

Water-Data Report 2011

02077670 MAYO CREEK NEAR BETHEL HILL, NC

Roanoke Basin
Lower Dan Subbasin

LOCATION.--Lat 36°32'27", long 78°52'19" referenced to North American Datum of 1983, Person County, NC, 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.

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WDR NC-81-1: Drainage area. WDR NC-02-1A: 2001 (daily discharges).

GAGE.--Water-stage recorder. Datum of gage is 338.84 ft above NGVD of 1929. Satellite telemetry at streamgage.

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.

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

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3.0	3.1	3.2	3.0	2.9	3.7	3.5	e3.2	e3.0	e3.2	e3.8	e3.0
2	3.1	3.1	3.1	3.0	2.9	3.3	3.4	e3.2	e3.1	e3.2	e3.2	e3.0
3	3.0	3.1	3.1	3.1	2.9	3.1	3.4	e3.2	e3.0	e3.2	e3.2	e3.0
4	3.1	3.2	3.0	3.0	2.9	3.1	3.2	e3.2	e3.1	e3.2	e3.2	e3.7
5	3.1	3.1	2.9	2.9	3.2	3.1	3.5	e3.8	e3.1	e3.2	e3.2	5.1
6	3.1	3.1	2.9	2.9	3.2	4.6	3.3	e3.2	e3.1	e3.2	e3.1	8.3
7	3.1	3.1	2.9	2.9	3.1	4.0	3.2	e3.2	e3.1	e4.2	e3.1	6.9
8	3.0	3.2	2.9	2.9	3.0	3.3	3.2	e3.3	e3.0	e4.8	e3.1	3.5
9	3.0	3.4	2.9	2.9	2.9	3.2	3.3	e3.2	e3.0	e3.4	e3.1	e3.0
10	e3.0	3.4	2.9	2.9	2.9	3.6	3.8	e3.2	e3.0	e4.0	e3.1	e3.0
11	e3.0	3.3	2.9	2.9	2.9	3.7	3.4	e3.1	e3.2	e3.8	e3.2	e3.1
12	e3.0	3.1	3.0	2.9	2.9	3.3	3.4	e3.3	e3.8	e3.6	e3.1	e3.1
13	e3.0	3.1	2.9	2.9	2.9	3.2	3.3	e3.2	e3.4	e3.2	e3.1	e3.1
14	e3.1	3.1	2.9	2.9	3.0	3.1	3.2	e3.1	3.1	e3.1	e3.0	e2.9
15	e3.6	3.1	2.9	2.9	2.9	3.1	3.2	e3.1	3.1	e3.1	e3.0	e3.0
16	e3.2	3.1	3.0	2.9	2.9	3.5	e4.6	e3.2	3.1	e3.1	e3.0	e3.0
17	e3.1	3.1	3.1	2.9	2.9	3.3	e3.8	e3.1	3.1	e3.1	e3.0	e3.0
18	e3.0	3.1	3.1	2.9	2.9	3.2	e3.3	e3.2	3.1	e3.1	e3.1	e3.0
19	e3.0	3.1	3.1	2.9	3.0	3.1	e3.3	e3.2	3.1	e3.1	e3.1	e3.0
20	e3.0	3.1	3.0	2.9	2.9	3.1	e3.2	e3.1	3.1	e3.1	e3.2	e3.0
21	e3.0	3.1	2.9	2.9	2.9	3.1	e3.3	e3.1	3.1	e3.1	e3.5	e3.0
22	2.9	3.2	2.9	2.9	2.9	3.1	e3.3	e3.1	3.1	e3.1	e4.4	e3.0
23	2.9	3.4	2.9	2.9	2.9	3.2	e3.2	e3.2	3.1	e3.1	e3.2	e3.3
24	3.0	3.2	2.9	2.9	2.9	3.9	e3.1	e3.6	3.1	e3.2	e3.1	e3.5
25	3.1	3.2	2.9	2.9	3.1	3.4	e3.2	e3.4	3.1	e3.2	e3.0	e3.2
26	3.2	3.2	2.9	3.0	3.1	3.3	e3.2	e3.1	e3.2	e4.0	e3.1	e3.0
27	8.7	3.1	2.9	3.1	3.1	3.4	e3.3	e3.2	e3.2	e3.3	e3.0	e3.0
28	5.9	2.9	2.9	3.0	3.3	3.3	e3.2	e3.1	e3.2	e3.2	e3.2	e3.0
29	3.2	2.9	2.9	2.9	---	3.2	e3.2	e3.2	e4.0	e3.2	e3.2	e3.5
30	3.2	2.9	2.9	2.9	---	4.7	e3.2	e3.2	e3.4	e3.2	e3.1	e3.5
31	3.1	---	2.9	2.9	---	3.9	---	e3.1	---	e3.3	e3.0	---
Total	103.7	94.1	91.6	90.8	83.3	106.1	100.7	99.6	95.1	103.8	98.7	104.7
Mean	3.35	3.14	2.95	2.93	2.98	3.42	3.36	3.21	3.17	3.35	3.18	3.49
Max	8.7	3.4	3.2	3.1	3.3	4.7	4.6	3.8	4.0	4.8	4.4	8.3
Min	2.9	2.9	2.9	2.9	2.9	3.1	3.1	3.1	3.0	3.1	3.0	2.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10.6	18.7	29.8	55.4	61.3	86.2	67.1	35.2	22.5	16.3	12.4	26.2
Max	62.2	76.0	156	254	301	260	267	210	162	118	68.4	350
(WY)	(1990)	(1980)	(2010)	(1978)	(1998)	(1998)	(2003)	(1978)	(2003)	(1995)	(2003)	(1996)
Min	0.01	0.01	0.02	0.00	0.28	0.14	0.20	0.12	0.07	0.24	0.04	0.00
(WY)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1980)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1977 - 2011	
Annual total	9,866.7		1,172.2			
Annual mean	27.0		3.21		36.7	
Highest annual mean					111	2003
Lowest annual mean					0.11	1981
Highest daily mean	385	Feb 6	8.7	Oct 27	2,260	Sep 7, 1996
Lowest daily mean	2.6	May 7	2.9	Oct 22	0.00	Jul 31, 1977
Annual seven-day minimum	2.6	May 9	2.9	Dec 5	0.00	Jul 31, 1977
Maximum peak flow			64	Oct 27	3,950	Apr 26, 1978
Maximum peak stage			2.81	Oct 27	10.83	Apr 26, 1978
Instantaneous low flow			Not determined		^a 0.00	Jul 31, 1977
10 percent exceeds	81		3.5		95	
50 percent exceeds	3.3		3.1		6.1	
90 percent exceeds	2.9		2.9		2.0	

^a See Remarks.

