

ROANOKE RIVER BASIN

02077670 MAYO CREEK NEAR BETHEL HILL, NC

LOCATION.--Lat 36°32'26", long 78°52'21" Person County, Hydrologic Unit 03010104, on right bank 0.1 mi upstream from Virginia state line, 0.3 mi downstream of Mayo Steam Electric Generating Plant dam, 2.9 mi northeast of Bethel Hill, and 4.8 mi downstream of Spoonwater Creek.

DRAINAGE AREA.--53.5 mi².

PERIOD OF RECORD.--August 1977 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 338.84 ft above sea level (levels by Carolina Power & Light Company). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Mayo Steam Electric Generating Plant. Minimum discharge for period of record, no flow, occurred periodically in 1977, 1980, 1981, and 1982 as a result of regulation. Minimum discharge for the current water year also occurred Sept. 24.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 4, 1974, reached a stage of 11.11 ft, from floodmarks; discharge, 4,300 ft³/s.

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	3.2	5.5	3.5	3.2	3.2	3.2	558	11	45	3.6	2.3	2.3
2	3.2	5.4	3.5	3.2	3.2	3.2	593	9.6	70	2.7	2.3	2.3
3	3.1	5.1	3.5	3.2	3.2	3.2	509	8.3	63	2.4	2.3	2.1
4	3.3	5.2	3.4	3.2	3.2	3.3	415	7.0	55	2.4	2.6	2.1
5	3.7	5.2	3.2	3.2	3.2	3.5	337	5.7	54	2.4	2.6	2.2
6	3.5	5.1	3.2	3.1	3.2	3.3	277	4.1	108	2.4	2.6	2.0
7	3.6	5.1	3.1	3.1	3.3	3.2	222	3.5	81	2.4	2.6	2.0
8	3.6	5.2	3.0	3.1	3.4	3.2	175	3.3	70	2.4	2.6	1.8
9	3.8	5.3	2.9	3.1	3.4	3.1	141	3.2	61	2.4	2.6	1.7
10	3.8	5.2	3.0	3.1	3.5	3.1	115	3.1	53	2.4	2.6	1.8
11	4.0	5.3	3.1	3.1	3.5	3.1	97	2.9	46	2.4	2.9	1.8
12	4.0	5.1	3.1	3.1	3.4	3.1	86	3.0	40	2.3	2.7	1.7
13	3.9	5.0	3.1	3.1	3.7	3.1	77	3.2	36	2.3	2.7	1.6
14	3.7	5.2	3.4	2.9	3.3	3.1	67	3.1	42	2.3	2.7	1.5
15	3.4	5.1	3.1	2.9	3.1	3.5	61	3.1	44	2.3	e2.7	1.5
16	3.3	5.2	3.3	2.9	3.1	3.6	51	3.4	46	2.4	e2.7	1.4
17	3.1	4.8	5.1	2.9	4.9	3.6	44	4.7	40	2.5	e3.8	1.2
18	3.8	4.7	3.3	3.0	3.3	3.8	38	5.9	33	2.5	4.3	1.2
19	4.4	4.4	3.4	3.7	3.1	3.9	33	8.9	e28	2.5	4.1	1.1
20	4.6	4.1	3.3	6.0	3.1	5.5	30	13	e23	2.5	4.3	1.2
21	4.8	4.0	3.2	3.3	3.1	192	27	13	19	2.5	3.4	1.3
22	4.9	4.0	3.2	3.0	3.1	377	24	19	19	2.5	3.1	1.2
23	4.9	4.0	3.0	2.9	3.2	345	22	17	21	2.5	3.8	1.1
24	4.8	4.0	3.0	3.0	3.3	290	21	15	16	2.4	3.4	1.1
25	5.6	4.3	3.0	2.9	3.4	239	22	14	13	2.3	3.0	1.1
26	5.2	3.9	3.2	2.9	3.4	191	20	28	10	2.5	e2.7	1.0
27	5.1	3.7	3.2	2.9	3.2	153	19	32	8.1	4.0	e2.4	1.1
28	4.9	3.5	3.2	2.9	3.2	125	16	28	6.1	2.4	e2.0	1.1
29	5.2	3.6	3.2	3.0	---	179	14	27	4.8	2.4	e2.0	1.1
30	4.6	3.5	3.2	3.3	---	540	12	25	4.1	2.4	2.1	1.1
31	e5.3	---	3.2	3.4	---	521	---	21	---	2.3	2.2	---
TOTAL	128.3	139.7	101.1	98.6	93.2	3220.6	4123	349.0	1159.1	77.7	88.1	45.7
MEAN	4.14	4.66	3.26	3.18	3.33	104	137	11.3	38.6	2.51	2.84	1.52
MAX	5.6	5.5	5.1	6.0	4.9	540	593	32	108	4.0	4.3	2.3
MIN	3.1	3.5	2.9	2.9	3.1	3.1	12	2.9	4.1	2.3	2.0	1.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2001, BY WATER YEAR (WY)

MEAN	11.9	14.9	21.2	64.9	72.0	100	72.7	38.1	20.6	17.3	11.2	26.4
MAX	62.2	76.0	80.5	254	301	260	214	210	95.7	118	56.1	350
(WY)	1990	1980	1997	1978	1998	1998	1993	1978	2000	1995	1984	1996
MIN	.011	.011	.016	.003	.28	.14	.20	.12	.075	.24	.038	.000
(WY)	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1980

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1977 - 2001

ANNUAL TOTAL	14100.2	9624.1	
ANNUAL MEAN	38.5	26.4	39.2
HIGHEST ANNUAL MEAN			87.8
LOWEST ANNUAL MEAN			.11
HIGHEST DAILY MEAN	334	Jun 20	593
LOWEST DAILY MEAN	1.2	Aug 16	1.0
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 15	1.1
MAXIMUM PEAK FLOW			621
MAXIMUM PEAK STAGE			5.58
INSTANTANEOUS LOW FLOW			.96*
10 PERCENT EXCEEDS	129		48
50 PERCENT EXCEEDS	15		3.4
90 PERCENT EXCEEDS	2.1		2.3

e Estimated.
* See REMARKS.

02077670 MAYO CREEK NEAR BETHEL HILL, NC--Continued

