

ROANOKE RIVER BASIN

02077000 BANISTER RIVER AT HALIFAX, VA

LOCATION.--Lat 36°46'35", long 78°54'58", Halifax County, Hydrologic Unit 03010105, on left bank 10 ft downstream from bridge on State Highway 360, 1,700 ft downstream from Terrible Creek, 1 mi northeast of Halifax, and 10 mi upstream from mouth

DRAINAGE AREA.--547 mi².

PERIOD OF RECORD.--September 1904 to December 1905, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 892: 1929-30, 1932-35. WSP 972: 1938(M), 1940. WSP 1112: 1943(M). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 318.54 ft above sea level (levels by U.S. Army Corps of Engineers). Sept. 28, 1904, to Dec. 31, 1905, nonrecording gage at site 400 ft upstream at different datum. Dec. 9, 1928, to Sept. 20, 1950, water-stage recorder at site 400 ft upstream at present datum.

REMARKS.--Records good except for periods of doubtful gage-height record, Nov. 23, Dec. 24, which are fair, and Jul. 4-12 and Jul 25 to Sep 4, which are poor. Flow regulated by a reservoir and hydroelectric generating facility 0.5 mi upstream from station. Maximum discharge, 50,000 ft³/s, from rating curve extended above 13,000 ft³/s on basis of slope-area measurement of peak flow and velocity-area study. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,650 ft³/s, Sep 30, gage height, 15.21 ft, stage rising, peak occurred Oct 1, 1999; maximum peak discharge 3,560 ft³/s, Jan 25, gage height 12.78 ft; minimum observed 17.8 ft³/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	96	121	121	180	362	356	345	358	124	103	e24	e25
2	96	135	149	232	506	343	801	290	121	115	e22	e25
3	94	105	126	564	714	298	594	260	118	119	e21	e25
4	95	129	142	897	586	348	447	226	110	e97	e20	e35
5	117	105	124	829	431	369	342	219	118	e95	e21	341
6	147	138	133	295	339	340	357	221	103	e95	e19	585
7	102	86	134	333	408	314	297	212	103	e95	e20	792
8	141	134	144	295	335	279	307	230	103	e95	e19	918
9	161	124	210	291	385	264	306	193	103	e95	e19	512
10	113	99	235	243	341	291	373	196	102	e95	e21	536
11	149	130	195	247	295	294	509	181	102	e95	e19	179
12	92	154	166	232	308	271	1460	164	101	e95	e19	141
13	108	137	455	223	314	243	956	176	101	103	e19	123
14	107	137	664	218	302	297	506	223	100	144	e23	120
15	109	133	448	412	283	792	396	421	100	199	e22	294
16	129	131	263	519	277	1340	438	371	101	149	e21	1460
17	90	125	211	380	295	989	385	260	102	117	e20	1380
18	106	140	188	472	351	578	289	210	102	105	e19	596
19	112	146	187	1020	603	454	360	203	101	104	e19	306
20	90	117	160	983	485	385	282	180	101	103	e21	187
21	107	135	167	462	387	416	271	198	101	102	e20	177
22	114	177	167	378	348	688	245	156	102	101	e20	265
23	90	e112	165	357	283	642	279	180	113	100	e20	398
24	110	120	e249	1530	291	471	273	129	103	99	e30	249
25	90	126	304	3410	314	434	254	152	103	e80	e80	169
26	104	144	307	2010	292	402	203	161	103	e60	e70	145
27	108	143	247	938	274	364	241	171	103	e40	e30	156
28	90	133	235	544	283	335	271	104	103	e30	e26	389
29	106	124	230	463	---	306	279	127	112	e25	e25	2450
30	97	141	251	407	---	320	405	131	103	e23	e25	4030
31	127	---	151	364	---	263	---	125	---	e25	e26	---
TOTAL	3397	3881	6928	19728	10392	13486	12471	6428	3162	2903	780	17008
MEAN	110	129	223	636	371	435	416	207	105	93.6	25.2	567
MAX	161	177	664	3410	714	1340	1460	421	124	199	80	4030
MIN	90	86	121	180	274	243	203	104	100	23	19	25
CFSM	.20	.24	.41	1.16	.68	.80	.76	.38	.19	.17	.05	1.04
IN.	.23	.26	.47	1.34	.71	.92	.85	.44	.22	.20	.05	1.16

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	356	394	500	689	766	845	727	484	383	302	325	380
MAX	1691	1431	1211	2125	1857	2738	2121	1374	1588	1065	2898	3717
(WY)	1938	1973	1949	1937	1979	1975	1983	1978	1972	1938	1940	1944
MIN	34.9	86.1	163	170	185	270	196	178	94.0	80.1	25.2	29.4
(WY)	1931	1932	1966	1981	1934	1981	1967	1981	1970	1986	1999	1954

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1905 - 1999

ANNUAL TOTAL	240428	100564	
ANNUAL MEAN	659	276	513
HIGHEST ANNUAL MEAN			814
LOWEST ANNUAL MEAN			225
HIGHEST DAILY MEAN	9350	Jan 29	4030
LOWEST DAILY MEAN	86	Nov 7	e19
ANNUAL SEVEN-DAY MINIMUM	95	Sep 15	19
INSTANTANEOUS PEAK FLOW			3560
INSTANTANEOUS PEAK STAGE			12.78
INSTANTANEOUS LOW FLOW			(d)
ANNUAL RUNOFF (CFSM)	1.20		.50
ANNUAL RUNOFF (INCHES)	16.35		6.84
10 PERCENT EXCEEDS	1400		507
50 PERCENT EXCEEDS	250		167
90 PERCENT EXCEEDS	100		33

- a Stage rising, peak occurred Oct 1, 1999.
- b Also Aug 8, 9, 11-13, 18, 19, 1999.
- c From floodmarks.
- d Not determined.
- e Estimated.
- f Many days in August and September 1932.

