

## POTOMAC RIVER BASIN

## 01601000 WILLS CREEK BELOW HYNDMAN, PA

**LOCATION.**--Lat 39°48'43", long 78°43'00", Bedford County, Hydrologic Unit 02070004, on left bank 150 ft upstream from county highway bridge, 150 ft downstream from Pennsylvania Railroad bridge, 0.35 mi downstream from Little Wills Creek, and 0.5 mi south of Hyndman.

**DRAINAGE AREA.**--146 mi<sup>2</sup>.

**PERIOD OF RECORD.**--Occasional low-flow measurements, water years 1983-91, and crest-stage partial-record, water years 1968-86. June 1951 to September 1967, April 2002 to current year.

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 893.37 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Railroad Bench mark).

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 2,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Jan. 1	2100	6,870	6.60	May 10	1500	4,800	5.82
Mar. 17	2100	2,350	4.54	June 3	2330	*7,480	*6.80
Mar. 20	1830	3,190	5.05	Sept. 19	0900	5,190	5.98
May 9	1530	2,870	4.87				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	572	72	12	e3.0	e3.0
2	---	---	---	---	---	---	---	554	61	11	e3.0	e2.8
3	---	---	---	---	---	---	---	508	52	11	e2.5	e2.7
4	---	---	---	---	---	---	---	428	50	9.5	e5.0	e2.6
5	---	---	---	---	---	---	---	348	47	9.5	23	e2.5
6	---	---	---	---	---	---	---	279	63	9.9	61	e2.2
7	---	---	---	---	---	---	---	278	107	10	21	e2.0
8	---	---	---	---	---	---	---	352	61	11	12	e1.5
9	---	---	---	---	---	---	---	665	48	9.9	8.1	e1.3
10	---	---	---	---	---	---	---	904	43	8.9	6.0	e1.1
11	---	---	---	---	---	---	---	619	38	8.3	4.8	e1.0
12	---	---	---	---	---	---	100	455	35	6.0	e4.0	e0.90
13	---	---	---	---	---	---	102	424	39	4.7	e3.5	e0.90
14	---	---	---	---	---	---	110	478	65	7.8	e3.4	e0.80
15	---	---	---	---	---	---	202	429	52	15	e3.3	e1.1
16	---	---	---	---	---	---	193	363	43	10	e3.3	e1.5
17	---	---	---	---	---	---	197	306	35	6.9	e3.2	e2.0
18	---	---	---	---	---	---	192	837	29	5.6	e3.1	e2.0
19	---	---	---	---	---	---	210	855	26	5.7	e3.5	e3.0
20	---	---	---	---	---	---	192	594	23	5.6	e3.8	e2.0
21	---	---	---	---	---	---	192	417	20	5.9	e3.3	e3.5
22	---	---	---	---	---	---	325	315	17	e5.5	e3.4	e4.0
23	---	---	---	---	---	---	337	249	16	e5.0	e3.4	e4.2
24	---	---	---	---	---	---	322	204	15	e4.5	7.9	e3.0
25	---	---	---	---	---	---	281	183	15	e5.0	16	e2.5
26	---	---	---	---	---	---	232	158	14	6.2	8.6	e5.0
27	---	---	---	---	---	---	195	132	13	12	5.7	54
28	---	---	---	---	---	---	921	114	13	12	4.1	68
29	---	---	---	---	---	---	1370	114	14	7.5	e3.5	27
30	---	---	---	---	---	---	803	90	12	5.1	e3.4	16
31	---	---	---	---	---	---	---	80	---	e3.5	e3.1	---
TOTAL	---	---	---	---	---	---	---	12304	1138	250.5	242.9	224.10
MEAN	---	---	---	---	---	---	---	397	37.9	8.08	7.84	7.47
MAX	---	---	---	---	---	---	---	904	107	15	61	68
MIN	---	---	---	---	---	---	---	80	12	3.5	2.5	0.80
CFSM	---	---	---	---	---	---	---	2.72	0.26	0.06	0.05	0.05
IN.	---	---	---	---	---	---	---	3.13	0.29	0.06	0.06	0.06

STATISTICS OF MONTHLY MEAN DATA FOR FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

	44.4	71.2	134	208	292	594	419	265	107	27.8	28.8	16.8
MEAN	44.4	71.2	134	208	292	594	419	265	107	27.8	28.8	16.8
MAX	311	288	423	549	689	983	762	529	245	59.9	146	66.7
(WY)	1955	1960	1957	1952	1961	1963	1964	1958	1955	1960	1955	1956
MIN	3.15	6.49	10.2	36.5	47.6	294	131	80.3	15.3	3.40	2.68	3.42
(WY)	1964	1954	1966	1954	1954	1957	1954	1963	1965	1965	1957	1957

e Estimated.

## POTOMAC CREEK BASIN

## 01601000 WILLS CREEK BELOW HYNDMAN, PA--Continued

SUMMARY STATISTICS		FOR PERIOD OF DAILY RECORD	
ANNUAL MEAN	183		
HIGHEST ANNUAL MEAN	254		1960
LOWEST ANNUAL MEAN	80.4		1954
HIGHEST DAILY MEAN	4710	Mar 6	1967
LOWEST DAILY MEAN	0.70	Sep 12	1966
ANNUAL SEVEN-DAY MINIMUM	0.84	Aug 5	1966
MAXIMUM PEAK FLOW	a17100	Jun 21	1984
MAXIMUM PEAK STAGE	13.76	Jun 21	1984
INSTANTANEOUS LOW FLOW	0.70	Sep 10	1965b
ANNUAL RUNOFF (CFSM)	1.26		
ANNUAL RUNOFF (INCHES)	17.08		
10 PERCENT EXCEEDS	472		
50 PERCENT EXCEEDS	60		
90 PERCENT EXCEEDS	5.5		

a From rating curve extended above 3,050 ft<sup>3</sup>/s.

b Also Sept. 11, 1965, Aug. 9, 1966, Sept. 12, 1966.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	224	106	2440	e60	e190	209	101	762	65	16	19
2	9.5	183	94	3120	e55	e180	276	96	648	61	17	106
3	8.1	145	e75	1250	e55	e150	291	91	2000	64	86	87
4	7.4	118	e70	760	e70	e160	292	103	3990	51	48	92
5	7.2	106	e65	545	e75	e190	501	141	1370	45	38	70
6	6.7	384	e60	423	e70	e900	574	202	748	42	28	49
7	6.2	340	e60	345	e65	957	629	229	1140	56	23	37
8	5.4	262	e55	308	e60	736	562	1130	1220	49	19	31
9	4.7	205	e55	306	e60	1130	660	1850	860	60	28	27
10	5.1	171	e50	298	e55	970	830	3360	557	57	29	24
11	33	161	e50	268	e50	659	1120	2240	402	69	26	19
12	80	250	e90	226	e50	534	1020	1030	323	49	24	17
13	43	417	e110	217	e50	794	713	801	473	48	18	20
14	28	361	246	193	e45	1520	513	618	380	37	15	31
15	22	276	282	168	e40	1310	395	493	314	31	13	31
16	117	224	283	e125	e40	1490	325	1220	246	29	11	24
17	142	389	247	e120	e60	2010	276	1160	229	25	9.8	18
18	86	411	219	e110	e80	2030	231	954	298	23	9.9	19
19	59	371	200	e105	e75	1560	205	740	251	22	8.8	2620
20	45	312	466	e100	e70	1820	183	574	262	19	7.6	948
21	36	260	761	e95	e65	2130	180	497	417	17	7.0	426
22	30	236	585	e90	e110	1240	187	369	387	17	6.4	282
23	25	201	496	e85	e400	801	159	326	329	19	6.5	631
24	23	168	403	e80	e300	570	143	334	255	25	6.1	417
25	22	149	367	e80	e270	433	137	286	197	19	5.3	302
26	113	131	290	e75	e240	361	140	593	157	16	16	231
27	96	126	228	e70	e220	295	132	586	130	14	44	325
28	77	113	196	e70	e200	247	116	544	108	12	30	653
29	105	106	179	e75	---	223	111	432	91	13	19	454
30	368	112	161	e70	---	219	106	361	76	12	16	322
31	279	---	167	e60	---	200	---	450	---	11	18	---
TOTAL	1901.3	6912	6716	12277	2990	26009	11216	21911	18620	1077	649.4	8332
MEAN	61.3	230	217	396	107	839	374	707	621	34.7	20.9	278
MAX	368	417	761	3120	400	2130	1120	3360	3990	69	86	2620
MIN	4.7	106	50	60	40	150	106	91	76	11	5.3	17
CFSM	0.42	1.58	1.48	2.71	0.73	5.75	2.56	4.84	4.25	0.24	0.14	1.90
IN.	0.48	1.76	1.71	3.13	0.76	6.63	2.86	5.58	4.74	0.27	0.17	2.12

## STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

MEAN	45.4	80.6	139	219	281	608	417	290	135	28.1	28.4	30.5
MAX	311	288	423	549	689	983	762	707	621	59.9	146	278
(WY)	1955	1960	1957	1952	1961	1963	1964	2003	2003	1960	1955	2003
MIN	3.15	6.49	10.2	36.5	47.6	294	131	80.3	15.3	3.40	2.68	3.42
(WY)	1964	1954	1966	1954	1954	1957	1954	1963	1965	1965	1957	1957

e Estimated.

## POTOMAC CREEK BASIN

## 01601000 WILLS CREEK BELOW HYNDMAN, PA--Continued

SUMMARY STATISTICS	FOR 2003 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	118610.7		192	
ANNUAL MEAN	325		325	
HIGHEST ANNUAL MEAN			2003	
LOWEST ANNUAL MEAN			80.4	
HIGHEST DAILY MEAN	3990	Jun 4	4710	Mar 6 1967
LOWEST DAILY MEAN	4.7	Oct 9	0.70	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	6.1	Oct 4	0.84	Aug 5 1966
MAXIMUM PEAK FLOW	a7480	Jun 3	a17100	Jun 21 1984
MAXIMUM PEAK STAGE	6.80	Jun 3	13.76	Jun 21 1984
ANNUAL RUNOFF (CFSM)	2.23		1.31	
ANNUAL RUNOFF (INCHES)	30.22		17.85	
10 PERCENT EXCEEDS	801		491	
50 PERCENT EXCEEDS	143		64	
90 PERCENT EXCEEDS	18		5.8	

a From rating curve extended above 3,050 ft<sup>3</sup>/s.

