

ROANOKE RIVER BASIN

02065500 CUB CREEK AT PHENIX, VA

LOCATION.--Lat 37°04'45", long 78°45'50", Charlotte County, Hydrologic Unit 03010102, on right bank 5 ft upstream from bridge on State Highway 40, 0.9 mi west of Phenix, 1.9 mi downstream from Rough Creek, and 6.4 mi upstream from Louse Creek.

DRAINAGE AREA.--98.0 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1946 to current year.

REVISED RECORDS.--WSP 1333: 1947(M), 1948, 1949(M). WSP 2104: Drainage area. WDR VA-76-1: 1975.

GAGE.--Water-stage recorder. Datum of gage is 370.19 ft above sea level. Prior to July 14, 1950, nonrecording gage at same site and datum.

REMARKS.--Records good except for period with ice effect, Jan. 6, 7, and period of doubtful gage-height record, Jan. 8-12, which are fair, and for period of no gage-height record, Apr. 21 to Jul 30, which is poor. Maximum discharge, 15,200 ft<sup>3</sup>/s, from rating curve extended above 5,400 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow. Minimum gage height, 0.74 ft, Oct. 6, 1970. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

COOPERATION.--Records were provided by the Virginia Department of Environmental Quality - Water Division.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1940 reached a stage of 17.5 ft, from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 25	1100	*1,690	*9.25	No other peak greater than base discharge.			
Minimum discharge, 8.3 ft <sup>3</sup> /s, Aug 19, 20.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	35	37	49	80	114	86	e54	e29	e80	25	14
2	25	35	37	47	135	84	170	e52	e29	e59	33	14
3	25	38	37	167	146	76	109	e51	e28	e43	26	14
4	26	45	37	286	107	92	92	e50	e28	e33	20	14
5	28	43	37	133	91	85	86	e51	e27	e27	18	82
6	30	38	37	e58	83	77	77	e51	e27	e22	17	186
7	31	38	37	e66	81	76	73	e50	e26	e21	16	180
8	34	38	38	e59	83	67	70	e48	e25	e20	15	175
9	37	39	75	e60	76	66	71	e46	e24	e20	14	141
10	33	39	65	e65	72	75	80	e44	e23	e19	14	86
11	31	44	44	e60	68	73	190	e42	e23	e17	13	48
12	31	44	40	e56	69	68	227	e41	e22	e19	13	33
13	30	41	145	53	72	63	117	e42	e22	e44	12	28
14	31	40	152	55	65	81	94	e340	e24	e34	12	26
15	30	40	68	103	62	249	85	e300	e25	e28	16	30
16	29	40	53	149	62	395	98	e180	e28	e24	13	222
17	30	40	48	90	62	221	85	e110	e29	e22	12	422
18	31	39	44	137	114	122	75	e75	e26	e21	10	111
19	31	38	41	334	153	100	71	e61	e23	e20	9.2	49
20	31	39	41	280	101	88	69	e55	e27	e20	8.5	39
21	30	39	41	108	85	96	e65	e50	e28	e19	11	35
22	30	38	41	88	76	140	e62	e46	e26	e20	11	45
23	30	38	40	90	69	107	e60	e52	e25	e22	10	38
24	31	38	57	333	68	94	e55	e47	e24	e41	10	33
25	32	38	68	1220	66	92	e53	e43	e23	e84	16	32
26	32	39	54	480	65	84	e52	e41	e22	e46	142	30
27	33	40	54	144	63	78	e53	e39	e22	e33	43	36
28	33	38	62	115	80	74	e55	e37	e22	e27	24	77
29	34	37	66	100	---	71	e60	e34	e25	e24	19	168
30	34	37	60	88	---	68	e57	e33	e120	e22	17	318
31	35	---	52	81	---	65	---	e31	---	20	15	---
TOTAL	955	1175	1708	5154	2354	3241	2597	2196	852	951	634.7	2726
MEAN	30.8	39.2	55.1	166	84.1	105	86.6	70.8	28.4	30.7	20.5	90.9
MAX	37	45	152	1220	153	395	227	340	120	84	142	422
MIN	25	35	37	47	62	63	52	31	22	17	8.5	14
CFSM	.31	.40	.56	1.70	.86	1.07	.88	.72	.29	.31	.21	.93
IN.	.36	.45	.65	1.96	.89	1.23	.99	.83	.32	.36	.24	1.03

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	68.3	91.9	104	134	149	164	144	103	76.9	57.1	53.5	69.9
MAX	293	429	279	478	447	443	354	261	518	192	257	572
(WY)	1972	1986	1997	1978	1979	1975	1983	1971	1972	1972	1985	1996
MIN	14.0	22.7	27.9	35.1	56.4	51.7	50.4	37.8	15.7	19.5	16.2	8.03
(WY)	1971	1970	1966	1966	1968	1981	1966	1981	1970	1966	1964	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1947 - 1999
ANNUAL TOTAL	53691	24543.7	
ANNUAL MEAN	147	67.2	101
HIGHEST ANNUAL MEAN			188
LOWEST ANNUAL MEAN			36.1
HIGHEST DAILY MEAN	1990	Jan 29	6920
LOWEST DAILY MEAN	25	aOct 2	2.8
ANNUAL SEVEN-DAY MINIMUM	26	Sep 28	3.2
INSTANTANEOUS PEAK FLOW			15200
INSTANTANEOUS PEAK STAGE			21.89
INSTANTANEOUS LOW FLOW			2.6
ANNUAL RUNOFF (CFSM)	1.50	.69	1.03
ANNUAL RUNOFF (INCHES)	20.38	9.32	13.99
10 PERCENT EXCEEDS	272	121	173
50 PERCENT EXCEEDS	75	44	65
90 PERCENT EXCEEDS	32	20	26

- a Also Oct 3, 1998.
- b Also Oct 7, 1970.
- c Also Aug 20, 1999.
- e Estimated.

