

Water-Data Report 2007

02150495 SECOND BROAD RIVER NEAR LOGAN, NC

Santee Basin
Upper Broad Subbasin

LOCATION.--Lat 35°24'16", long 81°52'21" referenced to North American Datum of 1983, Rutherford County, NC, Hydrologic Unit 03050105, on right bank 30 ft downstream of bridge on Secondary Road 1538, 2.2 mi southeast of Logan, and 2.7 mi upstream from Catheys Creek.

DRAINAGE AREA.--86.2 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1998 to current year.

REVISED RECORDS.-- WDR NC-03-1B: 2000 (M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 840 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for current water year also occurred September 13.

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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	47	69	103	1,190	88	204	97	76	54	44	39	35
2	46	68	99	462	93	1,480	97	75	51	44	34	31
3	44	64	83	278	86	413	91	74	59	46	32	28
4	44	61	76	201	83	276	91	81	59	42	32	27
5	43	60	71	232	81	201	87	82	51	40	30	25
6	44	60	69	285	80	163	86	84	48	40	29	24
7	43	83	70	256	82	144	86	75	46	47	29	24
8	45	325	65	836	80	132	84	72	46	40	26	23
9	50	170	65	383	79	122	84	73	49	38	26	21
10	47	118	64	262	78	117	83	72	45	40	25	21
11	44	97	63	197	77	112	84	73	45	40	23	20
12	51	101	61	165	77	107	91	80	47	37	32	20
13	45	88	61	149	80	103	85	74	49	35	30	20
14	43	83	61	147	95	101	86	69	50	39	25	121
15	42	80	61	132	81	99	139	66	80	37	e24	137
16	43	332	60	122	79	256	127	66	61	36	e23	59
17	105	227	59	110	77	273	102	66	57	35	e23	44
18	148	147	58	107	78	186	96	63	49	45	e23	39
19	85	118	58	105	76	149	99	61	47	38	e22	36
20	88	100	58	100	77	134	111	61	61	36	e22	35
21	77	90	58	99	79	127	97	60	49	35	22	35
22	70	92	458	117	79	121	92	59	45	33	30	35
23	64	88	496	103	76	116	88	58	43	32	26	32
24	60	81	234	97	77	112	87	58	44	33	78	30
25	59	76	375	94	108	107	86	56	43	35	41	30
26	58	73	365	91	118	104	85	56	46	33	35	29
27	63	71	217	90	97	100	87	54	43	32	40	28
28	126	69	157	91	90	99	83	54	47	32	34	27
29	94	69	130	86	---	98	80	52	66	38	34	26
30	79	72	115	86	---	95	78	51	47	40	34	26
31	72	---	138	84	---	94	---	52	---	56	32	---
Total	1,969	3,232	4,108	6,757	2,351	5,945	2,769	2,053	1,527	1,198	955	1,088
Mean	63.5	108	133	218	84.0	192	92.3	66.2	50.9	38.6	30.8	36.3
Max	148	332	496	1,190	118	1,480	139	84	80	56	78	137
Min	42	60	58	84	76	94	78	51	43	32	22	20
Cfsm	0.74	1.25	1.54	2.53	0.97	2.22	1.07	0.77	0.59	0.45	0.36	0.42
In.	0.85	1.39	1.77	2.92	1.01	2.57	1.19	0.89	0.66	0.52	0.41	0.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2007, BY WATER YEAR (WY)

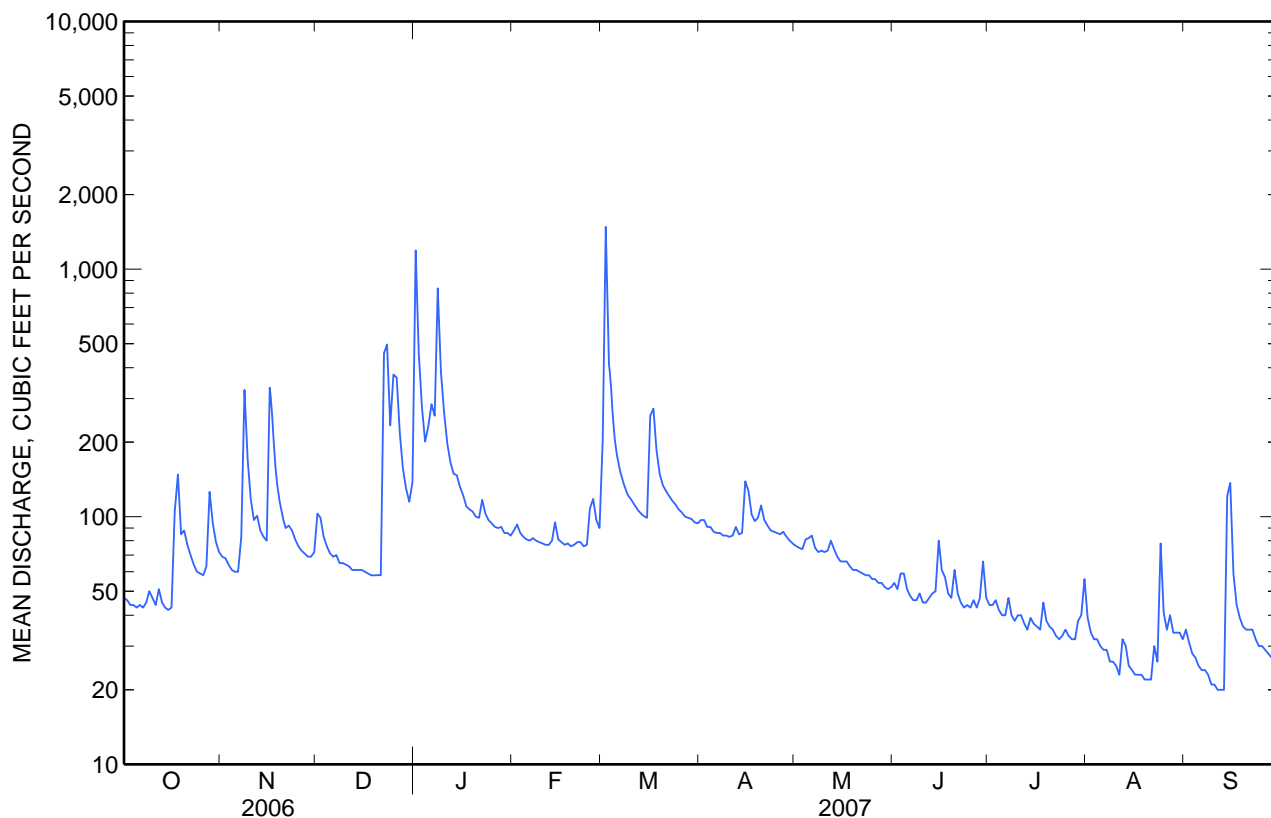
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	67.8	89.9	111	110	110	133	133	93.2	93.2	100	87.6	92.4
Max	122	187	190	218	202	216	368	276	275	275	384	349
(WY)	(2004)	(2005)	(2005)	(2007)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)
Min	25.5	33.8	46.2	50.8	57.7	73.8	66.2	34.4	31.1	21.4	13.9	27.9
(WY)	(2001)	(2002)	(2002)	(2001)	(2001)	(2006)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1999 - 2007	
Annual total	31,007		33,952			
Annual mean	85.0		93.0		102	
Highest annual mean					205	2003
Lowest annual mean					46.2	2002
Highest daily mean	1,190	Aug 12	1,480	Mar 2	3,320	Sep 8, 2004
Lowest daily mean	30	Jul 19	20	Sep 11	6.6	Sep 12, 2002
Annual seven-day minimum	35	Jul 13	21	Sep 7	8.0	Sep 7, 2002
Maximum peak flow			2,710	Mar 2	4,450	Sep 8, 2004
Maximum peak stage			12.75	Mar 2	15.91	Sep 8, 2004
Instantaneous low flow			^a 18	Sep 12	6.1	Sep 12, 2002
Annual runoff (cfsm)	0.986		1.08		1.18	
Annual runoff (inches)	13.38		14.65		16.02	
10 percent exceeds	130		147		172	
50 percent exceeds	68		71		73	
90 percent exceeds	42		31		29	

^a See Remarks.



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PERIOD OF RECORD.--November 2000 to current year.

INSTRUMENTATION.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with North Carolina Department of Environment and Natural Resources. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.05	0.66	0.28	2.19	0.33	0.00	0.00	0.00	0.00	0.00
2	0.00	0.02	0.00	0.00	0.02	0.03	0.01	0.00	0.00	0.07	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.62	0.00	0.00	0.00
4	0.00	0.00	0.00	0.02	0.00	0.00	0.03	0.06	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
6	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	1.73	0.00	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.13	0.02	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.53	0.06	0.00	0.00	0.00	0.00	0.22	0.00	0.01	0.00	0.00	0.00
12	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.11	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.01	0.00	0.65	0.00	0.66	0.00	0.00	1.54
15	0.00	0.81	0.00	0.00	0.00	0.02	0.16	0.00	0.05	0.00	0.00	0.00
16	0.13	0.71	0.00	0.00	0.00	1.29	0.00	0.04	0.00	0.00	0.00	0.00
17	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.24	0.00	0.00
18	0.01	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00
19	0.29	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.06	0.00	0.00	0.00
20	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00
21	0.00	0.04	0.03	0.44	0.07	0.01	0.00	0.00	0.00	0.00	0.10	0.00
22	0.10	0.31	2.36	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	1.11	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.08	0.03	0.00
25	0.00	0.00	1.48	0.00	0.88	0.00	0.00	0.00	0.07	0.00	0.00	0.00
26	0.00	0.00	0.01	0.00	0.01	0.00	0.09	0.00	0.00	0.00	0.00	0.00
27	0.93	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.36	0.00	0.00	0.00
28	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.01	0.00	0.00	0.27	0.18	0.16	0.00
30	0.00	0.19	0.02	0.00	---	0.00	0.00	0.00	0.00	1.30	0.00	0.00
31	0.00	---	1.51	0.00	---	0.00	---	0.01	---	0.00	0.00	---
Total	3.92	3.90	5.46	3.52	1.58	3.55	2.29	0.46	2.29	2.06	1.41	1.54

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