



2004 Water Year BEAVER RIVER BASIN

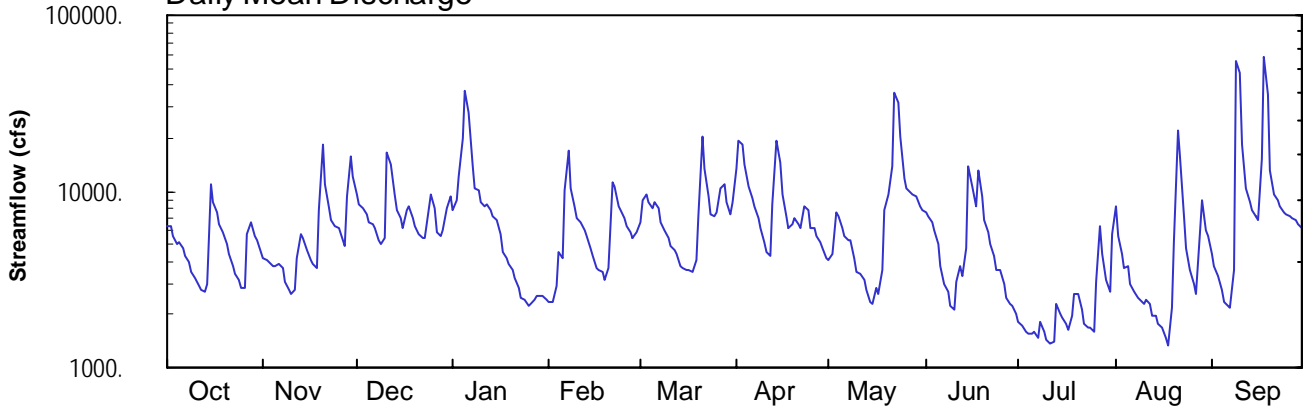
03107500 Beaver River at Beaver Falls, PA

Latitude: 40° 45 ' 48"
Beaver County

Longitude: 080° 18 ' 55"
Datum: 727.48 feet

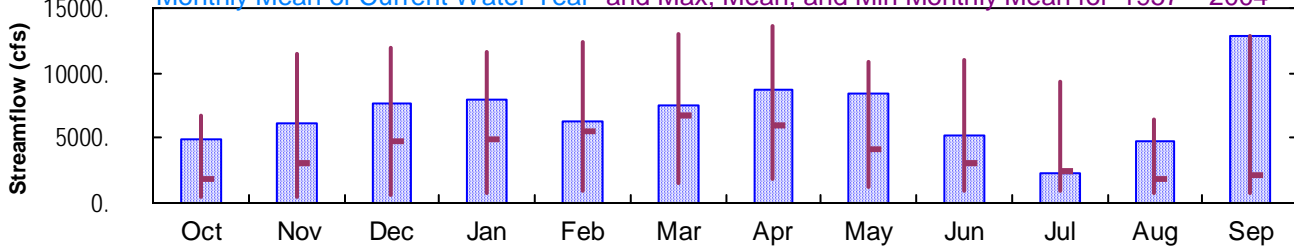
Hydrologic Unit Code: 05030104
Drainage Area: 3106. mi²

Daily Mean Discharge

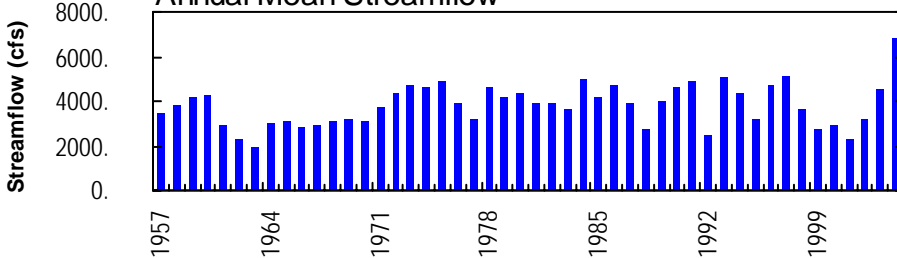


Monthly Statistics

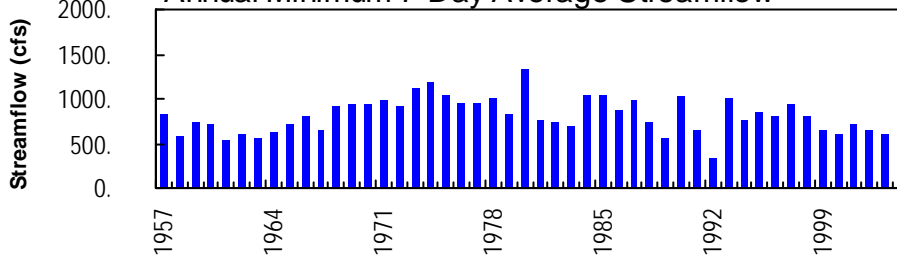
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1957 – 2004



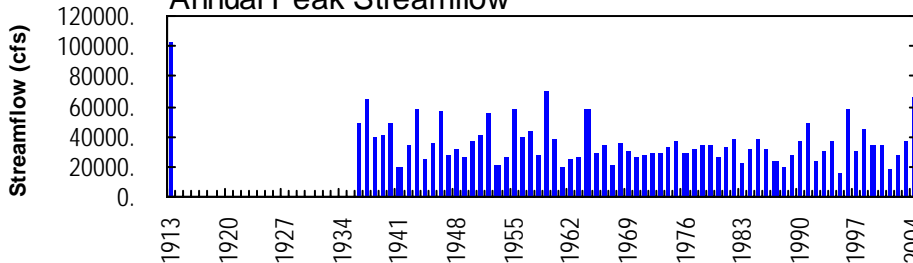
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



NO PHOTOS AVAILABLE FOR THIS SITE

BEAVER RIVER BASIN

**03107500 BEAVER RIVER AT BEAVER FALLS, PA
(Pennsylvania Water-Quality Network Station)**

LOCATION.--Lat 40°45'48", long 80°18'55", Beaver County, Hydrologic Unit 05030104, on left bank at Beaver Falls, 200 ft upstream from pumping plant of Beaver Falls Municipal Authority, 7.0 mi downstream from Connoquenessing Creek, at mile 5.5.

DRAINAGE AREA.--3,106 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1935 to current year (fragmentary records only prior to October 1956). Gage-height records collected at same site since 1908 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1725: 1960 (adjusted runoff); Instantaneous low flow for water years 1997, 1998 were published in error.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 727.48 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Dec. 3, 1941, nonrecording gage at site 200 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good above 2,000 ft³/s, and fair below, except those below 1,200 ft³/s, which are poor. Pumpage from gage pool, averaging 3.4 ft³/s in 1935 and 6.0 ft³/s at present, for local water supply, returns to river 2 mi downstream; information furnished by Beaver Falls Municipal Authority. Flow regulated since 1916 by Milton Reservoir, since November 1929 by Meander Creek Reservoir, since December 1933 by Pymatuning Reservoir (station 03100500), since December 1942 by Berlin Lake, since October 1943 by Mosquito Creek Lake, since December 1966 by Michael J. Kirwan Reservoir, since January 1967 by Shenango River Lake, all over 50 mi upstream, and since May 1969 by Lake Arthur (station 03106280) 29 mi upstream. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913 reached a stage of 17.4 ft, discharge, 103,000 ft³/s, from rating curve extended above 60,000 ft³/s.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6280	4200	9550	7800	2370	6630	13500	4060	7590	1840	8230	4400
2	6410	4030	8410	8890	2340	8920	19400	4440	7260	1710	5620	3740
3	5620	3940	8090	12100	2890	9730	18500	7550	6740	1610	4360	3310
4	4990	3810	7430	19800	4500	8610	14000	7230	5980	1540	3710	2720
5	5170	3760	6690	37000	4190	8050	10800	6130	4980	1560	3810	2340
6	4710	3900	6530	27800	10100	8560	9090	5610	3780	1600	3000	2260
7	4290	3630	6110	13900	17100	7940	8280	5340	3020	1500	2710	2170
8	4020	3020	5340	10500	10400	6610	7030	5290	2700	1810	2510	3620
9	3500	2740	5040	10100	8130	6020	6160	4180	2240	1580	2400	55300
10	3230	2620	5490	8770	6980	5380	5150	3460	2130	1420	2320	47200
11	2910	2770	16600	8270	6740	4840	4520	3380	3060	1350	2390	18300
12	2740	4150	14200	8390	5970	4650	4290	3140	3770	1400	2290	10300
13	2670	5670	9570	7800	5640	4370	8410	2730	3340	2280	1970	8670
14	2990	5490	7740	7200	4800	3780	19400	2360	4790	2040	1950	7720
15	10800	4610	7040	6780	4240	3680	14700	2320	14000	1930	1780	7310
16	8750	4070	6230	5710	3660	3550	9590	2860	10700	1790	1690	6920
17	7580	3840	7850	4560	3580	3560	7240	2600	8320	1640	1470	15200
18	6440	3660	8280	4200	3490	3510	6240	3580	13100	1980	1330	58500
19	5860	7900	7100	3860	3180	4070	6570	7720	9300	2610	2160	35300
20	5060	18600	6280	3540	3680	7200	7050	9660	6910	2650	5180	13300
21	4390	10900	5680	3250	11100	20200	6480	13900	5830	2100	22300	9610
22	3790	8320	5440	2800	10800	13500	6210	35800	4960	1760	15800	8840
23	3410	6920	5380	2460	8230	9340	8130	31800	4330	1680	6960	8200
24	3170	6270	8080	2420	7710	7380	7720	20300	3550	1690	4820	7670
25	2840	6260	9680	2270	7120	7220	6210	12000	3600	1590	3620	7320
26	2840	5680	8110	2310	6380	7600	6240	10500	2990	3100	2970	7230
27	5690	4880	5820	2440	5840	10400	5550	9810	2510	6400	2650	7080
28	6620	9350	5540	2530	5450	11000	5190	9550	2280	4390	6060	6840
29	5610	15900	6090	2580	5850	8730	4760	9300	2260	3150	8930	6530
30	5260	12000	7940	2550	---	7430	4130	8190	2020	2670	6020	6200
31	4560	---	9360	2430	---	8600	---	7750	---	5780	5510	---
TOTAL	152200	182890	236690	245010	182460	231060	260540	262540	158040	70150	146520	384100
MEAN	4910	6096	7635	7904	6292	7454	8685	8469	5268	2263	4726	12800
MAX	10800	18600	16600	37000	17100	20200	19400	35800	14000	6400	22300	58500
MIN	2670	2620	5040	2270	2340	3510	4130	2320	2020	1350	1330	2170
CFSM	1.58	1.96	2.46	2.54	2.03	2.40	2.80	2.73	1.70	0.73	1.52	4.12
IN.	1.82	2.19	2.83	2.93	2.19	2.77	3.12	3.14	1.89	0.84	1.75	4.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

MEAN	1854	3041	4745	4844	5473	6697	5910	4153	3013	2403	1844	2078
MAX	6760	11520	11880	11620	12360	13040	13620	10880	11090	9298	6505	12800
(WY)	1991	1986	1991	1993	1990	1993	1957	1996	1989	2003	1980	2004
MIN	531	439	540	714	887	1606	1861	1271	966	916	777	739
(WY)	1992	1992	1961	1961	1963	1969	1971	1962	1992	1965	1991	1999

BEAVER RIVER BASIN

03107500 BEAVER RIVER AT BEAVER FALLS, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	2096340		2512200			
ANNUAL MEAN	5743		6864		3829	
HIGHEST ANNUAL MEAN					6864	
LOWEST ANNUAL MEAN					1938	
HIGHEST DAILY MEAN	32200	Jul 23	58500	Sep 18	65400	Jan 22 1959
LOWEST DAILY MEAN	1160	Jan 30,31	1330	Aug 18	320	Nov 5 1991
ANNUAL SEVEN-DAY MINIMUM	1210	Jan 25	1520	Jul 6	333	Nov 1 1991
MAXIMUM PEAK FLOW			a66500	Sep 9	a69900	Jan 22 1959
MAXIMUM PEAK STAGE			13.45	Sep 9	14.42	Jan 22 1959
ANNUAL RUNOFF (CFSM)	1.85		2.21		1.23	
ANNUAL RUNOFF (INCHES)	25.11		30.09		16.75	
10 PERCENT EXCEEDS	9970		11000		8390	
50 PERCENT EXCEEDS	4920		5610		2380	
90 PERCENT EXCEEDS	1690		2280		905	

a From rating curve extended above 57,000 ft³/s.

BEAVER RIVER BASIN

03107500 BEAVER RIVER AT BEAVER FALLS, 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 2003 TO SEPTEMBER 2004

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, µS/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, µS/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)
OCT 2003 01...	1330	1028	9813	6220	8.5	7.1	7.8	331	343	15.5	120	34.6	7.9
DEC 01...	1420	1028	9813	9260	10.4	6.8	7.3	297	310	6.0	110	31.0	7.6
FEB 2004 09...	1340	1028	9813	7840	14.8	6.6	7.8	495	494	.8	130	37.0	8.3
APR 01...	1400	1028	9813	13600	10.5	7.7	7.7	405	395	9.0	120	35.2	8.4
JUN 03...	1345	1028	9813	6540	8.0	7.7	7.5	374	374	20.0	120	32.4	8.3
AUG 04...	1415	1028	9813	3690	6.8	7.6	7.5	364	368	25.0	120	34.6	8.2

Date	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, 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)	Orthophosphate, 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, µg/L (01105)
OCT 2003 01...	76	<.2	40.9	244	28	.030	.64	<.040	.08	.109	1.2	6.3	500
DEC 01...	60	<.2	41.1	486	18	.050	.94	<.040	.07	.111	1.5	6.3	1100
FEB 2004 09...	57	<.2	47.9	276	24	.160	1.17	<.040	.04	.056	1.8	4.0	400
APR 01...	62	<.2	47.8	210	46	.080	.95	.070	.03	.100	1.6	5.0	2000
JUN 03...	73	<.2	46.5	280	8	.080	.90	.220	.06	.110	1.5	6.0	700
AUG 04...	78	.2	38.1	232	14	.070	.72	<.040	.06	.089	1.4	5.9	400

Date	Copper, water, unfltrd recover-able, µg/L (01042)	Cyanide amenable to chlorination wat unfltrd mg/L (00722)	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, unfltrd recover-able, µg/L (01051)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, unfltrd recover-able, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)
OCT 2003 01...	<10	<1.00	1250	2.8	140	<50	10	<5
DEC 01...	<10	<1.00	2050	2.8	160	<50	20	<5
FEB 2004 09...	<10	<1.00	1000	1.4	170	<50	20	<5
APR 01...	10	<1.00	2520	3.1	180	<50	30	<5
JUN 03...	<10	<1.00	1650	4.1	140	<50	100	<5
AUG 04...	<10	<1.00	890	2.1	130	<50	60	8

BEAVER RIVER BASIN

03107500 BEAVER RIVER AT BEAVER FALLS, 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	10/24/03
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	3
Mollusca	
Bivalvia (CLAMS)	
Veneroidea	
Sphaeriidae	
<i>Sphaerium</i>	3
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Tubificidae	4
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
<i>Gammarus</i>	8
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
<i>Stenonema</i>	6
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	25
<i>Hydropsyche</i>	12
Polycentropodidae	
<i>Neureclipsis</i>	7
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	193
Empididae (DANCE FLIES)	1
Total Organisms	
	263
Total Taxa	
	10