Water-Data Report 2011

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD

Potomac Basin
North Branch Potomac Subbasin

LOCATION.--Lat 39°28'44.3", long 79°03'49.6" referenced to North American Datum of 1983, Mineral County, WV, Hydrologic Unit 02070002, on left bank 0.3 mi downstream from Savage River, 0.4 mi northwest of Luke, and at mile 53.2.

DRAINAGE AREA.--406 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1899 to July 1906 (published as "at Piedmont, W. Va."), October 1949 to current year.

REVISED RECORDS.--WSP 192: 1899-1904. WSP 1432: 1905-06, drainage area at former site. WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder and crest stage gage. Datum of gage is 944.22 ft above National Geodetic Vertical Datum of 1929. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 mi downstream at datum about 35 ft lower. Oct. 1, 1949 to Sept. 30, 2008, recording gage on right bank, 400 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing record), which are fair. Flow regulated prior to July 1981 by Stony River Reservoir 45 mi upstream from station, since December 1950 by Savage River Reservoir, 5 mi upstream from station (see station 01597500), and since July 1981 by Jennings Randolph Lake, 9 mi upstream from station. Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906. U.S. Army Corps of Engineers satellite collection platform at station. 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, 11,200 ft^3/s, May 18, gage height, 8.65 ft; minimum discharge, 118 ft^3/s, Nov. 8, 9.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 01598500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/01598500.2011.pdf

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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	203	167	325	187	184	3,690	485	1,480	715	375	256	250
2	193	166	288	196	207	3,210	491	1,330	716	357	255	247
3	191	167	368	192	206	2,620	648	1,150	603	601	257	247
4	190	180	364	190	236	2,250	893	848	487	355	257	251
5	189	166	359	190	307	1,960	1,380	673	714	353	257	289
6	189	161	357	189	449	1,680	1,820	668	462	332	258	506
7	177	160	355	190	629	1,470	1,640	662	446	319	257	748
8	187	144	353	189	628	1,450	1,410	655	421	330	259	2,550
9	269	120	351	187	626	1,460	1,430	603	399	323	254	2,850
10	328	129	350	e187	624	1,930	1,450	546	402	320	256	1,120
11	327	137	349	186	609	4,080	1,440	520	402	321	254	1,110
12	327	137	351	186	596	3,610	1,490	456	398	321	253	765
13	327	136	350	185	596	3,350	2,300	533	396	319	253	417
14	327	136	348	185	606	3,270	2,400	1,060	379	318	255	374
15	325	137	348	185	565	3,230	1,780	1,540	359	317	254	434
16	324	147	315	185	503	2,700	2,460	1,900	352	317	253	408
17	323	154	276	185	536	1,850	3,990	4,180	343	316	252	419
18	256	143	276	186	596	1,430	4,420	8,340	345	e307	251	414
19	184	140	275	185	608	1,420	4,940	6,190	349	e294	268	419
20	183	138	274	185	706	1,410	7,130	6,840	1,770	295	260	414
21	174	138	253	183	869	1,210	5,550	3,990	1,810	315	255	409
22	170	138	225	e185	1,530	1,030	3,010	1,650	619	314	253	407
23	173	138	225	181	2,340	1,060	2,170	1,310	612	313	253	405
24	173	137	212	e184	2,320	1,610	2,890	1,030	514	318	251	404
25	173	148	196	182	3,060	1,900	2,650	730	430	288	259	646
26	174	148	196	e184	3,540	1,810	1,890	627	428	259	253	404
27	172	144	188	183	3,470	1,580	2,580	1,550	426	257	254	406
28	166	142	180	183	3,580	1,410	3,490	3,480	415	257	252	400
29	166	140	180	182	---	986	3,170	1,700	387	257	251	378
30	166	192	180	182	---	620	2,020	1,100	385	258	250	408
31	166	---	181	182	---	487	---	827	---	256	254	---
Total	6,892	4,430	8,848	5,761	30,726	61,773	73,417	58,168	16,484	9,882	7,904	18,499
Mean	222	148	285	186	1,097	1,993	2,447	1,876	549	319	255	617
Max	328	192	368	196	3,580	4,080	7,130	8,340	1,810	601	268	2,850
Min	166	120	180	181	184	487	485	456	343	256	250	247
Cfsm	0.55	0.36	0.70	0.46	2.70	4.91	6.03	4.62	1.35	0.79	0.63	1.52
In.	0.63	0.41	0.81	0.53	2.82	5.66	6.73	5.33	1.51	0.91	0.72	1.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 – 1906, 1950 – 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	330	464	808	912	1,052	1,533	1,202	936	563	354	323	328
Max	1,423	2,806	2,536	2,368	2,487	3,414	3,098	2,484	1,918	1,294	1,525	2,404
(WY)	(1955)	(1986)	(1973)	(1996)	(1994)	(1963)	(1993)	(1996)	(2003)	(1990)	(1996)	(2003)
Min	27.6	33.5	123	166	99.8	391	278	165	108	91.4	37.0	17.1
(WY)	(1905)	(1905)	(1999)	(1977)	(1905)	(2009)	(1995)	(1982)	(1969)	(1953)	(1904)	(1904)

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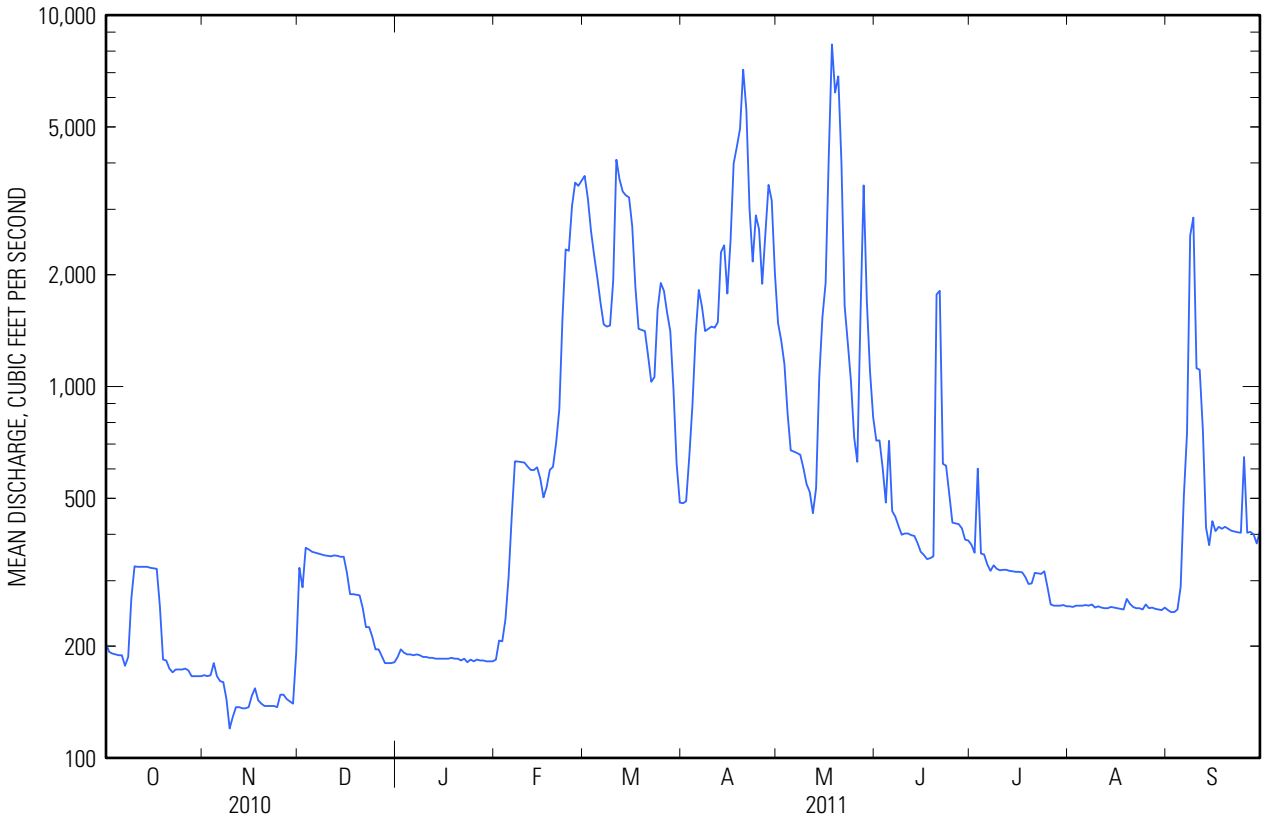
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1899 – 1906, 1950 – 2011	
Annual total	238,049		302,784			
Annual mean	652		830		734	
Annual mean‡	653		855		736	
Highest annual mean					1,342	1996
Lowest annual mean					412	1969
Highest daily mean	7,030	Mar 16	8,340	May 18	18,400	Aug 18, 1955
Lowest daily mean	120	Nov 9	120	Nov 9	6.0	Sep 4, 1904
Annual seven-day minimum	133	Nov 9	133	Nov 9	11	Aug 29, 1904
Maximum peak flow			11,200	May 18	[a]39,400	Oct 15, 1954
Maximum peak stage			8.65	May 18	17.15	Oct 15, 1954
Instantaneous low flow			118	Nov 8[b]	6.0	Sep 4, 1904
Annual runoff (cfsm)	1.61		2.04		1.81	
Annual runoff (cfsm)‡	1.61		2.11		1.81	
Annual runoff (inches)	21.81		27.74		24.57	
Annual runoff (inches)‡	21.84		28.59		24.62	
10 percent exceeds	1,490		2,310		1,660	
50 percent exceeds	353		349		412	
90 percent exceeds	168		173		121	

‡ Adjusted for change in reservoir contents since October 1949.
[a] From rating curve extended above 25,000 ft³/s on basis of slope-area measurement of peak flow.
[b] Nov. 8, 9.