

Water-Data Report 2011

**02077200 HYCO CREEK NEAR LEASBURG, NC**

Roanoke Basin  
Lower Dan Subbasin

LOCATION.--Lat 36°23'52", long 79°11'48" referenced to North American Datum of 1983, Caswell County, NC, Hydrologic Unit 03010104, on right bank 10 ft upstream from bridge on U.S. Highway 158, 1.5 mi upstream from Kilgore Creek, and 2.5 mi west of Leasburg.

DRAINAGE AREA.--45.9 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--July 1964 to current year. Prior to October 1968 published as "North Hyco Creek near Leasburg".

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.08 ft above NGVD of 1929. Satellite telemetry at streamgage.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for period of record from floodmark. No flow occurs at times most years.

## 02077200 HYCO CREEK NEAR LEASBURG, NC—Continued

**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	276	14	42	16	13	100	115	12	3.8	16	3.3	0.00
2	45	13	40	25	15	58	76	11	3.1	11	2.7	0.00
3	25	13	25	37	14	38	58	10	2.4	9.5	1.6	0.00
4	18	15	20	29	12	29	e41	37	2.6	10	0.71	0.00
5	13	20	19	24	27	26	e40	40	2.4	16	0.34	0.00
6	e6.6	16	17	22	49	70	48	22	2.5	13	0.19	0.43
7	e4.5	14	15	21	33	237	40	19	2.1	13	0.11	0.47
8	e3.4	13	14	19	27	81	36	17	1.6	11	0.04	0.12
9	e2.8	13	14	16	22	53	43	16	1.4	14	0.00	2.9
10	e2.3	12	13	15	20	64	138	13	2.1	16	0.00	2.5
11	e2.0	12	12	15	18	108	89	12	3.8	12	0.00	1.3
12	e1.6	11	14	15	17	62	62	11	71	9.7	0.00	0.54
13	e1.3	11	19	16	15	46	48	12	20	9.6	0.00	0.19
14	e1.4	11	17	19	15	38	39	12	9.7	9.9	0.00	0.05
15	e1.6	11	16	17	14	32	34	13	5.9	8.1	0.00	0.00
16	e1.6	12	15	13	13	59	115	12	4.7	7.2	0.00	0.00
17	e1.6	17	23	12	13	57	259	13	4.8	6.4	0.00	0.00
18	e1.5	14	27	13	13	41	81	11	4.2	6.9	0.00	0.00
19	e1.4	12	25	13	13	35	51	9.3	4.6	6.6	0.00	0.00
20	e1.3	11	21	12	12	29	39	7.9	5.6	6.8	0.00	0.00
21	e1.3	12	19	12	12	26	32	7.1	6.6	5.7	0.00	0.00
22	e1.3	11	18	11	12	24	27	6.2	7.4	4.9	0.00	0.23
23	e1.3	11	17	11	11	26	32	18	8.2	4.0	0.00	29
24	e1.4	11	15	12	11	253	26	15	9.2	3.6	0.00	25
25	e1.6	10	15	9.9	16	89	23	15	9.3	10	0.00	15
26	e3.2	11	18	15	21	54	20	9.7	9.4	9.7	0.00	9.3
27	e11	11	18	25	17	86	22	7.3	9.0	9.2	0.00	e2.2
28	84	10	16	20	19	80	19	7.6	14	7.9	0.00	e2.3
29	32	9.3	20	16	---	59	18	6.9	77	6.4	0.00	e2.2
30	20	9.7	14	15	---	172	14	5.6	28	3.9	0.00	e1.4
31	16	---	15	13	---	291	---	4.4	---	3.5	0.00	---
<b>Total</b>	585.0	371.0	593	528.9	494	2,423	1,685	413.0	336.4	281.5	8.99	95.13
<b>Mean</b>	18.9	12.4	19.1	17.1	17.6	78.2	56.2	13.3	11.2	9.08	0.29	3.17
<b>Max</b>	276	20	42	37	49	291	259	40	77	16	3.3	29
<b>Min</b>	1.3	9.3	12	9.9	11	24	14	4.4	1.4	3.5	0.00	0.00
<b>Cfsm</b>	0.41	0.27	0.42	0.37	0.38	1.70	1.22	0.29	0.24	0.20	0.01	0.07
<b>In.</b>	0.47	0.30	0.48	0.43	0.40	1.96	1.37	0.33	0.27	0.23	0.01	0.08

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2011, BY WATER YEAR (WY)**

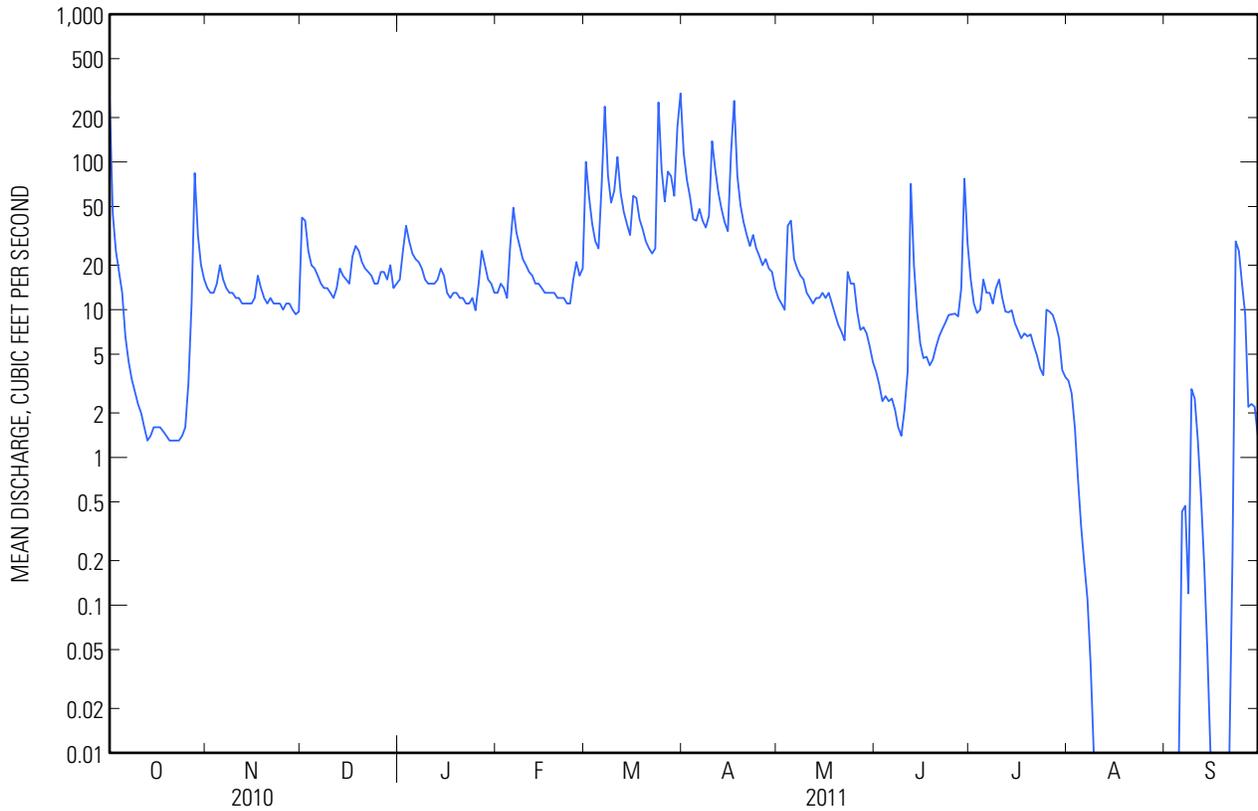
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	23.5	34.2	51.1	75.1	81.0	92.2	63.1	31.3	27.6	21.9	19.0	23.9
<b>Max</b>	131	201	189	278	244	266	194	184	233	274	264	193
<b>(WY)</b>	(1996)	(2010)	(2010)	(1978)	(1979)	(1975)	(2003)	(1978)	(1995)	(1975)	(1995)	(1996)
<b>Min</b>	0.00	0.10	2.33	6.15	13.2	9.49	8.45	2.55	0.14	0.00	0.00	0.00
<b>(WY)</b>	(1969)	(2002)	(2002)	(1981)	(2002)	(2006)	(2002)	(2002)	(2002)	(2002)	(2002)	(1968)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1964 - 2011	
<b>Annual total</b>	12,528.69		7,814.92			
<b>Annual mean</b>	34.3		21.4		45.2	
<b>Highest annual mean</b>					113	2003
<b>Lowest annual mean</b>					8.68	2002
<b>Highest daily mean</b>	1,300	Feb 6	291	Mar 31	7,400	Aug 28, 1995
<b>Lowest daily mean</b>	0.00	Sep 15	0.00	Aug 9	0.00	Jul 9, 1966
<b>Annual seven-day minimum</b>	0.00	Sep 15	0.00	Aug 9	0.00	Jul 9, 1966
<b>Maximum peak flow</b>			291	Mar 31	Not determined	
<b>Maximum peak stage</b>			29.64	Mar 31	<sup>a</sup> 48.53	Aug 27, 1995
<b>Instantaneous low flow</b>			<sup>a</sup> 0.00	Aug 8	<sup>a</sup> 0.00	Jul 8, 1966
<b>Annual runoff (cfsm)</b>	0.748		0.466		0.984	
<b>Annual runoff (inches)</b>	10.15		6.33		13.37	
<b>10 percent exceeds</b>	62		47		85	
<b>50 percent exceeds</b>	13		13		14	
<b>90 percent exceeds</b>	0.52		0.05		0.66	

<sup>a</sup> See Remarks.



**02077200 HYCO CREEK NEAR LEASBURG, NC—Continued**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1964 to current year.

INSTRUMENTATION.--Water-temperature recorder since May 1964.

REMARKS.--Miscellaneous water-quality data published for water years, 1959, 1965-67; 1959 data published as "North Hyco Creek near Leasburg" (station 02077202). Prior to October 1967, daily water-temperature data published as "North Hyco Creek near Leasburg". Water temperature data are not reported during periods of zero discharge. Additional interruptions in the record due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 31.3°C, July 17, 1996; minimum recorded, 0.0°C, many days during winter months in most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 30.4°C, August 7; minimum recorded, 7.2°C, March 28.

**TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	21.0	20.0	20.5	---	---	---	---	---	---	---	---	---
2	20.2	17.6	18.6	---	---	---	---	---	---	---	---	---
3	18.2	16.1	17.1	---	---	---	---	---	---	---	---	---
4	17.8	16.0	16.9	---	---	---	---	---	---	---	---	---
5	16.9	15.3	16.2	---	---	---	---	---	---	---	---	---
6	15.8	13.7	14.8	---	---	---	---	---	---	---	---	---
7	16.8	13.5	15.0	---	---	---	---	---	---	---	---	---
8	16.7	13.8	15.4	---	---	---	---	---	---	---	---	---
9	16.8	13.6	15.3	---	---	---	---	---	---	---	---	---
10	17.5	14.4	16.0	---	---	---	---	---	---	---	---	---
11	18.5	15.5	16.9	---	---	---	---	---	---	---	---	---
12	18.9	15.9	17.4	---	---	---	---	---	---	---	---	---
13	19.1	17.6	18.2	---	---	---	---	---	---	---	---	---
14	18.6	16.8	17.8	---	---	---	---	---	---	---	---	---
15	16.9	14.2	15.1	---	---	---	---	---	---	---	---	---
16	14.7	12.2	13.5	---	---	---	---	---	---	---	---	---
17	14.7	11.3	13.0	---	---	---	---	---	---	---	---	---
18	15.4	12.4	13.8	---	---	---	---	---	---	---	---	---
19	15.3	13.2	14.3	---	---	---	---	---	---	---	---	---
20	15.4	14.3	14.8	---	---	---	---	---	---	---	---	---
21	15.7	13.0	14.4	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

## 02077200 HYCO CREEK NEAR LEASBURG, NC—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	10.4	8.3	9.3	18.3	15.6	17.0
2	---	---	---	---	---	---	---	---	---	20.7	17.1	18.7
3	---	---	---	---	---	---	---	---	---	21.2	18.6	19.8
4	---	---	---	---	---	---	---	---	---	20.5	17.3	18.3
5	---	---	---	---	---	---	---	---	---	17.4	14.7	16.1
6	---	---	---	---	---	---	---	---	---	16.7	14.0	15.4
7	---	---	---	---	---	---	---	---	---	17.9	14.1	16.0
8	---	---	---	---	---	---	18.1	14.0	16.0	17.6	16.1	16.8
9	---	---	---	---	---	---	16.6	13.2	14.7	18.9	15.1	17.0
10	---	---	---	---	---	---	15.7	12.5	13.6	20.0	16.4	18.2
11	---	---	---	---	---	---	18.8	15.0	16.6	20.3	18.0	19.2
12	---	---	---	---	---	---	18.8	17.7	18.4	19.8	18.1	18.7
13	---	---	---	---	---	---	18.5	15.7	17.2	19.3	17.7	18.4
14	---	---	---	---	---	---	18.5	14.2	16.4	19.4	18.7	19.1
15	---	---	---	11.1	9.7	10.3	18.9	14.3	16.6	20.5	18.3	19.3
16	---	---	---	11.8	9.6	10.7	17.6	16.3	16.9	20.4	18.1	19.2
17	---	---	---	12.7	9.6	11.3	16.7	14.0	15.5	19.6	18.2	18.8
18	---	---	---	15.4	11.2	13.1	17.4	14.4	16.0	19.0	17.0	18.1
19	---	---	---	17.6	14.3	15.6	19.0	16.2	17.6	19.3	16.9	18.1
20	---	---	---	15.5	12.3	13.6	20.4	18.4	19.3	19.8	16.9	18.4
21	---	---	---	16.5	12.4	14.3	19.5	17.5	18.5	20.9	17.3	19.1
22	---	---	---	18.7	14.2	16.5	17.5	14.4	15.8	21.9	18.5	20.2
23	---	---	---	17.9	14.8	16.6	17.3	13.9	15.3	22.3	19.7	21.2
24	---	---	---	15.9	13.8	14.8	21.1	16.0	18.3	23.5	20.8	22.1
25	---	---	---	15.3	12.0	13.0	22.6	18.6	20.5	24.0	20.5	22.3
26	---	---	---	12.8	10.0	11.5	23.6	20.2	21.7	25.0	22.0	23.4
27	---	---	---	10.0	8.2	8.9	23.4	21.1	22.2	24.2	21.6	22.6
28	---	---	---	9.1	7.2	8.1	23.2	21.7	22.3	23.2	20.4	21.7
29	---	---	---	11.1	7.3	9.2	21.8	18.4	19.8	24.5	21.9	23.0
30	---	---	---	10.7	8.8	9.7	19.4	15.9	17.8	25.9	22.2	23.9
31	---	---	---	8.8	8.3	8.5	---	---	---	26.5	22.8	24.6
Month	---	---	---	---	---	---	---	---	---	26.5	14.0	19.5

## 02077200 HYCO CREEK NEAR LEASBURG, NC—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
<b>1</b>	27.0	23.6	25.2	24.9	21.7	23.4	27.8	23.2	25.0	---	---	---
<b>2</b>	26.9	23.8	25.2	25.6	22.2	23.9	27.2	23.1	24.9	---	---	---
<b>3</b>	25.1	22.5	23.7	26.2	23.1	24.5	28.6	24.1	25.9	---	---	---
<b>4</b>	24.3	20.3	22.2	27.3	24.4	25.3	29.6	24.0	26.0	---	---	---
<b>5</b>	25.1	21.6	23.1	26.1	23.6	24.8	28.8	24.6	25.5	30.1	20.8	24.4
<b>6</b>	25.8	22.2	23.7	26.2	24.2	25.1	29.0	24.3	25.6	23.9	18.3	21.3
<b>7</b>	25.0	21.4	23.3	27.0	24.1	25.4	30.4	23.0	25.5	25.3	20.0	21.6
<b>8</b>	26.5	22.4	24.2	27.1	24.7	25.8	---	---	---	24.5	15.7	20.0
<b>9</b>	26.5	23.4	24.7	27.0	24.9	25.8	---	---	---	22.6	18.4	20.7
<b>10</b>	26.6	22.7	24.5	26.7	23.9	25.4	---	---	---	23.3	19.2	20.9
<b>11</b>	26.6	23.5	24.7	27.6	24.3	25.8	---	---	---	24.0	18.9	20.9
<b>12</b>	24.2	21.8	23.1	29.0	25.7	27.0	---	---	---	24.8	19.2	21.2
<b>13</b>	25.1	22.8	23.9	28.0	26.0	27.1	---	---	---	26.7	18.2	20.7
<b>14</b>	23.8	21.3	22.7	27.2	24.6	25.9	---	---	---	---	---	---
<b>15</b>	22.9	20.2	21.6	25.4	22.1	23.6	---	---	---	---	---	---
<b>16</b>	22.9	20.1	21.6	24.2	21.9	22.9	---	---	---	---	---	---
<b>17</b>	23.7	20.7	22.1	24.2	21.6	22.8	---	---	---	---	---	---
<b>18</b>	24.7	21.4	23.0	25.6	22.0	23.5	---	---	---	---	---	---
<b>19</b>	24.8	22.2	23.4	25.4	23.0	24.2	---	---	---	---	---	---
<b>20</b>	24.9	22.3	23.7	27.5	23.5	25.1	---	---	---	---	---	---
<b>21</b>	26.0	22.7	24.1	29.0	25.0	26.6	---	---	---	---	---	---
<b>22</b>	26.2	23.4	24.6	29.8	25.6	27.3	---	---	---	22.6	20.1	21.1
<b>23</b>	25.2	23.9	24.4	28.8	25.6	26.7	---	---	---	20.8	19.8	20.5
<b>24</b>	26.3	23.1	24.3	29.7	25.0	26.4	---	---	---	21.0	19.8	20.4
<b>25</b>	25.4	22.6	23.8	27.4	25.0	25.9	---	---	---	22.1	20.6	21.3
<b>26</b>	24.4	21.5	23.0	28.1	25.1	26.2	---	---	---	22.8	21.0	21.9
<b>27</b>	26.2	22.7	24.1	27.9	24.8	26.1	---	---	---	23.3	22.0	22.5
<b>28</b>	26.5	23.5	24.8	27.9	24.3	25.9	---	---	---	22.8	21.0	22.0
<b>29</b>	25.3	23.5	24.4	28.6	24.5	26.2	---	---	---	21.7	19.7	20.8
<b>30</b>	25.2	22.3	23.9	28.6	24.8	26.4	---	---	---	20.5	18.4	19.4
<b>31</b>	---	---	---	26.2	24.5	25.2	---	---	---	---	---	---
<b>Month</b>	27.0	20.1	23.7	29.8	21.6	25.4	---	---	---	---	---	---