

WEST BRANCH SUSQUEHANNA RIVER BASIN

01544000 FIRST FORK SINNEMAHONING CREEK NEAR SINNEMAHONING, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°24'06", long 78°01'28", Cameron County, Hydrologic Unit 02050202, on right bank on Township Route 357, 350 ft downstream from Woodrock Run, 1,500 ft upstream from Roaring Run, 0.8 mi downstream from George B. Stevenson Dam (First Fork Sinnemahoning Creek Reservoir), and 7.5 mi northeast of Sinnemahoning.

DRAINAGE AREA.--245 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 878.71 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1954, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Jan. 31, 1956 by George B. Stevenson Dam (station 01543900). Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 80,000 ft³/s, July 18, 1942, by slope-area measurement.

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	32	98	223	439	106	378	580	190	668	146	2050	88
2	32	96	209	1920	91	349	753	219	813	112	4000	460
3	31	75	142	1420	111	264	862	226	816	112	2190	405
4	30	62	80	1130	142	229	961	175	750	111	2890	797
5	30	69	72	702	329	340	1850	161	660	104	2930	812
6	29	114	120	683	263	254	2810	229	572	88	1410	679
7	28	209	162	559	275	230	1890	270	637	68	1040	514
8	25	187	161	455	273	237	1180	274	659	61	768	400
9	17	157	135	475	229	330	953	350	608	70	949	319
10	16	157	57	446	220	381	848	381	628	81	1770	267
11	16	158	74	382	218	356	657	387	654	133	1720	211
12	16	158	142	332	190	403	657	407	665	108	1960	192
13	15	157	174	297	181	428	637	462	1040	41	1450	107
14	16	157	253	312	152	434	524	443	1160	38	965	240
15	15	155	483	271	171	437	494	411	888	52	669	146
16	16	154	374	245	128	760	444	434	646	58	519	253
17	16	360	372	249	102	2030	421	492	524	62	396	208
18	75	740	291	188	133	3690	320	570	456	65	373	232
19	64	697	252	131	164	4540	312	545	420	304	232	179
20	49	548	424	218	164	3340	309	464	276	64	227	311
21	50	420	1430	200	135	1400	262	439	424	135	204	340
22	48	368	1480	139	122	937	314	438	536	1540	175	340
23	38	405	1070	109	291	3870	352	306	497	2690	150	1050
24	29	336	680	128	584	4500	141	401	455	2700	128	1350
25	28	295	617	175	620	3900	245	511	355	2660	124	990
26	84	295	486	164	497	1830	297	541	314	1580	105	771
27	226	322	329	137	469	1160	214	559	272	888	94	599
28	121	266	258	112	421	900	235	535	189	2860	106	3460
29	100	210	302	103	---	782	186	533	177	2110	111	3480
30	100	219	303	130	---	718	181	489	183	1040	107	1570
31	98	---	244	134	---	542	---	470	---	811	95	---
TOTAL	1490	7644	11399	12385	6781	39949	19889	12312	16942	20892	29907	20770
MEAN	48.1	255	368	400	242	1289	663	397	565	674	965	692
MAX	226	740	1480	1920	620	4540	2810	570	1160	2860	4000	3480
MIN	15	62	57	103	91	229	141	161	177	38	94	88

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2003, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	206	383	465	376	467	808	877	516	282	168	133	143
MAX	1033	1162	1051	1131	1452	1820	2300	1265	1334	808	977	837
(WY)	1991	1986	1991	1996	1981	1964	1993	2002	1989	1992	1994	1975
MIN	9.76	17.6	21.3	16.6	77.9	171	320	103	39.5	14.5	14.2	5.31
(WY)	1964	1965	1961	1961	1963	1960	1976	1985	1999	1966	1962	1964

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1956 - 2003

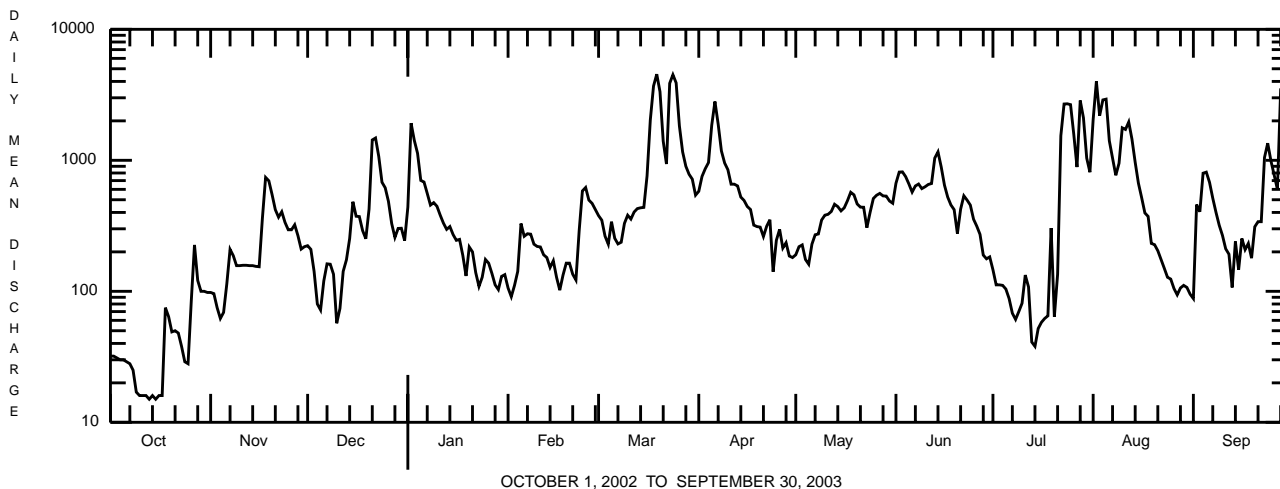
ANNUAL TOTAL	141615.5	200360	
ANNUAL MEAN	388	549	401
HIGHEST ANNUAL MEAN			640
LOWEST ANNUAL MEAN			236
HIGHEST DAILY MEAN	4520	May 16	4540
LOWEST DAILY MEAN	9.8	Sep 8-14	15
ANNUAL SEVEN-DAY MINIMUM	9.8	Sep 8	16
MAXIMUM PEAK FLOW			4920
MAXIMUM PEAK STAGE			4.00
10 PERCENT EXCEEDS	1020		1370
50 PERCENT EXCEEDS	219		304
90 PERCENT EXCEEDS	21		70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1955, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	55.2	101	374	394	467	1277	699	391	177	30.6	44.6	20.4
MAX	96.7	132	509	503	631	1672	936	626	260	38.9	74.4	23.4
(WY)	1955	1955	1955	1955	1954	1955	1954	1954	1954	1954	1955	1955
MIN	13.7	70.0	239	285	304	883	462	156	93.4	22.3	14.9	17.4
(WY)	1954	1954	1954	1954	1955	1954	1955	1955	1955	1955	1954	1954

SUMMARY STATISTICS WATER YEARS 1954 - 1955

ANNUAL MEAN	336
HIGHEST ANNUAL MEAN	339
LOWEST ANNUAL MEAN	332
HIGHEST DAILY MEAN	5020
LOWEST DAILY MEAN	5.6
ANNUAL SEVEN-DAY MINIMUM	8.3
MAXIMUM PEAK FLOW	7000
MAXIMUM PEAK STAGE	5.64
ANNUAL RUNOFF (CFSM)	1.37
ANNUAL RUNOFF (INCHES)	18.63
10 PERCENT EXCEEDS	980
50 PERCENT EXCEEDS	103
90 PERCENT EXCEEDS	14



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 368-434.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, μ S/cm 25 degC (00095)	Temperature, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, unfltrd, recoverable, mg/L (00915)	Calcium unfltrd, recoverable, mg/L (00916)	Magnesium, water, unfltrd, mg/L (00925)
NOV 2002	20...	1028	9813	509	30	12.9	7.2	57	5.0	21	5.38	5.5	1.61
JAN 2003	16...	1000	9813	249	30	13.9	7.5	65	.6	21	5.81	5.7	1.69
MAR	24...	1000	9813	4560	30	13.4	7.0	46	6.6	18	4.80	4.8	1.40
MAY	15...	1030	9813	400	30	10.9	7.4	55	11.6	20	5.40	5.4	1.56
JUL	16...	1245	9813	59	30	8.5	7.4	67	24.3	25	6.56	6.7	1.87
SEP	18...	1030	9813	258	30	9.3	6.8	61	18.2	22	5.70	5.9	1.69

Date	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Sulfate water, unfltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water, unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2002	1.6	10	.0	9.6	42	4	<.020	.54	<.040	<.01	<.010	.96	1.3
JAN 2003	1.6	10	.0	9.6	58	<2	<.020	.43	<.040	<.01	<.010	.43	.7
MAR	1.4	8	9.4	8.7	34	6	<.020	.65	<.040	.02	.015	.71	--
MAY	1.6	12	.0	8.9	40	<2	<.020	.23	<.040	.01	<.010	.42	.9
JUL	1.9	18	.0	7.7	50	6	<.020	.17	<.040	.01	.012	.43	1.2
SEP	1.8	15	.0	7.6	36	16	.020	.19	<.040	<.01	.016	.35	1.0

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BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using rapid bioassessment protocols for benthic macroinvertebrates using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 (approximate) subsamples.

Date	8/13/02
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Dugesiidae	
<u>Dugesia</u> sp	4
Nematoda (NEMATODES)	1
Mollusca	
Bivalvia (CLAMS)	
Veneroidea	
Sphaeriidae	
<u>Musiculum</u> sp	4
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	9
Arthropoda	
Crustacea	
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
<u>Caecidotea</u> sp	22
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
<u>Stenacron</u> sp	3
<u>Stenonema</u> sp	12
Isonychiidae	
<u>Isonychia</u> sp	4
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
<u>Argia</u> sp	2
Gomphidae	2
Plecoptera (STONEFLIES)	
Perlidae	
<u>Acroneuria</u> sp	2
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	55
<u>Hydropsyche</u> sp	4
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Optioservus</u> sp	1
<u>Stenelmis</u> sp	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	37
Empididae (DANCE FLIES)	
<u>Hemerodromia</u> sp	1
Total Organisms	164