

Water-Data Report 2010

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 National Geodetic Vertical Datum of 1929. Satellite telemetry at streamgage.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for the current water year also occurred September 26.

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 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	47	169	58	110	132	107	112	77	82	41	39	26
2	45	125	516	101	172	107	107	77	69	39	38	25
3	44	89	610	96	204	109	104	102	66	38	37	24
4	41	72	194	92	197	104	101	91	64	37	35	23
5	50	64	137	89	1,060	101	98	80	61	36	42	22
6	49	59	108	87	823	99	97	76	59	35	76	22
7	45	57	93	85	357	98	95	73	60	34	43	22
8	41	57	89	84	262	98	104	71	55	33	36	22
9	40	56	493	e79	224	97	118	68	54	32	34	25
10	55	67	266	e78	202	97	95	66	56	33	32	22
11	46	1,200	153	e77	177	101	92	67	54	32	31	22
12	43	441	120	76	163	122	90	72	53	36	31	29
13	45	191	124	74	157	249	88	70	52	44	30	24
14	52	127	116	73	144	162	87	67	51	45	56	21
15	68	100	106	73	143	133	86	72	50	36	142	21
16	58	88	97	73	136	118	86	67	52	34	55	20
17	68	80	92	349	128	111	85	78	51	34	45	19
18	58	73	99	206	123	108	84	88	47	35	44	20
19	53	72	109	141	120	103	81	76	46	37	51	19
20	50	67	98	121	118	100	81	70	51	34	48	19
21	48	64	96	128	117	106	86	70	45	34	40	18
22	46	63	97	137	130	264	82	81	44	30	41	18
23	45	72	99	121	132	177	81	72	44	29	35	19
24	54	64	103	487	127	139	79	67	46	28	33	18
25	53	62	1,130	2,420	121	124	140	67	59	27	33	17
26	49	60	538	393	115	124	100	67	47	41	33	24
27	52	60	247	233	114	110	89	64	44	33	31	38
28	127	60	176	182	110	113	85	61	43	39	31	39
29	86	59	140	159	---	149	81	61	42	44	30	29
30	68	59	121	166	---	130	79	59	43	32	29	32
31	67	---	117	139	---	118	---	95	---	30	27	---
Total	1,693	3,877	6,542	6,729	6,008	3,878	2,793	2,272	1,590	1,092	1,308	699
Mean	54.6	129	211	217	215	125	93.1	73.3	53.0	35.2	42.2	23.3
Max	127	1,200	1,130	2,420	1,060	264	140	102	82	45	142	39
Min	40	56	58	73	110	97	79	59	42	27	27	17
Cfsm	0.90	2.14	3.49	3.59	3.55	2.07	1.54	1.21	0.88	0.58	0.70	0.39
In.	1.04	2.38	4.02	4.14	3.69	2.38	1.72	1.40	0.98	0.67	0.80	0.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	69.3	68.2	85.7	103	116	132	121	92.4	77.7	63.4	65.2	58.7
Max	318	191	211	273	286	386	300	254	261	243	262	348
(WY)	(1965)	(1978)	(2010)	(1995)	(1960)	(1975)	(2003)	(1975)	(2003)	(2003)	(1970)	(2004)
Min	17.4	17.2	22.7	30.9	31.8	44.6	36.1	18.3	14.5	11.4	8.09	20.1
(WY)	(2002)	(2002)	(2002)	(2001)	(2009)	(1988)	(2002)	(2001)	(2008)	(2002)	(2002)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1959 - 2010	
Annual total	31,990		38,481			
Annual mean	87.6		105		87.7	
Highest annual mean					152	2003
Lowest annual mean					26.8	2002
Highest daily mean	1,200	Nov 11	2,420	Jan 25	5,870	Sep 8, 2004
Lowest daily mean	23	Aug 10	17	Sep 25	3.9	Aug 15, 2002
Annual seven-day minimum	25	Aug 6	18	Sep 19	4.1	Aug 9, 2002
Maximum peak flow			5,280	Jan 25	12,500	Sep 8, 2004
Maximum peak stage			12.56	Jan 25	19.89	Sep 8, 2004
Instantaneous low flow			^a 17	Sep 25	3.6	Aug 15, 2002
Annual runoff (cfsm)	1.45		1.74		1.45	
Annual runoff (inches)	19.67		23.66		19.69	
10 percent exceeds	140		160		145	
50 percent exceeds	55		72		61	
90 percent exceeds	30		31		29	

^a See Remarks

