

Water-Data Report 2008

02152100 FIRST BROAD RIVER NEAR CASAR, NC

Santee Basin
Upper Broad Subbasin

LOCATION.--Lat 35°29'35", long 81°40'56" referenced to North American Datum of 1983, Cleveland County, NC, Hydrologic Unit 03050105, on right bank 570 ft upstream from bridge on Secondary Road 1530, 0.5 mi upstream from No Business Creek, and 4.0 mi southwest of Casar.

DRAINAGE AREA.--60.5 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-56. March 1959 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 899.87 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for the current water year also occurred July 22, August 12, 13.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 and August 1940 reached a stage of about 25 ft, from information by local resident.

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

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	15	21	24	62	210	35	39	31	19	13	15	80
2	15	21	23	45	148	34	37	30	19	11	13	37
3	15	21	23	e37	74	33	38	28	18	10	12	27
4	17	21	23	e33	60	44	53	28	18	9.9	12	23
5	28	21	23	e32	51	164	130	27	17	10	10	20
6	21	21	23	31	47	84	203	26	16	14	9.7	19
7	19	21	23	30	46	118	133	25	15	17	8.9	17
8	18	21	23	29	41	161	87	24	14	14	8.3	17
9	17	21	23	29	39	96	69	26	14	13	7.7	16
10	17	22	23	29	36	71	60	25	23	12	7.3	31
11	16	21	23	36	34	61	54	25	17	12	7.1	60
12	15	22	23	34	33	54	52	25	15	11	6.4	34
13	16	22	24	30	41	49	48	23	14	11	17	27
14	16	22	24	29	47	46	44	22	14	12	23	23
15	16	33	24	28	40	49	42	23	16	11	23	20
16	16	27	34	27	38	66	40	27	14	9.4	15	44
17	17	23	30	34	37	52	39	24	13	8.8	98	50
18	17	23	26	38	52	48	38	23	12	7.9	31	33
19	18	23	25	41	45	57	38	31	12	7.6	20	26
20	19	23	25	39	41	145	43	23	12	7.5	16	23
21	17	22	28	35	39	95	37	22	11	6.7	14	21
22	17	33	29	33	39	72	35	21	12	6.8	13	21
23	22	29	67	32	38	60	35	21	12	17	13	19
24	31	24	64	31	35	53	34	20	12	25	12	18
25	49	24	38	29	33	47	33	21	11	14	13	17
26	31	28	35	28	41	44	32	20	10	12	22	20
27	25	36	34	28	47	42	32	19	10	12	338	60
28	22	28	49	28	39	40	39	22	14	11	67	47
29	21	25	134	27	37	43	36	30	15	25	43	32
30	21	25	116	29	---	42	32	23	15	30	30	25
31	21	---	128	27	---	38	---	21	---	15	24	---
Total	625	724	1,211	1,020	1,508	2,043	1,632	756	434	396.6	949.4	907
Mean	20.2	24.1	39.1	32.9	52.0	65.9	54.4	24.4	14.5	12.8	30.6	30.2
Max	49	36	134	62	210	164	203	31	23	30	338	80
Min	15	21	23	27	33	33	32	19	10	6.7	6.4	16
Cfs/m	0.33	0.40	0.65	0.54	0.86	1.09	0.90	0.40	0.24	0.21	0.51	0.50
In.	0.38	0.45	0.74	0.63	0.93	1.26	1.00	0.46	0.27	0.24	0.58	0.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	70.6	67.9	83.6	102	116	133	122	92.9	78.5	64.6	65.8	59.1
Max	318	191	185	273	286	386	300	254	261	243	262	348
(WY)	(1965)	(1978)	(1962)	(1995)	(1960)	(1975)	(2003)	(1975)	(2003)	(2003)	(1970)	(2004)
Min	17.4	17.2	22.7	30.9	37.8	44.6	36.1	18.3	14.5	11.4	8.09	20.1
(WY)	(2002)	(2002)	(2002)	(2001)	(2001)	(1988)	(2002)	(2001)	(2008)	(2002)	(2002)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1959 - 2008	
Annual total	20,674		12,206.0			
Annual mean	56.6		33.3		87.8	
Highest annual mean					152	2003
Lowest annual mean					26.8	2002
Highest daily mean	1,290	Mar 2	338	Aug 27	5,870	Sep 8, 2004
Lowest daily mean	14	Aug 17	6.4	Aug 12	3.9	Aug 15, 2002
Annual seven-day minimum	15	Aug 15	7.8	Jul 16	4.1	Aug 9, 2002
Maximum peak flow			675	Aug 27	12,500	Sep 8, 2004
Maximum peak stage			3.56	Aug 27	19.89	Sep 8, 2004
Instantaneous low flow			^a 6.0	Jul 21	3.6	Aug 15, 2002
Annual runoff (cfs)	0.936		0.551		1.45	
Annual runoff (inches)	12.71		7.51		19.72	
10 percent exceeds	85		54		145	
50 percent exceeds	32		25		62	
90 percent exceeds	17		12		29	

^aSee Remarks