

## BEAVER RIVER BASIN

## 03107500 BEAVER RIVER AT BEAVER FALLS, PA

**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 mi<sup>2</sup>.

**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 sea level (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 ft<sup>3</sup>/s, and fair below, except those below 1,200 ft<sup>3</sup>/s, which are poor. Pumpage from gage pool, averaging 3.4 ft<sup>3</sup>/s in 1935 and 6.0 ft<sup>3</sup>/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 ft<sup>3</sup>/s, from rating curve extended above 60,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	524	2220	1800	1480	4720	1690	2250	4430	2330	1300	925
2	999	941	2120	1930	1340	4450	1750	2710	4340	1930	1360	987
3	711	5890	1750	2150	1220	3660	5960	2650	4790	2080	1400	923
4	625	4160	1440	13200	1270	3000	23300	2290	4340	3380	1270	928
5	597	2540	1380	13000	1250	2710	20000	2170	3690	2510	1210	922
6	566	1640	1620	8740	1260	2510	11500	2650	4640	2060	1890	888
7	576	1160	1880	6750	1220	2220	8390	2450	4670	1810	3600	862
8	556	949	1760	5770	1180	1970	20400	2230	3700	1650	3030	862
9	627	850	1860	5270	1160	1820	31000	2110	2940	1570	2230	859
10	869	794	2130	4730	1160	1750	18200	1960	2480	1690	1690	859
11	773	751	3270	4760	2140	1680	11900	2090	2060	2270	1460	1040
12	710	706	2880	4250	3490	2110	10800	1960	2100	1840	1420	1060
13	652	695	2460	3430	3100	2510	10300	1780	4090	1470	1310	1400
14	1040	681	4480	3130	7030	2270	9560	1770	4080	1420	1230	1240
15	1040	817	10200	2830	7960	2120	6950	1620	4030	3150	1170	1030
16	853	882	6950	2860	6060	2050	5080	1450	3870	2990	1130	1280
17	714	952	5290	2610	4870	3340	5270	1380	4100	2950	1100	1220
18	674	1010	4510	2170	4250	3590	5860	1350	3860	2220	1130	1060
19	644	1010	4030	2130	4760	2770	5150	3460	4710	1830	1140	947
20	627	1020	3760	1820	4380	2400	4530	5980	4750	1540	1110	884
21	613	1080	3490	1600	3750	3370	4600	4420	4350	1440	1040	1210
22	600	1090	3250	1520	4020	4460	4910	3370	4580	1690	940	1190
23	589	1070	2700	1660	7140	3700	4780	3160	3830	1500	939	1080
24	698	1070	2070	1670	9290	3070	4240	5750	3290	1380	2920	2040
25	855	1070	1840	1570	8610	2680	4290	4470	2920	1310	1610	2480
26	846	1610	1860	1540	7750	2420	3940	4070	2520	1250	1150	1840
27	781	3470	1880	1460	6500	2200	3310	3500	5750	1210	1030	1680
28	678	2600	1800	1440	6080	2280	2890	3330	6290	1210	1090	1440
29	622	2130	1610	1400	5230	2200	2530	5930	3690	1320	1130	1240
30	565	2260	1560	1440	---	2010	2350	5900	2920	1320	1040	1160
31	540	---	1610	1460	---	1830	---	4190	---	1330	969	---
TOTAL	22660	45422	89660	110090	118950	83870	255430	94400	117810	57650	45038	35536
MEAN	731	1514	2892	3551	4102	2705	8514	3045	3927	1860	1453	1185
MAX	1420	5890	10200	13200	9290	4720	31000	5980	6290	3380	3600	2480
MIN	540	524	1380	1400	1160	1680	1690	1350	2060	1210	939	859
CFSM	.24	.49	.93	1.14	1.32	.87	2.74	.98	1.26	.60	.47	.38
IN.	.27	.54	1.07	1.32	1.42	1.00	3.06	1.13	1.41	.69	.54	.43

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2000, BY WATER YEAR (WY)

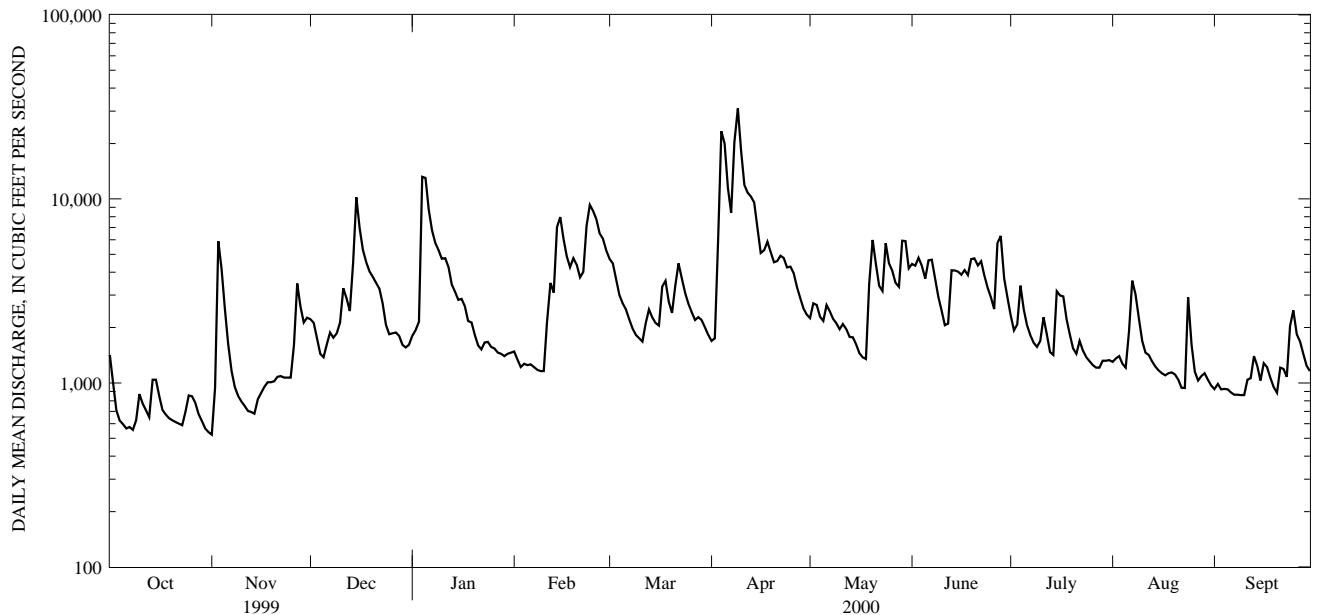
MEAN	1841	3096	4778	4924	5556	6822	5877	3984	2939	2303	1714	1778
MAX	6760	11520	11880	11620	12360	13040	13620	10880	11090	7925	6505	5804
(WY)	1991	1986	1991	1993	1990	1993	1957	1996	1989	1958	1980	1975
MIN	531	439	540	714	887	1606	1861	1271	966	916	777	739
(WY)	1992	1992	1961	1961	1963	1969	1971	1962	1992	1965	1991	1999

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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR			FOR 2000 WATER YEAR			WATER YEARS 1957 - 2000	
ANNUAL TOTAL	1044659			1076516				
ANNUAL MEAN	2862			2941			3792	
HIGHEST ANNUAL MEAN							5146	
LOWEST ANNUAL MEAN							1938	
HIGHEST DAILY MEAN	33400	Jan 24		31000	Apr 9		65400	Jan 22 1959
LOWEST DAILY MEAN	524	Nov 1		524	Nov 1		320	Nov 5 1991
ANNUAL SEVEN-DAY MINIMUM	608	Oct 3		608	Oct 3		333	Nov 1 1991
INSTANTANEOUS PEAK FLOW				33700	Apr 9		<sup>a</sup> 69900	Jan 22 1959
INSTANTANEOUS PEAK STAGE				10.15	Apr 9		14.42	Jan 22 1959
ANNUAL RUNOFF (CFSM)	.92			.95			1.22	
ANNUAL RUNOFF (INCHES)	12.51			12.89			16.59	
10 PERCENT EXCEEDS	7460			5750			8310	
50 PERCENT EXCEEDS	1430			1990			2350	
90 PERCENT EXCEEDS	693			861			907	

a From rating curve extended above 57,000 ft<sup>3</sup>/s.



1-YEAR HYDROGRAPH  
OCTOBER 1, 1999 TO SEPTEMBER 30, 2000