

SCHUYLKILL RIVER BASIN

01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA

LOCATION.--Lat 40°04'45", long 75°27'40", Chester County, Hydrologic Unit 02040202, on right bank 100 ft upstream from Pennsylvania turnpike bridge, 0.9 mi downstream from Little Valley Creek, 2.2 mi upstream from mouth, and 1.0 mi south of Valley Forge.

DRAINAGE AREA.--20.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 108.62 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Satellite telemetry at station. Intermittent pumpage from quarry upstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Dec. 17	0930	*1,940	*9.45	Mar. 30	0515	661	6.61

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	17	17	16	33	30	53	30	40	20	15	15
2	21	17	16	16	31	30	48	30	58	19	14	13
3	20	17	16	15	29	29	45	29	30	18	14	12
4	36	17	16	15	28	35	43	28	28	18	29	24
5	55	17	16	15	68	41	41	28	27	18	17	13
6	21	17	16	15	49	34	44	27	26	17	15	8.8
7	20	17	15	15	44	38	40	27	25	17	15	8.2
8	19	16	15	15	38	34	39	27	24	17	14	8.1
9	19	17	15	16	41	38	41	26	24	17	14	8.3
10	18	37	15	15	82	32	42	26	23	17	15	7.9
11	18	18	15	15	39	31	48	25	23	16	20	8.5
12	17	18	15	15	36	31	46	25	23	16	25	8.6
13	17	17	14	15	36	96	38	24	21	16	24	8.4
14	17	24	75	14	34	38	36	24	25	16	16	16
15	17	18	21	21	34	36	37	24	26	15	15	9.6
16	17	17	23	17	42	58	58	24	47	15	14	9.1
17	18	17	662	16	46	58	39	24	52	15	15	8.5
18	25	17	61	16	33	39	41	24	25	41	14	8.8
19	19	16	37	76	32	36	36	24	23	17	14	8.6
20	18	16	29	62	32	35	35	23	22	16	12	65
21	18	16	25	32	31	157	35	50	22	16	14	43
22	17	15	23	24	31	74	34	59	22	15	13	12
23	17	15	22	22	32	46	33	36	30	15	15	10
24	17	15	21	21	30	42	33	26	22	15	14	11
25	17	15	20	20	44	40	32	25	21	15	13	55
26	17	82	19	19	40	38	32	121	20	15	13	13
27	17	23	19	19	32	37	32	100	19	15	12	11
28	17	19	18	18	31	36	31	39	19	15	12	11
29	17	19	17	17	---	39	31	32	20	15	15	11
30	17	20	17	105	---	282	31	29	19	16	12	10
31	17	---	16	47	---	68	---	28	---	15	18	---
TOTAL	621	606	1326	764	1078	1658	1174	1064	806	528	482	456.4
MEAN	20.0	20.2	42.8	24.6	38.5	53.5	39.1	34.3	26.9	17.0	15.5	15.2
MAX	55	82	662	105	82	282	58	121	58	41	29	65
MIN	17	15	14	14	28	29	31	23	19	15	12	7.9
CFSM	.96	.97	2.06	1.18	1.85	2.57	1.88	1.65	1.29	.82	.75	.73
IN.	1.11	1.08	2.37	1.37	1.93	2.97	2.10	1.90	1.44	.94	.86	.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2001, BY WATER YEAR (WY)

MEAN	23.3	27.7	32.7	34.2	33.5	45.1	44.5	37.3	28.4	27.0	23.2	28.9
MAX	61.8	48.8	103	95.8	53.5	85.9	98.8	77.5	49.9	53.1	36.6	95.5
(WY)	1997	1987	1997	1996	1984	1994	1983	1984	1984	1996	1996	1999
MIN	15.0	15.4	12.7	16.8	19.1	17.9	18.1	19.5	15.1	13.2	11.1	14.5
(WY)	1987	1999	1999	1985	1992	1985	1985	1995	1995	1999	1995	1998

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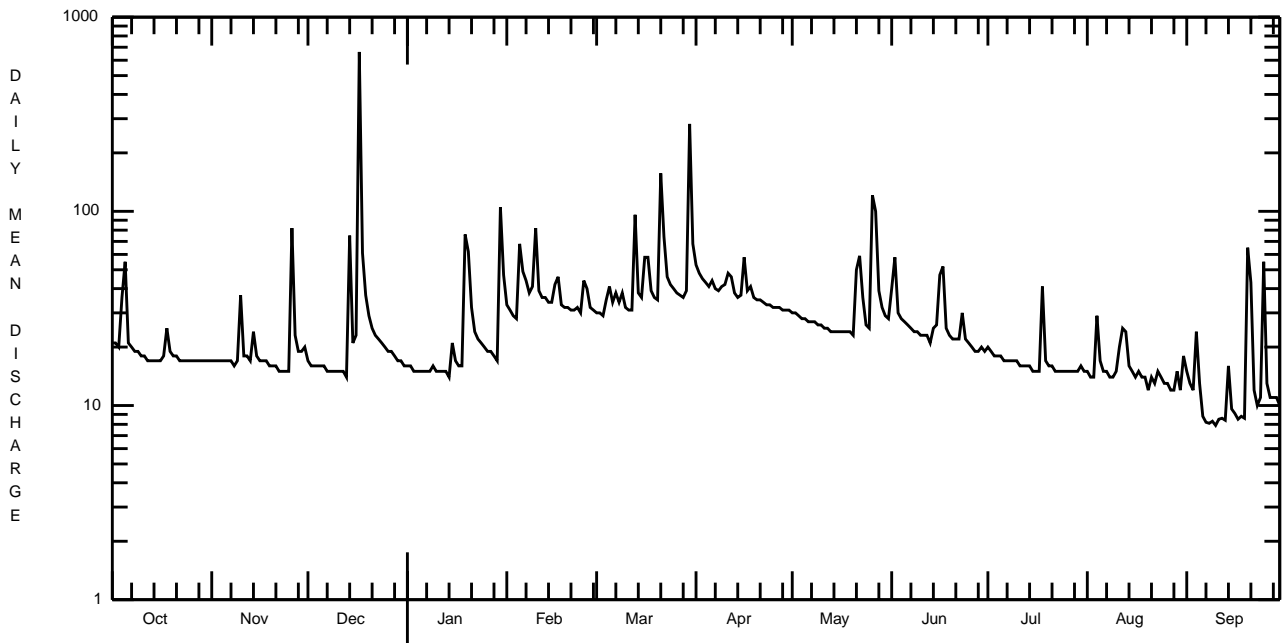
01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1983 - 2001	
ANNUAL TOTAL	11976		10563.4			
ANNUAL MEAN	32.7		28.9		32.1	
HIGHEST ANNUAL MEAN					47.7	1996
LOWEST ANNUAL MEAN					20.3	1992
HIGHEST DAILY MEAN	662	Dec 17	662	Dec 17	2020	Sep 16 1999
LOWEST DAILY MEAN	11	Aug 26,27 ^a	7.9	Sep 10	7.4	Jul 13 1999
ANNUAL SEVEN-DAY MINIMUM	11	Sep 6	8.3	Sep 7	8.3	Sep 7 2001
MAXIMUM PEAK FLOW			1940	Dec 17	^b 6280	Sep 16 1999
MAXIMUM PEAK STAGE			9.45	Dec 17	^c 14.75	Sep 16 1999
INSTANTANEOUS LOW FLOW			6.6	Aug 28	6.4	Jul 29 1999
ANNUAL RUNOFF (CFSM)	1.57		1.39		1.54	
ANNUAL RUNOFF (INCHES)	21.42		18.89		20.99	
10 PERCENT EXCEEDS	51		44		52	
50 PERCENT EXCEEDS	22		21		23	
90 PERCENT EXCEEDS	15		14		15	

^a Also Sept. 2, 7-12.

^b From rating curve extended above 3,690 ft³/s on basis of slope-area measurement of peak flow.

^c From outside highwater mark.



OCTOBER 1, 2000 TO SEPTEMBER 30, 2001

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BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATESREMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 μm . Each sample covered a total area of 3.2 m^2 .

Date	10/20/00
Benthic Macroinvertebrate	Count
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	1
Tubificida	
Naididae	5
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	52
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
<u>Gammarus</u> sp	6
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
<u>Caecidotea</u> sp	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<u>Baetis</u> sp	1
Ephemerellidae	
<u>Eurylophella</u> sp	6
<u>Serratella</u> sp	119
Megaloptera	
Sialidae (ALDERFLIES)	
<u>Sialis</u> sp	3
Trichoptera (CADDISFLIES)	
Glossosomatidae	
<u>Glossosoma</u> sp	2
Hydropsychidae	
<u>Cheumatopsyche</u> sp	57
<u>Hydropsyche</u> sp	230
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Dubiraphia</u> sp	1
<u>Optioservus</u> sp	221
<u>Oulimnius</u> sp	35
<u>Stenelmis</u> sp	42
Psephenidae (WATER PENNIES)	
<u>Ectopria</u> sp	1
<u>Psephenus</u> sp	8
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	640
Simuliidae (BLACK FLIES)	
<u>Simulium</u> sp	8
Tipulidae (CRANE FLIES)	
<u>Antocha</u> sp	37
Total Organisms	1476
Total Taxa	21