

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC

Roanoke Basin
Lower Dan Subbasin

LOCATION.--Lat 36°31'21", long 78°59'51" referenced to North American Datum of 1983, Person County, NC, Hydrologic Unit 03010104, on left bank 200 ft downstream from Afterbay Reservoir dam of Progress Energy, 1.2 mi upstream from Ghent Creek, and 1.8 mi east-northeast of McGehees Mill.

DRAINAGE AREA.--202 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1973 to current year. August 1964 to September 1973, published as "Hyco River at McGehees Mill, NC" (02077300).

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

GAGE.--Water-stage recorder. Datum of gage is 342.98 ft above National Geodetic Vertical Datum of 1929. From August 1964 to September 1973, records published as "Hyco River at McGehees Mill, NC" (02077300) at site 2.8 mi upstream, at datum 349.78 ft. Water-temperature recorder operated at site 600 ft downstream on right bank from June 1974 to September 1995. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Roxboro Steam-Electric Generating Plant Afterbay Reservoir. Minimum discharge for period of record and current water year due to regulation.

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC—Continued

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2.8	4.3	6.4	3.1	6.6	7.3	611	357	16	20	20	17
2	2.6	4.5	5.4	2.9	7.7	7.2	552	132	17	20	19	17
3	2.5	6.6	3.2	2.8	9.5	6.0	534	131	16	20	21	17
4	2.5	11	2.9	2.9	9.4	5.7	879	131	17	20	21	17
5	2.5	9.1	3.0	3.0	8.5	47	1,690	129	18	19	20	17
6	3.4	2.6	2.8	4.6	7.8	6.2	2,110	57	18	20	20	1,000
7	3.9	2.3	3.0	6.0	9.1	6.4	1,550	20	18	20	20	794
8	3.8	2.2	3.1	5.7	10	6.6	746	19	18	20	20	979
9	3.8	2.4	3.1	5.6	9.5	6.0	197	173	18	22	20	449
10	3.7	2.4	3.1	6.3	9.4	6.1	197	220	18	24	19	345
11	4.2	2.4	3.1	5.7	9.6	6.3	162	211	18	24	19	147
12	4.2	2.6	3.2	6.2	9.5	6.2	18	176	18	24	19	17
13	4.3	2.6	3.1	6.7	8.6	6.9	17	18	18	24	18	17
14	4.2	2.6	3.0	6.6	8.0	6.9	16	17	18	23	19	17
15	4.0	2.6	3.1	6.8	7.3	6.9	17	17	18	24	18	16
16	3.9	2.4	3.1	6.7	7.3	6.9	16	17	18	23	18	15
17	3.8	2.5	2.8	6.5	7.5	6.8	16	17	19	21	18	16
18	3.7	2.6	2.8	6.4	6.9	6.8	17	16	19	21	18	16
19	3.5	2.7	2.8	6.3	7.7	6.8	17	16	19	21	18	16
20	3.6	2.7	2.8	6.9	7.6	6.4	17	16	19	21	18	16
21	3.9	2.6	3.0	7.1	8.4	9.6	16	16	19	21	18	16
22	3.8	2.8	3.1	6.8	8.2	15	16	17	18	21	18	16
23	3.7	2.5	3.2	6.2	7.6	15	16	16	19	21	18	15
24	3.7	2.4	3.0	6.4	7.9	15	17	17	19	21	18	15
25	4.2	2.7	3.0	6.5	7.6	15	17	17	19	19	17	15
26	4.4	2.8	3.0	6.3	7.5	15	18	17	20	20	16	15
27	4.3	2.8	3.0	6.3	8.0	15	42	17	20	19	17	15
28	4.5	2.5	3.1	6.5	8.3	16	353	16	20	20	19	16
29	4.7	2.5	3.3	6.0	8.1	15	954	17	20	19	17	16
30	4.8	2.4	4.6	6.0	---	15	744	17	20	19	17	16
31	4.6	---	3.3	6.6	---	178	---	17	---	19	17	---
Total	117.5	99.1	101.4	178.4	239.1	495.0	11,572	2,074	552	650	575	4,100
Mean	3.79	3.30	3.27	5.75	8.24	16.0	386	66.9	18.4	21.0	18.5	137
Max	4.8	11	6.4	7.1	10	178	2,110	357	20	24	21	1,000
Min	2.5	2.2	2.8	2.8	6.6	5.7	16	16	16	19	16	15

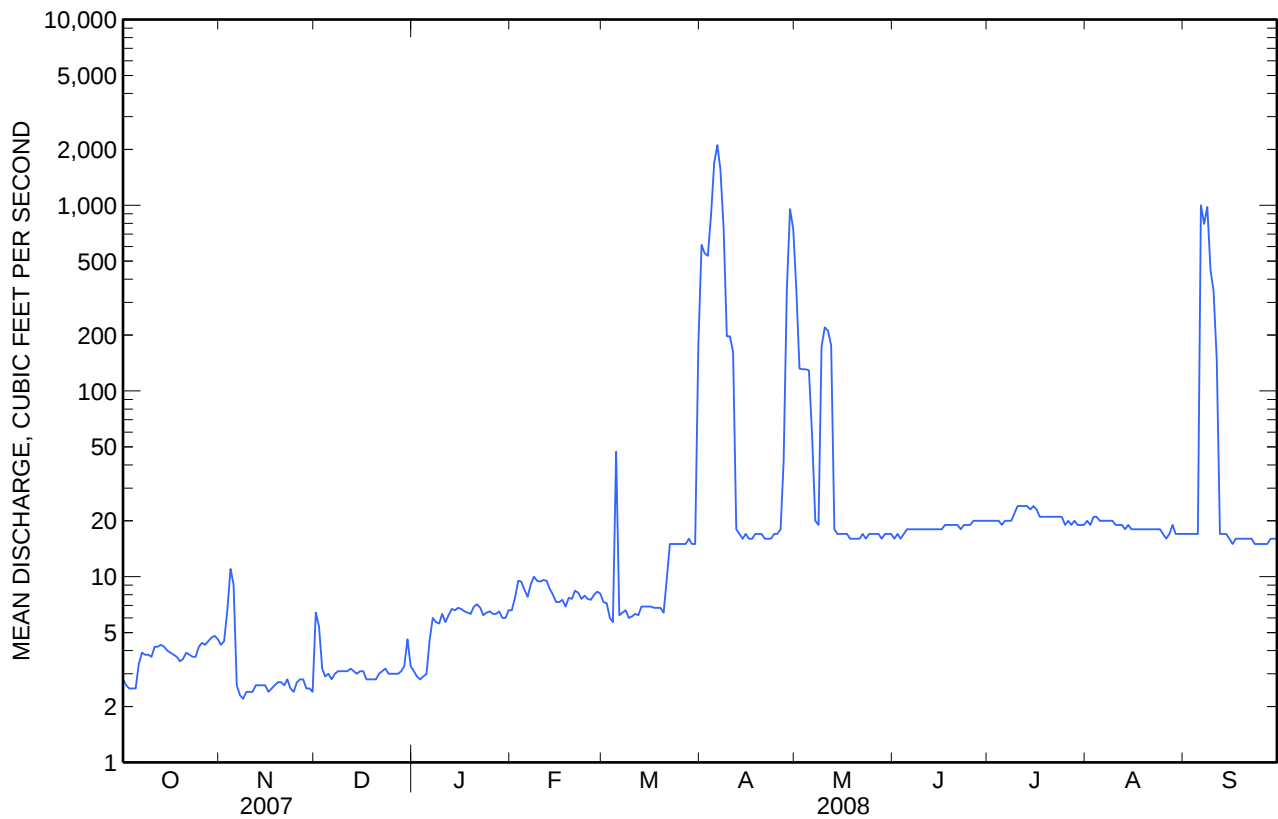
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	55.1	75.9	121	311	283	378	242	114	79.8	86.2	64.1	115
Max	351	430	432	1,201	926	1,165	712	864	528	1,058	294	675
(WY)	(1996)	(2007)	(2003)	(1978)	(1979)	(1993)	(2003)	(1978)	(2003)	(1975)	(1982)	(1974)
Min	3.47	2.40	2.19	2.76	4.38	6.02	5.21	4.22	3.96	6.14	1.08	1.55
(WY)	(1999)	(1998)	(1998)	(2001)	(2002)	(2002)	(2002)	(2002)	(1974)	(2002)	(1999)	(1977)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1974 - 2008	
Annual total	27,394.4		20,753.5			
Annual mean	75.1		56.7		160	
Highest annual mean					394	2003
Lowest annual mean					5.11	2002
Highest daily mean	2,130	Apr 16	2,110	Apr 6	9,280	Jul 14, 1975
Lowest daily mean	2.0	Aug 23	2.2	Nov 8	0.27	Nov 2, 1997
Annual seven-day minimum	2.1	Aug 23	2.4	Nov 6	0.45	Aug 3, 1999
Maximum peak flow			2,240	Apr 6	11,300	Jul 14, 1975
Maximum peak stage			13.60	Apr 6	24.40	Jul 14, 1975
Instantaneous low flow			^a 1.6	Nov 21	^a 0.00	Jun 26, 1980
10 percent exceeds	207		24		363	
50 percent exceeds	12		15		26	
90 percent exceeds	2.4		2.9		8.2	

^aSee Remarks.

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1981 to September 1983.

WATER TEMPERATURE: June 1974 to current year.

INSTRUMENTATION.--Temperature recorder since June 1974. Water-quality monitor from October 1981 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 197 microsiemens, December 6, 1981; minimum, 89 microsiemens, May 16, 1983.

WATER TEMPERATURE: Maximum recorded, 33.5°C, July 20, 21, 22, 1977; minimum recorded, 1.0°C, January 6, 2002.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 28.8°C, September 9; minimum recorded, 2.5°C, January 4.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	25.7	20.2	21.8	20.1	15.7	17.0	10.7	6.1	8.5	10.1	5.1	6.9
2	24.9	20.3	21.8	19.0	15.4	16.3	10.9	9.8	10.3	6.9	3.6	5.1
3	25.7	20.4	22.1	18.9	14.8	16.1	11.3	7.8	9.7	7.4	3.0	4.1
4	26.0	20.9	22.8	18.1	15.7	16.4	8.0	6.3	7.2	7.5	2.5	3.9
5	24.4	21.1	22.5	17.5	13.9	15.6	8.6	5.8	7.2	7.6	2.8	4.5
6	24.4	21.7	22.7	17.1	11.7	14.2	9.2	4.2	6.3	10.5	4.6	6.4
7	25.8	21.3	22.9	16.5	10.5	12.3	8.1	4.2	6.2	9.0	5.5	6.9
8	25.6	21.6	23.1	14.6	9.9	11.4	10.6	6.6	8.4	8.6	6.5	7.6
9	25.8	21.6	23.1	14.9	10.0	12.0	11.1	8.2	9.7	9.5	7.5	8.5
10	25.9	21.8	23.2	14.3	9.9	11.6	12.9	9.3	10.6	8.3	7.1	7.8
11	24.9	20.9	22.2	15.0	9.2	11.1	12.3	9.7	10.6	10.3	7.7	8.7
12	24.6	20.3	21.6	15.2	9.2	11.9	13.3	9.3	11.2	10.0	7.0	8.0
13	24.2	19.8	21.0	15.0	11.6	13.1	12.5	10.3	11.2	8.6	6.8	7.6
14	24.0	19.2	20.6	16.6	11.8	13.9	12.4	8.2	10.0	9.3	6.3	7.3
15	23.5	18.8	20.3	14.5	10.9	13.1	8.8	5.5	8.0	8.5	5.7	6.6
16	22.4	18.6	20.0	14.0	9.4	11.0	8.7	5.8	7.1	8.1	5.8	6.6
17	23.1	18.7	20.3	13.7	8.8	10.8	9.6	4.4	6.3	6.5	5.0	5.9
18	22.2	18.9	20.4	14.3	8.3	10.9	8.7	3.0	5.2	9.0	5.6	6.7
19	22.4	20.2	21.1	13.9	10.1	11.4	8.4	3.4	5.4	7.3	6.2	6.7
20	23.6	19.1	20.6	15.2	10.5	12.3	10.3	3.2	5.7	7.5	5.1	5.9
21	23.2	18.9	20.1	15.2	10.0	12.2	8.5	5.8	6.7	7.8	4.8	5.7
22	22.6	18.7	20.0	15.7	11.4	13.7	8.1	6.5	7.2	6.0	4.7	5.3
23	21.8	19.3	20.5	14.2	9.0	11.1	10.1	7.4	8.5	8.5	5.0	6.1
24	21.6	19.4	20.7	13.5	8.0	9.5	10.7	5.6	7.4	7.1	4.8	5.5
25	19.4	18.2	18.6	10.5	8.7	9.7	9.7	5.2	6.7	7.5	4.5	5.2
26	18.6	16.1	17.5	12.8	9.8	11.2	6.6	5.1	6.1	7.1	4.4	5.5
27	20.3	16.9	18.1	14.5	9.0	12.1	11.1	6.0	7.6	8.0	4.6	5.6
28	19.0	17.3	18.0	13.4	7.8	9.6	9.2	5.6	7.6	8.5	4.5	5.9
29	19.7	16.4	17.3	12.5	7.3	9.2	9.4	7.9	8.8	8.1	5.3	6.7
30	19.2	15.9	16.9	12.5	6.8	8.6	9.3	7.9	8.7	9.4	5.6	7.1
31	19.0	15.8	16.7	---	---	---	9.9	6.2	7.5	8.6	5.2	6.4
Month	26.0	15.8	20.6	20.1	6.8	12.3	13.3	3.0	8.0	10.5	2.5	6.3

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	6.4	5.0	5.7	12.4	7.9	9.4	14.8	14.0	14.3	21.2	20.0	20.5
2	9.0	5.2	6.5	12.0	7.3	9.2	14.8	14.3	14.5	21.3	20.1	20.7
3	8.7	6.1	7.1	12.8	7.1	9.8	14.6	14.1	14.4	21.6	20.8	21.3
4	8.8	6.5	7.6	14.4	10.1	11.8	15.7	14.3	15.0	21.9	20.9	21.3
5	10.6	7.2	8.5	12.5	9.8	11.1	16.3	15.7	15.9	21.2	20.6	20.8
6	11.6	9.0	10.1	14.1	9.2	11.0	17.3	16.1	16.5	21.2	18.4	20.2
7	12.4	9.6	10.6	10.4	9.4	9.8	17.4	16.9	17.1	20.5	17.8	19.1
8	12.0	9.4	10.5	13.6	9.0	10.6	17.4	16.7	17.0	20.6	19.2	19.9
9	12.0	9.3	10.3	12.9	8.3	9.9	17.5	16.6	17.0	22.7	18.7	20.6
10	12.5	8.9	10.1	13.6	8.1	10.2	17.9	16.9	17.4	23.0	21.6	22.2
11	11.3	8.0	9.2	14.1	8.6	10.8	19.3	17.3	18.2	22.1	21.3	21.7
12	9.8	8.1	8.7	14.6	8.8	11.0	18.7	17.9	18.4	21.8	18.6	21.1
13	8.1	5.5	7.3	13.9	9.6	11.5	18.3	17.0	17.5	19.4	16.8	18.1
14	8.3	5.3	6.4	15.1	10.6	12.3	17.0	15.8	16.5	18.9	16.0	17.4
15	10.6	5.5	7.5	14.7	11.4	12.8	17.4	15.6	16.3	19.4	17.3	18.1
16	10.9	7.3	8.6	14.1	10.8	12.1	17.3	15.1	16.1	20.2	17.5	18.4
17	9.6	7.3	8.5	13.9	9.4	11.1	17.8	15.1	16.4	19.5	16.5	17.9
18	13.1	8.8	10.3	12.2	9.1	10.6	18.1	15.7	16.8	19.0	16.8	17.8
19	11.8	8.0	9.1	15.1	11.2	13.4	18.0	16.0	16.9	19.1	16.5	17.8
20	11.9	7.6	9.4	15.2	11.2	13.2	17.3	16.4	16.8	18.7	16.9	17.7
21	10.6	8.1	9.0	14.9	9.8	12.1	17.0	16.2	16.6	18.9	16.6	17.6
22	8.7	8.0	8.3	15.5	13.0	14.0	17.1	16.5	16.7	19.8	16.7	17.9
23	10.7	8.0	9.1	15.1	13.0	13.8	17.3	16.4	16.8	18.9	16.5	17.8
24	11.3	8.0	9.1	14.0	13.0	13.4	18.1	15.9	17.0	19.4	16.8	18.1
25	11.5	8.0	9.3	14.7	12.4	13.3	18.3	16.3	17.3	20.0	16.9	18.2
26	10.1	8.4	9.3	15.3	12.6	13.7	18.8	16.9	17.8	20.4	17.4	18.7
27	10.2	7.4	8.6	15.8	13.1	14.3	18.3	17.3	17.6	20.6	18.2	19.2
28	10.8	6.9	8.1	16.4	13.7	14.8	20.5	18.3	19.3	18.9	17.8	18.4
29	10.9	6.9	8.6	15.1	13.5	14.1	20.8	19.9	20.4	19.5	17.3	18.5
30	---	---	---	14.0	13.0	13.5	20.5	19.7	20.1	20.9	17.5	19.2
31	---	---	---	14.1	11.2	13.3	---	---	---	22.1	19.0	20.2
Month	13.1	5.0	8.7	16.4	7.1	12.0	20.8	14.0	17.0	23.0	16.0	19.2

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	22.8	19.1	20.3	23.8	22.3	23.1	26.7	25.1	25.8	---	---	---
2	21.6	18.8	20.0	23.9	21.5	22.8	26.7	25.2	25.9	---	---	---
3	21.5	18.8	20.0	24.1	22.1	23.2	26.6	25.3	26.0	---	---	---
4	22.7	19.2	20.8	24.3	22.7	23.5	---	---	---	---	---	---
5	23.4	19.7	21.1	23.6	22.3	23.1	26.9	25.5	26.2	26.4	25.1	25.7
6	---	---	---	24.0	22.6	23.2	---	---	---	26.6	22.5	24.7
7	22.8	20.1	21.2	24.5	22.4	23.5	---	---	---	27.5	24.9	26.1
8	22.7	20.2	21.4	24.6	22.7	23.7	---	---	---	28.4	27.3	27.8
9	22.9	20.4	21.4	24.7	22.9	23.7	27.5	25.5	26.3	28.8	27.7	28.2
10	22.8	20.7	21.7	24.1	22.7	23.4	---	---	---	28.5	27.2	27.8
11	22.5	20.7	21.4	24.4	22.6	23.5	---	---	---	27.9	24.6	26.9
12	22.2	20.8	21.5	24.6	22.9	23.8	27.0	25.2	25.9	25.8	24.4	25.1
13	22.8	20.8	21.6	25.0	23.0	24.0	---	---	---	26.8	24.6	25.5
14	23.1	20.7	21.8	25.2	23.5	23.9	26.3	25.0	25.7	26.8	24.6	25.6
15	23.1	20.9	21.9	---	---	---	---	---	---	27.0	24.6	25.7
16	23.2	20.8	21.9	25.3	23.1	24.0	27.2	25.2	25.8	25.7	23.4	24.4
17	22.8	21.1	22.0	25.0	23.2	24.0	---	---	---	---	---	---
18	22.7	20.3	21.6	25.1	23.2	24.2	---	---	---	---	---	---
19	22.5	20.3	21.5	25.0	23.5	24.4	---	---	---	26.0	22.3	24.0
20	22.4	20.8	21.6	25.5	23.9	24.7	---	---	---	---	---	---
21	22.7	21.1	21.8	25.8	23.9	24.9	---	---	---	---	---	---
22	23.0	21.1	22.1	25.8	24.0	24.9	---	---	---	25.0	22.3	23.5
23	23.2	21.6	22.4	25.6	24.0	24.9	27.7	25.5	26.0	24.2	21.7	22.8
24	23.4	21.3	22.4	25.7	23.9	24.6	---	---	---	---	---	---
25	23.0	21.4	22.3	25.1	24.0	24.6	---	---	---	---	---	---
26	23.8	22.0	22.8	25.5	24.1	24.9	---	---	---	---	---	---
27	23.8	22.2	23.0	26.2	24.6	25.3	27.8	22.8	24.3	---	---	---
28	24.3	22.2	23.2	26.1	24.7	25.3	25.6	22.7	24.1	---	---	---
29	24.2	22.5	23.3	---	---	---	---	---	---	---	---	---
30	23.9	22.6	23.4	26.3	25.1	25.7	---	---	---	---	---	---
31	---	---	---	---	---	---	26.7	25.0	25.6	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---