



2005 Water Year
BUFFALO CREEK BASIN
03049000 Buffalo Creek near Freeport, PA

Latitude: 40° 42' 57"

Longitude: 079° 41' 59"

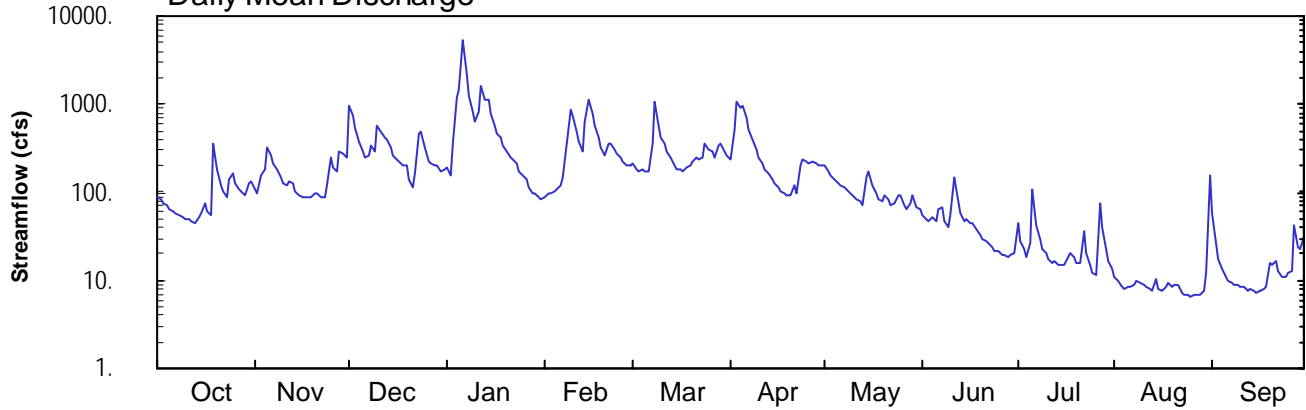
Hydrologic Unit Code: 05010009

Butler County

Datum: 792.00 feet

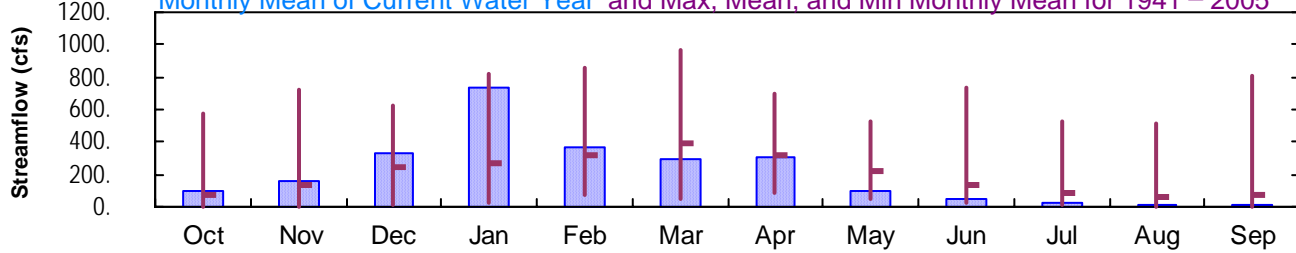
Drainage Area: 137. mi²

Daily Mean Discharge

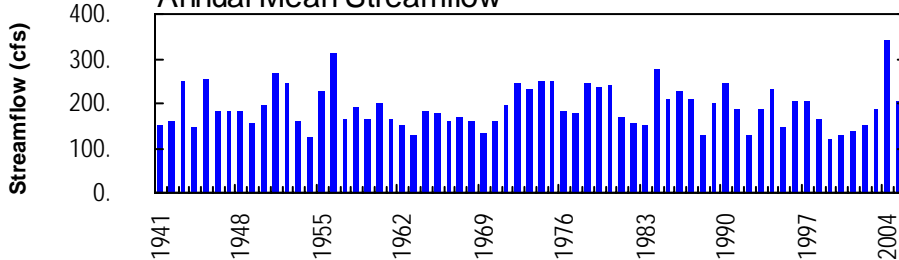


Monthly Statistics

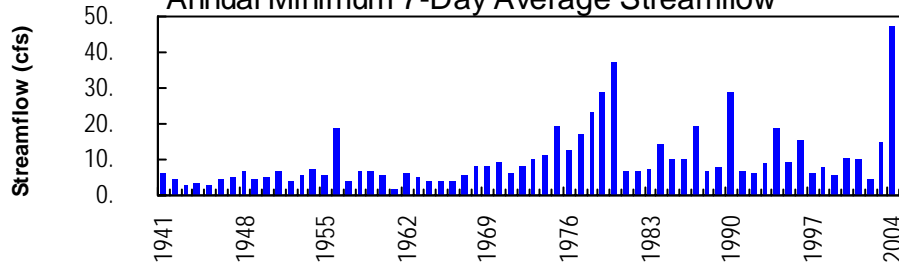
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1941 – 2005



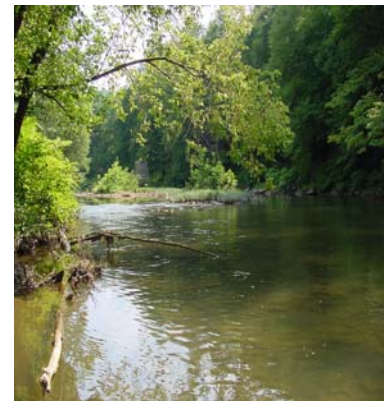
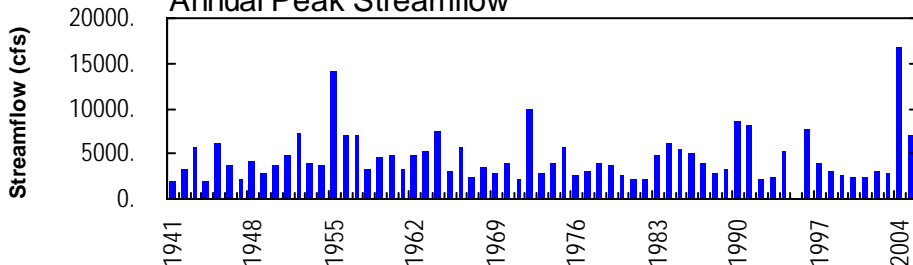
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



BUFFALO CREEK BASIN

03049000 BUFFALO CREEK NEAR FREEPORT, PA

LOCATION.--Lat 40°42'57", long 79°41'59", Butler County, Hydrologic Unit 05010009, on right bank 0.6 mi upstream from Little Buffalo Creek, 1.6 mi downstream of bridge on SR 3023, and 3 mi north of Freeport.

DRAINAGE AREA.--137 mi².

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October 1940, published in WSP 1305.

GAGE.--Water-stage recorder. Elevation of gage is 792 ft above National Geodetic Vertical Datum of 1929, by barometer. Prior to July 19, 1962, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Jan. 6	1215	*7,110	*9.47	No other peak greater than base discharge.			

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	86	106	970	188	e90	210	235	206	56	44	11	59
2	81	98	747	154	e95	184	520	174	49	28	9.8	26
3	76	153	530	363	e100	168	1070	158	48	23	8.5	18
4	71	182	378	1210	e105	180	903	143	51	18	8.1	13
5	66	320	297	1440	e110	175	964	128	47	27	8.5	11
6	61	255	247	5390	e120	169	694	117	66	106	8.4	9.9
7	58	217	266	2180	e145	365	510	112	67	42	8.8	9.3
8	55	180	339	1250	e350	1050	392	108	47	29	9.7	8.7
9	52	146	295	824	e880	585	305	97	41	23	9.6	8.9
10	51	127	561	631	e750	415	252	e89	54	20	9.0	8.6
11	48	117	488	816	497	350	214	83	149	17	8.7	8.4
12	46	135	425	1580	378	296	181	80	79	16	7.9	7.8
13	45	127	391	1120	297	242	161	70	57	16	7.6	8.0
14	51	103	318	1150	650	200	143	147	46	15	11	7.7
15	59	93	263	763	1110	184	128	169	48	15	7.9	7.4
16	74	90	234	583	781	181	111	118	44	15	7.7	7.5
17	61	88	223	454	567	177	103	99	44	18	8.7	7.9
18	54	87	200	e410	410	190	99	86	37	21	9.4	8.5
19	354	88	200	e340	318	202	93	78	32	19	8.3	16
20	179	99	e140	e290	267	226	92	94	30	15	8.8	15
21	121	99	e115	e250	360	254	122	85	28	16	8.7	17
22	105	89	e165	e230	366	230	96	73	27	36	7.2	13
23	89	89	e468	e210	309	255	203	74	24	20	6.7	11
24	143	120	485	e175	273	350	232	91	22	15	6.7	11
25	161	243	e330	e155	253	303	229	91	21	12	6.6	12
26	124	192	e220	e140	229	283	208	71	19	11	6.7	13
27	110	173	e210	e115	198	254	230	63	19	74	6.7	42
28	98	293	e205	e100	204	332	214	77	19	40	6.7	24
29	93	277	e200	e95	---	353	197	92	19	23	7.8	23
30	128	250	174	e90	---	292	207	66	20	17	12	32
31	131	---	180	e85	---	266	---	64	---	13	152	---
TOTAL	2931	4636	10264	22781	10212	8921	9108	3203	1310	804	405.2	464.6
MEAN	94.5	155	331	735	365	288	304	103	43.7	25.9	13.1	15.5
MAX	354	320	970	5390	1110	1050	1070	206	149	106	152	59
MIN	45	87	115	85	90	168	92	63	19	11	6.6	7.4
CFSM	0.69	1.13	2.42	5.36	2.66	2.10	2.22	0.75	0.32	0.19	0.10	0.11
IN.	0.80	1.26	2.79	6.19	2.77	2.42	2.47	0.87	0.36	0.22	0.11	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

MEAN	69.6	136	243	263	314	396	315	216	136	82.3	66.5	68.7
MAX	571	720	625	821	861	964	704	525	732	522	511	808
(WY)	1955	1986	1991	1952	1956	1945	1957	1952	1972	1990	1984	2004
MIN	3.63	5.61	7.15	29.3	70.7	49.2	84.9	44.7	20.8	7.75	4.92	5.82
(WY)	1961	1961	1961	1977	1993	1969	1946	1941	1991	1966	1957	1946

e Estimated.

BUFFALO CREEK BASIN

03049000 BUFFALO CREEK NEAR FREEPORT, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	116329		75039.8			
ANNUAL MEAN	318		206		192	
HIGHEST ANNUAL MEAN					341	2004
LOWEST ANNUAL MEAN					122	1999
HIGHEST DAILY MEAN	7580	Sep 18	5390	Jan 6	7710	Jun 23 1972
LOWEST DAILY MEAN	33	Aug 18	6.6	Aug 25	1.3	Oct 16 1960
ANNUAL SEVEN-DAY MINIMUM	47	Aug 12	6.8	Aug 22	1.7	Oct 13 1960
MAXIMUM PEAK FLOW			7110	Jan 6	a16700	Sep 17 2004
MAXIMUM PEAK STAGE			9.47	Jan 6	b15.28	Sep 17 2004
INSTANTANEOUS LOW FLOW					1.3	Oct 16 1960c
ANNUAL RUNOFF (CFSM)	2.32		1.50		1.40	
ANNUAL RUNOFF (INCHES)	31.59		20.38		19.00	
10 PERCENT EXCEEDS	598		437		455	
50 PERCENT EXCEEDS	174		103		95	
90 PERCENT EXCEEDS	60		9.5		12	

- a From rating curve extended above 7,800 ft³/s on basis of slope-area measurement at gage height 13.60 ft.
- b From floodmarks.
- c Also Sept. 15, 2002, minimum observed.

