

02011490 LITTLE BACK CREEK NEAR SUNRISE, VA

LOCATION.--Lat 38°12'52", long 79°50'16", Bath County, Hydrologic Unit 02080201, in George Washington National Forest, on right bank 600 ft downstream from Long Spring Run, 1.2 mi downstream from Little Back Creek Dam, and 8.5 mi northeast of Mountain Grove.

DRAINAGE AREA.--4.91 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Concrete control with rectangular weir plate. Datum of gage is 2,638.48 ft above sea level (Virginia Power bench mark). Nov. 5, 1992, to Jan. 5, 1993, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since January 1985 by Little Back Creek Lake 1.2 mi upstream, amount unknown. Maximum discharge, 580 ft<sup>3</sup>/s, from rating curve extended above 30 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow. Minimum gage height, 0.62 ft, Nov. 16, 1994. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39 ft<sup>3</sup>/s, Jan 24, gage height, 2.53 ft; minimum discharge, 0.74 ft<sup>3</sup>/s, Jul 10, gage height, 0.62 ft, result of regulation.

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	2.1	2.5	2.0	1.9	3.5	4.7	3.9	3.3	1.9	1.4	2.0	2.2
2	2.5	2.6	2.0	1.9	7.5	5.3	3.5	3.2	1.9	1.6	2.0	2.4
3	2.4	2.5	1.9	3.0	8.8	7.9	3.1	3.1	1.7	1.7	2.0	3.3
4	2.8	2.2	1.8	3.0	7.2	12	3.2	3.1	4.0	1.8	1.9	2.1
5	2.9	2.1	1.8	3.0	5.5	9.2	3.2	2.9	1.6	1.8	2.1	3.4
6	2.9	1.9	1.7	3.0	4.7	7.9	3.1	2.8	2.0	1.9	2.0	4.9
7	3.0	1.8	1.8	3.0	4.4	8.0	2.8	2.7	1.9	1.8	1.9	3.6
8	3.9	1.7	2.3	3.0	5.5	7.4	2.7	2.7	2.1	1.8	2.0	2.8
9	3.1	1.7	2.6	3.3	5.4	6.7	2.9	2.4	1.9	3.4	2.1	2.6
10	2.8	1.8	2.3	4.1	4.8	5.5	2.6	2.3	2.0	1.2	2.1	2.4
11	2.8	1.9	2.2	4.1	4.5	4.9	2.6	2.3	3.5	1.4	2.1	2.3
12	3.0	1.9	1.9	3.9	4.5	4.5	2.5	2.3	1.7	1.6	1.9	2.2
13	3.8	1.9	2.2	3.5	4.3	4.4	2.6	2.9	1.6	1.7	2.1	2.2
14	2.5	1.9	2.3	7.6	4.1	4.5	2.3	4.7	1.9	1.7	2.5	2.1
15	2.8	1.9	2.2	21	4.0	4.8	2.4	5.3	1.8	1.6	2.3	2.1
16	2.8	1.9	2.1	11	3.9	4.8	2.5	4.9	1.9	1.8	2.0	1.9
17	2.7	2.0	2.0	6.8	3.9	9.0	2.3	4.4	2.2	1.9	2.0	2.1
18	2.7	3.3	1.9	7.5	4.0	16	2.2	3.9	1.9	2.0	2.1	2.1
19	4.9	1.4	1.9	9.9	4.1	15	2.3	3.5	1.9	2.3	2.1	2.0
20	2.0	1.5	1.8	7.8	4.1	10	2.5	4.2	1.9	1.9	2.3	2.0
21	2.5	1.6	1.8	6.5	4.0	9.4	2.7	2.0	1.9	1.8	2.1	2.0
22	2.7	1.7	2.0	6.4	3.9	11	2.6	2.3	1.9	2.0	2.1	1.9
23	2.7	1.7	2.1	8.9	3.6	9.2	3.1	2.3	1.9	1.9	1.9	2.2
24	2.7	1.7	2.0	31	3.4	7.4	2.8	4.0	2.0	2.3	2.1	1.7
25	2.6	1.7	1.9	17	3.2	6.8	2.2	3.2	2.0	2.3	3.8	1.6
26	2.8	1.9	1.8	9.2	3.0	8.3	2.4	3.3	2.0	3.6	3.8	1.7
27	3.0	1.8	1.8	6.3	2.7	5.0	2.6	3.0	2.0	1.7	2.7	1.9
28	2.9	1.8	1.8	4.9	3.3	4.3	3.2	2.6	2.1	2.4	2.3	1.9
29	4.3	1.8	1.9	4.2	---	4.3	3.3	2.2	2.0	2.7	2.3	2.2
30	2.2	2.0	1.9	3.7	---	4.1	3.3	2.1	3.2	2.4	2.2	3.0
31	2.4	---	1.9	3.3	---	3.9	---	2.0	---	2.3	2.0	---
TOTAL	89.2	58.1	61.6	213.7	125.8	226.2	83.4	95.9	62.3	61.7	68.8	70.8
MEAN	2.88	1.94	1.99	6.89	4.49	7.30	2.78	3.09	2.08	1.99	2.22	2.36
MAX	4.9	3.3	2.6	31	8.8	16	3.9	5.3	4.0	3.6	3.8	4.9
MIN	2.0	1.4	1.7	1.9	2.7	3.9	2.2	2.0	1.6	1.2	1.9	1.6

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.55	5.03	5.73	7.70	7.04	8.64	6.56	6.88	4.40	3.38	3.35	3.34
MAX	7.46	12.6	9.65	15.7	12.9	16.4	13.1	14.8	8.41	4.95	5.13	7.29
(WY)	1990	1986	1997	1996	1994	1993	1987	1985	1995	1994	1989	1996
MIN	2.17	1.94	1.99	3.56	3.78	3.91	2.78	3.09	2.08	1.99	2.22	2.28
(WY)	1987	1999	1999	1985	1993	1985	1999	1999	1999	1999	1999	1985

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1985 - 1999	
ANNUAL TOTAL	2189.4		1217.5			
ANNUAL MEAN	6.00		3.34		5.46	
HIGHEST ANNUAL MEAN					7.00	
LOWEST ANNUAL MEAN					3.34	
HIGHEST DAILY MEAN	77	Jan 8	31	Jan 24	158	Nov 4 1985
LOWEST DAILY MEAN	1.4	Nov 19	1.2	Jul 10	.90	Oct 13 1984
ANNUAL SEVEN-DAY MINIMUM	1.6	Nov 19	1.6	Jul 10	1.2	Jan 24 1985
INSTANTANEOUS PEAK FLOW			39		580	
INSTANTANEOUS PEAK STAGE			2.53		4.06	
INSTANTANEOUS LOW FLOW			a.74		a.74	
ANNUAL RUNOFF (CFSM)	1.22		.68		1.11	
ANNUAL RUNOFF (INCHES)	16.59		9.22		15.12	
10 PERCENT EXCEEDS	11		5.5		9.3	
50 PERCENT EXCEEDS	3.8		2.4		3.9	
90 PERCENT EXCEEDS	1.9		1.8		2.5	

a Result of regulation.

