Water-Data Report 2012

01622000 NORTH RIVER NEAR BURKETOWN, VA

Potomac Basin
South Fork Shenandoah Subbasin

LOCATION.--Lat 38°20′25″, long 78°54′50″ referenced to North American Datum of 1927, Rockingham County, VA, Hydrologic Unit 02070005, on right bank 0.8 miles downstream from Pleasant Run, 2.8 miles northeast of Burketown, and 8.5 miles upstream from Middle River.

DRAINAGE AREA.--376 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1926 to October 1972, May 1975 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1171: 1936(M). WSP 1302: 1928-29(M), 1932-34(M), 1937-38(M). OFR 2006-1308: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,103.49 ft NGVD of 1929. Prior to Dec. 12, 1938, nonrecording gage at site 3.0 mi downstream at different datum.

COOPERATION.--Records were provided by the Virginia Department of Environmental Quality - Water Division.

REMARKS.--Records good except those for estimated daily discharges, which are fair. At a point 26.8 mi upstream from station, there is a diversion from Staunton Dam Reservoir. Diurnal fluctuation at low and medium flow caused by wastewater treatment plant diversions and irrigation at points upstream. Maximum discharge, 70,400 ft^3/s, from rating curve extended above 16,000 ft^3/s on basis of slope-area measurements at gage heights 32.4 ft and 36.3 ft and contracted-opening measurements at gage heights 35.85 ft and 36.3 ft. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1852, that of June 18, 1949.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 30	0115	3,000	6.87
Dec 8	0245	*4,080	*8.15
Sep 19	0000	2,520	6.26

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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	207	222	1,770	549	383	749	554	233	202	112	277	188
2	211	237	1,300	507	406	950	492	274	261	114	171	187
3	202	257	986	459	383	1,130	435	275	191	111	155	195
4	190	279	756	422	360	1,160	390	301	182	105	194	192
5	183	287	600	392	358	1,050	356	284	175	101	224	188
6	176	280	526	365	353	862	323	319	175	99	222	268
7	174	269	1,070	342	341	718	291	282	170	93	245	250
8	167	256	3,300	315	330	624	266	260	162	101	214	238
9	162	243	2,170	304	321	554	252	275	153	110	183	226
10	164	235	1,590	289	305	493	240	283	143	94	207	202
11	160	218	1,230	304	295	444	224	274	145	94	180	184
12	230	206	970	1,190	277	408	216	263	178	85	171	176
13	587	194	785	1,510	269	379	206	248	182	80	166	167
14	1,090	188	661	1,610	258	352	199	287	154	115	171	157
15	1,070	181	582	1,300	249	327	190	1,500	145	342	833	153
16	908	194	523	1,020	251	307	185	1,590	141	131	435	149
17	710	224	471	844	253	291	176	1,130	128	107	308	144
18	536	200	428	732	235	271	187	841	356	103	263	867
19	427	201	395	619	227	705	204	637	408	146	396	2,000
20	381	204	363	550	229	724	188	499	190	158	392	1,220
21	324	211	348	516	221	1,040	185	414	162	176	350	848
22	288	234	346	474	218	918	240	352	157	147	295	570
23	258	430	729	445	217	780	288	328	145	e135	300	389
24	242	728	777	431	227	759	238	361	136	e225	439	297
25	226	726	784	404	235	1,630	226	366	133	317	333	248
26	215	633	720	391	219	1,720	240	319	126	185	273	221
27	206	541	705	420	219	1,420	235	279	123	177	253	200
28	196	468	753	416	216	1,160	220	252	119	175	234	188
29	234	1,230	680	406	277	950	233	229	113	159	220	204
30	245	2,630	646	408	---	761	227	230	113	149	206	168
31	226	---	608	398	---	644	---	204	---	147	195	---
Total	10,595	12,406	27,572	18,332	8,132	24,280	7,906	13,389	5,168	4,393	8,505	10,684
Mean	342	414	889	591	280	783	264	432	172	142	274	356
Max	1,090	2,630	3,300	1,610	406	1,720	554	1,590	408	342	833	2,000
Min	160	181	346	289	216	271	176	204	113	80	155	144
Cfsm	0.91	1.10	2.37	1.57	0.75	2.08	0.70	1.15	0.46	0.38	0.73	0.95
In.	1.05	1.23	2.73	1.81	0.80	2.40	0.78	1.32	0.51	0.43	0.84	1.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	240	298	357	435	497	706	618	499	336	195	225	237
Max	1,500	2,080	1,087	1,777	1,841	1,932	1,831	1,486	1,704	809	1,102	3,130
(WY)	(1943)	(1986)	(1935)	(1996)	(1998)	(1936)	(1987)	(1942)	(1949)	(1949)	(1949)	(1996)
Min	38.1	36.5	39.2	53.5	47.9	136	107	106	72.7	41.5	41.0	34.2
(WY)	(1931)	(1931)	(1966)	(1966)	(1931)	(1981)	(1981)	(1930)	(1977)	(1999)	(1964)	(1930)

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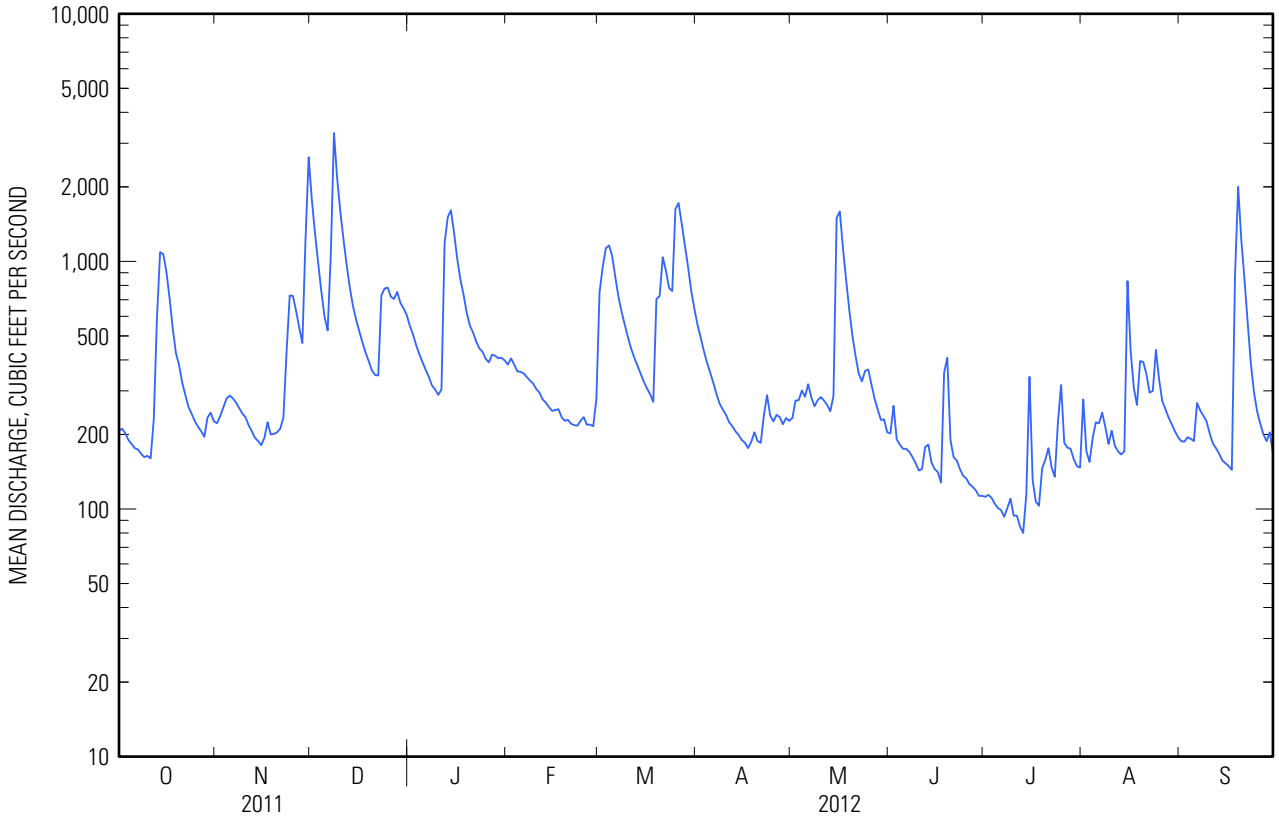
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1926 - 2012	
Annual total	204,575		151,362			
Annual mean	560		414		386	
Highest annual mean					871	1996
Lowest annual mean					145	1999
Highest daily mean	7,490	Apr 17	3,300	Dec 8	[a]32,000	Sep 7, 1996
Lowest daily mean	75	Aug 2	80	Jul 13	22	Sep 24, 1930
Annual seven-day minimum	82	Jul 30	94	Jul 7	30	Dec 20, 1930
Maximum peak flow			4,080	Dec 8	70,400	Sep 6, 1996
Maximum peak stage			8.15	Dec 8	[b]36.70	Sep 6, 1996
Instantaneous low flow			75	Jul 14	[c]16	Nov 23, 1965
Annual runoff (cfsm)	1.49		1.10		1.03	
Annual runoff (inches)	20.24		14.98		13.93	
10 percent exceeds	1,230		864		830	
50 percent exceeds	259		268		207	
90 percent exceeds	101		149		64	

[a] Estimated.
[b] From high-water mark in gage house.
[c] Result of temporary dam upstream.