

RACCOON CREEK BASIN

03108000 RACCOON CREEK AT MOFFATTS MILL, PA

LOCATION.--Lat 40°37'40", long 80°20'16", Beaver County, Hydrologic Unit 05030101, on left bank at downstream side of highway bridge at Moffatts Mill, 1.4 mi downstream from Gums Run, 4 mi south of Vanport, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--178 mi².

PERIOD OF RECORD.--September 1941 to current year. May 1915 to July 1932 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1385: 1941-43.

GAGE.--Water-stage recorder. Datum of gage is 719.16 ft above sea level (U.S. Army Corps of Engineers benchmark). May 27, 1915 to July 31, 1932, and Sept. 2 to Dec. 3, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Normally, no regulation from Raccoon Creek Lake. Diversion out of the basin from Cherry Valley and Service Creek Reservoirs upstream increased from an average of 4.0 ft³/s at the close of 1957 to 6.8 ft³/s for the present year; diversion began with 2.0 ft³/s for September 1957. Published records do not include diversion. Records of diversion furnished by Western Pennsylvania Water Company and Ambridge Water Authority. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 15, 1922, reached a stage of 9.80 ft, discharge, 10,000 ft³/s. Flood of Mar. 5, 1920, also reached a stage of 9.80 ft, backwater from ice.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Feb. 14	1100	2,200	4.84	Aug. 7	2230	*2,720	*5.31
May 29	0330	2,330	4.97				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	13	41	e52	e80	177	127	156	247	69	111	57
2	19	60	33	e48	e78	176	122	240	192	58	88	65
3	13	331	32	48	e76	153	177	215	182	70	72	61
4	9.5	110	34	497	e82	140	1110	180	140	254	65	58
5	9.7	63	34	457	e86	131	986	172	121	114	53	47
6	13	44	38	232	e82	119	588	163	210	80	454	40
7	11	34	49	168	e80	111	416	153	153	64	2270	35
8	9.5	29	42	130	e84	106	531	142	111	52	719	33
9	9.0	25	36	116	e88	102	713	137	94	45	338	33
10	9.3	25	39	113	e94	100	527	127	79	67	246	33
11	19	24	73	108	e100	93	418	118	69	79	185	41
12	19	22	63	90	e250	144	364	112	151	54	148	39
13	14	21	52	81	323	138	302	109	474	42	124	47
14	37	21	527	73	1550	122	263	124	237	50	110	45
15	42	21	548	63	731	113	238	96	180	236	98	36
16	21	19	226	72	426	115	218	84	201	295	92	34
17	16	19	145	62	317	324	298	82	526	203	82	34
18	15	19	112	e68	290	280	311	80	420	124	82	31
19	14	18	92	e76	742	236	259	137	303	98	87	28
20	13	18	82	e78	509	208	235	156	217	77	76	26
21	13	19	81	e80	368	521	246	96	174	65	66	39
22	12	23	67	e80	320	562	247	80	240	63	61	49
23	12	21	e56	e82	306	418	225	76	156	54	70	43
24	13	20	e50	e82	293	333	204	445	119	43	85	101
25	14	20	e56	e82	261	285	188	205	111	38	83	67
26	14	188	e60	e80	223	241	179	128	144	36	66	83
27	14	218	e58	e72	201	205	171	106	108	33	66	86
28	13	101	e56	e64	227	204	170	637	88	80	67	56
29	13	66	e60	e60	189	194	166	1560	80	795	64	44
30	13	51	e58	e70	---	157	162	560	80	302	60	37
31	13	---	e56	e80	---	142	---	344	---	160	59	---
TOTAL	497.0	1663	2956	3464	8456	6350	10161	7020	5607	3800	6247	1428
MEAN	16.0	55.4	95.4	112	292	205	339	226	187	123	202	47.6
MAX	42	331	548	497	1550	562	1110	1560	526	795	2270	101
MIN	9.0	13	32	48	76	93	122	76	69	33	53	26
CFSM	.09	.31	.54	.63	1.64	1.15	1.90	1.27	1.05	.69	1.13	.27
IN.	.10	.35	.62	.72	1.77	1.33	2.12	1.47	1.17	.79	1.31	.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2000, BY WATER YEAR (WY)

MEAN	62.4	111	192	251	320	405	342	262	143	86.8	71.2	54.7
MAX	359	764	717	737	788	1010	757	618	632	389	651	453
(WY)	1955	1986	1991	1952	1956	1945	1957	1983	1989	1990	1980	1975
MIN	7.98	14.8	15.1	34.5	47.7	56.3	94.7	65.6	26.3	15.6	10.2	9.73
(WY)	1964	1964	1964	1967	1964	1969	1946	1986	1988	1965	1965	1964

e Estimated.

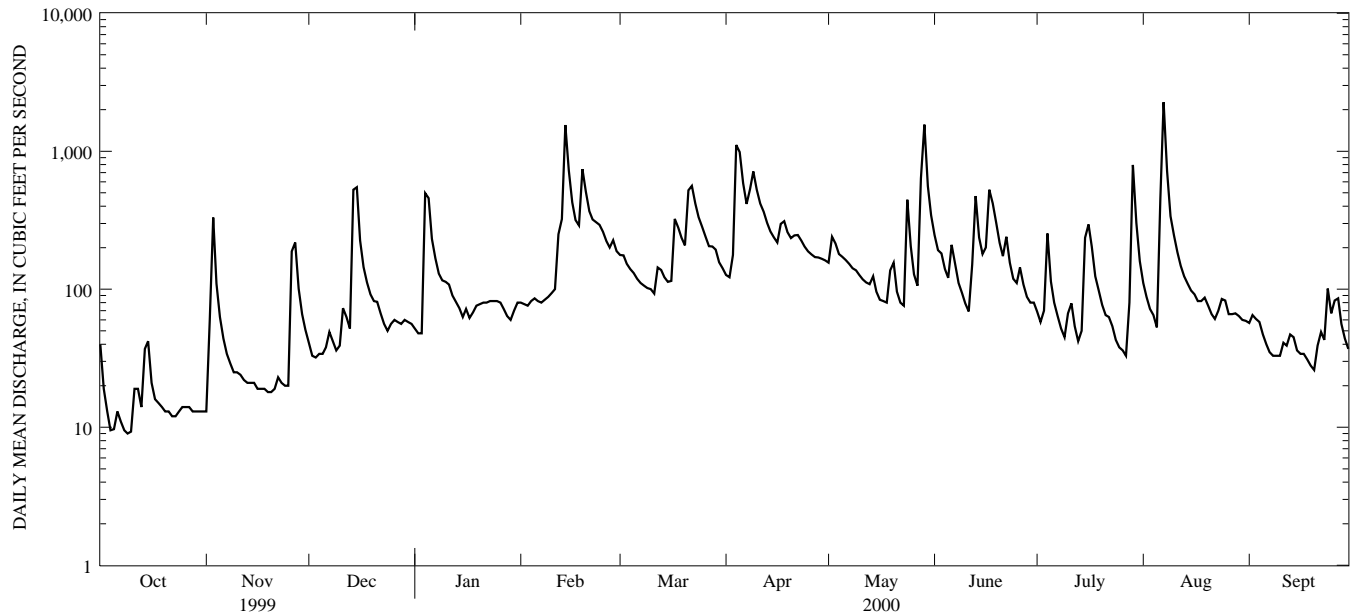
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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1942 - 2000	
ANNUAL TOTAL	51476.7		57649.0			
ANNUAL MEAN	141		158		191	
HIGHEST ANNUAL MEAN					314	1951
LOWEST ANNUAL MEAN					90.9	1954
HIGHEST DAILY MEAN	1810	Jan 19	2270	Aug 7	6120	Jan 27 1952
LOWEST DAILY MEAN	8.8	Sep 5 ^a	9.0	Oct 9	4.8	Sep 8 1945
ANNUAL SEVEN-DAY MINIMUM	9.1	Sep 13	10	Oct 4	5.6	Aug 20 1965
INSTANTANEOUS PEAK FLOW			2720	Aug 7	b8590	Jan 27 1952
INSTANTANEOUS PEAK STAGE			5.31	Aug 7	9.71	Jan 27 1952
INSTANTANEOUS LOW FLOW			7.6	Oct 5	4.5	Aug 24 1965
ANNUAL RUNOFF (CFSM)	.79		.88		1.07	
ANNUAL RUNOFF (INCHES)	10.76		12.05		14.60	
10 PERCENT EXCEEDS	333		332		446	
50 PERCENT EXCEEDS	58		84		97	
90 PERCENT EXCEEDS	12		21		20	

^a Also Sept. 6, 7, 15-17.

^b From rating curve extended above 3,600 ft³/s.



1-YEAR HYDROGRAPH
OCTOBER 1, 1999 TO SEPTEMBER 30, 2000