



2005 Water Year  
WEST BRANCH SUSQUEHANNA RIVER BASIN  
01544000 First Fork Sinnemahoning Cr near Sinnemahoning, PA

Latitude: 41° 24 ' 06"

Longitude: 078° 01 ' 28"

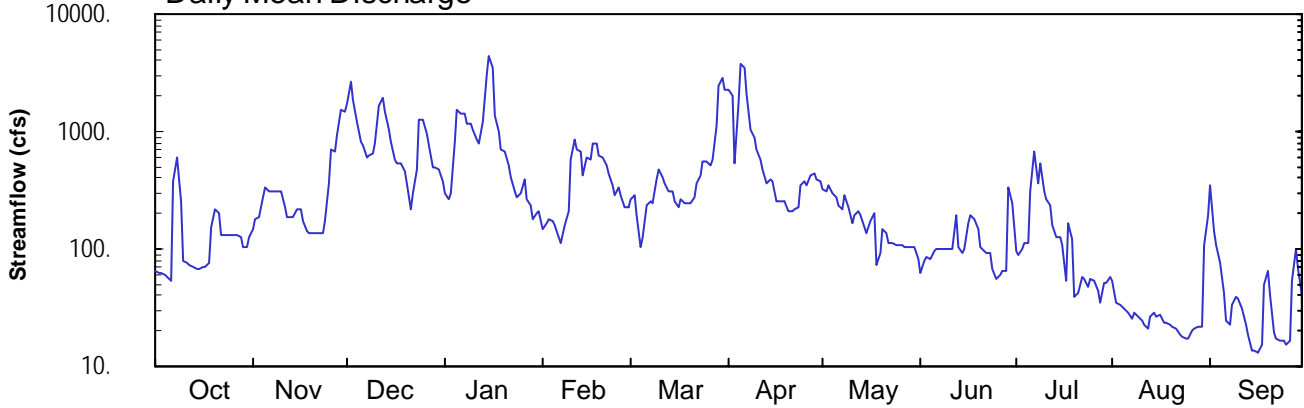
Hydrologic Unit Code: 02050202

Cameron County

Datum: 878.71 feet

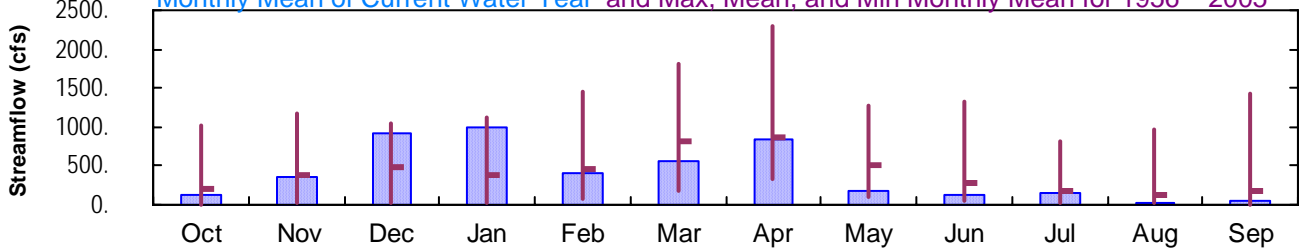
Drainage Area: 245. mi<sup>2</sup>

### Daily Mean Discharge

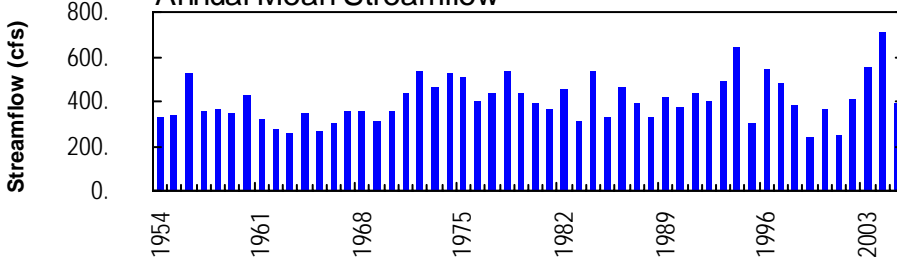


### Monthly Statistics

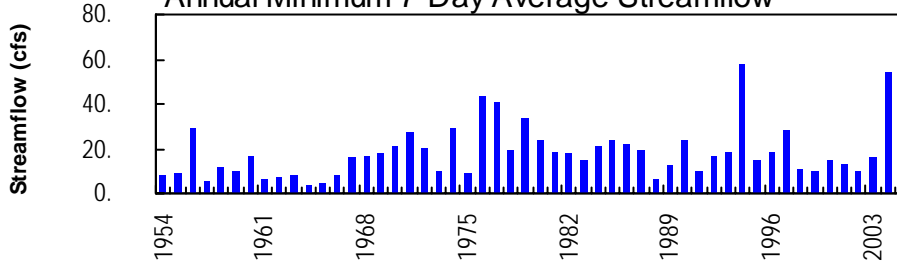
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1956 – 2005



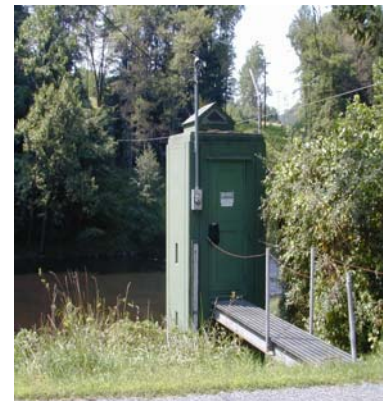
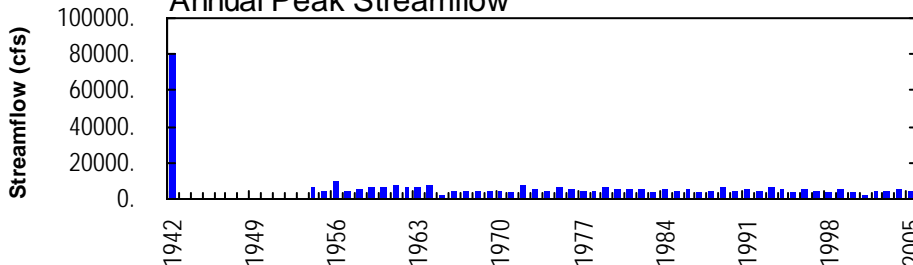
### Annual Mean Streamflow



### Annual Minimum 7-Day Average Streamflow



### Annual Peak Streamflow



## 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 mi<sup>2</sup>.

## 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.**--Records good except those for estimated daily discharges, which are poor. 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 ft<sup>3</sup>/s, July 18, 1942, by slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	148	1700	303	145	269	2290	321	62	94	54	344
2	62	177	2650	270	168	284	2040	312	79	89	35	140
3	62	187	1850	300	176	197	532	344	85	101	34	108
4	61	277	1220	819	176	104	1730	298	84	112	33	75
5	57	334	835	1520	161	127	3760	274	95	111	30	42
6	53	305	748	1420	129	237	3510	239	101	315	28	24
7	381	309	593	1430	114	252	2060	222	100	677	26	23
8	601	309	632	1180	161	241	1030	285	100	361	29	34
9	251	309	649	1180	207	385	881	226	100	533	27	39
10	78	306	799	1040	578	477	696	168	100	308	25	37
11	76	229	1660	856	848	413	583	194	102	266	23	31
12	74	187	1940	804	691	359	474	212	193	236	21	23
13	72	187	1480	1210	669	311	364	194	106	158	27	19
14	69	187	1030	3150	430	311	397	153	94	129	28	14
15	69	219	824	4450	591	254	375	137	99	128	26	13
16	70	215	579	3510	574	226	259	170	164	106	28	13
17	71	174	532	1380	801	267	251	203	191	54	24	15
18	76	142	538	1010	798	249	254	74	180	169	24	50
19	153	134	450	713	628	242	256	94	149	120	23	65
20	217	134	358	681	599	242	207	148	106	39	21	41
21	200	134	218	506	516	273	211	136	94	43	21	20
22	131	134	294	407	439	356	217	111	94	59	19	17
23	131	134	474	e310	343	426	227	111	92	55	18	17
24	131	171	1260	e280	288	562	344	109	67	48	17	17
25	131	363	1250	293	331	555	375	109	55	56	17	15
26	129	701	973	387	292	524	347	108	60	54	21	16
27	129	688	762	e270	224	573	418	106	64	44	21	54
28	125	923	493	e240	225	1130	434	106	64	35	21	99
29	103	1540	500	176	---	2500	397	104	329	51	21	68
30	103	1480	475	204	---	2830	380	104	244	51	108	40
31	126	---	375	207	---	2230	---	82	---	57	192	---
TOTAL	4058	10737	28141	30506	11302	17406	25299	5454	3453	4659	1042	1513
MEAN	131	358	908	984	404	561	843	176	115	150	33.6	50.4
MAX	601	1540	2650	4450	848	2830	3760	344	329	677	192	344
MIN	53	134	218	176	114	104	207	74	55	35	17	13

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01544000 FIRST FORK SINNEMAHONING CREEK NEAR SINNEMAHONING, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	211	394	483	393	459	810	875	515	277	176	137	167
MAX	1033	1162	1051	1131	1452	1820	2300	1265	1334	808	977	1426
(WY)	1991	1986	1991	1996	1981	1964	1993	2002	1989	1992	1994	2004
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 2004 CALENDAR YEAR FOR 2005 WATER YEAR WATER YEARS 1956 - 2005

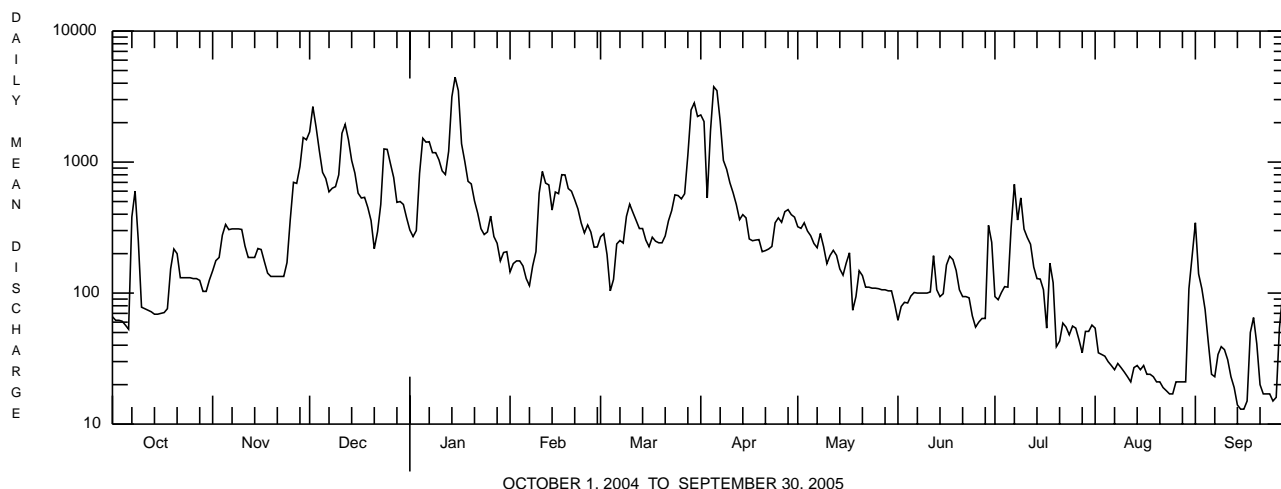
ANNUAL TOTAL	230767	143570	
ANNUAL MEAN	631	393	407
HIGHEST ANNUAL MEAN			712
LOWEST ANNUAL MEAN			236
HIGHEST DAILY MEAN	4800	Sep 21	4450
LOWEST DAILY MEAN	30	Jul 11	13
ANNUAL SEVEN-DAY MINIMUM	54	Jul 1	18
MAXIMUM PEAK FLOW			4760
MAXIMUM PEAK STAGE			3.85
10 PERCENT EXCEEDS	1490		943
50 PERCENT EXCEEDS	364		194
90 PERCENT EXCEEDS	90		28

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	1955
LOWEST ANNUAL MEAN	332	1954
HIGHEST DAILY MEAN	5020	Mar 2 1954
LOWEST DAILY MEAN	5.6	Sep 22 1955
ANNUAL SEVEN-DAY MINIMUM	8.3	Sep 6 1954
MAXIMUM PEAK FLOW	7000	Mar 1 1954
MAXIMUM PEAK STAGE	5.64	Mar 1 1954
ANNUAL RUNOFF (CFSM)	1.37	
ANNUAL RUNOFF (INCHES)	18.63	
10 PERCENT EXCEEDS	980	
50 PERCENT EXCEEDS	103	
90 PERCENT EXCEEDS	14	



## WEST BRANCH SUSQUEHANNA RIVER BASIN

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

## WATER-QUALITY RECORDS

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

REMARKS.--Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

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 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfltrd lab, $\mu$ S/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)
NOV 2004 23...	1430	1028	9813	134	12.0	7.0	7.1	59	54	7.3	20	5.4	5.4
JAN 2005 26...	1000	1028	9813	391	14.8	7.0	--	--	51	.3	18	4.7	4.8
Date	Magnesium, water, unfltrd, mg/L (00925)	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 fltrd, mg/L (00515)	Residue total at 105 deg. C, sus-pended, 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)
NOV 2004 23...	1.6	1.6	14	--	8.3	66	<2	.020	.32	<.040	<.01	<.010	.47
JAN 2005 26...	1.4	1.4	--	7.6	16.5	36	6	.200	1.18	<.040	<.01	<.010	.75
Date	BOD, water, unfltrd 5 day, 20 degC, mg/L (00310)	Aluminum, water, unfltrd, $\mu$ g/L (01106)	Aluminum, water, unfltrd recoverable, $\mu$ g/L (01105)	Copper, water, unfltrd, $\mu$ g/L (01040)	Copper, water, unfltrd recoverable, $\mu$ g/L (01042)	Iron, water, unfltrd, $\mu$ g/L (01046)	Iron, water, unfltrd recoverable, $\mu$ g/L (01045)	Lead, water, unfltrd, $\mu$ g/L (01049)	Lead, water, unfltrd recoverable, $\mu$ g/L (01051)	Manganese, water, unfltrd, $\mu$ g/L (01056)	Manganese, water, unfltrd recoverable, $\mu$ g/L (01055)	Nickel, water, unfltrd, $\mu$ g/L (01065)	Nickel, water, unfltrd recoverable, $\mu$ g/L (01067)
NOV 2004 23...	1.3	<10	40	<4	<4	50	140	<1.0	<1.0	40	50	<4.0	<4.0
JAN 2005 26...	.7	<10	50	--	--	20	90	<1.0	<1.0	20	30	<4.0	<4.0
Date	Zinc, water, unfltrd, $\mu$ g/L (01090)	Zinc, water, unfltrd recoverable, $\mu$ g/L (01092)											
NOV 2004 23...	<5.0	<5.0											
JAN 2005 26...	<5.0	<5.0											

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01544000 FIRST FORK SINNEMAHONING CREEK NEAR SINNEMAHONING, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/25/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	4
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoploneurtea	
Tetrastemmatidae	
<i>Prostoma</i>	3
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Ephemerellidae	
<i>Eurylophella</i>	3
<i>Serratella</i>	4
Heptageniidae	12
<i>Epeorus</i>	17
<i>Leucrocuta</i>	6
<i>Stenonema</i>	11
Isonychiidae	
<i>Isonychia</i>	33
Plecoptera (STONEFLIES)	
Perlidae	
<i>Paragnetina</i>	3
Taeniopterygidae	
<i>Taenionema</i>	7
<i>Taeniopteryx</i>	3
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	5
<i>Hydropsyche</i>	3
<i>Potamyia</i>	1
Lepidostomatidae	
<i>Lepidostoma</i>	2
Philopotamidae	
<i>Chimarra</i>	1
Psychomyiidae	
<i>Psychomyia</i>	3
Uenoidae	
<i>Neophylax</i>	1

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01544000 FIRST FORK SINNEMAHONING CREEK NEAR SINNEMAHONING, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES--Continued

Date	10/25/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	2
<i>Stenelmis</i>	1
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	14
Empididae (DANCE FLIES)	
<i>Chelifera</i>	1
Total Organisms	143
Total Taxa	26