



2005 Water Year
 FRENCH CREEK BASIN
 03023100 French Creek at Meadville, PA

Latitude: 41° 37' 57"

Longitude: 080° 09' 35"

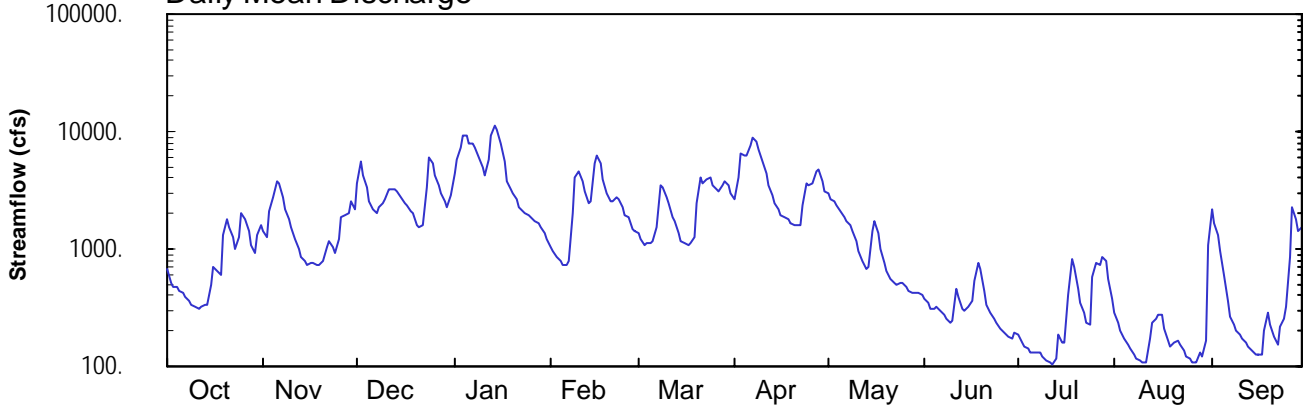
Hydrologic Unit Code: 05010004

Crawford County

Datum: 1058.83 feet

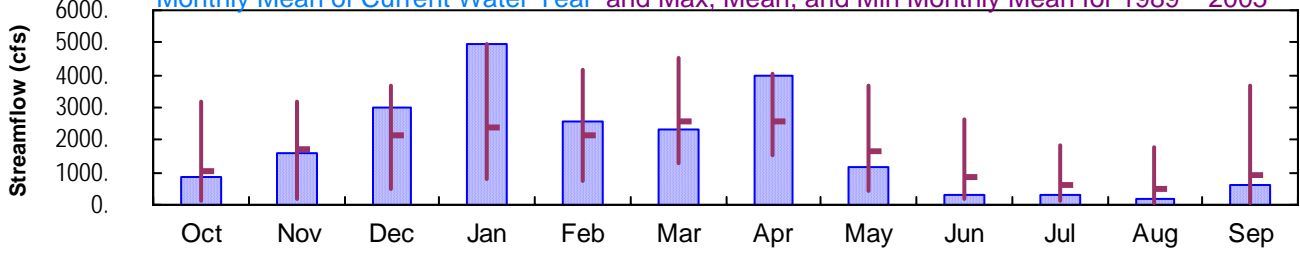
Drainage Area: 788. mi²

Daily Mean Discharge

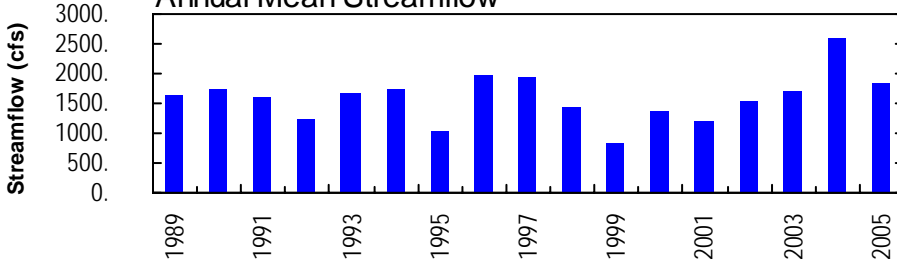


Monthly Statistics

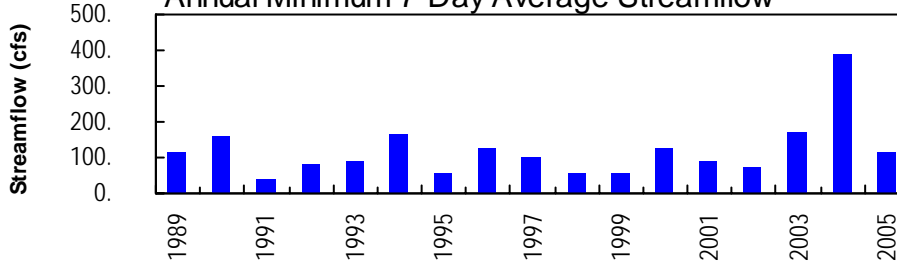
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1989 – 2005



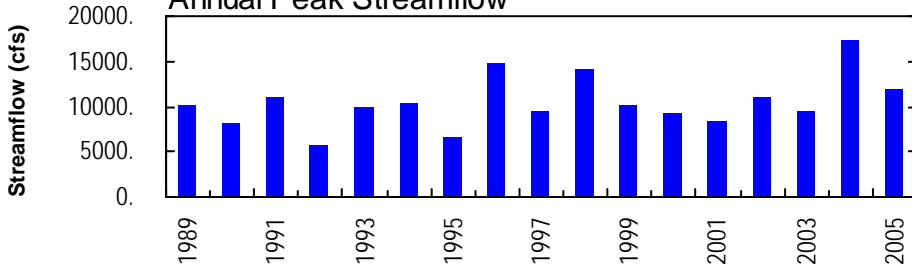
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



NO PHOTOS AVAILABLE FOR THIS SITE

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.--Records good except those for estimated daily discharges, which are poor. 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 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	668	1420	3600	e4460	e1060	1340	2670	3000	372	184	289	2150
2	513	1270	5510	e5740	e956	1240	4030	2670	343	163	237	1670
3	482	2110	4240	7200	e859	1100	6630	2540	309	150	200	1290
4	471	2800	3410	9400	e785	1100	6260	2350	309	141	173	979
5	446	3760	2570	9200	e746	1120	6330	2110	321	134	156	609
6	417	3570	2150	7790	e724	1150	7620	1900	303	132	140	361
7	394	2780	2010	7760	e804	1510	8760	1720	279	134	128	268
8	364	2150	2250	7300	e2020	3430	8200	1570	257	130	119	229
9	341	1790	2450	5930	4150	3380	6960	1410	239	121	112	204
10	325	1520	2680	4970	4510	2720	5640	1170	245	114	109	184
11	315	1230	3180	4230	3770	2410	4420	953	467	110	110	174
12	325	1010	3250	5790	3100	1870	3510	782	386	105	173	158
13	339	869	3200	9210	2440	1730	2910	685	307	116	235	146
14	339	793	3080	11300	2520	1340	2490	713	302	188	258	136
15	498	736	2770	10300	5420	1190	2180	1410	320	163	281	128
16	711	749	2480	7890	6370	1140	1970	1740	360	158	271	127
17	664	748	2320	5460	5440	1080	1850	1340	530	414	208	129
18	597	725	2120	3810	3990	1110	1770	1000	776	825	169	204
19	1300	727	2000	3250	2960	1240	1670	760	677	706	148	288
20	1810	780	1630	2950	2530	2430	1600	643	445	464	161	223
21	1560	1030	1540	e2620	2510	4050	1610	567	341	343	164	178
22	1260	1160	1590	e2260	2740	3620	1620	512	290	282	153	153
23	1020	1040	3340	e2100	2610	3990	2350	497	254	238	139	221
24	1280	922	6000	e2040	2250	4010	3590	506	233	226	123	254
25	2010	1230	5450	e1940	1970	3540	3550	506	213	585	115	323
26	1790	1860	4200	e1820	1860	3260	3630	485	204	767	110	869
27	1420	1950	e3520	e1760	1490	3140	4590	446	189	718	110	2230
28	1080	2020	e2940	e1660	1420	3490	4720	431	179	841	132	1810
29	913	2550	e2570	e1540	---	3810	3770	426	173	785	120	1430
30	1330	2210	e2270	e1380	---	3440	3080	425	197	564	165	1520
31	1610	---	e2900	e1200	---	3000	---	400	---	378	1070	---
TOTAL	26592	47509	93220	154260	72004	72980	119980	35667	9820	10379	6078	18645
MEAN	858	1584	3007	4976	2572	2354	3999	1151	327	335	196	622
MAX	2010	3760	6000	11300	6370	4050	8760	3000	776	841	1070	2230
MIN	315	725	1540	1200	724	1080	1600	400	173	105	109	127
CFSM	1.09	2.01	3.82	6.31	3.26	2.99	5.08	1.46	0.42	0.42	0.25	0.79
IN.	1.26	2.24	4.40	7.28	3.40	3.45	5.66	1.68	0.46	0.49	0.29	0.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2005, BY WATER YEAR (WY)

MEAN	1048	1743	2125	2409	2147	2573	2586	1623	885	582	516	888
MAX	3181	3205	3693	4976	4190	4555	4023	3664	2659	1836	1771	3704
(WY)	1991	1997	2004	2005	1990	2004	1994	2004	1989	2003	2000	2004
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

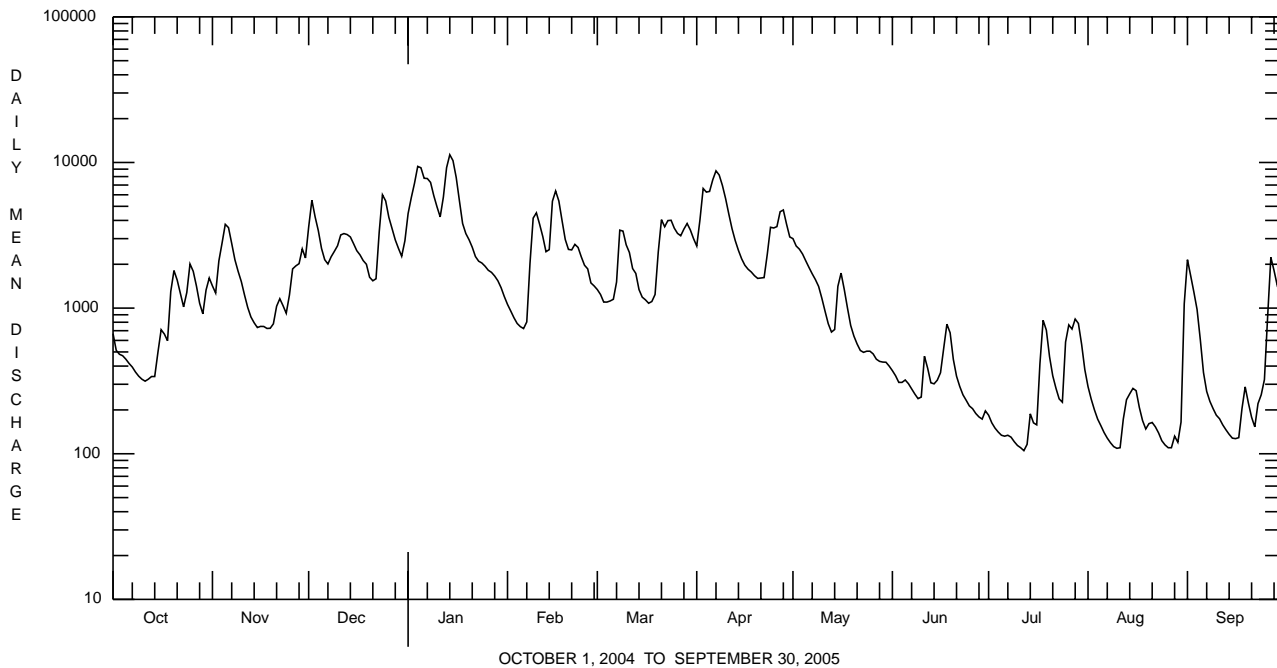
e Estimated.

FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1989 - 2005	
ANNUAL TOTAL	863879		667134			
ANNUAL MEAN	2360		1828		1590	
HIGHEST ANNUAL MEAN					2597	2004
LOWEST ANNUAL MEAN					824	1999
HIGHEST DAILY MEAN	16600	Sep 10	11300	Jan 14	16600	Sep 10 2004
LOWEST DAILY MEAN	271	Sep 7	105	Jul 12	37	Sep 22 1991
ANNUAL SEVEN-DAY MINIMUM	335	Oct 8	119	Jul 7	42	Sep 19 1991
MAXIMUM PEAK FLOW			a11800	Jan 14	a17400	Sep 10 2004
MAXIMUM PEAK STAGE			13.73	Jan 14	16.35	Sep 10 2004
INSTANTANEOUS LOW FLOW			99	Jul 13	37	Sep 22 1991
ANNUAL RUNOFF (CFSM)	3.00		2.32		2.02	
ANNUAL RUNOFF (INCHES)	40.78		31.49		27.42	
10 PERCENT EXCEEDS	4720		4210		3620	
50 PERCENT EXCEEDS	1820		1190		1100	
90 PERCENT EXCEEDS	475		162		139	

a From rating curve extended above 11,400 ft³/s.



FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, 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 2004 TO SEPTEMBER 2005

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)
NOV 2004	15...	1028	9813	730	12.5	7.5	7.8	261	265	4.5	110	33.3	5.9
JAN 2005	10...	1028	9813	4930	12.5	7.3	7.7	158	164	2.5	58	17.6	3.4
MAR 2005	16...	1028	9813	1140	13.7	7.8	7.9	258	260	2.4	96	29.4	5.5
MAY 2005	17...	1028	9813	1310	10.5	7.8	8.1	218	222	14.0	88	27.2	4.9
JUL 2005	19...	1028	9813	710	7.0	7.7	8.1	251	261	26.0	100	31.0	6.3
SEP 2005	20...	1028	9813	220	8.5	7.9	8.2	336	338	22.0	140	40.6	8.3

Date	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (00417)	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)	Ortho-phosphate, 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)	Copper, water, unfltrd recover-able, µg/L (01042)
NOV 2004	91	12.1	146	4	.040	.71	<.040	.01	.022	.92	3.1	<200	<10
JAN 2005	47	9.9	126	18	.030	.64	<.040	.03	.031	.81	3.0	610	<10
MAR 2005	79	12.9	162	<2	.040	1.05	<.040	.02	.024	1.2	2.1	<200	<10
MAY 2005	77	10.3	144	8	<.020	.44	<.040	.01	.026	.73	--	230	<10
JUL 2005	83	16.7	176	14	.040	.60	<.040	.03	.088	.96	--	660	90
SEP 2005	118	17.3	210	<2	.100	.24	<.040	.02	.046	.55	--	<200	<10

Date	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)
NOV 2004	390	<1.0	50	<50	<10
JAN 2005	940	1.1	30	<50	<10
MAR 2005	450	<1.0	60	<50	<10
MAY 2005	500	<1.0	40	<50	<10
JUL 2005	1060	1.4	140	<50	60
SEP 2005	380	<1.0	70	<50	<10

FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, 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	10/06/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Mollusca	
Bivalvia (CLAMS)	
Veneroidea	
Sphaeriidae	
<i>Sphaerium</i>	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	7
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Ephemerellidae	
<i>Serratella</i>	38
Ephemeridae	
<i>Ephemera</i>	1
Heptageniidae	
<i>Stenacron</i>	2
<i>Stenonema</i>	48
Isonychiidae	
<i>Isonychia</i>	29
Potamanthidae	
<i>Anthopotamus</i>	12
Plecoptera (STONEFLIES)	
Taeniopterygidae	
<i>Taeniopteryx</i>	2
Trichoptera (CADDISFLIES)	
Glossosomatidae	
<i>Protoptila</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	18
<i>Hydropsyche</i>	1
<i>Macrostemum</i>	1
Philopotamidae	
<i>Chimarra</i>	4
Polycentropodidae	
<i>Neureclipsis</i>	1
Psychomyiidae	
<i>Psychomyia</i>	1

FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/06/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Dubiraphia</i>	1
<i>Optioservus</i>	2
<i>Stenelmis</i>	1
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	2
Empididae (DANCE FLIES)	
<i>Hemerodromia</i>	2
Total Organisms	179
Total Taxa	23