



---

Water-Data Report 2008

**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 mi<sup>2</sup>.

**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 station.

REMARKS.--No estimated daily discharges. Daily discharges above 5 ft<sup>3</sup>/s are good, those below 5 ft<sup>3</sup>/s 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 current water year also occurred on December 15, 17-30.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 4, 1974, reached a stage of 11.11 ft, from floodmarks; discharge, 4,300 ft<sup>3</sup>/s.

## Water-Data Report 2008

**02077670 MAYO CREEK NEAR BETHEL HILL, NC—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	3.2	2.9	2.2	2.1	3.2	2.7	4.7	45	4.5	2.8	3.4	2.9
<b>2</b>	3.2	2.9	2.2	2.0	2.9	2.7	3.2	40	5.6	2.8	3.4	2.9
<b>3</b>	3.2	2.9	2.2	2.0	2.6	2.7	3.0	35	4.8	2.8	3.4	2.8
<b>4</b>	3.2	2.8	2.2	2.0	2.6	5.5	4.6	30	4.3	2.8	3.4	2.9
<b>5</b>	3.2	2.9	2.1	2.0	2.7	8.8	11	25	3.1	2.8	3.3	2.9
<b>6</b>	3.2	2.9	2.1	2.1	2.9	3.2	9.8	23	2.7	2.8	3.4	205
<b>7</b>	3.1	2.9	2.1	2.1	2.8	3.8	19	21	2.6	2.9	3.4	300
<b>8</b>	3.1	3.1	2.1	2.1	2.7	4.0	23	18	2.6	2.9	3.4	242
<b>9</b>	3.1	2.7	2.1	2.1	2.7	3.1	25	25	2.6	3.3	3.3	194
<b>10</b>	3.1	2.6	2.0	2.2	2.9	2.8	27	20	2.6	3.2	3.3	160
<b>11</b>	3.1	2.6	2.1	2.2	3.2	2.8	28	21	2.6	3.2	3.3	142
<b>12</b>	3.1	2.6	2.1	2.2	3.3	2.8	28	23	2.6	3.2	3.2	119
<b>13</b>	3.1	2.6	2.1	2.2	3.5	2.7	24	20	2.6	3.3	3.2	101
<b>14</b>	3.1	2.5	2.0	2.2	3.3	2.7	21	18	2.6	3.4	3.2	85
<b>15</b>	3.1	2.6	2.0	2.3	3.4	2.8	18	16	2.5	3.4	3.3	71
<b>16</b>	3.1	2.5	2.1	2.3	3.2	4.1	16	16	2.5	3.4	3.2	64
<b>17</b>	3.1	2.6	2.0	2.4	3.0	3.0	15	14	2.6	3.3	3.2	60
<b>18</b>	3.1	2.6	1.9	2.4	2.8	2.8	13	12	2.6	3.3	3.2	53
<b>19</b>	3.1	2.5	1.9	2.5	2.8	2.8	13	11	2.7	3.3	3.2	43
<b>20</b>	3.2	2.4	1.9	2.5	2.8	2.9	16	9.4	2.6	3.3	3.2	34
<b>21</b>	3.2	2.4	1.9	2.4	2.7	2.8	20	9.1	2.6	3.3	3.2	28
<b>22</b>	3.1	2.5	1.9	2.4	2.7	2.8	20	7.6	2.6	3.3	3.2	24
<b>23</b>	3.1	2.5	1.9	2.4	2.7	2.7	19	6.2	2.6	3.5	3.2	19
<b>24</b>	3.5	2.4	1.9	2.5	2.7	2.7	19	6.8	2.7	3.4	3.2	14
<b>25</b>	3.6	2.4	1.9	2.5	2.7	2.7	18	6.4	2.7	3.4	3.2	9.1
<b>26</b>	3.5	2.4	2.0	2.4	2.7	2.7	16	6.2	2.7	3.3	3.2	15
<b>27</b>	5.1	2.3	1.9	2.4	2.8	2.7	15	5.1	2.7	3.2	4.7	27
<b>28</b>	3.1	2.3	1.9	2.5	2.7	2.7	28	6.0	2.7	3.2	7.9	32
<b>29</b>	3.0	2.3	1.9	2.5	2.7	2.7	49	5.3	2.7	3.2	4.1	32
<b>30</b>	2.9	2.2	4.1	2.5	---	2.7	47	4.7	2.8	3.2	2.9	29
<b>31</b>	2.9	---	2.8	2.5	---	3.6	---	4.5	---	3.5	2.9	---
<b>Total</b>	99.7	77.8	65.5	70.9	83.7	99.5	573.3	510.3	88.1	98.7	107.6	2,116.5
<b>Mean</b>	3.22	2.59	2.11	2.29	2.89	3.21	19.1	16.5	2.94	3.18	3.47	70.5
<b>Max</b>	5.1	3.1	4.1	2.5	3.5	8.8	49	45	5.6	3.5	7.9	300
<b>Min</b>	2.9	2.2	1.9	2.0	2.6	2.7	3.0	4.5	2.5	2.8	2.9	2.8

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2008, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	11.2	18.0	26.4	56.8	62.5	90.1	70.8	37.8	22.1	17.5	13.2	28.4
<b>Max</b>	62.2	76.0	101	254	301	260	267	210	162	118	68.4	350
(WY)	(1990)	(1980)	(2005)	(1978)	(1998)	(1998)	(2003)	(1978)	(2003)	(1995)	(2003)	(1996)
<b>Min</b>	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)

**02077670 MAYO CREEK NEAR BETHEL HILL, NC—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2007</b>		<b>Water Year 2008</b>		<b>Water Years 1977 - 2008</b>	
<b>Annual total</b>		6,991.0		3,991.6		
<b>Annual mean</b>		19.2		10.9		37.8
<b>Highest annual mean</b>					111	2003
<b>Lowest annual mean</b>					0.11	1981
<b>Highest daily mean</b>	135	Jan 10	300	Sep 7	2,260	Sep 7, 1996
<b>Lowest daily mean</b>	1.9	Dec 18	1.9	Dec 18	0.00	Jul 31, 1977
<b>Annual seven-day minimum</b>	1.9	Dec 18	1.9	Dec 18	0.00	Jul 31, 1977
<b>Maximum peak flow</b>			335	Sep 6	3,950	Apr 26, 1978
<b>Maximum peak stage</b>			5.14	Sep 6	10.83	Apr 26, 1978
<b>Instantaneous low flow</b>			a1.9	Dec 14	a0.00	Jul 31, 1977
<b>10 percent exceeds</b>	55		23		96	
<b>50 percent exceeds</b>	3.2		3.1		6.9	
<b>90 percent exceeds</b>	2.4		2.2		1.9	

<sup>a</sup>See Remarks.

