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Water-Data Report 2010

**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 2009 TO SEPTEMBER 2010**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.4	84	46	59	e49	35	60	9.2	32	1.1	1.5	0.73
2	1.0	104	114	51	43	34	48	9.1	35	1.0	2.0	0.51
3	0.78	29	913	44	131	43	41	8.9	24	0.90	1.6	0.39
4	0.87	18	172	48	194	46	36	9.0	18	0.81	1.4	0.31
5	0.96	13	121	42	275	39	32	8.2	14	0.69	5.2	0.23
6	0.87	11	128	38	1,300	35	30	7.4	12	0.59	32	0.18
7	0.84	10	80	35	239	33	27	6.6	11	0.48	11	0.13
8	0.84	9.9	62	32	134	31	25	6.1	9.0	0.42	4.9	0.09
9	0.88	9.1	541	34	101	29	31	5.3	7.8	0.41	2.9	0.06
10	0.77	9.1	357	34	145	28	25	4.5	8.2	0.36	2.2	0.05
11	0.70	465	107	36	100	28	22	4.9	7.2	0.30	1.8	0.05
12	0.92	2,000	71	26	77	30	20	5.1	6.4	0.26	1.6	0.05
13	1.3	1,230	161	26	69	73	18	5.3	9.5	0.30	1.4	0.02
14	2.3	283	237	25	61	281	17	5.3	11	0.44	1.1	0.01
15	3.4	115	113	23	57	175	17	6.3	7.5	1.1	0.91	0.00
16	5.2	69	76	22	76	83	17	7.3	6.9	1.3	0.90	0.00
17	5.5	49	60	234	61	60	15	40	9.8	1.1	1.0	0.00
18	4.6	40	53	210	53	49	14	84	6.1	2.6	7.5	0.00
19	3.9	50	97	88	47	43	13	38	4.9	14	4.1	0.00
20	3.6	60	118	64	43	37	13	26	4.1	9.3	3.4	0.00
21	3.3	47	116	58	41	34	16	18	3.8	3.8	2.3	0.00
22	3.0	38	98	146	40	35	17	14	3.2	2.2	1.9	0.00
23	3.1	269	88	99	45	40	13	48	2.6	1.4	1.5	0.00
24	3.6	402	80	69	43	32	13	27	2.7	1.0	15	0.00
25	5.2	118	329	546	56	29	14	19	2.4	0.85	15	0.00
26	6.9	78	1,000	225	48	30	14	15	2.0	0.69	5.7	0.00
27	7.4	195	203	97	42	29	12	12	2.6	0.53	3.0	0.10
28	27	98	114	69	38	27	11	21	1.6	2.6	1.9	0.09
29	30	62	79	55	---	430	10	331	1.4	3.2	1.6	0.25
30	16	51	62	56	---	186	9.5	87	1.3	1.9	1.3	518
31	12	---	60	e53	---	84	---	36	---	1.1	1.1	---
<b>Total</b>	158.13	6,016.1	5,856	2,644	3,608	2,168	650.5	924.5	268.0	56.73	138.71	521.25
<b>Mean</b>	5.10	201	189	85.3	129	69.9	21.7	29.8	8.93	1.83	4.47	17.4
<b>Max</b>	30	2,000	1,000	546	1,300	430	60	331	35	14	32	518
<b>Min</b>	0.70	9.1	46	22	38	27	9.5	4.5	1.3	0.26	0.90	0.00
<b>Cfsm</b>	0.11	4.37	4.12	1.86	2.81	1.52	0.47	0.65	0.19	0.04	0.10	0.38
<b>In.</b>	0.13	4.88	4.75	2.14	2.92	1.76	0.53	0.75	0.22	0.05	0.11	0.42

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2010, BY WATER YEAR (WY)**

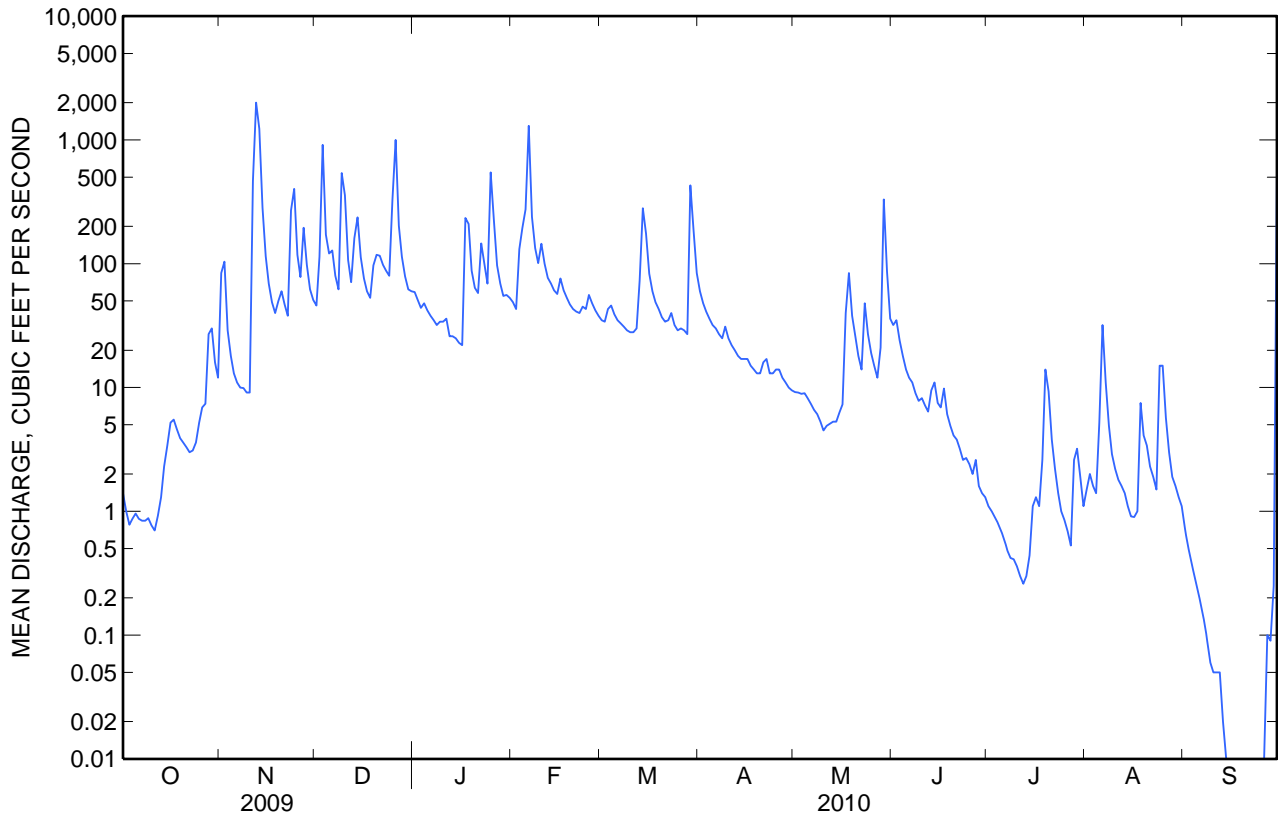
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	23.6	34.7	51.8	76.3	82.4	92.5	63.2	31.7	28.0	22.1	19.4	24.4
<b>Max</b>	131	201	189	278	244	266	194	184	233	274	264	193
<b>(WY)</b>	(1996)	(2010)	(2010)	(1978)	(1979)	(1975)	(2003)	(1978)	(1995)	(1975)	(1995)	(1996)
<b>Min</b>	0.00	0.10	2.33	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)

02077200 HYCO CREEK NEAR LEASBURG, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1964 - 2010	
<b>Annual total</b>	26,272.25		23,009.92			
<b>Annual mean</b>	72.0		63.0		45.7	
<b>Highest annual mean</b>					113	2003
<b>Lowest annual mean</b>					8.68	2002
<b>Highest daily mean</b>	2,000	Nov 12	2,000	Nov 12	7,400	Aug 28, 1995
<b>Lowest daily mean</b>	0.00	Sep 9	0.00	Sep 15	0.00	Jul 9, 1966
<b>Annual seven-day minimum</b>	0.00	Sep 9	0.00	Sep 15	0.00	Jul 9, 1966
<b>Maximum peak flow</b>			2,560	Nov 12	Not Determined	
<b>Maximum peak stage</b>			35.47	Nov 12	<sup>a</sup> 48.53	Aug 27, 1995
<b>Instantaneous low flow</b>			<sup>a</sup> 0.00	Sep 13	<sup>a</sup> 0.00	Jul 8, 1966
<b>Annual runoff (cfsm)</b>	1.57		1.37		0.995	
<b>Annual runoff (inches)</b>	21.29		18.65		13.52	
<b>10 percent exceeds</b>	127		119		86	
<b>50 percent exceeds</b>	18		16		15	
<b>90 percent exceeds</b>	1.1		0.52		0.67	

<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, 30.6°C, July 24; minimum recorded, 0.2°C, December 19.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	16.8	14.5	15.6	17.5	14.2	15.6	9.6	7.6	8.6	7.0	5.1	6.0
2	16.8	14.0	15.5	14.7	13.3	14.0	11.5	7.6	8.8	5.5	1.7	3.7
3	18.5	16.2	17.1	14.2	11.7	13.0	12.3	11.1	11.7	2.1	0.4	1.0
4	17.2	14.6	15.9	12.6	9.8	11.4	11.5	9.0	9.8	1.3	0.3	0.7
5	17.4	15.8	16.6	12.0	9.5	10.9	10.1	8.5	9.5	1.6	0.3	0.8
6	17.2	16.1	16.7	10.7	8.2	9.6	9.1	6.5	7.5	2.0	0.3	0.9
7	18.6	16.8	17.5	10.5	7.0	8.9	7.2	5.5	6.5	2.7	0.3	1.2
8	17.4	14.6	15.7	11.9	8.1	10.1	7.4	6.2	6.8	2.8	1.2	2.0
9	18.8	14.9	16.6	12.2	9.2	11.0	9.5	6.8	7.9	1.4	0.3	0.7
10	19.7	18.2	18.9	12.9	11.5	12.1	9.7	7.8	9.0	1.0	0.3	0.6
11	18.8	17.0	17.7	13.2	11.7	12.6	8.2	4.5	5.9	0.9	0.3	0.5
12	17.3	14.7	15.8	12.1	10.3	11.3	4.9	2.9	3.9	2.1	0.3	1.2
13	16.8	14.0	15.2	12.4	10.5	11.3	6.2	4.1	5.1	1.7	0.3	1.0
14	16.1	13.1	14.6	14.2	12.1	13.0	8.4	5.1	6.3	2.5	0.3	1.2
15	13.1	12.0	12.5	13.9	12.0	13.0	10.5	7.9	9.2	3.4	0.3	1.9
16	13.6	12.1	12.8	13.1	11.4	12.4	10.2	6.5	8.3	4.6	1.2	2.9
17	13.1	11.7	12.4	12.9	11.4	12.3	6.8	4.6	5.4	5.1	3.5	4.3
18	12.2	10.1	11.1	13.1	12.0	12.5	5.2	0.8	4.1	6.9	4.2	5.4
19	11.2	8.5	9.9	14.3	12.7	13.4	3.4	0.2	1.8	7.1	4.7	6.0
20	11.7	8.0	9.8	14.0	12.3	13.5	4.7	2.3	3.4	7.6	5.9	6.8
21	12.9	9.5	11.0	12.5	10.2	11.4	4.6	2.5	3.6	7.6	5.2	6.5
22	13.5	10.8	12.2	10.8	8.5	9.8	4.9	2.9	3.9	6.2	4.6	5.4
23	16.1	12.5	14.1	11.6	10.0	10.8	4.7	2.8	3.9	6.6	4.5	5.7
24	18.3	16.0	17.2	13.1	10.9	11.9	4.7	2.9	4.1	8.3	5.4	6.4
25	17.2	14.4	15.3	13.3	12.1	12.8	5.0	3.6	4.4	11.6	8.2	10.6
26	14.4	12.1	13.3	12.5	10.6	11.5	7.6	4.5	6.0	10.9	7.3	8.3
27	14.3	13.2	13.8	11.2	9.2	10.2	7.2	4.9	6.0	7.6	5.2	6.1
28	16.6	13.8	15.1	9.6	7.2	8.4	6.1	4.3	5.0	6.9	4.5	5.8
29	16.1	13.9	15.1	9.3	7.1	8.4	5.0	3.3	4.0	6.8	4.9	5.9
30	15.9	15.1	15.6	10.7	9.2	9.8	3.9	2.2	3.1	5.4	0.3	1.6
31	17.5	15.1	16.3	---	---	---	5.7	3.3	4.5	1.2	0.3	0.6
Month	19.7	8.0	14.7	17.5	7.0	11.6	12.3	0.2	6.1	11.6	0.3	3.6

## 02077200 HYCO CREEK NEAR LEASBURG, NC—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
<b>1</b>	2.2	0.3	1.0	7.9	4.5	6.3	16.8	13.1	15.2	21.0	17.0	18.9
<b>2</b>	3.0	0.8	1.9	7.1	3.7	5.8	18.8	14.7	16.8	23.6	20.1	21.7
<b>3</b>	5.0	1.7	3.1	5.7	3.3	4.6	19.3	16.5	17.9	23.2	21.7	22.4
<b>4</b>	5.3	2.2	3.7	7.6	4.1	5.8	20.4	16.2	18.3	23.4	21.2	22.0
<b>5</b>	5.1	0.9	3.4	8.0	4.4	6.3	21.8	17.1	19.4	22.9	19.5	21.3
<b>6</b>	4.6	0.9	3.0	8.6	4.8	6.7	23.4	18.8	21.0	23.9	20.0	21.8
<b>7</b>	5.5	2.7	4.1	8.8	4.4	6.8	23.2	19.4	21.3	23.6	20.1	21.9
<b>8</b>	5.1	2.9	3.8	10.4	5.4	8.0	21.7	19.3	20.6	24.0	21.1	22.3
<b>9</b>	5.2	3.6	4.3	11.9	6.8	9.5	20.0	17.0	18.5	21.1	17.6	19.1
<b>10</b>	5.0	3.5	4.2	13.3	9.6	11.5	18.2	13.7	16.2	17.6	14.6	16.3
<b>11</b>	4.6	2.2	3.5	14.1	10.9	12.6	18.6	12.8	15.8	16.2	15.3	15.8
<b>12</b>	4.6	2.7	3.6	15.4	12.6	14.0	19.2	14.1	16.8	20.0	15.8	17.7
<b>13</b>	5.0	2.5	3.9	15.5	12.5	14.0	19.7	15.1	17.5	19.5	18.9	19.2
<b>14</b>	4.5	2.2	3.6	13.7	10.8	12.6	18.6	15.3	16.4	22.6	18.7	20.4
<b>15</b>	4.4	2.8	3.6	13.4	10.6	11.7	18.0	12.8	15.4	24.7	20.7	22.4
<b>16</b>	4.3	2.3	3.4	12.0	10.4	11.1	19.9	15.0	17.5	23.4	21.8	22.6
<b>17</b>	3.8	1.9	3.0	11.7	8.5	10.3	20.2	17.4	18.7	22.3	18.3	19.7
<b>18</b>	5.0	2.2	3.6	13.3	10.7	11.9	18.2	14.1	16.2	18.5	16.5	17.1
<b>19</b>	5.8	3.1	4.5	14.2	10.2	12.2	16.7	12.9	14.9	18.4	16.6	17.3
<b>20</b>	6.3	3.2	4.8	15.3	10.9	13.0	16.9	13.4	15.2	20.8	17.3	18.8
<b>21</b>	7.4	4.0	5.8	14.9	12.4	13.8	16.7	15.4	16.1	20.9	17.6	19.4
<b>22</b>	6.9	5.7	6.2	16.7	14.0	15.1	18.1	13.8	16.0	21.2	19.4	20.2
<b>23</b>	8.5	5.9	7.2	14.6	12.1	13.4	16.8	14.9	15.8	21.8	19.8	20.7
<b>24</b>	8.4	6.4	7.7	15.4	10.6	13.0	18.0	15.4	16.7	21.4	20.7	21.1
<b>25</b>	7.1	5.3	6.2	15.0	12.1	13.8	19.8	17.0	18.2	21.8	20.1	20.9
<b>26</b>	6.3	3.8	5.2	14.8	12.5	14.0	19.8	17.6	18.8	22.8	19.2	21.0
<b>27</b>	7.0	5.0	5.9	13.8	9.8	11.8	18.9	16.5	17.4	23.7	19.8	21.7
<b>28</b>	7.7	4.7	6.2	13.3	9.9	11.7	17.0	14.2	15.6	24.2	19.8	22.5
<b>29</b>	---	---	---	14.3	11.6	12.7	16.8	12.5	14.8	22.2	19.7	20.7
<b>30</b>	---	---	---	15.5	12.5	13.9	18.8	13.9	16.3	23.8	21.5	22.4
<b>31</b>	---	---	---	15.5	12.0	14.1	---	---	---	23.7	22.2	23.0
<b>Month</b>	8.5	0.3	4.3	16.7	3.3	11.0	23.4	12.5	17.2	24.7	14.6	20.4

## 02077200 HYCO CREEK NEAR LEASBURG, NC—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	24.4	22.4	23.2	25.3	22.5	23.5	23.3	21.8	22.6	26.0	22.4	24.1
2	24.5	22.2	23.2	23.9	19.9	21.8	24.3	22.4	23.2	25.8	22.6	24.1
3	25.6	22.9	24.0	24.1	19.3	21.4	25.2	22.3	23.7	26.3	23.3	24.5
4	25.6	23.3	24.5	25.2	19.8	22.1	27.1	23.9	25.3	25.0	21.7	23.4
5	26.9	23.8	25.3	26.2	20.7	23.0	27.6	24.7	25.8	22.3	19.3	20.8
6	27.3	24.4	25.8	26.9	21.3	23.6	27.1	24.7	25.8	21.8	18.3	20.0
7	26.2	23.2	24.4	26.5	21.7	24.0	27.2	24.5	25.8	22.9	19.7	21.1
8	24.4	21.4	22.9	27.0	23.1	24.9	26.4	23.6	25.1	23.1	20.9	22.0
9	23.2	21.8	22.4	27.0	23.9	25.4	27.0	23.7	25.3	23.0	19.9	21.3
10	25.7	22.2	23.8	27.7	24.3	25.6	27.7	24.5	26.1	21.7	18.5	20.0
11	25.9	22.5	24.2	27.7	23.3	25.2	28.6	25.4	26.8	20.9	18.9	19.9
12	25.9	23.0	24.4	25.7	23.7	24.5	29.4	25.6	27.3	22.8	19.8	21.0
13	26.9	23.8	25.2	26.3	23.6	24.8	28.4	25.9	27.1	22.2	18.9	20.4
14	27.0	24.0	25.6	26.8	23.1	24.7	27.6	25.6	26.4	---	---	---
15	28.0	24.5	26.1	26.9	23.0	24.8	26.9	25.0	26.0	---	---	---
16	27.5	25.1	26.2	27.9	24.5	25.9	28.0	24.8	26.3	---	---	---
17	27.6	24.5	26.0	26.5	24.2	25.5	28.1	25.2	26.5	---	---	---
18	27.0	23.8	25.3	27.4	23.4	25.2	27.7	25.3	26.6	---	---	---
19	27.2	23.7	25.4	27.6	24.7	26.0	27.2	25.4	26.1	---	---	---
20	27.9	24.9	26.2	28.3	25.2	26.5	28.0	25.0	26.2	---	---	---
21	27.7	24.3	26.0	28.6	25.2	26.7	27.6	24.1	25.7	---	---	---
22	28.2	24.6	26.3	29.4	25.2	27.1	27.0	24.5	25.7	---	---	---
23	27.6	25.0	26.4	30.0	26.1	27.6	27.3	24.2	25.7	---	---	---
24	28.7	24.9	26.7	30.6	26.8	28.3	25.9	23.2	24.3	---	---	---
25	28.8	25.5	27.0	30.5	26.9	28.4	24.3	22.7	23.4	---	---	---
26	28.0	25.2	26.6	29.6	26.4	27.8	25.3	21.9	23.4	---	---	---
27	28.9	24.8	26.7	27.9	25.0	26.3	25.5	22.7	24.0	21.7	20.1	20.9
28	29.3	25.9	27.3	28.0	24.3	25.9	25.9	22.7	24.2	22.5	20.2	21.1
29	28.7	25.6	26.8	29.0	25.5	27.1	26.2	22.7	24.4	20.8	18.4	19.5
30	26.5	24.1	25.1	28.1	25.6	26.6	26.3	22.4	24.3	20.7	18.5	19.7
31	---	---	---	25.8	22.8	24.0	26.0	22.3	24.1	---	---	---
Month	29.3	21.4	25.3	30.6	19.3	25.3	29.4	21.8	25.3	---	---	---