

RACCOON CREEK BASIN

03108000 RACCOON CREEK AT MOFFATTS MILL, PA (Pennsylvania Water-Quality Network Station)

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.

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (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)
Mar. 27	0545	*2,450	*5.08	No other peak greater than base discharge.			

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	14	26	240	e70	328	83	312	325	157	40	15	8.6
2	13	27	145	e70	247	93	263	417	130	38	11	8.1
3	12	55	109	e70	199	147	250	368	108	38	10	7.7
4	12	62	90	e69	175	140	225	287	107	35	9.2	10
5	11	43	80	e69	129	106	194	246	102	30	8.3	30
6	12	35	73	e68	123	127	176	215	367	29	8.5	15
7	13	30	73	e71	117	113	157	206	668	24	10	11
8	16	29	58	e75	104	104	150	221	317	22	8.8	8.9
9	15	29	60	84	92	99	152	261	220	22	7.8	7.9
10	14	28	60	92	85	114	156	366	168	23	7.4	7.3
11	13	27	53	133	127	81	132	245	140	24	7.2	6.9
12	16	25	48	148	119	82	122	277	121	21	7.4	7.0
13	26	24	48	114	104	82	142	518	107	18	7.5	7.6
14	30	23	52	74	83	81	216	1080	106	17	7.6	6.4
15	27	22	52	72	88	76	381	667	106	17	9.3	6.5
16	30	21	47	66	89	183	336	459	104	16	8.7	6.7
17	29	21	398	60	86	209	275	363	90	14	23	6.8
18	28	21	1140	56	74	293	232	841	78	21	13	7.9
19	31	21	482	48	69	245	209	688	78	24	9.4	7.2
20	27	37	288	53	83	327	287	503	66	20	7.9	7.2
21	24	48	193	75	158	521	256	394	57	21	8.2	6.9
22	22	37	143	78	158	393	269	324	54	17	9.5	7.2
23	24	31	123	59	135	317	232	273	50	19	26	6.6
24	135	27	118	96	121	266	193	240	46	14	57	6.4
25	102	101	95	178	117	253	178	224	42	13	65	6.4
26	55	141	75	132	118	704	156	193	40	12	30	6.4
27	41	132	e73	111	120	1720	136	163	40	12	18	96
28	35	180	e72	99	99	732	298	197	109	12	15	157
29	31	158	71	91	---	515	543	358	68	12	11	50
30	27	215	71	182	---	452	364	224	47	11	10	27
31	26	---	e71	364	---	355	---	178	---	16	9.1	---
TOTAL	911	1676	4701	3027	3547	9013	6992	11321	3893	652	455.8	554.6
MEAN	29.4	55.9	152	97.6	127	291	233	365	130	21.0	14.7	18.5
MAX	135	215	1140	364	328	1720	543	1080	668	40	65	157
MIN	11	21	47	48	69	76	122	163	40	11	7.2	6.4
CFSM	0.17	0.31	0.85	0.55	0.71	1.63	1.31	2.05	0.73	0.12	0.08	0.10
IN.	0.19	0.35	0.98	0.63	0.74	1.88	1.46	2.37	0.81	0.14	0.10	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2002, BY WATER YEAR (WY)

MEAN	61.6	109	191	247	316	401	341	262	142	84.9	69.4	53.6
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

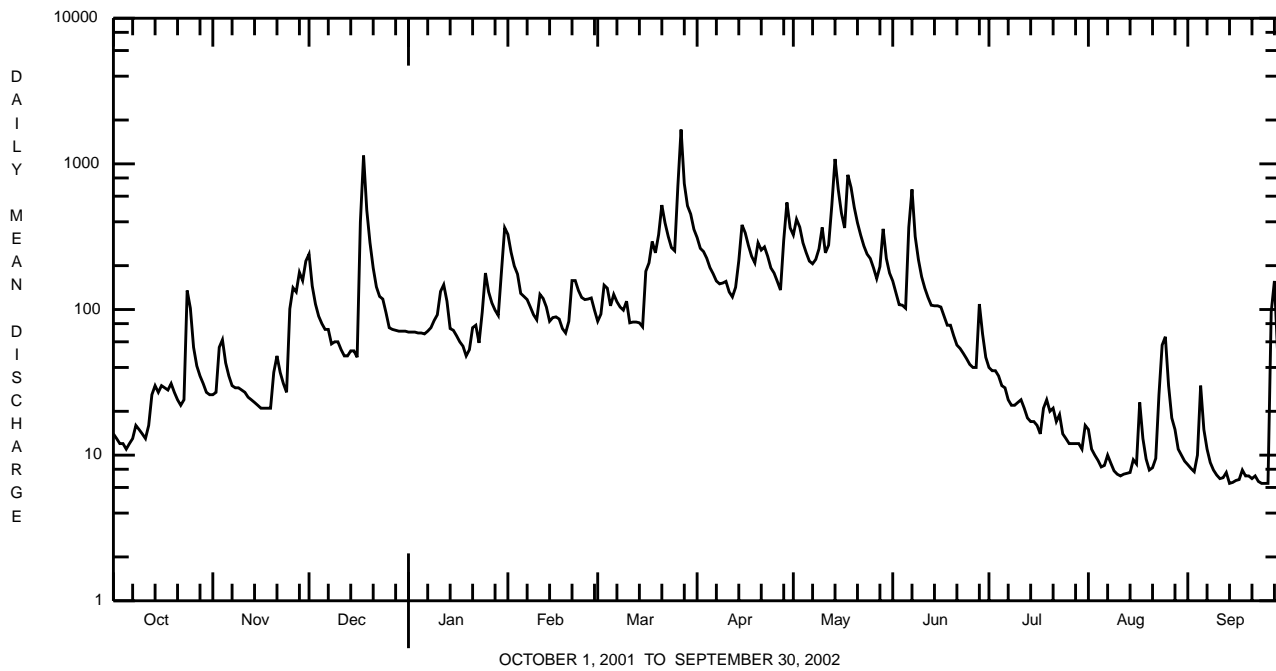
e Estimated.

RACCOON CREEK BASIN

03108000 RACCOON CREEK AT MOFFATTS MILL, PA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1942 - 2002	
ANNUAL TOTAL	46187		46743.4			
ANNUAL MEAN	127		128		189	
HIGHEST ANNUAL MEAN					314	1951
LOWEST ANNUAL MEAN					90.9	1954
HIGHEST DAILY MEAN	1820	Jan 31	1720	Mar 27	6120	Jan 27 1952
LOWEST DAILY MEAN	10	Aug 18,19	6.4	Sep 14,24-26	4.8	Sep 8 1945
ANNUAL SEVEN-DAY MINIMUM	12	Aug 14	6.7	Sep 20	5.6	Aug 20 1965
MAXIMUM PEAK FLOW			2450	Mar 27	a8590	Jan 27 1952
MAXIMUM PEAK STAGE			5.08	Mar 27	9.71	Jan 27 1952
INSTANTANEOUS LOW FLOW			6.0	Sep 14,15,26	4.5	Aug 24 1965
ANNUAL RUNOFF (CFSM)	0.71		0.72		1.06	
ANNUAL RUNOFF (INCHES)	9.65		9.77		14.44	
10 PERCENT EXCEEDS	313		317		442	
50 PERCENT EXCEEDS	68		73		96	
90 PERCENT EXCEEDS	16		9.3		20	

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



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03108000 RACCOON CREEK AT MOFFATTS MILL, 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 (CODE NUMBER)	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)	SPE-CIFIC CON-DUCT-ANCE LAB (µS/CM) (90095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM 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)
APR 2002	09...	9813	143	40	7.9	7.6	707	663	11.5	310	80.8	25.5	78
JUN	04...	9813	114	40	10.4	7.7	857	793	18.5	390	103	32.6	86
AUG	05...	9813	8.58	40	6.5	7.3	1360	1500	24.0	810	208	69.8	68

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA (MG/L AS N) (00610)	NITRO-GEN, NITRATE (MG/L AS N) (00620)	NITRO-GEN, NITRITE (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)	
APR 2002	09...	228	550	<2	<.020	.86	<.040	1.0	.01	.020	1.8	<10	190	<1.0
JUN	04...	301	646	12	<.020	.65	<.040	.84	.02	.020	2.2	<10	320	<1.0
AUG	05...	674	1420	14	.060	1.91	<.200	2.2	.02	.050	3.0	<10	290	<10.0

Date	MANGA-NESE, TOTAL RECOV-ERABLE (µG/L AS MN) (01055)	NICKEL, TOTAL RECOV-ERABLE (µG/L AS NI) (01067)	ZINC, TOTAL RECOV-ERABLE (µG/L AS ZN) (01092)	GROSS BETA, WATER, UNFLT, (PCI/L) (85817)	
APR 2002	09...	170	<50	20	2
JUN	04...	80	<50	<10	--
AUG	05...	90	<50	<10	--