

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 National Geodetic Vertical Datum of 1929 (Western Berks Water Authority datum). Prior to Nov. 25, 1974, water-stage recorder at site 0.3 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. 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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	477	293	288	178	297	379	263	388	303	160	113
2	51	376	199	1020	178	298	381	242	579	304	161	151
3	51	376	97	1330	178	860	332	242	782	267	161	181
4	51	247	98	1180	192	845	293	242	1010	238	163	180
5	51	139	98	1170	247	371	293	222	1120	238	163	137
6	51	230	129	805	241	626	293	204	811	238	375	113
7	99	234	169	444	208	752	294	205	644	242	362	113
8	143	183	169	366	208	578	293	205	650	244	186	106
9	142	183	169	371	207	579	253	205	867	244	188	88
10	142	183	169	408	205	754	223	206	1000	245	189	76
11	166	183	170	434	188	796	268	205	826	233	189	76
12	183	184	625	434	159	562	302	205	693	226	216	76
13	183	286	958	361	148	430	299	184	696	226	172	76
14	183	261	960	302	134	785	550	166	696	175	121	76
15	380	256	968	304	122	980	747	166	692	135	135	556
16	678	296	1020	256	123	974	745	165	426	135	136	1110
17	1140	300	1140	242	123	817	739	166	205	135	137	1390
18	1010	700	899	251	121	680	500	166	178	136	193	802
19	852	984	526	251	270	608	346	164	219	135	213	357
20	840	820	395	251	769	570	346	164	324	136	163	355
21	506	538	398	251	615	1150	346	165	72	165	140	354
22	144	413	399	251	203	2180	346	164	588	516	125	200
23	98	411	494	214	210	2080	346	164	1620	918	115	115
24	124	410	565	183	690	1070	274	166	2290	1330	115	439
25	181	327	572	183	1020	158	217	167	2290	906	116	571
26	202	260	527	183	715	102	219	169	2300	543	117	487
27	201	281	421	210	381	104	219	365	1520	541	114	455
28	233	297	380	226	297	221	251	571	935	324	111	455
29	260	296	379	225	---	357	319	583	916	161	112	358
30	338	294	323	206	---	370	318	468	545	158	113	297
31	516	---	283	185	---	379	---	387	---	159	113	---
TOTAL	9250	10425	13992	12785	8330	21333	10731	7356	25882	9956	5074	9863
MEAN	298	348	451	412	298	688	358	237	863	321	164	329
MAX	1140	984	1140	1330	1020	2180	747	583	2300	1330	375	1390
MIN	51	139	97	183	121	102	217	164	72	135	111	76

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2003, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	206	226	331	340	339	451	327	296	256	182	121	147
MAX	612	484	986	1151	596	1365	1016	1058	863	543	283	379
(WY)	1980	1997	1997	1979	1979	1994	1993	1989	2003	1984	1994	1987
MIN	51.4	61.7	61.3	84.5	75.2	106	49.8	123	69.9	64.9	55.4	54.0
(WY)	1996	2002	1999	2002	2002	2002	1985	1999	1979	2002	1981	1983

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1979 - 2003

ANNUAL TOTAL		66008		144977								
ANNUAL MEAN		181		397					268			
HIGHEST ANNUAL MEAN									435			1994
LOWEST ANNUAL MEAN									111			2002
HIGHEST DAILY MEAN				1140	Oct 17		2300	Jun 26	3950	Apr 18		1983
LOWEST DAILY MEAN				32	Jan 1		51	Oct 1-6	25	Oct 7		1995
ANNUAL SEVEN-DAY MINIMUM				41	Feb 20		58	Oct 1	26	Oct 6		1995
MAXIMUM PEAK FLOW							2320	Jun 25,26	a 4060	Dec 6		1993
MAXIMUM PEAK STAGE							6.38	Jun 25,26	8.02	Jun 26		2000
10 PERCENT EXCEEDS				410			863		534			
50 PERCENT EXCEEDS				98			260		172			
90 PERCENT EXCEEDS				50			122		63			

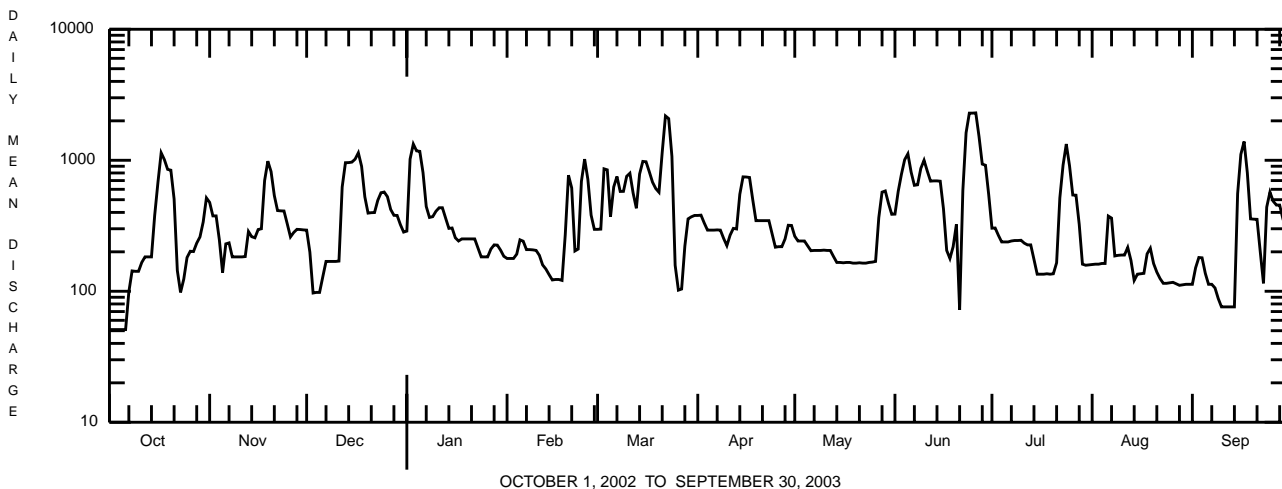
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1978, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	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
MAXIMUM PEAK FLOW	a 16100											Jun 22 1972
MAXIMUM PEAK STAGE	b 18.70											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 3,540 ft³/s on basis of runoff comparison with downstream station.
- b From floodmark.



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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.**--Water temperature records rated fair. Temperature records collected at streamgage. 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, 22.5°C, Aug. 14; minimum, 1.5°C, Jan. 15-17.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.0	20.0	20.5	12.0	11.5	12.0	6.5	6.0	6.0	3.5	3.0	3.5
2	22.0	20.0	20.5	11.5	11.0	11.0	6.0	5.5	5.5	3.5	3.5	3.5
3	21.5	20.0	20.5	11.0	10.5	10.5	5.5	5.0	5.0	3.5	3.0	3.5
4	20.5	20.0	20.0	10.5	10.0	10.0	5.0	4.5	4.5	3.0	3.0	3.0
5	21.5	19.5	20.5	10.0	9.5	9.5	4.5	4.0	4.5	3.0	3.0	3.0
6	21.0	19.5	20.0	10.0	9.5	9.5	4.5	4.0	4.5	3.0	3.0	3.0
7	21.0	20.0	20.5	10.0	9.0	9.5	4.0	4.0	4.0	3.0	3.0	3.0
8	21.0	20.0	20.5	9.5	9.0	9.5	4.5	3.5	4.0	3.0	3.0	3.0
9	20.5	20.0	20.5	10.0	9.5	9.5	3.5	3.5	3.5	3.5	3.0	3.0
10	20.5	20.0	20.5	10.0	9.5	10.0	4.0	3.5	3.5	3.5	3.0	3.0
11	20.0	20.0	20.0	10.5	9.5	10.0	3.5	3.5	3.5	3.0	2.5	3.0
12	20.0	19.5	20.0	10.0	9.5	9.5	3.5	3.0	3.5	2.5	2.5	2.5
13	19.5	18.5	19.5	10.0	9.5	9.5	3.5	3.0	3.0	3.0	2.0	2.5
14	18.5	18.0	18.5	10.0	9.5	10.0	3.0	3.0	3.0	2.5	2.0	2.0
15	18.5	18.0	18.0	10.0	9.5	10.0	3.0	3.0	3.0	2.0	1.5	2.0
16	18.0	18.0	18.0	10.0	9.5	9.5	3.0	3.0	3.0	2.0	1.5	1.5
17	18.0	17.5	17.5	9.5	9.5	9.5	3.0	2.5	2.5	2.0	1.5	2.0
18	17.5	16.5	17.0	9.5	9.0	9.0	3.0	2.5	2.5	2.5	2.0	2.0
19	16.5	15.5	16.0	9.0	9.0	9.0	3.0	3.0	3.0	2.5	2.5	2.5
20	16.0	15.5	15.5	9.5	9.0	9.0	3.5	3.0	3.0	2.5	2.5	2.5
21	15.5	14.5	15.0	9.0	8.5	9.0	3.5	3.0	3.0	3.0	2.5	2.5
22	14.5	13.5	14.0	8.5	8.5	8.5	3.5	3.0	3.5	3.0	2.5	2.5
23	14.0	13.0	13.5	8.5	8.0	8.5	3.5	3.0	3.5	3.0	2.5	2.5
24	14.0	13.5	13.5	8.0	8.0	8.0	3.5	3.5	3.5	3.0	2.5	3.0
25	13.5	13.5	13.5	8.0	8.0	8.0	3.5	3.0	3.0	3.0	3.0	3.0
26	13.5	13.0	13.5	8.0	7.5	8.0	3.0	3.0	3.0	3.0	3.0	3.0
27	14.0	13.0	13.5	7.5	7.5	7.5	3.0	3.0	3.0	3.0	2.5	3.0
28	13.5	13.0	13.0	7.5	7.0	7.0	3.0	2.5	3.0	3.0	3.0	3.0
29	13.0	12.5	12.5	7.0	6.5	7.0	3.0	2.5	3.0	3.0	3.0	3.0
30	12.5	12.0	12.0	7.0	6.5	6.5	3.0	3.0	3.0	3.0	3.0	3.0
31	12.5	12.0	12.0	---	---	---	3.5	3.0	3.0	3.0	3.0	3.0
MONTH	22.0	12.0	17.1	12.0	6.5	9.1	6.5	2.5	3.5	3.5	1.5	2.8

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CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Sample loc- ation, cross section ft from rt bank (72103)	Sam- pling depth, feet (00003)	Temper- ature, water, deg C (00010)
SEP 2003							
09...	1305	1028	1028	77	0	0.0	--
09...	1306	1028	1028	--	2	0.3	21.1
09...	1307	1028	1028	--	7	0.5	21.2
09...	1308	1028	1028	--	12	0.5	21.3
09...	1309	1028	1028	--	17	0.6	21.4
09...	1310	1028	1028	--	22	0.6	21.5
09...	1311	1028	1028	--	27	0.6	21.7
09...	1312	1028	1028	--	32	0.8	21.9
09...	1313	1028	1028	--	37	0.6	22.1
09...	1314	1028	1028	--	42	0.7	22.3
09...	1315	1028	1028	--	47	0.7	22.4
09...	1316	1028	1028	--	52	0.6	22.6
09...	1317	1028	1028	--	57	0.7	22.7
09...	1318	1028	1028	--	62	0.7	23.0
09...	1319	1028	1028	--	67	0.6	23.2
09...	1320	1028	1028	--	72	0.6	23.4
09...	1321	1028	1028	--	77	0.5	23.5
09...	1322	1028	1028	--	82	0.4	23.6
09...	1323	1028	1028	--	87	0.4	24.1
09...	1324	1028	1028	--	92	0.2	24.5
09...	1325	1028	1028	--	97	0.1	25.0
09...	1326	1028	1028	--	102	0.0	--