BEAVER RIVER BASIN

03105500 BEAVER RIVER AT WAMPUM, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°53'19", long 80°20'14", Lawrence County, Hydrologic Unit 05030104, on right bank at downstream side of bridge on State Highway 288 at Wampum, 2.9 mi upstream from Connoquenessing Creek, at mile 15.4.

DRAINAGE AREA.--2,235 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1914 to September 1918, August 1932 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as "at Newport" 1914-18.

REVISED RECORDS.--WSP 728: Drainage area. WSP 1385: 1933-40, 1946, 1951-52. WSP 1725: 1960 (adjusted runoff). WDR PA-85-3: 1984 (M).

GAGE.--Water-stage recorder. Datum of gage is 736.24 ft above National Geodetic Vertical Datum of 1929 (Penn Central Railroad bench mark). Prior to Sept. 20, 1914, nonrecording gage at site 500 ft downstream at datum 0.76 ft lower. Oct. 1, 1914 to Sept. 30, 1918, nonrecording gage at site 1 mi upstream at datum 0.84 ft higher. Aug. 26, 1932 to Nov. 16, 1938, nonrecording gage at present site and datum. Since 1932 an auxiliary gage 10 mi downstream at Beaver Falls (station 03107500) is used during periods of backwater from Connoquenessing Creek.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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, and since January 1967 by Shenango River Lake 40 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1912, 29.9 ft, Mar. 26, 1913, from floodmark, discharge, about 87,000 ft^3/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	5590	3420	6710	5860	1940	4430	9400	2810	6610	1160	5630	2960
2	5810	3310	6320	6260	1920	5170	13600	3290	6380	1080	4270	2720
3	5110	3270	6380	8540	2260	5380	14400	6350	5790	1030	3460	2420
4	4500	3190	6000	13100	3050	5230	10500	6170	5230	1020	2960	1900
5	4400	3100	5450	e21500	3070	5140	8110	5270	4240	1020	2140	1580
6	4130	2960	5280	e16600	5620	5660	7090	4840	3070	1010	2020	1600
7	3850	2820	4960	8140	8530	5180	6610	4510	2330	983	1970	1540
8	3630	2290	4320	7030	6240	4130	5600	4100	2070	1300	1900	2730
9	3060	2130	4130	7340	5550	3810	4780	3270	1610	1050	1850	e34000
10	2890	2080	4440	6910	5050	3500	3960	2640	1570	970	1860	e24800
11	2590	2210	7720	6800	5240	3210	3470	2540	2260	934	1810	12600
12	2440	3010	6980	6750	4730	3100	3270	2370	2560	1020	1750	7520
13	2380	4130	5840	6350	4520	2960	5400	2110	2420	1800	1460	6930
14	2690	4200	5240	6070	3790	2540	11800	1840	3370	1420	1450	6600
15	7640	3530	5000	5780	3300	2480	9620	1740	6560	1360	1330	6450
16	6200	3100	4460	5030	2990	2380	6580	2220	5880	1200	1290	6260
17	5850	2940	5500	3970	2910	2380	5090	2100	5280	1220	1080	12600
18	5210	2840	5840	3370	2760	2370	4560	2710	5780	1490	978	e32800
19	4880	4150	5220	3060	2430	2700	5180	5340	5210	1780	1340	21100
20	4210	7740	4710	2890	2530	4650	5710	7520	4640	1750	2380	8180
21	3640	5220	4340	2670	6570	11500	5290	10500	4240	1380	10400	6940
22	3130	5020	4200	2150	6830	7950	5140	e23000	3540	1240	5470	7070
23	2800	4560	3940	1930	5760	6160	5950	e20500	3050	1240	3380	7120
24	2630	4350	5660	1900	5430	5120	5600	15800	2580	1230	2660	6780
25	2330	4390	6570	1820	5170	5180	4690	8770	2780	1160	2030	6720
26	2330	4090	5870	1840	4720	5450	3670	8240	2070	1600	1760	e6750
27	4530	3400	3980	1900	4360	7660	3360	7770	1690	1810	1640	e6510
28	4790	6610	4040	1970	3900	8130	3400	7970	1520	1900	5610	e6270
29	4370	10400	4720	2040	4080	6780	3190	7770	1410	1480	6260	e5980
30	4200	8080	5960	2050	---	5890	2770	7030	1250	1750	3890	e5740
31	3670	---	6720	1970	---	6750	---	6750	---	4500	3240	---
TOTAL	125480	122540	166500	173590	125250	152970	187790	197840	106990	43887	89268	263170
MEAN	4048	4085	5371	5600	4319	4935	6260	6382	3566	1416	2880	8772
MAX	7640	10400	7720	21500	8530	11500	14400	23000	6610	4500	10400	34000
MIN	2330	2080	3940	1820	1920	2370	2770	1740	1250	934	978	1540
CFSM	1.81	1.83	2.40	2.51	1.93	2.21	2.80	2.86	1.60	0.63	1.29	3.92
IN.	2.09	2.04	2.77	2.89	2.08	2.55	3.13	3.29	1.78	0.73	1.49	4.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2004, BY WATER YEAR (WY)

MEAN	1280	1806	2843	3420	3865	4820	3953	2751	2020	1551	1321	1325
MAX	5888	7936	7978	13030	8779	9098	9226	8362	8004	7667	5272	8772
(WY)	1991	1986	1991	1937	1915	1916	1994	1996	1989	2003	2003	2004
MIN	168	278	447	534	304	1074	657	288	222	198	156	153
(WY)	1934	1915	1961	1918	1934	1969	1915	1934	1934	1918	1933	1916

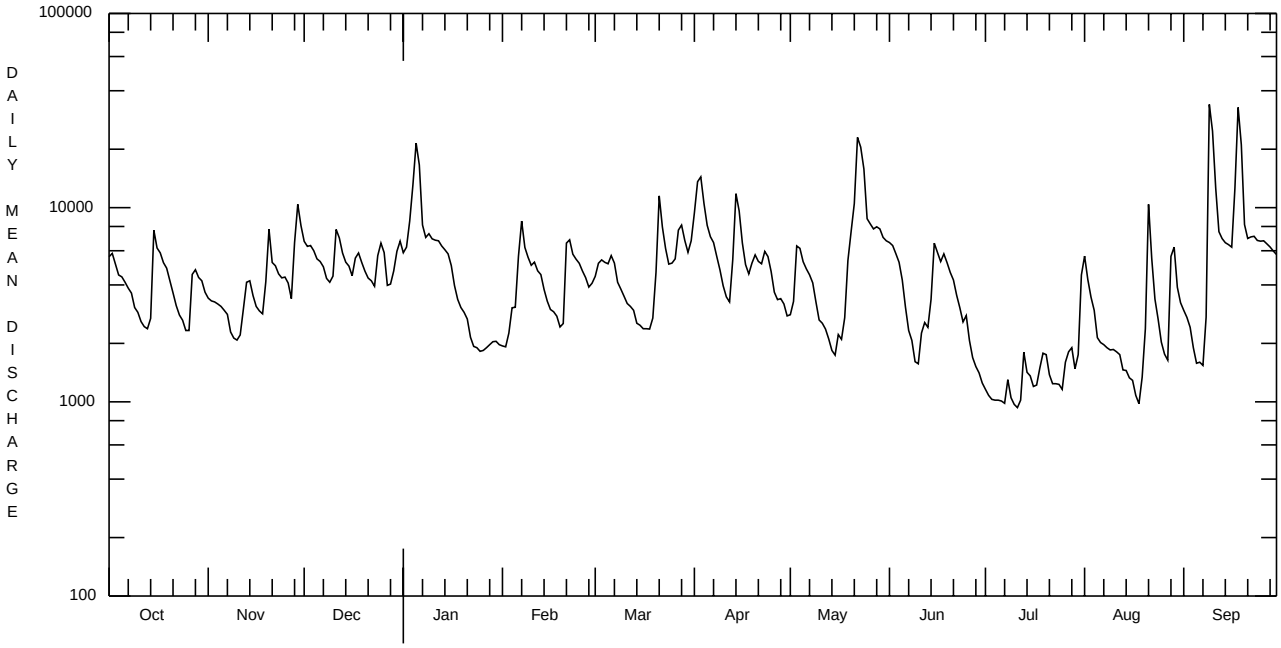
e Estimated.

BEAVER RIVER BASIN

03105500 BEAVER RIVER AT WAMPUM, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1915 - 2004	
ANNUAL TOTAL	1587473		1755275			
ANNUAL MEAN	4349		4796		2580	
HIGHEST ANNUAL MEAN					4796	2004
LOWEST ANNUAL MEAN					834	1934
HIGHEST DAILY MEAN	27500	Jul 23	**e**34000	Sep 9	47500	Jan 22 1959
LOWEST DAILY MEAN	830	Jan 30,31	934	Jul 11	88	Oct 5 1914
ANNUAL SEVEN-DAY MINIMUM	894	Jan 26	1040	Jul 5	94	Oct 3 1914
MAXIMUM PEAK FLOW			**a**40300	Sep 9	**a**50100	May 28 1946
MAXIMUM PEAK STAGE			**b**21.89	Sep 9	**c**21.53	May 28 1946
INSTANTANEOUS LOW FLOW					**d**74	Jul 30 1933
ANNUAL RUNOFF (CFSM)	1.95		2.15		1.15	
ANNUAL RUNOFF (INCHES)	26.42		29.22		15.68	
10 PERCENT EXCEEDS	7490		7730		5900	
50 PERCENT EXCEEDS	3920		4180		1450	
90 PERCENT EXCEEDS	1300		1590		582	

a From slope-rating curve extended above 28,000 ft^3/s on basis of contracted-opening measurement at gage height 21.44 ft.
b Backwater from Connoquenessing Creek.
c Maximum gage height, 24.86 ft, Jan. 22, 1959 (backwater from Connoquenessing Creek).
d Minimum discharge observed.
e Estimated.



OCTOBER 1, 2003 TO SEPTEMBER 30, 2004

BEAVER RIVER BASIN

03105500 BEAVER RIVER AT WAMPUM, PA--Continued

WATER-QUALITY RECORDS

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

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

REMARKS.--Other data for the Water-Quality Network can be found on pages 240-288. Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

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.

Date	10/14/03
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	3
Sphaeriidae	
Sphaerium	4
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	5
Tubificidae	6
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	2
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	1
Ephemerellidae	
Serratella	1
Heptageniidae	
Stenonema	18
Tricorythidae	
Tricorythodes	11
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	27
Hydropsyche	6
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Stenelmis	12
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	9
Empididae (DANCE FLIES)	
Hemerodromia	2
Total Organisms	110
Total Taxa	16