

Water-Data Report 2007

03463300 SOUTH TOE RIVER NEAR CELO, NC

French Broad-Holston Basin
Nolichucky Subbasin

LOCATION.--Lat 35°49'53", long 82°11'03" referenced to North American Datum of 1983, Yancey County, NC, Hydrologic Unit 06010108, on right bank on Secondary Road 1168, 800 ft upstream from bridge on Secondary Road 1167, 0.3 mi downstream of Whiteoak Creek, 1.9 mi southeast of Celo, and at river mile 20.1.

DRAINAGE AREA.--43.3 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1957 to current year.

REVISED RECORDS.--WSP 1910: 1958-59. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,658 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge for period of record, from rating curve extended above 5,000 ft³/s on basis of slope-area measurement of peak flow; gage height from outside floodmarks. Minimum discharge for period of record also occurred September 26, 27, September 11-13, 2002. Minimum discharge for current water year also occurred August 19-21, September 8-13, 29, 30.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	68	91	400	869	90	209	90	70	42	29	32	38
2	65	132	251	329	91	555	98	66	39	29	25	21
3	61	99	199	259	83	189	88	85	40	29	29	17
4	59	91	171	224	79	142	93	152	39	27	26	15
5	57	85	153	259	e78	121	82	129	35	25	23	14
6	55	81	142	283	e77	110	78	110	34	23	21	13
7	55	219	133	273	76	103	76	91	32	23	19	12
8	68	562	121	511	72	97	74	83	31	25	19	12
9	79	237	124	316	70	91	72	78	32	20	19	11
10	61	184	114	258	68	87	71	75	30	20	17	11
11	56	177	110	226	69	84	73	72	28	21	16	12
12	58	186	106	210	66	79	88	71	28	21	16	11
13	52	150	105	197	69	77	73	71	28	19	16	11
14	48	136	99	181	75	77	71	66	47	19	14	109
15	47	170	94	167	63	76	186	66	58	19	14	74
16	48	645	91	159	e63	413	126	66	43	19	13	27
17	368	293	89	143	e62	203	102	67	33	19	12	21
18	230	231	86	136	e61	145	97	65	28	20	12	18
19	133	200	84	131	e60	128	120	63	29	18	11	16
20	146	175	82	121	59	123	146	61	32	17	12	15
21	115	157	78	139	67	147	111	59	25	16	15	17
22	102	155	627	183	64	124	100	57	24	15	20	21
23	90	142	317	139	57	115	92	55	23	15	14	17
24	83	131	205	128	56	109	88	55	24	17	15	15
25	79	123	273	120	92	104	84	52	57	28	26	14
26	75	116	254	113	77	99	80	49	47	55	21	14
27	114	110	201	111	66	96	80	45	46	29	17	13
28	210	105	176	107	63	93	76	44	54	33	21	12
29	125	104	161	103	---	104	75	42	41	52	23	12
30	109	261	151	97	---	98	72	40	33	59	17	11
31	99	---	360	95	---	91	---	39	---	64	33	---
Total	3,015	5,548	5,557	6,587	1,973	4,289	2,762	2,144	1,082	825	588	624
Mean	97.3	185	179	212	70.5	138	92.1	69.2	36.1	26.6	19.0	20.8
Max	368	645	627	869	92	555	186	152	58	64	33	109
Min	47	81	78	95	56	76	71	39	23	15	11	11
Cfsm	2.25	4.27	4.14	4.91	1.63	3.20	2.13	1.60	0.83	0.61	0.44	0.48
In.	2.59	4.77	4.77	5.66	1.70	3.68	2.37	1.84	0.93	0.71	0.51	0.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	123	145	138	161	175	217	186	148	123	85.5	95.6	127
Max	359	714	277	428	466	596	361	373	415	338	323	1,268
(WY)	(1996)	(1978)	(1984)	(1995)	(1998)	(1979)	(1983)	(1976)	(1972)	(2005)	(1994)	(2004)
Min	15.8	24.9	41.5	62.2	70.5	69.1	59.7	53.1	34.8	23.3	19.0	14.6
(WY)	(1994)	(1999)	(1966)	(1966)	(2007)	(1988)	(1986)	(1986)	(1988)	(1986)	(2007)	(1998)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1957 - 2007	
Annual total	44,971		34,994			
Annual mean	123		95.9		143	
Highest annual mean					227	1979
Lowest annual mean					79.4	1988
Highest daily mean	1,460	Sep 1	869	Jan 1	9,960	Nov 6, 1977
Lowest daily mean	18	Aug 10	11	Aug 19	9.5	Sep 12, 2002
Annual seven-day minimum	21	Aug 4	11	Sep 7	11	Sep 20, 1999
Maximum peak flow			2,160	Jan 1	^a 32,900	Nov 6, 1977
Maximum peak stage			3.53	Jan 1	^a 17.41	Nov 6, 1977
Instantaneous low flow			^a 11	Aug 18	^a 9.4	Sep 25, 1999
Annual runoff (cfsm)	2.85		2.21		3.31	
Annual runoff (inches)	38.64		30.06		45.02	
10 percent exceeds	225		199		258	
50 percent exceeds	91		74		98	
90 percent exceeds	36		17		36	

^a See Remarks.

