, nonrecording gage at site of original gage at datum 3.93 ft lower than present datum.

REMARKS.--Records good except for periods of doubtful or no gage-height record, Dec. 24-25, Jan. 13-14, and Jul. 2-7, which are fair. Flow regulated since 1962 by Leesville Lake (station 02059400) 68.7 mi upstream and since 1963 by Smith Mountain Lake (station 02057400) 86.7 mi upstream. Statistics of monthly mean data and summary statistics for water years 1901 - 1906, 1928 - 1930, 1951 - 1962 (unregulated flow) are available in previous data books, water years 1991 - 1998. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Maximum discharge, 97,000 ft^3/s, from graph based on gage readings, site and datum then in use. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 16, 1940, reached a stage of 41.6 ft, present site and datum, discharge, 150,000 ft^3/s, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,600 ft^3/s, Sep 30, gage height, 22.50 ft, stage rising, peak occurred Oct 1, 1999; maximum peak discharge, 11,000 ft^3/s, Jan 25, gage height, 16.96 ft; minimum daily, 511 ft^3/s, Aug 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	1110	1180	1050	1340	1400	1740	2020	1040	805	761	649
2	971	1130	1180	1020	1570	1410	2620	1920	1060	e880	759	636
3	929	1130	1200	1690	2540	1560	2770	1900	1060	e950	642	607
4	1030	1150	1190	2760	2330	1630	2620	1920	1060	e1050	616	604
5	1040	1190	1140	2340	1840	1740	2460	2000	1050	e1100	597	1140
6	1040	1220	1190	1380	1560	1680	2250	1980	1060	e930	579	1750
7	1040	1170	1200	1300	1460	1630	1760	1880	1030	e870	563	2710
8	1100	1170	1200	1260	1420	1580	1660	1960	1000	819	676	2360
9	1200	1160	1330	1230	1390	1520	1570	1990	1010	848	684	1780
10	1290	1140	1570	1210	1340	1490	1630	2000	1010	767	568	1350
11	1190	1200	1460	1180	1280	1490	2460	1920	979	911	549	1160
12	1130	1250	1280	1120	1250	1510	5530	1890	971	845	542	1170
13	1080	1300	1700	e1100	1260	1470	4970	1810	980	773	543	1010
14	1070	1230	2540	e1040	1230	1510	4570	1920	1000	983	552	818
15	1060	1180	1890	1330	1190	3000	3810	2640	1010	1090	676	885
16	1050	1180	1540	1880	1160	6440	2900	2670	1010	912	677	3350
17	1050	1230	1310	1710	1180	5960	2330	2010	1020	810	554	3520
18	1060	1170	1280	1630	1340	4440	2120	1950	1070	873	527	1940
19	1060	1150	1170	3290	2390	3390	1840	1890	892	852	511	1240
20	1060	1190	1090	2500	2290	2960	1630	1820	904	741	512	1160
21	1070	1170	1070	1790	1740	2730	1570	1770	917	687	529	964
22	1060	1170	1050	1470	1490	3360	1540	1730	820	672	663	1050
23	1050	1150	1050	1370	1350	3840	1530	1780	789	735	736	1260
24	1060	1150	e1110	4600	1290	3330	1620	1810	780	799	603	1050
25	1050	1150	e1290	9300	1270	2840	1580	1740	755	905	583	908
26	1070	1180	1220	4860	1260	2320	1520	1660	744	869	1120	964
27	1080	1200	1140	2890	1240	2020	2130	1240	1020	677	1320	1060
28	1080	1190	1100	1980	1240	1800	2260	1170	892	632	998	1290
29	1080	1190	1090	1700	---	1720	2210	1130	768	667	1020	3720
30	1110	1190	1090	1530	---	1640	2220	1080	731	693	885	12600
31	1090	---	1080	1410	---	1600	---	1050	---	679	688	---
TOTAL	33280	35390	39930	64920	42240	75010	71420	56250	28432	25824	21233	54705
MEAN	1074	1180	1288	2094	1509	2420	2381	1815	948	833	685	1824
MAX	1290	1300	2540	9300	2540	6440	5530	2670	1070	1100	1320	12600
MIN	929	1110	1050	1020	1160	1400	1520	1050	731	632	511	604
(†)	-12548	-9549	+2712	+24266	+17626	+1215	-2148	-13962	-11209	+2088	-4986	+29943
MEAN‡	669	861	1376	2877	2138	2459	2309	1364	574	900	524	2822
CFSM‡	.22	.29	.46	.97	.72	.83	.78	.46	.19	.30	.18	.95
IN.‡	.26	.32	.53	1.11	.75	.95	.87	.53	.22	.35	.20	1.06

CAL YR 1998 TOTAL 1475269 MEAN 4042 MAX 33500 MIN 929 MEAN‡ 3983 CFSM‡ 1.34 IN.‡ 18.17
WTR YR 1999 TOTAL 548634 MEAN 1503 MAX 12600 MIN 511 MEAN‡ 1567 CFSM‡ .53 IN.‡ 7.15

† Total change in contents, equivalent in cubic feet per second, per month, in Smith Mountain and Leesville Lakes; provided by American Electric Power.
‡ Adjusted for monthly change in contents.

02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY) [REGULATED, UNADJUSTED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2038	2300	2572	3804	4130	5027	4356	3376	2603	1851	1662	2138
MAX	7906	11230	6887	9532	12230	13970	17570	10060	10260	5635	5988	11350
(WY)	1991	1986	1997	1978	1998	1975	1987	1978	1972	1972	1985	1996
MIN	428	789	1054	1085	1509	769	1270	1038	491	833	493	662
(WY)	1964	1982	1966	1966	1999	1981	1981	1964	1964	1999	1964	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1963 - 1999	
ANNUAL TOTAL	1475269		548634			
ANNUAL MEAN	4042		1503		2981	
HIGHEST ANNUAL MEAN					5102	1987
LOWEST ANNUAL MEAN					1151	1981
HIGHEST DAILY MEAN	33500	Jan 29	a12600	Sep 30	78700	Sep 8 1996
LOWEST DAILY MEAN	929	Oct 3	511	Aug 19	179	bSep 8 1965
ANNUAL SEVEN-DAY MINIMUM	972	Sep 13	568	Aug 16	238	Sep 5 1965
INSTANTANEOUS PEAK FLOW			11000	Jan 25	89300	Sep 7 1996
INSTANTANEOUS PEAK STAGE			16.96	Jan 25	34.94	Sep 7 1996
INSTANTANEOUS LOW FLOW			507	Aug 19	176	cSep 8 1965
ANNUAL RUNOFF (CFSM)	1.36		.50		1.00	
ANNUAL RUNOFF (INCHES)	18.43		6.86		13.61	
10 PERCENT EXCEEDS	9420		2460		5700	
50 PERCENT EXCEEDS	1730		1190		1790	
90 PERCENT EXCEEDS	1060		736		854	

a Stage rising, peak occurred Oct 1, 1999.
b Also Jul 7, 1970.
c Also Sep 9, 1965.
e Estimated.