



2005 Water Year  
BEAVER RIVER BASIN  
03102500 Little Shenango River at Greenville, PA

Latitude: 41° 25 ' 19"

Longitude: 080° 22 ' 35"

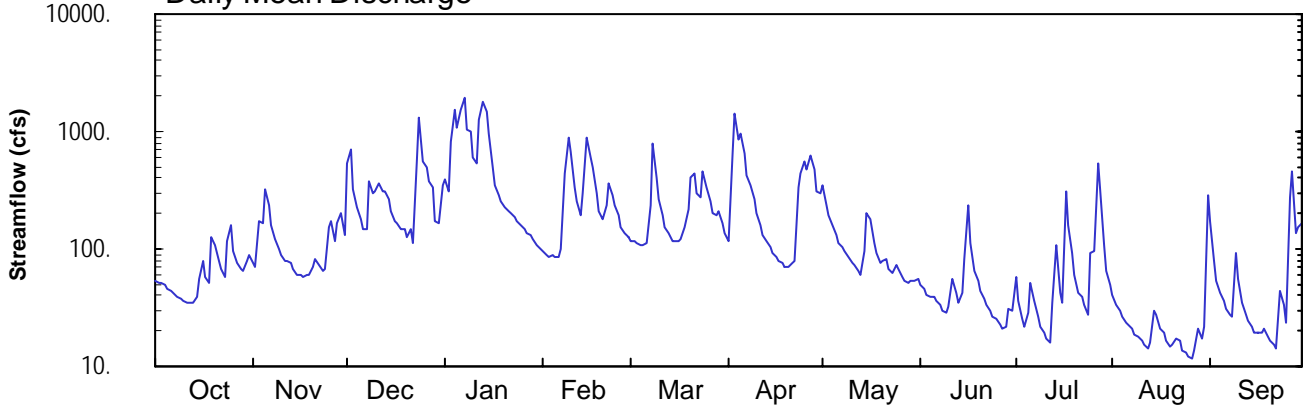
Hydrologic Unit Code: 05030102

Mercer County

Datum: 953.46 feet

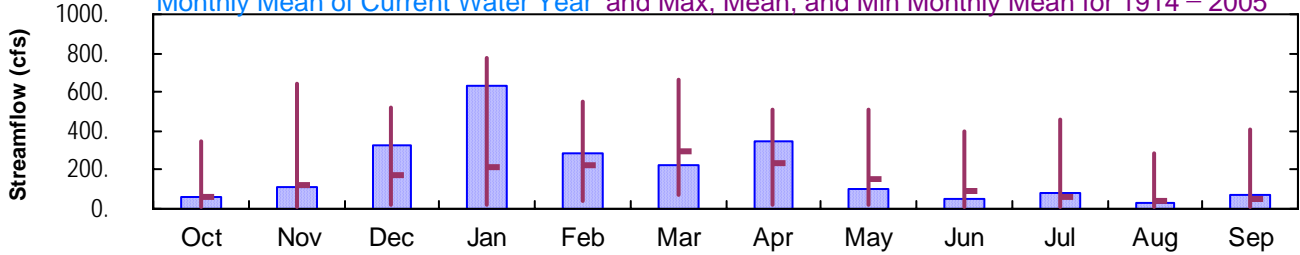
Drainage Area: 104. mi<sup>2</sup>

### Daily Mean Discharge

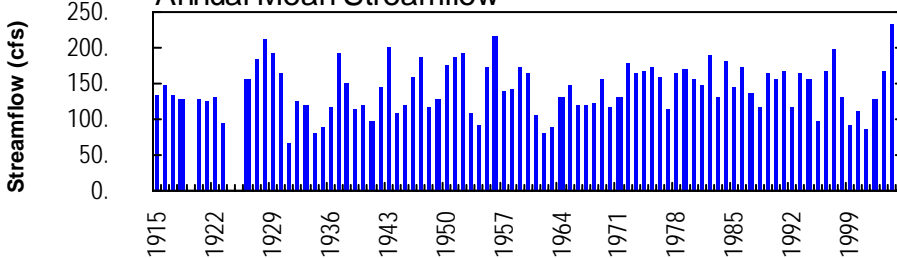


### Monthly Statistics

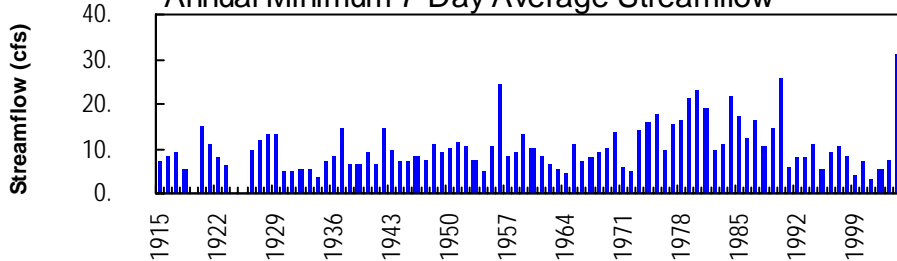
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1914 – 2005



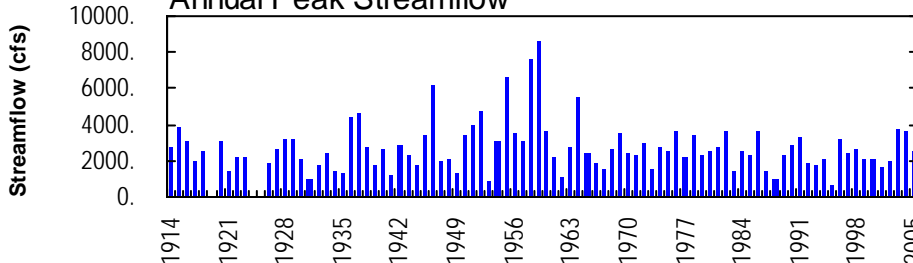
### Annual Mean Streamflow



### Annual Minimum 7-Day Average Streamflow



### Annual Peak Streamflow



## BEAVER RIVER BASIN

03102500 LITTLE SHENANGO RIVER AT GREENVILLE, PA  
(Pennsylvania Water-Quality Network Station)

**LOCATION.**--Lat 41°25'19", long 80°22'35", Mercer County, Hydrologic Unit 05030102, on left bank 1,700 ft downstream from Williamson Crossing bridge, 1 mi northeast of Greenville, and 2.0 mi upstream from mouth.

**DRAINAGE AREA.**--104 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1305.

**REVISED RECORDS.**--WSP 743: Drainage area. WSP 1305: 1914, 1922-23, 1926-29. WSP 1335: 1923 (m).

**GAGE.**--Water-stage recorder. Datum of gage is 953.46 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 4, 1915, nonrecording gage; Nov. 4, 1915, to Sept. 30, 1918, water-stage recorder; Nov. 7, 1919, to Aug. 31, 1923, and Nov. 19, 1925, to June 20, 1934, nonrecording gage at site 1 mi downstream at datum 8.96 ft lower.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Jan. 7	0200	*2,530	*7.89	No other peak greater than base discharge.			

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	54	75	532	393	e96	e117	119	347	50	58	40	176
2	52	72	706	312	e91	e117	653	238	46	36	34	80
3	52	174	324	823	e87	e114	1430	192	40	25	29	55
4	50	163	223	1520	e89	e109	855	161	40	22	27	43
5	46	321	177	1090	e85	e109	957	134	39	28	24	36
6	44	239	145	1570	e87	e111	644	114	36	52	23	31
7	42	157	146	1940	e98	e233	420	104	34	36	21	28
8	39	121	378	1030	436	794	347	94	30	26	19	27
9	38	101	302	984	874	404	263	84	29	22	18	92
10	37	88	311	604	669	262	199	77	33	20	17	55
11	35	79	362	544	339	191	159	72	56	17	15	35
12	35	78	306	1280	252	155	130	65	42	16	14	28
13	35	76	307	1790	196	139	115	60	35	35	16	24
14	39	68	267	1460	296	117	103	95	42	109	30	22
15	57	61	206	953	906	118	93	204	83	42	27	20
16	80	60	173	503	611	115	84	178	233	34	21	19
17	59	59	164	349	495	124	79	114	112	314	20	20
18	52	59	147	286	304	153	75	91	66	157	16	21
19	125	61	151	e253	207	219	71	77	53	93	15	18
20	108	71	125	e229	180	408	70	80	44	60	16	17
21	80	83	148	e214	232	449	77	84	38	43	17	16
22	68	73	113	e201	359	295	79	68	34	40	16	14
23	59	66	585	e185	e290	275	341	63	30	33	14	44
24	115	68	1300	e172	e232	466	433	73	27	28	13	34
25	157	154	551	e158	e191	342	549	68	25	93	12	24
26	98	173	502	e150	e155	254	478	58	23	96	11	280
27	77	117	380	e139	e134	202	631	53	21	543	13	466
28	68	167	336	e129	e125	193	473	51	22	326	21	135
29	64	204	170	e120	---	213	309	53	31	107	17	156
30	78	132	165	e110	---	165	304	53	30	66	22	167
31	88	---	347	e102	---	135	---	56	---	49	283	---
TOTAL	2031	3420	10049	19593	8116	7098	10540	3261	1424	2626	881	2183
MEAN	65.5	114	324	632	290	229	351	105	47.5	84.7	28.4	72.8
MAX	157	321	1300	1940	906	794	1430	347	233	543	283	466
MIN	35	59	113	102	85	109	70	51	21	16	11	14
CFSM	0.63	1.10	3.12	6.08	2.79	2.20	3.38	1.01	0.46	0.81	0.27	0.70
IN.	0.73	1.22	3.59	7.01	2.90	2.54	3.77	1.17	0.51	0.94	0.32	0.78

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2005, BY WATER YEAR (WY)

MEAN	60.3	122	178	210	223	293	235	157	93.2	64.5	43.6	46.5
MAX	343	639	521	773	553	659	506	511	395	457	284	412
(WY)	1927	1986	1928	1937	1976	1963	1957	1929	1989	1958	1980	2004
MIN	5.19	6.31	16.8	21.3	36.0	66.5	16.7	21.8	11.9	5.91	5.33	5.90
(WY)	1964	1931	1961	1977	1963	1915	1915	1934	1934	1934	1930	1930

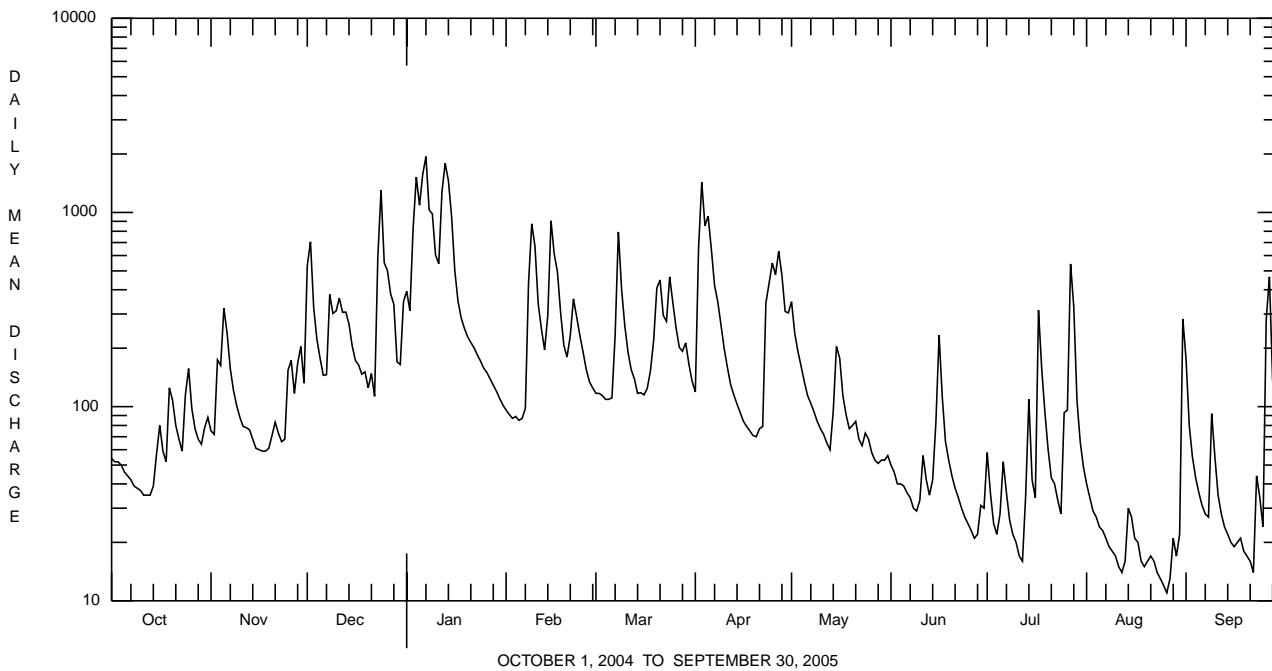
e Estimated.

BEAVER RIVER BASIN

03102500 LITTLE SHENANGO RIVER AT GREENVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1914 - 2005	
ANNUAL TOTAL	79648		71222			
ANNUAL MEAN	218		195		143	
HIGHEST ANNUAL MEAN					235	2004
LOWEST ANNUAL MEAN					65.6	1931
HIGHEST DAILY MEAN	2730	Sep 10	1940	Jan 7	5980	Jan 22 1959
LOWEST DAILY MEAN	25	Jul 11	11	Aug 26	2.8	Aug 16 2001
ANNUAL SEVEN-DAY MINIMUM	31	Jul 5	14	Aug 21	3.3	Sep 7 2001
MAXIMUM PEAK FLOW			2530	Jan 7	a8540	Jan 22 1959
MAXIMUM PEAK STAGE			7.89	Jan 7	14.30	Jan 22 1959
INSTANTANEOUS LOW FLOW			11	Aug 26,27	2.4	Aug 16 2001b
ANNUAL RUNOFF (CFSM)	2.09		1.88		1.38	
ANNUAL RUNOFF (INCHES)	28.49		25.48		18.73	
10 PERCENT EXCEEDS	476		469		331	
50 PERCENT EXCEEDS	130		95		67	
90 PERCENT EXCEEDS	43		22		13	

a From rating curve extended above 3,200 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 12.26 ft.  
 b Also Sept. 13.



## BEAVER RIVER BASIN

03102500 LITTLE SHENANGO RIVER AT GREENVILLE, PA--Continued  
(Pennsylvania Water-Quality Network Station)

## WATER-QUALITY RECORDS

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

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 unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
NOV 2004 15...	1145	1028	9813	60.4	13.1	6.8	7.6	256	262	3.5	110	31.6	6.5
JAN 2005 10...	1150	1028	9813	600	12.7	6.6	7.5	146	166	2.5	53	15.4	3.4
MAR 15...	1220	1028	9813	83.9	13.5	7.4	7.6	248	250	1.7	97	28.6	6.1
MAY 16...	1150	1028	9813	170	9.5	7.6	7.9	224	230	14.6	88	26.4	5.4
JUL 18...	1310	1028	9813	200	7.0	7.3	7.6	203	212	24.0	87	25.9	5.5
SEP 19...	1210	1028	9813	18.3	8.2	7.6	8.0	335	344	19.0	150	44.8	9.6

Date	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat fltrd, 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)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, $\mu$ g/L (01105)	Copper, water, unfltrd recover -able, $\mu$ g/L (01042)
NOV 2004 15...	83	17.4	170	4	<.020	.41	<.040	.02	.028	.65	4.2	<200	<10
JAN 2005 10...	37	14.7	98	2	<.020	.75	<.040	.03	.036	.92	3.5	580	<10
MAR 15...	68	21.4	102	<2	.020	.97	<.040	.02	.021	1.2	2.5	<200	<10
MAY 16...	71	17.0	432	36	.020	.38	<.040	.03	.054	.86	--	780	<10
JUL 18...	61	18.9	164	118	.060	.45	<.040	.02	.115	1.1	--	2000	<10
SEP 19...	122	24.9	226	22	.030	.12	<.040	.02	.048	.45	--	310	<10

Date	Iron, water, unfltrd recover -able, $\mu$ g/L (01045)	Lead, water, unfltrd recover -able, $\mu$ g/L (01051)	Manganese, water, unfltrd recover -able, $\mu$ g/L (01055)	Nickel, water, unfltrd recover -able, $\mu$ g/L (01067)	Zinc, water, unfltrd recover -able, $\mu$ g/L (01092)
NOV 2004 15...	750	<1.0	80	<50	<10
JAN 2005 10...	950	1.4	50	<50	<10
MAR 15...	500	<1.0	80	<50	<10
MAY 16...	1600	1.0	120	<50	<10
JUL 18...	4540	3.4	250	<50	30
SEP 19...	1020	<1.0	200	<50	<10

## BEAVER RIVER BASIN

## 03102500 LITTLE SHENANGO RIVER AT GREENVILLE, 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	08/11/04
Benthic macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Pleuroceridae	
<i>Elimia</i>	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	3
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Baetis</i>	2
Caenidae	
<i>Caenis</i>	1
Ephemerellidae	
<i>Serratella</i>	1
Heptageniidae	
<i>Stenonema</i>	4
Isonychiidae	
<i>Isonychia</i>	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	1
Hydropsychidae	
<i>Cheumatopsyche</i>	13
<i>Hydropsyche</i>	61
Hydroptilidae	
<i>Hydroptila</i>	1
Philopotamidae	
<i>Chimarra</i>	19
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	2
<i>Stenelmis</i>	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	33
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	5
Total Organisms	150
Total Taxa	16