Water-Data Report 2008

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD

Potomac Basin
North Branch Potomac Subbasin

LOCATION.--Lat 39°28'45.1", long 79°03'54.0" referenced to North American Datum of 1983, Mineral County, WV, Hydrologic Unit 02070002, on right bank 0.2 mi downstream from Savage River, 0.5 mi northwest of Luke, and at mile 53.3.

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 concrete control. 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.

REMARKS.--Records good except those for estimated daily discharges (recorder malfunction), 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. Upper Potomac River Commission gage-height telemeter 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, 6,010 ft^3/s, May 17, gage height, 7.74 ft; minimum discharge, 184 ft^3/s, Sept. 25.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	232	283	334	1,230	993	745	455	1,210	2,310	420	379	303
2	231	283	343	1,050	1,180	743	411	777	2,100	418	659	300
3	233	283	404	878	1,080	773	386	897	1,440	418	869	301
4	229	283	368	732	1,140	916	405	1,060	2,770	449	412	299
5	229	261	365	591	1,300	2,590	401	980	4,660	456	385	296
6	229	235	358	601	1,880	4,120	433	1,110	3,060	751	385	299
7	406	233	356	795	2,610	4,540	454	794	1,520	628	381	296
8	551	232	368	998	2,910	3,220	451	725	1,030	1,050	379	294
9	383	234	446	1,000	2,840	1,660	451	963	806	1,070	379	301
10	232	233	1,250	990	2,480	1,370	451	2,570	722	707	377	296
11	231	232	2,420	1,530	1,920	1,190	451	3,710	693	412	341	294
12	231	236	2,400	2,440	1,760	1,010	449	4,410	604	411	299	301
13	723	238	2,610	2,250	1,620	886	448	3,280	502	412	298	299
14	770	236	2,860	2,040	1,300	835	411	2,040	500	407	298	296
15	241	244	2,440	1,680	1,060	830	383	1,660	499	406	298	294
16	397	263	2,460	1,420	946	827	379	3,860	552	404	296	294
17	359	280	2,330	1,320	947	812	371	3,450	1,010	395	e307	294
18	313	279	1,980	1,050	1,040	836	364	1,870	1,150	383	e307	294
19	296	279	1,740	848	1,030	1,010	613	2,750	714	382	294	292
20	225	279	1,450	835	1,040	1,720	699	2,950	450	384	298	812
21	213	279	1,250	828	941	2,140	810	3,100	419	386	305	827
22	214	279	1,090	713	853	2,030	e2,100	3,290	533	402	304	262
23	221	276	1,120	583	850	1,570	e2,200	2,440	575	392	304	261
24	240	276	1,140	609	802	1,400	1,440	1,030	473	377	303	259
25	244	276	1,120	622	760	1,170	1,050	891	446	376	302	241
26	255	278	1,190	583	756	943	1,230	831	424	383	303	253
27	256	284	1,230	555	760	867	1,240	971	423	384	305	265
28	241	305	1,230	551	737	689	1,400	1,130	423	357	369	281
29	237	334	1,260	554	740	519	1,640	1,070	430	336	326	252
30	260	334	1,250	637	---	471	1,270	964	423	350	305	249
31	283	---	1,240	699	---	459	---	1,590	---	379	548	---
Total	9,405	8,047	40,402	31,212	38,275	42,891	23,246	58,373	31,661	14,485	11,315	9,605
Mean	303	268	1,303	1,007	1,320	1,384	775	1,883	1,055	467	365	320
Max	770	334	2,860	2,440	2,910	4,540	2,200	4,410	4,660	1,070	869	827
Min	213	232	334	551	737	459	364	725	419	336	294	241
Cfsm	0.75	0.66	3.21	2.48	3.25	3.41	1.91	4.64	2.60	1.15	0.90	0.79
In.	0.86	0.74	3.70	2.86	3.51	3.93	2.13	5.35	2.90	1.33	1.04	0.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1906, 1950 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	332	476	804	911	1,061	1,528	1,196	913	555	357	327	326
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	400	278	165	108	91.4	37.0	17.1
(WY)	(1905)	(1905)	(1999)	(1977)	(1905)	(2006)	(1995)	(1982)	(1969)	(1953)	(1904)	(1904)

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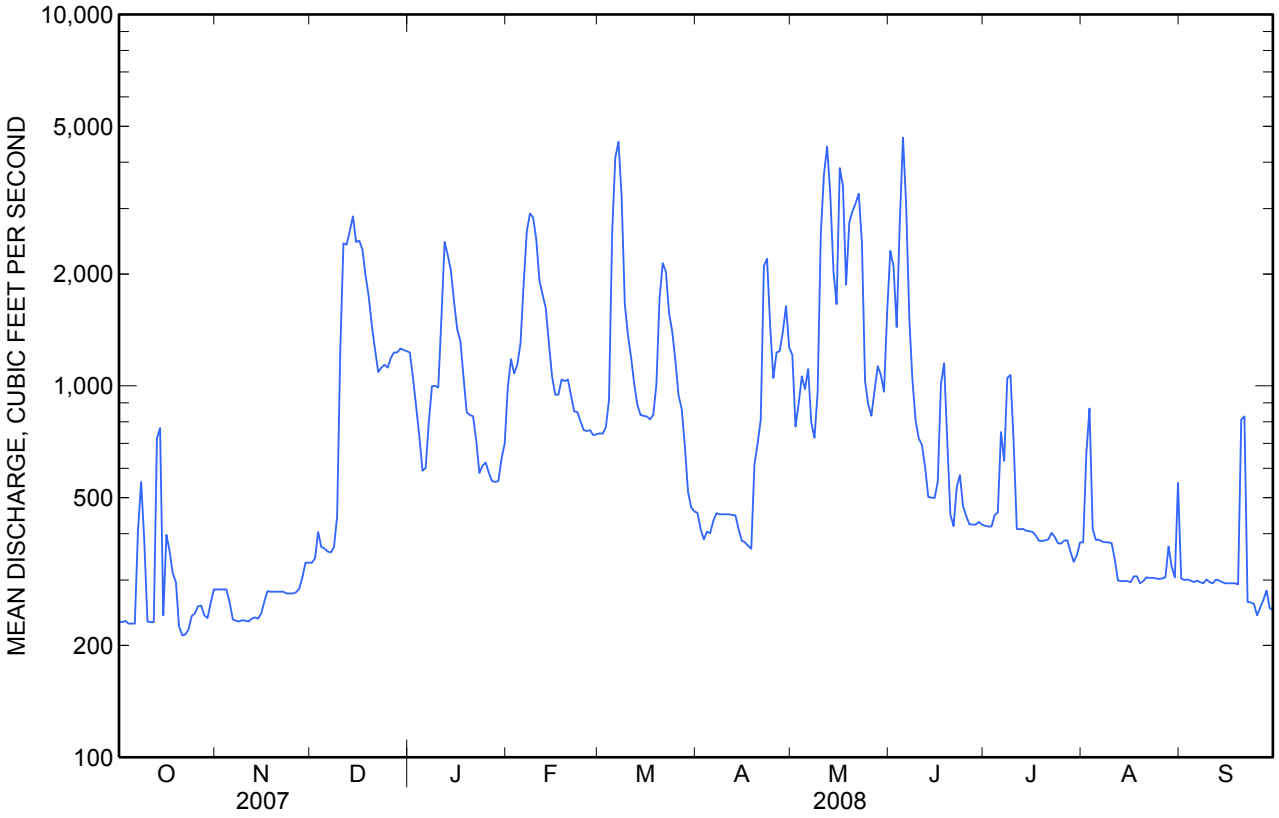
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1899 - 1906, 1950 - 2008	
Annual total	237,199		318,917			
Annual mean	650		871		732	
Annual mean ‡	647		864		734	
Highest annual mean					1,342	1996
Lowest annual mean					412	1969
Highest daily mean	2,960	Apr 16	4,660	Jun 5	18,400	Aug 18, 1955
Lowest daily mean	213	Oct 21	213	Oct 21	6.0	Sep 4, 1904
Annual seven-day minimum	222	Jul 15	230	Oct 20	11	Aug 29, 1904
Maximum peak flow			6,010	May 17	[a]39,400	Oct 15, 1954
Maximum peak stage			7.74	May 17	17.15	Oct 15, 1954
Instantaneous low flow			184	Sep 25	6.0	Sep 4, 1904
Annual runoff (cfsm)	1.60		2.15		1.80	
Annual runoff (cfsm) ‡	1.59		2.13		1.81	
Annual runoff (inches)	21.73		29.22		24.51	
Annual runoff (inches) ‡	21.64		28.90		24.64	
10 percent exceeds	1,650		2,060		1,650	
50 percent exceeds	356		540		414	
90 percent exceeds	229		261		119	

‡ 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.