

## FRENCH CREEK BASIN

## 03023100 FRENCH CREEK AT MEADVILLE, PA

**LOCATION.**--Lat 41°37'57", long 80°09'35", Crawford County, Hydrologic Unit 05010004, on left bank 30 ft upstream from bridge on Mercer Street at Meadville, 300 ft downstream from Mill Run, 2,600 ft downstream from Cussewago Creek, at mile 30.5.

**DRAINAGE AREA.**--788 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1988 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 1,058.83 ft above sea level (U.S. Army Corps of Engineers benchmark). Prior to October 27, 1989, water-stage recorder at site 2,300 ft upstream at different datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Flow regulated beginning October 1971 by Union City Reservoir 43 mi upstream, serving as a retarding basin, and Woodcock Creek Lake (station 03022550) 9.0 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 discharge 25,800 ft<sup>3</sup>/s April 1947, gage height, 17.05 ft; maximum gage height 17.60 ft, January 1959 (backwater from ice), site and datum then in use.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	82	177	e260	2250	1760	1450	751	752	174	104	107
2	50	83	174	e270	2550	1920	1710	673	560	163	105	94
3	53	81	188	e310	3830	2050	1690	591	549	145	116	85
4	53	81	196	e330	3860	3560	1630	522	549	135	101	79
5	51	81	183	e340	3370	3230	1860	494	531	125	95	74
6	53	82	185	e360	2870	2920	1850	463	447	172	94	71
7	68	101	213	e370	2480	2220	1600	436	371	409	93	67
8	147	106	209	e390	2200	1830	1410	429	319	390	90	67
9	448	106	192	e410	1990	1760	1570	473	277	234	82	70
10	459	199	177	e420	2040	1480	2930	583	251	184	80	80
11	276	224	165	e440	1990	1220	2850	556	361	199	80	80
12	184	299	155	e460	2300	1110	2880	447	444	182	80	81
13	141	358	145	e470	2930	983	2440	382	347	142	80	82
14	116	292	140	e500	2480	938	1930	344	267	118	91	77
15	107	244	131	e520	2120	908	1590	317	226	107	83	68
16	117	220	127	e560	1980	869	1470	292	220	99	80	69
17	138	209	134	e580	2200	1120	2150	266	201	95	80	67
18	138	190	149	e620	2500	3230	3180	276	181	105	78	63
19	130	171	150	e640	2180	3740	3150	461	159	101	75	60
20	118	161	172	e680	1800	3090	2770	974	151	91	80	68
21	118	155	286	e720	1510	2570	2260	847	143	86	80	69
22	121	159	2100	e1000	1240	2290	2030	574	134	115	79	64
23	116	167	2630	e2600	948	2090	2070	427	127	95	81	65
24	116	168	1890	e6200	765	2020	2630	653	122	93	188	66
25	113	166	1570	9630	714	1990	2460	1720	115	87	184	67
26	107	181	1200	7280	645	1780	1990	2210	111	83	148	67
27	99	183	969	5140	605	1550	1590	2000	114	88	131	65
28	93	195	651	4360	900	1480	1240	1740	142	84	192	65
29	88	198	e470	4030	---	1460	980	1480	220	90	217	122
30	85	189	e370	3250	---	1450	840	1260	195	96	161	189
31	83	---	e320	2650	---	1430	---	1020	---	104	126	---
TOTAL	4045	5131	15818	55790	57247	60048	60200	23661	8586	4391	3354	2348
MEAN	130	171	510	1800	2045	1937	2007	763	286	142	108	78.3
MAX	459	358	2630	9630	3860	3740	3180	2210	752	409	217	189
MIN	50	81	127	260	605	869	840	266	111	83	75	60
CFSM	.17	.22	.65	2.28	2.59	2.46	2.55	.97	.36	.18	.14	.10
IN.	.19	.24	.75	2.63	2.70	2.83	2.84	1.12	.41	.21	.16	.11

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1999, BY WATER YEAR (WY)

MEAN	1089	1897	1923	2566	2118	2548	2414	1389	834	457	376	772
MAX	3181	3205	3039	4233	4190	4059	4023	2998	2659	1337	1291	2786
(WY)	1991	1997	1991	1998	1990	1997	1994	1996	1989	1992	1994	1990
MIN	104	154	510	834	757	1700	1556	451	155	134	81.3	52.6
(WY)	1992	1992	1999	1994	1993	1990	1995	1993	1991	1998	1998	1991

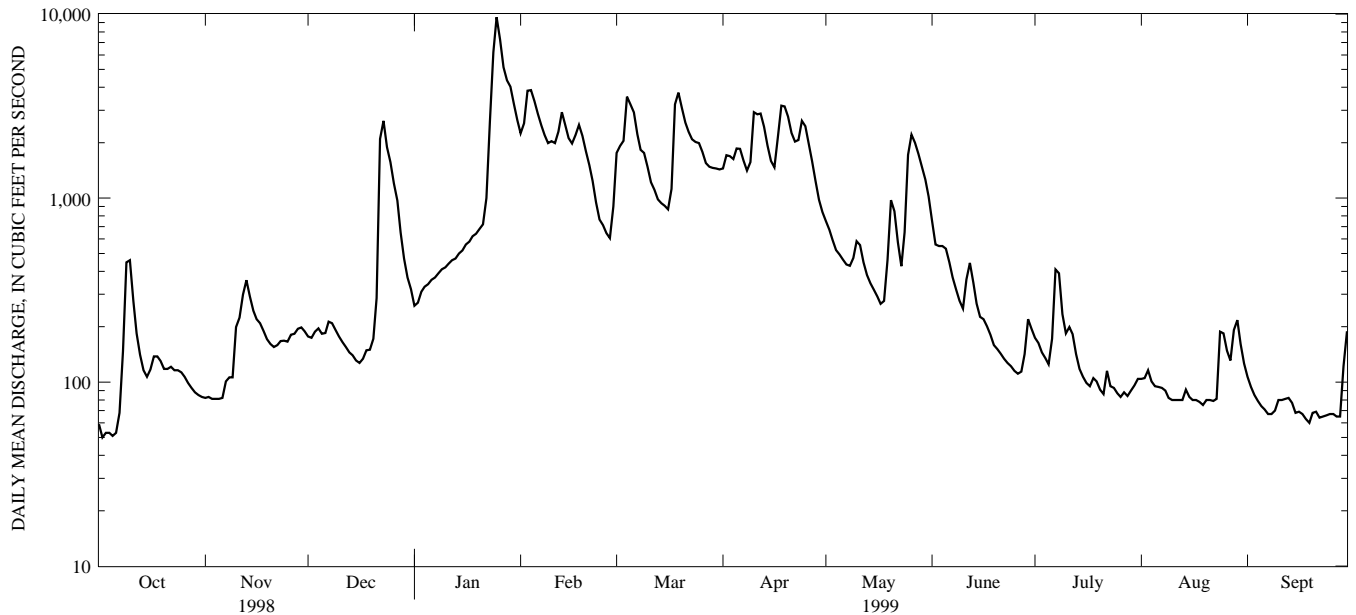
e Estimated.

FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR			FOR 1999 WATER YEAR		WATER YEARS 1989 - 1999	
ANNUAL TOTAL	403114			300619			
ANNUAL MEAN	1104			824		1528	
HIGHEST ANNUAL MEAN						1982	
LOWEST ANNUAL MEAN						824	
HIGHEST DAILY MEAN	13100	Jan	9	9630	Jan	25	14300
LOWEST DAILY MEAN	50	Oct	2	50	Oct	2	37
ANNUAL SEVEN-DAY MINIMUM	54	Sep	30	55	Oct	1	42
INSTANTANEOUS PEAK FLOW				10100	Jan	25	a14800
INSTANTANEOUS PEAK STAGE				12.79	Jan	25	15.52
ANNUAL RUNOFF (CFSM)	1.40			1.05		1.94	
ANNUAL RUNOFF (INCHES)	19.03			14.19		26.34	
10 PERCENT EXCEEDS	2820			2290		3560	
50 PERCENT EXCEEDS	233			260		1020	
90 PERCENT EXCEEDS	71			80		118	

a From rating curve extended above 10,300 ft<sup>3</sup>/s.



1-YEAR HYDROGRAPH  
OCTOBER 1, 1998 TO SEPTEMBER 30, 1999