

SCHUYLKILL RIVER BASIN

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA

LOCATION.--Lat 40°24'48", long 76°10'19", Berks County, Hydrologic Unit, 02040203, on left bank 30 ft downstream from Mill Road bridge at Kricks Mill, 0.4 mi upstream from Mill Creek, and 3.5 mi west of Bernville.

DRAINAGE AREA.--66.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1974 to current year.

REVISED RECORDS.--WDR PA-96-1: 1975-83(P), 1988(P), 1990(P), 1993-94(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 311.26 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Department of Transportation datum).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of about 9.5 ft, from information by local resident, discharge about 6,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
May 18	1400	*389	*3.54	(No peaks above base discharge.)			

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	31	31	34	e23	36	23	69	85	60	49	28	25
2	47	32	31	e22	34	24	60	123	59	47	28	28
3	54	32	30	e21	33	59	61	110	56	44	28	26
4	50	30	29	e19	33	39	62	95	54	41	30	24
5	35	30	29	e20	30	32	59	88	56	39	29	20
6	46	30	28	e19	29	31	57	82	61	38	32	18
7	57	32	28	e19	30	30	54	76	103	38	29	16
8	57	31	30	e19	29	29	52	70	64	39	28	15
9	40	30	38	e20	29	29	51	84	59	36	31	16
10	36	29	30	e23	28	35	57	76	56	36	33	16
11	37	29	29	e27	29	31	49	66	54	34	32	16
12	36	29	27	32	26	30	47	72	51	35	32	16
13	35	30	27	27	26	33	46	109	49	34	30	17
14	36	31	31	24	25	34	53	157	60	34	29	19
15	30	32	35	22	25	33	146	110	57	32	30	26
16	26	31	28	22	25	33	91	96	49	32	32	30
17	28	30	29	22	25	32	76	88	47	32	23	28
18	26	30	38	22	25	47	69	215	50	32	20	28
19	26	29	33	e21	24	53	65	148	47	31	22	27
20	26	29	30	e20	24	89	63	126	42	30	25	27
21	27	29	29	e25	28	109	60	118	40	29	23	28
22	30	29	28	e22	26	79	67	104	40	29	22	30
23	30	29	27	e23	25	63	60	95	39	30	25	31
24	29	30	28	44	25	61	54	89	39	34	26	30
25	29	41	26	53	25	58	54	84	39	33	26	29
26	28	51	26	40	25	60	53	80	39	32	25	33
27	30	35	25	37	25	129	48	77	56	33	24	101
28	31	31	e24	34	23	86	80	72	134	37	23	72
29	31	29	e23	33	---	77	149	68	52	35	33	51
30	32	32	e25	32	---	70	89	63	51	30	28	47
31	31	---	e26	34	---	65	---	59	---	29	25	---
TOTAL	1087	943	901	821	767	1603	2001	2985	1663	1084	851	890
MEAN	35.1	31.4	29.1	26.5	27.4	51.7	66.7	96.3	55.4	35.0	27.5	29.7
MAX	57	51	38	53	36	129	149	215	134	49	33	101
MIN	26	29	23	19	23	23	46	59	39	29	20	15
CFSM	0.53	0.47	0.44	0.40	0.41	0.78	1.00	1.45	0.83	0.53	0.41	0.45
IN.	0.61	0.53	0.50	0.46	0.43	0.90	1.12	1.67	0.93	0.61	0.48	0.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

MEAN	79.2	91.9	111	126	126	163	146	112	98.0	84.1	64.6	65.9
MAX	250	181	288	385	264	468	367	277	208	216	129	181
(WY)	1977	1997	1997	1979	1979	1994	1993	1989	1982	1984	1976	1975
MIN	35.1	31.4	29.1	26.5	27.4	51.7	58.8	59.5	41.4	32.1	27.5	29.7
(WY)	2002	2002	2002	2002	2002	2002	1985	1999	1999	1999	2002	2002

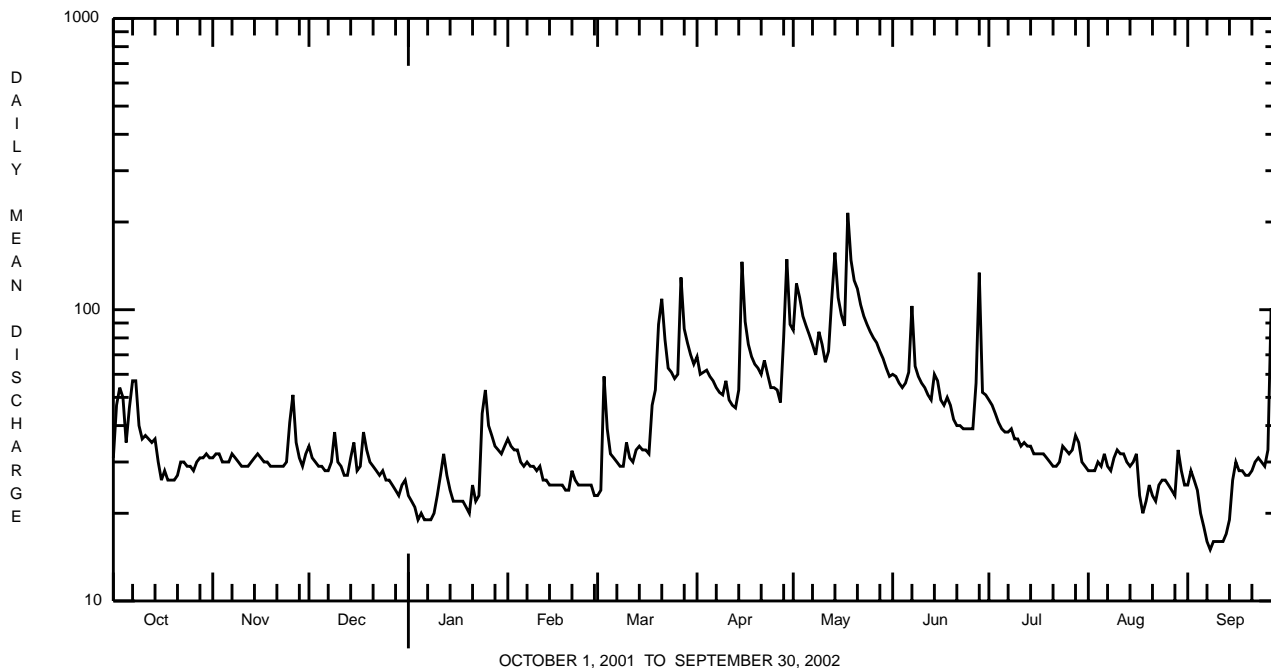
e Estimated.

SCHUYLKILL RIVER BASIN

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1975 - 2002	
ANNUAL TOTAL	23451		15596			
ANNUAL MEAN	64.2		42.7		105	
HIGHEST ANNUAL MEAN					164	1994
LOWEST ANNUAL MEAN					42.7	2002
HIGHEST DAILY MEAN	324	Mar 30	215	May 18	2140	Jan 26 1978
LOWEST DAILY MEAN	22	Sep 17, 22, 23	15	Sep 8	15	Sep 8 2002
ANNUAL SEVEN-DAY MINIMUM	23	Sep 17	16	Sep 7	16	Sep 7 2002
MAXIMUM PEAK FLOW			389	May 18	^a 7140	Jan 24 1979
MAXIMUM PEAK STAGE			3.54	May 18	10.16	Jan 24 1979
INSTANTANEOUS LOW FLOW			14	Sep 8	14	Sep 8 2002
ANNUAL RUNOFF (CFSM)	0.97		0.64		1.57	
ANNUAL RUNOFF (INCHES)	13.12		8.72		21.36	
10 PERCENT EXCEEDS	117		76		175	
50 PERCENT EXCEEDS	54		32		81	
90 PERCENT EXCEEDS	28		23		40	

a From rating curve extended above 740 ft³/s on basis of contracted-opening measurement at 3,900 ft³/s, gage height 8.01 ft.



SCHUYLKILL RIVER BASIN

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1978 to current year.

INSTRUMENTATION.--Temperature recorder since October 1977. Temperature probe interfaced with a data collection platform since 1986 water year.

REMARKS.--Water temperature records rated good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 28.5°C, July 6, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 27.5°C, Aug. 2; minimum, 0.0°C, several days during winter.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.0	12.5	13.0	10.5	7.5	9.0	13.5	11.0	12.5	0.0	0.0	0.0
2	15.0	12.5	13.5	13.5	9.5	11.5	11.0	7.5	10.0	0.5	0.0	0.0
3	17.0	14.5	15.5	15.5	12.5	14.0	8.0	6.0	7.0	0.5	0.0	0.0
4	17.5	16.0	16.5	13.5	10.5	12.0	8.0	5.5	6.5	0.5	0.0	0.0
5	17.5	15.5	16.5	11.0	8.5	10.0	10.0	7.0	8.5	0.5	0.0	0.0
6	17.0	14.5	16.5	10.0	7.5	8.5	10.5	8.5	9.5	0.5	0.0	0.0
7	14.5	11.0	13.0	10.5	7.0	8.5	11.5	9.5	10.5	0.5	0.0	0.0
8	11.5	9.5	10.5	11.0	7.5	9.0	9.5	7.0	8.0	0.5	0.0	0.5
9	11.5	9.0	10.0	11.0	8.5	9.5	7.5	5.5	6.5	1.0	0.0	0.5
10	12.5	9.0	10.5	9.5	7.5	8.0	6.0	4.5	5.0	2.0	0.0	1.0
11	14.5	10.5	12.5	9.0	6.5	8.0	7.0	4.5	5.5	3.5	1.5	2.5
12	16.0	12.5	14.5	8.0	5.0	6.5	7.0	5.0	6.0	4.5	3.0	3.5
13	17.5	14.5	16.0	7.0	4.0	5.0	8.0	6.0	7.0	4.0	2.5	3.5
14	17.5	15.5	16.5	7.5	4.0	5.5	9.5	8.0	9.0	4.0	2.0	3.0
15	17.5	14.5	16.5	9.5	5.5	7.5	9.5	6.5	8.5	4.5	2.5	3.5
16	15.0	13.0	14.0	11.0	7.5	9.0	6.5	5.0	5.5	4.0	3.0	3.5
17	13.0	11.0	12.5	10.0	7.5	9.0	6.5	5.0	5.5	4.5	3.0	3.5
18	12.0	9.5	10.5	8.5	6.5	7.5	8.0	6.5	7.5	3.5	1.5	2.5
19	12.0	8.5	10.0	8.5	6.0	7.0	7.5	5.5	7.0	1.5	0.0	1.0
20	13.5	9.5	11.5	8.5	6.5	7.5	6.5	4.5	5.5	1.0	0.0	0.5
21	14.5	11.0	12.5	7.0	4.5	5.5	5.0	3.0	4.0	1.5	0.0	0.5
22	16.0	12.5	14.0	6.0	3.5	4.5	4.0	2.5	3.0	4.0	1.0	2.0
23	16.0	14.0	15.0	6.5	3.5	5.0	4.0	2.0	3.0	4.5	1.5	3.0
24	18.0	14.5	16.0	8.0	4.5	6.5	5.0	3.5	4.0	5.0	3.5	4.5
25	18.0	15.0	16.5	11.5	8.0	10.0	3.5	2.0	3.0	6.0	4.0	5.0
26	15.0	10.5	13.0	12.5	10.0	11.5	3.0	1.0	2.0	5.0	3.0	4.0
27	10.5	8.5	9.5	10.5	9.5	10.0	2.0	0.0	1.0	5.5	3.0	4.0
28	10.0	7.5	8.5	11.0	9.5	10.5	1.5	0.0	0.5	6.0	3.5	4.5
29	9.5	6.5	8.0	11.5	11.0	11.5	2.0	0.0	1.0	7.5	4.0	5.5
30	11.0	8.0	9.0	13.0	11.0	12.0	1.0	0.0	0.5	8.5	6.0	7.5
31	9.5	8.5	9.0	---	---	---	0.5	0.0	0.0	8.0	6.5	7.5
MONTH	18.0	6.5	12.9	15.5	3.5	8.7	13.5	0.0	5.6	8.5	0.0	2.5

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CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAMPLE LOC- ATION, CROSS SECTION (FT FM R BK) (72103)	SAM- PLING DEPTH (FEET) (00003)	TEMPER- ATURE WATER (DEG C) (00010)
JUN 2002					
04...	0933	53	0	--	--
04...	0934	--	8	1.00	17.6
04...	0935	--	13	1.00	17.6
04...	0936	--	18	1.00	17.6
04...	0937	--	23	1.00	17.5
04...	0938	--	28	1.00	17.5
04...	0939	--	33	1.00	17.5
04...	0940	--	38	1.00	17.5
04...	0941	--	43	1.00	17.5
04...	0942	--	48	1.00	17.7
04...	0943	--	53	1.00	17.7
04...	0944	--	58	1.00	17.7
04...	0945	--	63	--	--