

FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, PA
(Pennsylvania Water-Quality Network Station)

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 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,058.83 ft above National Geodetic Vertical Datum of 1929 (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.--No estimated daily discharges. Records good. Flow regulated since October 1971 by Union City Reservoir 43 mi upstream, serving as a retarding basin, and since January 1974 by 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 ft³/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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	1100	3630	1200	6620	1640	3700	2940	1520	274	1010	83
2	178	898	2940	995	7880	1520	2980	2550	1220	247	504	80
3	152	853	2510	879	7420	2190	4860	2660	965	224	378	81
4	131	914	1870	835	5620	2740	5570	2240	744	204	311	83
5	116	756	1420	798	3870	2150	4290	1860	861	186	269	77
6	134	707	1130	767	3200	1900	3390	1500	1820	170	236	79
7	168	612	899	775	2790	1950	2760	1240	2270	158	194	76
8	310	514	755	771	2510	1940	2420	1100	1940	150	174	73
9	316	498	677	754	2350	1840	2460	1170	1660	166	158	71
10	265	553	623	780	2410	1970	3180	1490	1450	190	140	69
11	223	560	563	900	2960	2080	2830	1400	1230	188	130	65
12	201	498	506	1050	2980	1940	2340	2920	1010	177	125	65
13	180	459	511	1080	2530	1910	2750	8200	755	158	121	76
14	182	433	631	1070	2140	1840	4450	10900	626	143	125	83
15	186	403	1460	1070	2010	1750	5850	9960	981	132	130	131
16	279	378	2010	1250	1990	1960	5940	7620	1330	123	134	173
17	381	352	2350	1230	2100	2170	4440	6240	1500	117	189	394
18	803	321	4530	1150	1960	1880	3470	6090	1150	112	188	316
19	742	331	4430	944	1760	1720	2720	5340	829	107	164	223
20	523	549	3650	903	1850	1750	2520	4080	612	101	143	194
21	405	1120	3110	975	2730	2500	2470	2970	492	97	129	158
22	638	984	2460	932	3040	2400	2290	2460	453	94	124	140
23	963	742	2760	945	2720	2050	2170	2160	448	108	120	122
24	933	583	4490	1830	2270	2030	1930	1990	410	114	122	111
25	1030	833	3840	3150	2010	2080	1700	1880	341	120	118	101
26	1080	1730	2960	2860	1890	2230	1580	2650	307	114	119	96
27	1320	1560	2270	2480	1940	3910	1340	2850	305	106	112	169
28	1910	1260	1950	2140	1830	3840	1610	2250	419	189	106	498
29	1920	1590	1740	2120	---	3560	3030	1860	369	3120	100	788
30	1670	2870	1510	3240	---	4410	3350	1740	315	3700	93	590
31	1350	---	1360	4850	---	4590	---	1750	---	1990	87	---
TOTAL	18900	24961	65545	44723	85380	72440	94390	106060	28332	13079	6053	5265
MEAN	610	832	2114	1443	3049	2337	3146	3421	944	422	195	176
MAX	1920	2870	4530	4850	7880	4590	5940	10900	2270	3700	1010	788
MIN	116	321	506	754	1760	1520	1340	1100	305	94	87	65
CFSM	0.77	1.06	2.68	1.83	3.87	2.97	3.99	4.34	1.20	0.54	0.25	0.22
IN.	0.89	1.18	3.09	2.11	4.03	3.42	4.46	5.01	1.34	0.62	0.29	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)

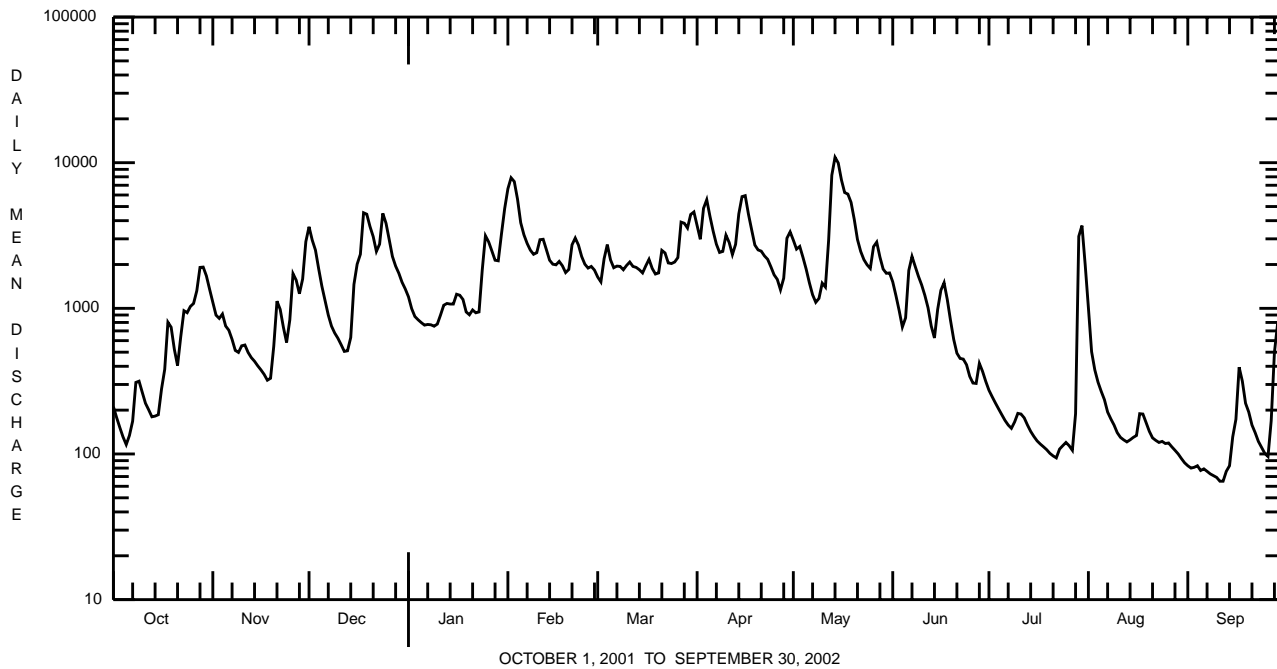
MEAN	1008	1758	1957	2297	2200	2399	2461	1493	857	437	450	657
MAX	3181	3205	3039	4233	4190	4059	4023	3421	2659	1337	1771	2786
(WY)	1991	1997	1991	1998	1990	1997	1994	2002	1989	1992	2000	1990
MIN	104	154	510	815	757	1313	1556	451	155	134	81.3	52.6
(WY)	1992	1992	1999	2001	1993	2000	1995	1993	1991	1998	1998	1991

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SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002	
ANNUAL TOTAL	396767		565128			
ANNUAL MEAN	1087		1548		1493	
HIGHEST ANNUAL MEAN					1982	1996
LOWEST ANNUAL MEAN					824	1999
HIGHEST DAILY MEAN	7960	Feb 11	10900	May 14	14300	Jan 20 1996
LOWEST DAILY MEAN	84	Sep 18,19	65	Sep 11,12	37	Sep 22 1991
ANNUAL SEVEN-DAY MINIMUM	88	Sep 15	71	Sep 7	42	Sep 19 1991
MAXIMUM PEAK FLOW			11000	May 14	^a 14800	Jan 20 1996
MAXIMUM PEAK STAGE			13.27	May 14	15.52	Jan 20 1996
INSTANTANEOUS LOW FLOW			63	Sep 12	37	Sep 22 1991
ANNUAL RUNOFF (CFSM)	1.38		1.96		1.89	
ANNUAL RUNOFF (INCHES)	18.73		26.68		25.75	
10 PERCENT EXCEEDS	2480		3370		3450	
50 PERCENT EXCEEDS	740		1080		980	
90 PERCENT EXCEEDS	117		120		124	

a From rating curve extended above 10,300 ft³/s.



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03023100 FRENCH CREEK AT MEADVILLE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

REMARKS.--Other data for the Water-Quality Network can be found on pages 210-233.

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 2001 TO SEPTEMBER 2002

Date	Time	AGENCY ANA-LYZING SAMPLE NUMBER (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	ANC WATER UNFLTRD FET LAB (MG/L AS CACO3) (00417)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	
APR 2002	23...	0900	9813	2200	40	7.8	7.6	209	10.4	78	23.5	4.7	64	11.7
JUN	11...	1400	9813	1200	40	10.5	7.6	227	21.5	88	27.1	4.8	70	9.4
AUG	13...	1400	9813	120	40	9.3	8.2	351	25.0	140	41.4	8.1	110	18.9

Date	RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	COPPER, TOTAL RECOV-ERABLE (µG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (µG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (µG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (µG/L AS MN) (01055)	
APR 2002	23...	178	22	.050	.51	<.040	1.0	.02	.050	3.9	<10	980	1.1	80
JUN	11...	132	18	<.020	.36	<.040	1.0	.03	.040	5.4	<10	760	<1.0	60
AUG	13...	216	10	.060	.27	<.040	.72	.03	.050	3.7	<10	360	1.0	70

Date	NICKEL, TOTAL RECOV-ERABLE (µG/L AS NI) (01067)	ZINC, TOTAL RECOV-ERABLE (µG/L AS ZN) (01092)	
APR 2002	23...	<50	<10
JUN	11...	<50	10
AUG	13...	<50	<10