

01607500 SOUTH FORK SOUTH BRANCH POTOMAC RIVER AT BRANDYWINE, WV

Potomac Basin
South Branch Potomac Subbasin

LOCATION.--Lat 38°37'53", long 79°14'38" referenced to North American Datum of 1927, Pendleton County, WV, Hydrologic Unit 02070001, on left bank 50 ft upstream from bridge on U.S. Highway 33, 0.1 mi upstream from Hawes Run, 0.4 mi north of Brandywine, 0.9 mi downstream from Broad Run, and at mile 44.9.

DRAINAGE AREA.--103 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1943 to September 1972 (daily discharge and peaks), October 1972 to current year (daily discharge and annual maxima).

REVISED RECORDS.--WSP 1141: 1945(M), 1947(M). WDR WV-84-1: 1983. WDR WV-88-1: 1987. WDR WV-97-1: Drainage area, 1967(M), 1971-75(M), 1977-78(M).

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,557.96 ft above NAVD 88 (1,558.32 ft above NGVD 29). Prior to Sept. 24, 1956, nonrecording gage at highway bridge 50 ft downstream at same datum. Prior to Oct. 1, 1965, published as South Fork of South Branch Potomac River at Brandywine.

REMARKS.--Records good except those for periods of estimated daily discharges (ice effect), which are poor. Beginning in 1973, the flow from 41.3 mi² upstream from station has been partially controlled, but not diverted, by several floodwater-detention reservoirs with a total combined detention capacity of 8,882 acre-ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharges for the November 1877 and 1896 peaks were about 40,000 ft³/s and 45,000 ft³/s, respectively; based on notes from local residents comparing these peaks to the 1949 peak.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,200 ft³/s, Apr. 28, gage height, 8.33 ft; minimum discharge, 2.0 ft³/s, Aug. 25, gage height, 0.98 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	577	19	965	e12	22	269	40	638	86	16	4.6	8.7
2	132	17	951	e12	345	252	39	220	70	15	3.9	22
3	60	18	333	e12	378	180	38	143	60	14	3.8	16
4	39	28	163	e13	200	129	35	237	52	15	4.5	12
5	30	39	109	e13	137	106	69	313	45	17	4.3	18
6	25	28	80	e12	111	743	140	227	37	15	4.0	526
7	21	23	62	e13	85	1,150	147	169	34	13	6.7	512
8	19	22	52	e13	73	381	108	136	32	13	5.4	198
9	16	21	e39	e13	57	216	98	111	28	20	4.4	112
10	14	20	e34	e13	54	1,150	87	92	25	15	4.0	76
11	13	19	e31	e12	46	1,440	84	79	70	12	3.6	50
12	13	17	e29	e12	44	889	609	69	62	11	3.4	39
13	12	17	e26	e12	42	403	1,770	101	41	10	3.2	37
14	12	17	e24	e12	40	203	849	108	33	9.8	10	33
15	12	16	e22	e11	38	135	368	128	27	8.4	15	32
16	13	17	e20	e11	35	109	1,080	151	23	7.6	11	26
17	12	20	e20	e11	34	78	1,810	1,130	21	7.1	7.5	23
18	12	23	e18	e10	33	64	1,140	1,690	21	7.0	6.6	20
19	12	23	e18	e10	33	62	800	1,240	21	7.1	6.4	19
20	12	23	e16	e10	33	51	319	809	85	7.1	9.1	18
21	12	23	e16	e10	31	48	161	360	76	6.8	9.0	19
22	14	22	e15	e9.8	36	50	114	186	56	6.3	7.0	18
23	14	22	e15	e9.6	38	49	253	150	39	5.9	5.9	17
24	14	22	e14	e9.3	37	89	230	129	34	7.6	5.0	18
25	15	20	e14	e9.1	53	98	184	106	28	13	3.0	17
26	16	20	e13	e9.0	107	79	485	100	25	14	5.9	17
27	21	20	e13	e9.0	115	69	342	617	22	10	6.3	16
28	21	20	e13	e9.0	128	58	2,230	260	22	7.5	11	16
29	20	19	e12	e9.0	---	46	1,280	164	20	6.2	11	15
30	19	17	e12	e9.0	---	41	887	128	18	5.5	12	14
31	19	---	e12	e9.4	---	40	---	102	---	5.1	11	---
Total	1,241	632	3,161	339.2	2,385	8,677	15,796	10,093	1,213	328.0	208.5	1,964.7
Mean	40.0	21.1	102	10.9	85.2	280	527	326	40.4	10.6	6.73	65.5
Max	577	39	965	13	378	1,440	2,230	1,690	86	20	15	526
Min	12	16	12	9.0	22	40	35	69	18	5.1	3.0	8.7
Cfsm	0.39	0.20	0.99	0.11	0.83	2.72	5.11	3.16	0.39	0.10	0.07	0.64
In.	0.45	0.23	1.14	0.12	0.86	3.13	5.70	3.65	0.44	0.12	0.08	0.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	55.9	89.5	112	129	147	233	174	134	74.0	32.4	36.0	54.1
Max	340	965	473	519	681	588	583	326	570	220	301	568
(WY)	(1973)	(1986)	(1974)	(1996)	(1998)	(1994)	(1987)	(2011)	(1949)	(1949)	(1984)	(1996)
Min	4.57	5.09	6.45	7.70	11.0	30.4	34.0	18.3	7.68	3.90	3.39	2.88
(WY)	(1964)	(1999)	(1956)	(1981)	(2002)	(1988)	(1981)	(1977)	(1977)	(1999)	(1957)	(1968)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1943 - 2011	
Annual total	37,579.1		46,038.4			
Annual mean	103		126		106	
Highest annual mean					215	2003
Lowest annual mean					38.6	1981
Highest daily mean	2,180	Jan 25	2,230	Apr 28	7,500	Nov 4, 1985
Lowest daily mean	3.9	Sep 2	3.0	Aug 25	0.20	Aug 13, 1999
Annual seven-day minimum	4.8	Aug 31	4.3	Jul 31	0.42	Aug 4, 1999
Maximum peak flow			5,200	Apr 28	^a 41,200	Jun 17, 1949
Maximum peak stage			8.33	Apr 28	^b 18.42	Nov 4, 1985
Instantaneous low flow			2.0	Aug 25	0.17	Aug 13, 1999
Annual runoff (cfsm)	1,000		1.22		1.03	
Annual runoff (inches)	13.57		16.63		13.95	
10 percent exceeds	252		315		228	
50 percent exceeds	22		22		39	
90 percent exceeds	6.9		8.6		7.5	

^a From rating curve extended above 5,300 ft³/s on basis of slope-area measurement of peak flow, highest since 1878.

^b From floodmarks.

