

SCHUYLKILL RIVER BASIN

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA

LOCATION.--Lat 40°22'14", long 76°01'32", Berks County, Hydrologic Unit 02040203, on right bank 1.0 mi upstream from Rebers Bridge and Plum Creek, 1.0 mi east of Blue Marsh, 3.0 mi north of Sinking Spring, and 5.5 mi northeast of Reading.

DRAINAGE AREA.--175 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to current year.

REVISED RECORDS.--WDR PA-72-1: 1969-71 (M).

GAGE.--Water-stage recorder. Datum of gage is 230.06 ft above sea level (Western Berks Water Authority datum). Prior to Nov. 25, 1974, water-stage recorder at site 0.3 mi downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since April 1979 by Blue Marsh Lake (station 01470870) 0.8 mi upstream. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	111	57	150	281	297	145	180	93	80	55	58
2	162	82	57	150	196	344	145	180	90	79	55	58
3	162	59	57	150	557	343	145	165	90	108	77	59
4	162	59	57	211	752	345	146	153	87	107	103	60
5	110	89	57	166	483	324	146	153	84	106	104	60
6	128	147	57	97	251	297	145	130	84	126	106	60
7	133	173	57	149	251	296	145	114	85	150	106	60
8	57	172	57	164	373	295	129	114	83	125	106	60
9	89	106	57	167	484	297	117	113	82	97	106	60
10	118	49	57	608	377	296	118	136	73	99	106	54
11	118	50	57	923	253	295	120	132	61	99	106	51
12	118	50	57	497	208	295	120	113	61	145	106	51
13	242	50	57	245	220	296	113	114	61	280	107	51
14	416	50	57	318	221	296	121	114	62	351	109	51
15	397	e95	48	346	221	297	121	114	74	262	109	53
16	207	e155	80	305	360	297	122	115	83	195	81	62
17	152	155	111	304	464	295	123	114	84	195	57	66
18	152	155	76	309	363	276	123	114	133	195	57	825
19	118	155	42	1550	251	251	123	115	164	175	57	1310
20	91	153	42	2550	223	251	123	114	164	150	57	1300
21	91	152	65	1600	223	251	123	104	116	150	57	1280
22	92	152	89	910	223	582	124	97	69	105	57	1110
23	83	121	66	906	223	655	125	97	62	54	57	711
24	76	57	38	909	223	446	126	107	63	53	57	382
25	77	57	38	1170	223	354	125	129	53	53	57	301
26	76	58	38	1180	222	353	126	146	46	53	58	300
27	76	57	38	690	222	353	142	129	47	75	58	237
28	77	57	38	427	223	352	158	104	72	101	58	180
29	95	57	74	418	---	261	191	97	104	101	58	181
30	111	57	100	403	---	169	201	97	103	79	58	503
31	111	---	120	399	---	156	---	97	---	55	58	---
TOTAL	4205	2940	1901	18371	8571	9915	4031	3801	2533	4003	2403	9594
MEAN	136	98.0	61.3	593	306	320	134	123	84.4	129	77.5	320
MAX	416	173	120	2550	752	655	201	180	164	351	109	1310
MIN	57	49	38	97	196	156	113	97	46	53	55	51

e Estimated.

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01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1999, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	199	239	341	365	357	451	331	306	231	185	125	146
MAX	612	484	986	1151	596	1365	1016	1058	606	543	283	379
(WY)	1980	1997	1997	1979	1979	1994	1993	1989	1982	1984	1994	1987
MIN	51.4	62.4	61.3	91.7	131	135	49.8	123	69.9	79.3	55.4	54.0
(WY)	1996	1981	1999	1981	1980	1981	1985	1999	1979	1985	1981	1983

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1979 - 1999	
ANNUAL TOTAL	107454	72268		
ANNUAL MEAN	294	198	273	1981
HIGHEST ANNUAL MEAN			435	1994
LOWEST ANNUAL MEAN			127	1981
HIGHEST DAILY MEAN	1740	May 12	2550	Jan 20
LOWEST DAILY MEAN	38	Dec 24-28	38	Dec 24-28
ANNUAL SEVEN-DAY MINIMUM	47	Dec 23	47	Dec 23
INSTANTANEOUS PEAK FLOW			2640	Jan 19
INSTANTANEOUS PEAK STAGE			6.59	Jan 19
10 PERCENT EXCEEDS	617		539	Dec 6 1993
50 PERCENT EXCEEDS	204		174	Dec 6 1993
90 PERCENT EXCEEDS	57		65	Dec 6 1993

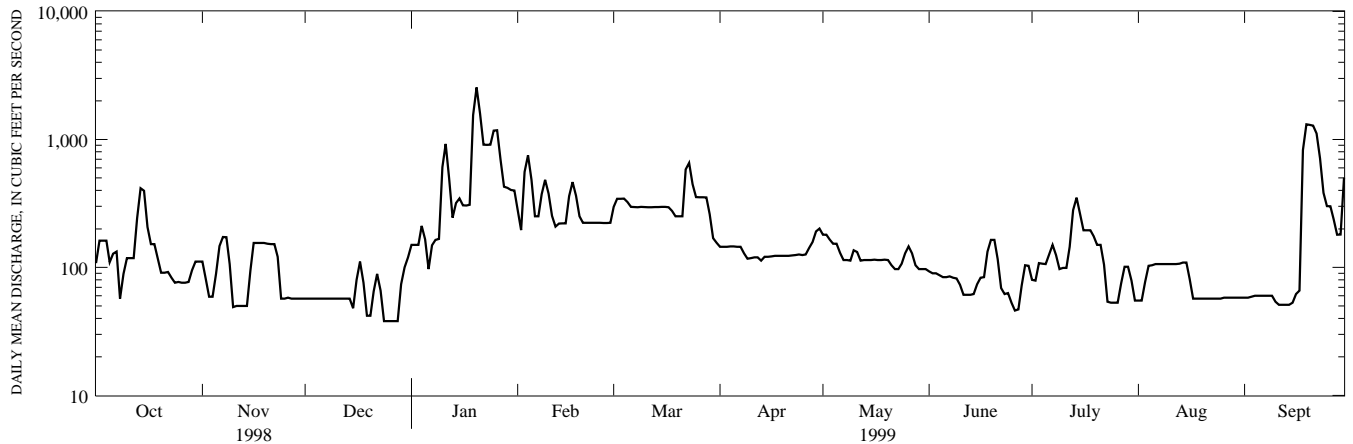
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1978, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	180	236	333	333	373	423	363	261	285	233	175	150
MAX	701	464	827	761	790	832	706	423	1244	523	350	536
(WY)	1977	1976	1978	1978	1971	1978	1970	1973	1972	1969	1969	1975
MIN	56.2	58.3	69.9	100	146	163	144	89.2	60.4	45.0	31.9	43.4
(WY)	1967	1966	1966	1966	1969	1969	1966	1965	1965	1966	1966	1966

SUMMARY STATISTICS WATER YEARS 1965 - 1978

ANNUAL MEAN	283	
HIGHEST ANNUAL MEAN	416	1978
LOWEST ANNUAL MEAN	122	1966
HIGHEST DAILY MEAN	11000	Jun 23 1972
LOWEST DAILY MEAN	23	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	25	Sep 7 1966
INSTANTANEOUS PEAK FLOW	a16100	Jun 22 1972
INSTANTANEOUS PEAK STAGE	b18.70	Jun 22 1972
ANNUAL RUNOFF (CFSM)	1.62	
ANNUAL RUNOFF (INCHES)	22.00	
10 PERCENT EXCEEDS	551	
50 PERCENT EXCEEDS	178	
90 PERCENT EXCEEDS	69	

a From rating curve extended above 3,500 ft³/s on basis of runoff comparison with downstream station.
 b From floodmark.



1-YEAR HYDROGRAPH
 OCTOBER 1, 1998 TO SEPTEMBER 30, 1999

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01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to 1980.**PERIOD OF DAILY RECORD.**--

WATER TEMPERATURE: Water years 1969 to current year.

SUSPENDED-SEDIMENT DISCHARGE.--May 1973 to May 1976.

INSTRUMENTATION.--Temperature recorder since October 1968. Temperature probe interfaced with a data collection platform since 1986 water year.**REMARKS.**--Temperature records collected at streamgage. Interruptions in the record were due to malfunctions of the equipment. Water-quality samples and suspended sediment samples collected at Rebers Bridge 1.0 mi downstream.**EXTREMES FOR PERIOD OF DAILY RECORD.**--

WATER TEMPERATURE: Maximum, 34.0°C, Oct. 2, 1968; minimum, 0.0°C, on several days during December 1970, January and March 1971, and February 1979.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,400 mg/L, June 22, 1973; minimum daily mean, 2 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 8,570 tons, Jan. 27, 1976; minimum daily, 0.45 tons, July 13.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 25.0°C, Aug. 29; minimum, 1.5°C, Jan. 5, 6, 20-25.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.5	20.0	20.5	14.0	13.5	13.5	9.0	8.5	8.5	4.0	3.0	3.5
2	21.0	20.0	20.5	14.0	13.0	13.5	9.0	8.0	8.5	3.5	3.0	3.0
3	20.5	20.0	20.0	13.5	12.5	13.0	9.5	8.5	9.0	3.5	3.0	3.5
4	20.0	19.5	20.0	13.5	12.0	12.5	9.5	8.5	9.0	3.0	2.5	2.5
5	19.5	18.0	19.0	12.5	12.0	12.5	9.5	8.5	9.0	2.5	1.5	2.0
6	19.0	17.5	18.0	12.5	12.0	12.0	9.0	8.5	8.5	2.0	1.5	2.0
7	18.0	17.5	18.0	12.0	12.0	12.0	9.5	8.5	8.5	2.5	2.0	2.0
8	18.0	17.0	17.5	12.0	11.5	12.0	9.0	8.5	8.5	2.5	2.0	2.5
9	17.5	17.0	17.5	12.0	10.5	11.5	8.5	8.0	8.5	2.5	2.5	2.5
10	17.5	17.0	17.5	10.5	10.5	10.5	9.0	8.0	8.5	2.5	2.0	2.5
11	18.0	17.0	17.5	11.5	10.0	11.0	8.5	8.0	8.5	2.5	2.5	2.5
12	18.0	17.5	17.5	11.5	10.0	10.5	8.5	8.0	8.0	2.5	2.5	2.5
13	18.0	17.0	17.5	11.0	10.0	10.5	8.5	8.0	8.0	2.5	2.0	2.5
14	17.5	17.0	17.5	11.0	9.5	10.0	8.0	7.5	7.5	2.0	2.0	2.0
15	17.5	16.5	17.0	---	---	---	8.0	7.0	7.5	2.5	2.0	2.0
16	17.0	16.5	17.0	---	---	---	8.0	7.0	7.5	2.5	2.0	2.0
17	17.0	16.5	16.5	11.0	10.0	10.5	7.5	7.5	7.5	2.5	2.0	2.0
18	17.0	16.0	16.5	10.5	10.0	10.0	7.5	6.5	7.0	2.5	2.0	2.5
19	16.5	15.5	16.0	10.5	10.0	10.0	7.5	6.5	7.0	2.5	2.0	2.0
20	16.5	15.0	15.5	10.0	10.0	10.0	---	---	---	2.0	1.5	1.5
21	16.0	15.0	15.5	10.0	9.5	10.0	---	---	---	1.5	1.5	1.5
22	15.5	15.0	15.0	9.5	9.5	9.5	7.0	6.0	7.0	1.5	1.5	1.5
23	16.0	15.0	15.0	9.5	9.0	9.5	6.5	6.0	6.0	1.5	1.5	1.5
24	16.0	14.5	15.0	10.0	9.0	9.5	6.0	5.5	5.5	1.5	1.5	1.5
25	15.5	14.0	14.5	9.5	9.0	9.0	5.5	5.0	5.0	2.0	1.5	2.0
26	14.5	13.5	14.0	9.5	9.0	9.0	5.5	4.5	5.0	2.5	2.0	2.0
27	14.0	13.5	13.5	9.5	8.5	9.0	5.5	4.5	5.0	3.0	2.5	2.5
28	14.0	13.5	13.5	9.5	8.5	9.0	5.5	5.0	5.0	3.0	3.0	3.0
29	14.5	13.0	13.5	9.5	8.5	9.0	5.0	4.5	5.0	3.0	3.0	3.0
30	14.5	13.5	13.5	9.5	8.5	9.0	5.0	4.0	4.5	3.5	3.0	3.5
31	14.0	13.5	13.5	---	---	---	4.0	3.5	4.0	3.5	3.0	3.5
MONTH	21.5	13.0	16.6	14.0	8.5	10.6	9.5	3.5	7.1	4.0	1.5	2.4

