

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)
Mar. 21	2330	*1,500	*8.47	Sept. 15	0230	860	7.02
Aug. 4	0115	1,040	7.38				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	24	18	20	20	32	42	34	26	20	21	12
2	13	97	20	20	19	31	41	35	25	19	16	11
3	12	43	20	20	19	30	40	33	24	20	21	22
4	20	27	19	40	19	29	64	32	24	24	200	13
5	57	27	20	37	19	28	41	32	24	18	20	12
6	20	25	46	23	18	27	39	33	47	17	17	12
7	19	25	23	22	19	27	37	31	26	17	16	11
8	16	24	20	22	19	26	37	31	24	16	15	11
9	13	25	20	22	19	26	68	30	23	16	15	11
10	59	23	37	40	21	25	41	44	22	30	14	11
11	19	24	25	27	28	37	38	34	22	17	18	11
12	14	24	22	23	26	52	36	32	24	16	15	11
13	13	24	26	23	21	29	35	41	36	15	16	61
14	19	24	108	21	58	27	34	48	26	16	41	15
15	25	23	44	21	37	26	35	30	24	20	19	165
16	27	23	31	21	35	29	56	29	24	23	15	22
17	28	22	28	20	32	87	68	29	22	19	13	19
18	33	18	26	31	33	34	54	28	58	16	15	17
19	26	17	25	20	87	31	41	62	73	21	14	94
20	56	15	35	22	43	30	38	40	26	18	13	46
21	28	16	31	20	36	338	87	33	29	16	12	22
22	29	15	25	26	34	572	60	33	65	15	12	20
23	33	16	24	19	33	86	44	33	26	14	12	19
24	28	20	23	19	36	67	41	53	24	15	12	19
25	27	18	22	22	37	58	39	35	22	15	12	32
26	26	28	23	20	36	51	38	30	21	75	11	194
27	24	105	22	19	34	52	38	30	21	65	11	34
28	25	26	22	28	49	114	37	29	26	21	12	26
29	25	22	21	19	33	51	36	28	27	19	12	23
30	23	21	21	19	---	47	35	27	24	18	12	22
31	24	---	21	25	---	44	---	26	---	22	16	---
TOTAL	795	841	868	731	920	2143	1340	1065	885	673	668	998
MEAN	25.6	28.0	28.0	23.6	31.7	69.1	44.7	34.4	29.5	21.7	21.5	33.3
MAX	59	105	108	40	87	572	87	62	73	75	200	194
MIN	12	15	18	19	18	25	34	26	21	14	11	11
CFSM	1.23	1.35	1.35	1.13	1.53	3.32	2.15	1.65	1.42	1.04	1.04	1.60
IN.	1.42	1.50	1.55	1.31	1.65	3.83	2.40	1.90	1.58	1.20	1.19	1.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2000, BY WATER YEAR (WY)

MEAN	23.5	28.1	32.1	34.7	33.2	44.7	44.8	37.5	28.4	27.6	23.6	29.6
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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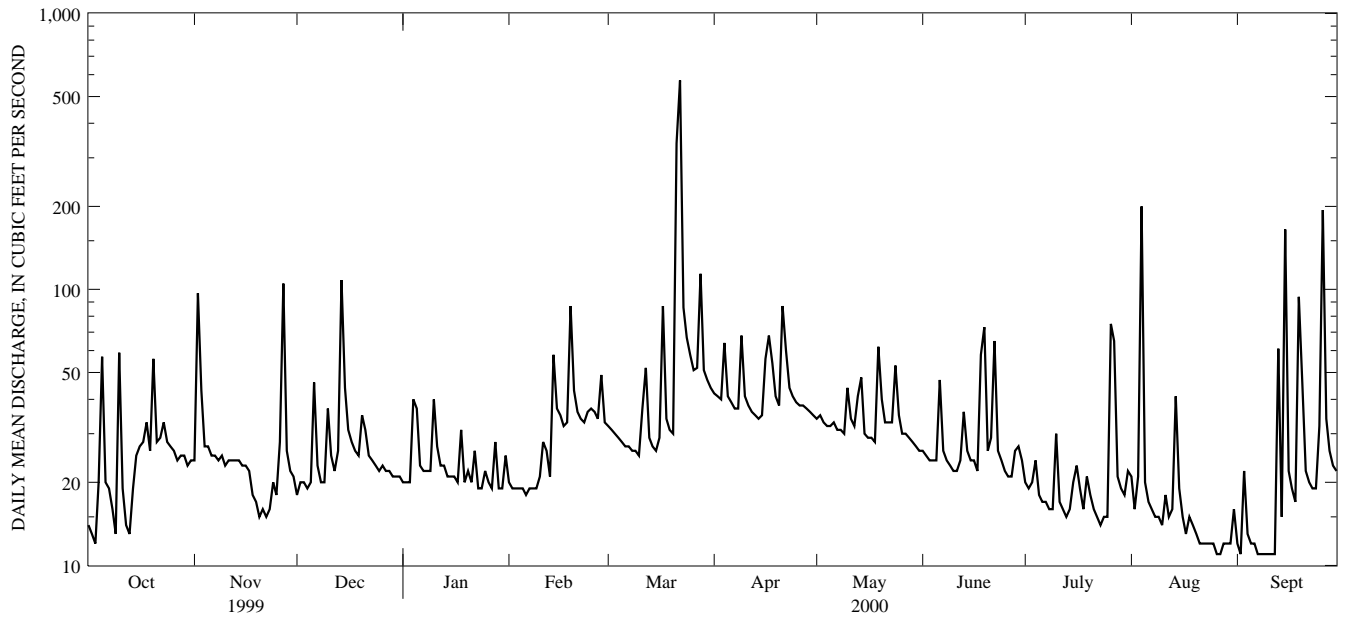
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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1983 - 2000	
ANNUAL TOTAL	11247.3		11927		32.3	
ANNUAL MEAN	30.8		32.6		47.7	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					1992	
HIGHEST DAILY MEAN	2020	Sep 16	572	Mar 22	2020	Sep 16 1999
LOWEST DAILY MEAN	7.4	Jul 13	11	Aug 26,27 ^a	7.4	Jul 13 1999
ANNUAL SEVEN-DAY MINIMUM	9.4	Aug 1	11	Sep 6	8.8	Sep 1 1995
INSTANTANEOUS PEAK FLOW			1500	Mar 21	^b 6280	Sep 16 1999
INSTANTANEOUS PEAK STAGE			8.47	Mar 21	^c 14.75	Sep 16 1999
INSTANTANEOUS LOW FLOW			8.8	Sep 12	6.4	Jul 29 1999
ANNUAL RUNOFF (CFSM)	1.48		1.57		1.55	
ANNUAL RUNOFF (INCHES)	20.12		21.33		21.10	
10 PERCENT EXCEEDS	36		51		52	
50 PERCENT EXCEEDS	21		25		24	
90 PERCENT EXCEEDS	11		15		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.



1-YEAR HYDROGRAPH
OCTOBER 1, 1999 TO SEPTEMBER 30, 2000

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1984, 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	DIS-CHARGE, INST. (CUBIC FEET PER SECOND)	OXYGEN, DIS-SOLVED (MG/L)	PH WATER WHOLE FIELD (STAND-ARD)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 1999 08...	80020	1028	16	10.1	7.7	565	9.5	250	53	28

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SODIUM AD-SORP-TION RATIO	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT (00932)	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 1999 08...	3.3	.8	29	20	189	57	<.10	8.2	27

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	BORON, DIS-SOLVED (MG/L AS B)	IRON, DIS-SOLVED (MG/L AS FE)
OCT 1999 08...	<.020	1.74	<.010	.012	343	52	20

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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	10/08/99
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (Flatworms)	
Tricladida	
Planariidae	30
Nemertea (Proboscis Worms)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	2
Mollusca	
Gastropoda (Snails)	
Basommatophora	
Ancyliidae	
<i>Ferrissia</i>	3
Annelida (Segmented Worms)	
Oligochaeta	5
Tubificida	
Naididae	4
Arthropoda	
Acariformes	
Hydrachnidia (Water Mites)	11
Crustacea	
Amphipoda (Scuds)	
Gammaridae	
<i>Gammarus</i>	3
Insecta	
Ephemeroptera (Mayflies)	
Baetidae	
<i>Baetis</i>	3
Ephemerellidae	
<i>Eurylophella</i>	4
<i>Serratella</i>	13
Plecoptera (Stoneflies)	
Chloroperlidae	
<i>Utaperla</i>	1
Trichoptera (Caddisflies)	
Glossosomatidae	
<i>Glossosoma</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	20
<i>Hydropsyche</i>	63
Hydroptilidae	
<i>Hydroptila</i>	2
Philopotamidae	
<i>Chimarra</i>	1
Coleoptera (Beetles)	
Elmidae (Riffle Beetles)	
<i>Optioservus</i>	219
<i>Oulimnius</i>	21
<i>Stenelmis</i>	36
Psephenidae (Water Pennies)	
<i>Psephenus</i>	4
Diptera (True Flies)	
Chironomidae (Midges)	148
Simuliidae (Black Flies)	
<i>Simulium</i>	2
Tipulidae (Crane Flies)	
<i>Antocha</i>	1
Total count	597
Total number of taxa	23