

03473000 SOUTH FORK HOLSTON RIVER NEAR DAMASCUS, VA

French Broad-Holston Basin
South Fork Holston Subbasin

LOCATION.--Lat 36°39'06", long 81°50'39" referenced to North American Datum of 1927, Washington County, VA, Hydrologic Unit 06010102, on right bank 500 ft upstream from bridge on U.S. Highway 58, 0.7 mi downstream from Laurel Creek, 3.2 mi northwest of Damascus, 4.9 mi upstream from Middle Fork, and at mile 77.2.

DRAINAGE AREA.--303 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1306. Published as "at Vestal" prior to October 1978.

REVISED RECORDS.--WSP 1306: 1932-33(M). OFR 2006-1308: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,792.30 ft NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to 1980, some diurnal fluctuation at low flow caused by powerplant upstream from station. Maximum discharge, 22,000 ft³/s, from rating curve extended above 10,000 ft³/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 7	2300	*5,150	*8.58
Jan 21	1930	3,740	7.43

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	90	142	655	417	607	1,240	682	661	319	106	289	101
2	95	134	519	403	833	1,180	783	577	353	209	234	103
3	96	132	443	369	839	1,550	832	511	290	161	229	142
4	91	343	393	338	840	1,570	763	469	269	176	234	125
5	89	347	358	335	1,250	1,240	1,040	443	252	163	365	360
6	85	271	369	315	1,400	953	1,110	424	245	243	929	336
7	83	231	2,420	306	1,150	797	895	394	242	158	501	211
8	81	204	3,220	300	938	700	732	475	218	133	368	178
9	78	186	1,480	332	782	913	625	514	203	162	305	178
10	77	177	975	342	674	851	553	482	194	513	315	148
11	78	162	711	370	616	801	498	425	192	467	523	132
12	102	152	572	e1,400	527	733	453	382	305	492	471	121
13	114	144	493	1,730	486	667	420	358	241	322	354	118
14	195	139	434	1,310	464	604	393	498	201	312	295	113
15	159	151	391	964	439	552	373	822	182	499	271	109
16	124	214	393	744	447	545	356	659	172	517	264	107
17	111	467	481	755	482	526	337	551	166	416	217	109
18	106	378	469	1,720	458	512	468	1,540	165	353	202	975
19	106	319	456	1,340	502	485	501	965	157	367	204	1,000
20	130	281	427	1,000	544	457	473	700	151	376	193	564
21	134	260	412	2,300	564	447	462	554	151	304	167	394
22	123	260	426	2,610	686	468	461	487	172	270	152	307
23	117	484	1,030	1,700	2,220	444	453	485	173	250	146	252
24	115	474	1,070	1,350	1,810	485	438	448	146	284	142	215
25	112	405	835	1,100	1,280	933	519	382	137	1,330	145	192
26	109	346	672	926	989	1,500	926	339	130	934	131	181
27	108	305	613	1,020	828	1,170	2,080	310	124	560	122	167
28	137	280	585	944	716	923	1,380	286	119	445	117	160
29	214	980	505	819	661	773	985	322	114	357	114	183
30	182	947	472	718	---	656	762	531	108	300	107	201
31	154	---	448	631	---	619	---	352	---	281	104	---
Total	3,595	9,315	22,727	28,908	24,032	25,294	20,753	16,346	5,891	11,460	8,210	7,482
Mean	116	310	733	933	829	816	692	527	196	370	265	249
Max	214	980	3,220	2,610	2,220	1,570	2,080	1,540	353	1,330	929	1,000
Min	77	132	358	300	439	444	337	286	108	106	104	101
Cfsm	0.38	1.02	2.42	3.08	2.73	2.69	2.28	1.74	0.65	1.22	0.87	0.82
In.	0.44	1.14	2.79	3.55	2.95	3.11	2.55	2.01	0.72	1.41	1.01	0.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	206	294	480	651	812	865	724	563	362	292	253	182
Max	938	1,258	1,203	1,490	2,022	2,075	1,995	1,367	968	1,079	1,193	790
(WY)	(1978)	(1978)	(1973)	(1957)	(1957)	(1955)	(1987)	(1998)	(1998)	(1938)	(1940)	(1989)
Min	72.3	85.3	93.6	101	200	228	224	155	129	100	89.6	79.0
(WY)	(2009)	(1940)	(1940)	(1940)	(1941)	(1988)	(1942)	(1941)	(1988)	(1988)	(1988)	(1954)

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SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1932 - 2012	
Annual total	190,531		184,013			
Annual mean	522		503		472	
Highest annual mean					712	
Lowest annual mean					245	
Highest daily mean	5,080	Mar 1	3,220	Dec 8	12,800	Apr 5, 1977
Lowest daily mean	77	Oct 10	77	Oct 10	40	Dec 27, 1983
Annual seven-day minimum	82	Oct 5	82	Oct 5	62	Sep 20, 2008
Maximum peak flow			5,150	Dec 7	22,000	Apr 5, 1977
Maximum peak stage			8.58	Dec 7	17.11	Apr 5, 1977
Instantaneous low flow			76	Oct 9 ^a	30	Oct 14, 1941 ^b
Annual runoff (cfs)	1.72		1.66		1.56	
Annual runoff (inches)	23.39		22.59		21.16	
10 percent exceeds	1,230		1,000		974	
50 percent exceeds	305		393		306	
90 percent exceeds	106		120		109	

^a Also Oct. 10, 11, 2011.^b Also Dec. 24, 1943.