

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)
Dec. 17	0930	1,930	4.57	Mar. 22	0430	1,870	4.51
Jan. 31	1230	*2,380	*5.02				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	30	73	e71	815	98	168	173	60	106	14	109
2	31	30	70	e70	508	98	166	171	112	141	13	48
3	30	30	55	e69	352	95	146	167	183	59	19	26
4	29	30	e41	e68	282	95	130	160	146	45	31	19
5	36	30	e40	e68	249	153	120	156	105	41	16	25
6	274	30	e39	e67	229	146	250	146	130	50	14	29
7	151	30	e39	e67	220	134	695	136	237	41	12	28
8	86	30	e39	e66	204	120	503	129	149	47	31	27
9	69	37	e39	e66	228	137	441	140	112	56	19	26
10	58	51	e38	e65	258	132	509	133	93	39	19	26
11	50	74	e51	e64	210	135	700	121	82	105	15	25
12	44	57	e80	e64	177	139	630	126	77	70	14	24
13	37	45	e100	e63	167	212	474	136	69	43	14	23
14	35	41	e110	e62	162	346	364	102	65	34	15	39
15	34	39	e150	e64	320	329	327	91	59	28	13	28
16	33	38	e240	e74	317	316	496	91	55	25	12	19
17	33	36	1600	e70	372	421	412	91	64	23	11	16
18	33	37	659	e68	293	358	355	87	55	23	10	16
19	33	37	391	e80	240	300	301	84	46	23	10	15
20	32	37	271	e80	232	260	302	77	44	21	13	17
21	32	38	219	e70	210	384	451	68	49	19	18	21
22	31	e36	168	e64	162	1460	399	89	79	17	14	18
23	30	e36	103	e60	164	730	386	121	75	16	17	14
24	30	e35	e80	e59	139	501	348	88	59	14	18	16
25	33	e34	e78	e58	134	377	298	106	52	16	17	33
26	39	e35	e77	e58	131	311	259	146	43	27	15	32
27	36	53	e76	e58	112	258	238	95	34	37	13	23
28	34	53	e75	e84	106	223	215	83	31	22	42	18
29	34	51	e74	e110	---	205	188	73	28	18	65	16
30	33	60	e73	e220	---	198	178	72	26	16	25	15
31	32	---	e72	1820	---	187	---	66	---	15	42	---
TOTAL	1526	1200	5220	4027	6993	8858	10449	3524	2419	1237	601	791
MEAN	49.2	40.0	168	130	250	286	348	114	80.6	39.9	19.4	26.4
MAX	274	74	1600	1820	815	1460	700	173	237	141	65	109
MIN	29	30	38	58	106	95	120	66	26	14	10	14
CFSM	.28	.22	.95	.73	1.40	1.61	1.96	.64	.45	.22	.11	.15
IN.	.32	.25	1.09	.84	1.46	1.85	2.18	.74	.51	.26	.13	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2001, BY WATER YEAR (WY)

MEAN	62.1	110	191	249	319	403	342	260	142	86.0	70.3	54.2
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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03108000 RACCOON CREEK AT MOFFATTS MILL, PA--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1942 - 2001	
ANNUAL TOTAL	60479		46845		190	
ANNUAL MEAN	165		128		314	
HIGHEST ANNUAL MEAN					1951	
LOWEST ANNUAL MEAN					90.9	
HIGHEST DAILY MEAN	2270	Aug 7	1820	Jan 31	6120	Jan 27 1952
LOWEST DAILY MEAN	26	Sep 20	10	Aug 18,19	4.8	Sep 8 1945
ANNUAL SEVEN-DAY MINIMUM	30	Nov 1	12	Aug 14	5.6	Aug 20 1965
MAXIMUM PEAK FLOW			2380	Jan 31	a8590	Jan 27 1952
MAXIMUM PEAK STAGE			5.02	Jan 31	9.71	Jan 27 1952
INSTANTANEOUS LOW FLOW			10	Aug 18-20	4.5	Aug 24 1965
ANNUAL RUNOFF (CFSM)	.93		.72		1.07	
ANNUAL RUNOFF (INCHES)	12.64		9.79		14.52	
10 PERCENT EXCEEDS	334		313		445	
50 PERCENT EXCEEDS	86		66		96	
90 PERCENT EXCEEDS	34		18		20	

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

