



Water-Data Report 2010

02152474 FIRST BROAD RIVER AT LAWNDALE, NC

Santee Basin
Upper Broad Subbasin

LOCATION.--Lat 35°24'55", long 81°33'42" referenced to North American Datum of 1983, Cleveland County, NC, Hydrologic Unit 03050105, near center span on downstream side of bridge on North Carolina Highway 182 and 0.2 mi northeast of Lawndale.

DRAINAGE AREA.--190 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 2008 to current year.

GAGE.--Water-stage recorder. Datum of gage is 800 ft above National Geodetic Vertical Datum of 1929. Satellite telemetry at streamgage.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for current water year also occurred September 25.

REVISIONS.--Revised figures of daily discharge for water years 2008 and 2009 superceding those published in the annual data report for 2008 and 2009, are given below.

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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	---	---	---	---	---	---	e117	79	53	25	41	89
2	---	---	---	---	---	---	e113	75	49	19	34	87
3	---	---	---	---	---	---	e116	73	47	15	32	58
4	---	---	---	---	---	---	e160	73	46	13	29	49
5	---	---	---	---	---	---	e295	70	44	15	24	43
6	---	---	---	---	---	---	e425	69	40	19	21	40
7	---	---	---	---	---	---	e327	65	37	27	18	36
8	---	---	---	---	---	---	e249	63	34	46	16	35
9	---	---	---	---	---	---	e197	68	32	56	13	41
10	---	---	---	---	---	---	e183	67	34	55	13	45
11	---	---	---	---	---	---	e175	69	40	37	12	92
12	---	---	---	---	---	---	156	74	32	31	10	76
13	---	---	---	---	---	---	145	64	29	26	24	56
14	---	---	---	---	---	---	132	61	30	36	43	47
15	---	---	---	---	---	---	124	62	40	29	49	42
16	---	---	---	---	---	---	117	68	32	21	39	55
17	---	---	---	---	---	---	112	67	27	18	65	102
18	---	---	---	---	---	---	107	61	24	15	106	69
19	---	---	---	---	---	---	105	69	23	12	45	54
20	---	---	---	---	---	---	123	64	21	11	33	47
21	---	---	---	---	---	---	104	60	20	10	25	44
22	---	---	---	---	---	---	98	55	21	8.3	22	43
23	---	---	---	---	---	---	94	52	22	38	20	41
24	---	---	---	---	---	---	90	51	21	54	18	40
25	---	---	---	---	---	---	85	50	19	38	22	37
26	---	---	---	---	---	---	83	49	19	28	49	40
27	---	---	---	---	---	---	83	47	17	30	526	81
28	---	---	---	---	---	---	95	59	19	26	212	92
29	---	---	---	---	---	---	98	81	28	31	107	68
30	---	---	---	---	---	---	81	66	25	67	75	53
31	---	---	---	---	---	---	---	57	---	47	59	---
Total	---	---	---	---	---	---	4,389	1,988	925	903.3	1,802	1,702
Mean	---	---	---	---	---	---	146	64.1	30.8	29.1	58.1	56.7
Max	---	---	---	---	---	---	425	81	53	67	526	102
Min	---	---	---	---	---	---	81	47	17	8.3	10	35
Cfsm	---	---	---	---	---	---	0.77	0.34	0.16	0.15	0.31	0.30
In.	---	---	---	---	---	---	0.86	0.39	0.18	0.18	0.35	0.33

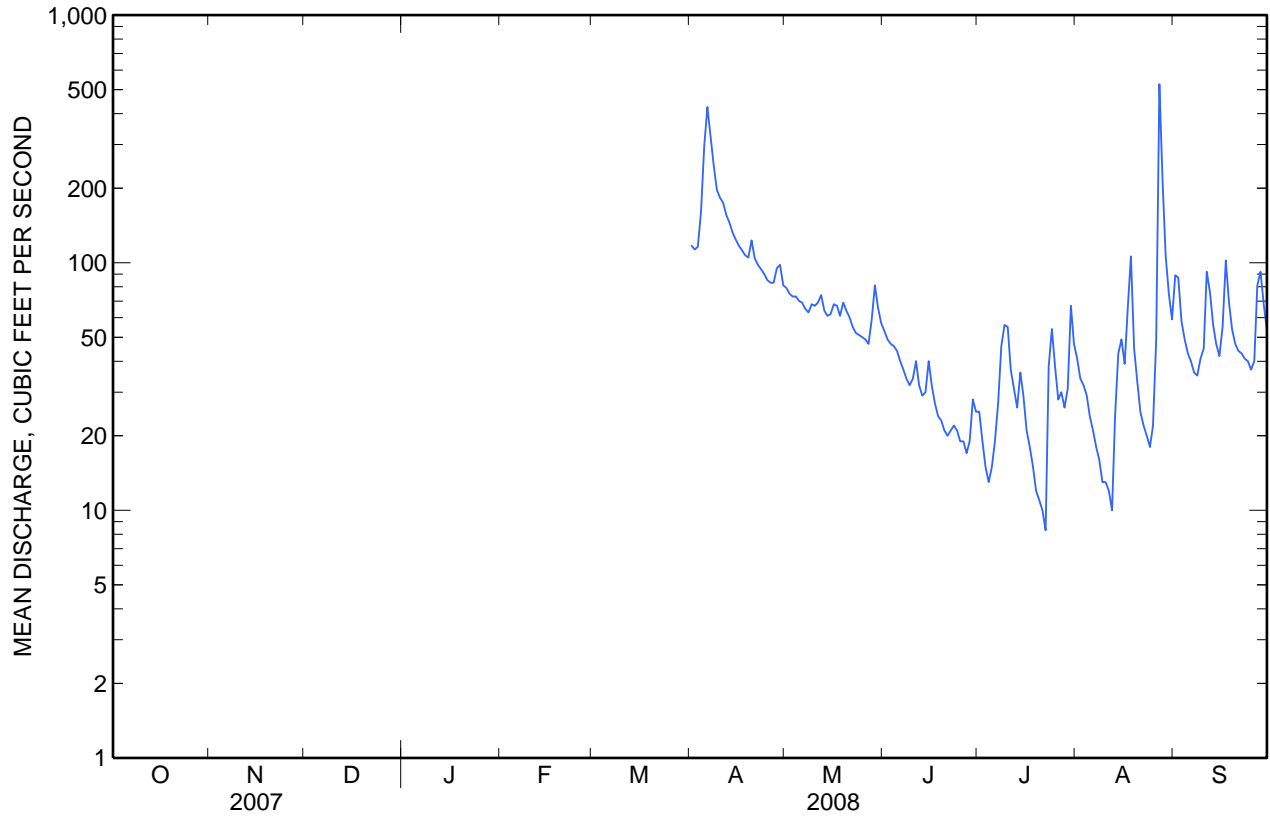
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	---	---	---	---	---	---	146	64.1	30.8	29.1	58.1	56.7
Max	---	---	---	---	---	---	146	64.1	30.8	29.1	58.1	56.7
(WY)	(---	(---	(---	(---	(---	(---	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)
Min	---	---	---	---	---	---	146	64.1	30.8	29.1	58.1	56.7
(WY)	(---	(---	(---	(---	(---	(---	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)

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SUMMARY STATISTICS

Water Year 2008		
Highest daily mean	526	Aug 27
Lowest daily mean	8.3	Jul 22
Annual seven-day minimum	14	Jul 16
Maximum peak flow	790	Aug 27
Maximum peak stage	4.47	Aug 27
Instantaneous low flow	5.1	Jul 22



02152474 FIRST BROAD RIVER AT LAWNSDALE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	48	55	100	93	88	478	323	132	211	90	90	180
2	44	51	78	88	88	1,620	326	131	182	89	79	118
3	42	49	68	88	88	679	436	132	164	81	86	97
4	40	50	63	86	86	453	420	133	157	80	69	86
5	40	52	62	85	80	364	332	128	338	81	76	79
6	40	53	61	176	83	316	288	209	526	110	121	74
7	42	53	62	2,120	88	296	255	224	258	107	72	71
8	49	55	57	776	83	266	231	170	202	86	62	69
9	83	56	56	370	82	238	217	168	176	95	59	226
10	71	55	64	260	80	213	349	208	163	106	54	210
11	58	56	428	212	80	198	1,790	167	216	93	58	145
12	51	56	951	179	90	188	636	152	205	83	72	111
13	44	60	294	159	85	179	430	137	168	118	75	95
14	45	80	198	144	82	202	371	129	165	112	72	84
15	46	72	159	132	82	335	317	124	150	85	61	79
16	45	69	142	121	85	482	267	126	172	76	66	79
17	46	64	142	113	80	351	236	123	521	78	528	113
18	55	58	136	119	91	280	216	128	377	75	190	173
19	59	57	126	112	109	245	204	114	261	67	113	180
20	53	57	119	109	93	227	231	107	210	65	110	714
21	52	57	121	102	88	204	221	102	179	65	101	499
22	52	55	112	100	86	191	200	101	160	66	91	307
23	50	55	104	100	84	182	185	99	143	74	199	225
24	51	55	101	98	82	174	174	110	132	72	203	180
25	68	59	118	95	82	179	163	145	123	63	138	152
26	82	59	114	92	81	211	153	595	115	57	100	242
27	66	56	105	91	87	230	146	511	111	53	84	298
28	59	55	105	96	110	564	140	597	103	57	77	227
29	59	55	110	108	---	894	136	478	101	79	110	169
30	62	74	103	96	---	518	134	352	93	73	116	140
31	58	---	99	91	---	376	---	266	---	115	139	---
Total	1,660	1,738	4,558	6,611	2,423	11,333	9,527	6,298	6,082	2,551	3,471	5,422
Mean	53.5	57.9	147	213	86.5	366	318	203	203	82.3	112	181
Max	83	80	951	2,120	110	1,620	1,790	597	526	118	528	714
Min	40	49	56	85	80	174	134	99	93	53	54	69
Cfsm	0.28	0.30	0.77	1.12	0.46	1.92	1.67	1.07	1.07	0.43	0.59	0.95
In.	0.33	0.34	0.89	1.29	0.47	2.22	1.87	1.23	1.19	0.50	0.68	1.06

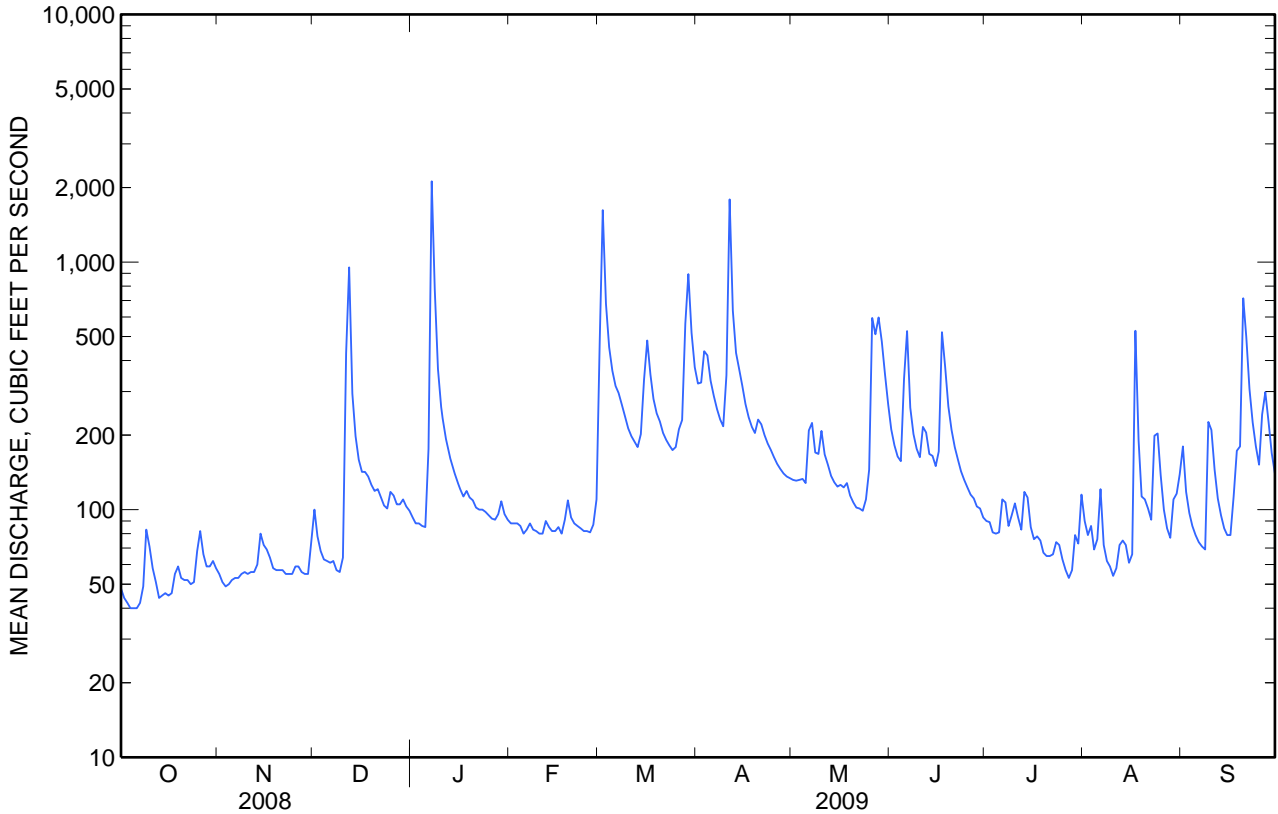
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	53.5	57.9	147	213	86.5	366	232	134	117	55.7	85.0	119
Max	53.5	57.9	147	213	86.5	366	318	203	203	82.3	112	181
(WY)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)
Min	53.5	57.9	147	213	86.5	366	146	64.1	30.8	29.1	58.1	56.7
(WY)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 2008 - 2009	
Annual total			61,674			
Annual mean			169		169	
Highest annual mean					169 2009	
Lowest annual mean					169 2009	
Highest daily mean	951	Dec 12	2,120	Jan 7	2,120	Jan 7, 2009
Lowest daily mean	8.3	Jul 22	40	Oct 4	8.3	Jul 22, 2008
Annual seven-day minimum	14	Jul 16	42	Oct 1	14	Jul 16, 2008
Maximum peak flow			3,700 Jan 7		3,700 Jan 7, 2009	
Maximum peak stage			9.69 Jan 7		9.69 Jan 7, 2009	
Instantaneous low flow			37 Oct 6		5.1 Jul 22, 2008	
Annual runoff (cfsm)			0.889		0.889	
Annual runoff (inches)			12.08		12.08	
10 percent exceeds			333		333	
50 percent exceeds			108		108	
90 percent exceeds			56		56	



02152474 FIRST BROAD RIVER AT LAWNSDALE, NC—Continued

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	126	369	158	358	404	316	355	242	334	124	106	60
2	119	371	868	331	471	314	335	243	334	115	112	56
3	114	274	1,850	309	661	324	321	287	262	108	108	54
4	106	225	598	295	623	307	308	315	226	105	98	51
5	124	197	405	e281	2,890	298	296	253	209	101	93	48
6	134	179	321	272	2,910	291	289	236	195	97	169	49
7	114	168	271	264	1,170	288	281	227	192	92	128	47
8	103	160	241	261	861	288	420	220	176	88	102	47
9	97	153	1,180	e253	736	286	879	209	169	84	91	55
10	154	164	816	e246	657	286	452	206	177	85	85	49
11	132	4,020	517	e241	574	290	376	219	202	83	88	45
12	116	1,620	409	237	529	405	345	233	169	85	83	61
13	131	741	385	229	507	881	324	220	166	117	80	58
14	128	504	372	225	465	595	310	203	169	132	78	47
15	189	395	333	223	454	474	298	231	157	101	265	44
16	174	330	302	220	438	409	293	232	172	88	170	41
17	194	288	278	742	410	376	284	296	159	104	126	38
18	184	259	282	608	393	358	272	452	146	106	114	39
19	157	244	339	437	379	338	262	310	138	110	178	38
20	144	223	314	373	366	320	260	256	160	94	159	37
21	135	202	304	357	360	324	276	236	143	88	118	35
22	127	189	295	394	387	873	260	259	129	81	116	35
23	121	235	292	348	392	597	249	234	126	76	100	37
24	126	210	292	697	373	465	245	231	122	72	86	34
25	142	194	2,380	6,380	369	409	388	224	172	70	86	33
26	123	184	1,730	1,350	344	400	339	218	145	77	83	46
27	126	176	824	797	337	358	284	206	129	87	78	109
28	288	169	603	609	328	377	279	205	125	161	75	105
29	240	162	484	512	---	517	257	220	125	184	73	85
30	191	160	415	516	---	433	247	198	133	107	69	86
31	176	---	387	440	---	384	---	228	---	90	64	---
Total	4,535	12,765	18,245	18,805	18,788	12,581	9,784	7,549	5,261	3,112	3,381	1,569
Mean	146	426	589	607	671	406	326	244	175	100	109	52.3
Max	288	4,020	2,380	6,380	2,910	881	879	452	334	184	265	109
Min	97	153	158	220	328	286	245	198	122	70	64	33
Cfsm	0.77	2.24	3.10	3.19	3.53	2.14	1.72	1.28	0.92	0.53	0.57	0.28
In.	0.89	2.50	3.57	3.68	3.68	2.46	1.92	1.48	1.03	0.61	0.66	0.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	99.9	242	368	410	379	386	263	170	136	70.6	93.1	96.6
Max	146	426	589	607	671	406	326	244	203	100	112	181
(WY)	(2010)	(2010)	(2010)	(2010)	(2010)	(2010)	(2010)	(2010)	(2009)	(2010)	(2009)	(2009)
Min	53.5	57.9	147	213	86.5	366	146	64.1	30.8	29.1	58.1	52.3
(WY)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2008)	(2008)	(2008)	(2008)	(2008)	(2010)

02152474 FIRST BROAD RIVER AT LAWNSDALE, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 2008 - 2010	
Annual total	89,263		116,375			
Annual mean	245		319		244	
Highest annual mean					319	2010
Lowest annual mean					169	2009
Highest daily mean	4,020	Nov 11	6,380	Jan 25	6,380	Jan 25, 2010
Lowest daily mean	53	Jul 27	33	Sep 25	8.3	Jul 22, 2008
Annual seven-day minimum	63	Jul 22	36	Sep 19	14	Jul 16, 2008
Maximum peak flow			8,690	Jan 25	8,690	Jan 25, 2010
Maximum peak stage			16.31	Jan 25	16.31	Jan 25, 2010
Instantaneous low flow			^a 31	Sep 24	5.1	Jul 22, 2008
Annual runoff (cfsm)	1.29		1.68		1.28	
Annual runoff (inches)	17.48		22.78		17.44	
10 percent exceeds	443		516		437	
50 percent exceeds	157		229		157	
90 percent exceeds	80		79		58	

^a See Remarks.

