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.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 2008 to September 2008.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

02152474 FIRST BROAD RIVER AT LAWNDALE, NC—Continued

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	12	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	15	35
9	---	---	---	---	---	---	e197	68	32	56	12	41
10	---	---	---	---	---	---	e183	67	34	55	11	45
11	---	---	---	---	---	---	e175	69	40	37	11	92
12	---	---	---	---	---	---	156	74	32	31	8.2	76
13	---	---	---	---	---	---	145	64	29	26	23	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	10	45	54
20	---	---	---	---	---	---	123	64	21	8.6	33	47
21	---	---	---	---	---	---	104	60	20	7.9	25	44
22	---	---	---	---	---	---	98	55	21	5.9	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	16	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	---
Mean	---	---	---	---	---	---	146	64.1	30.8	28.8	57.9	56.7
Max	---	---	---	---	---	---	425	81	53	67	526	102
Min	---	---	---	---	---	---	81	47	16	5.9	8.2	35

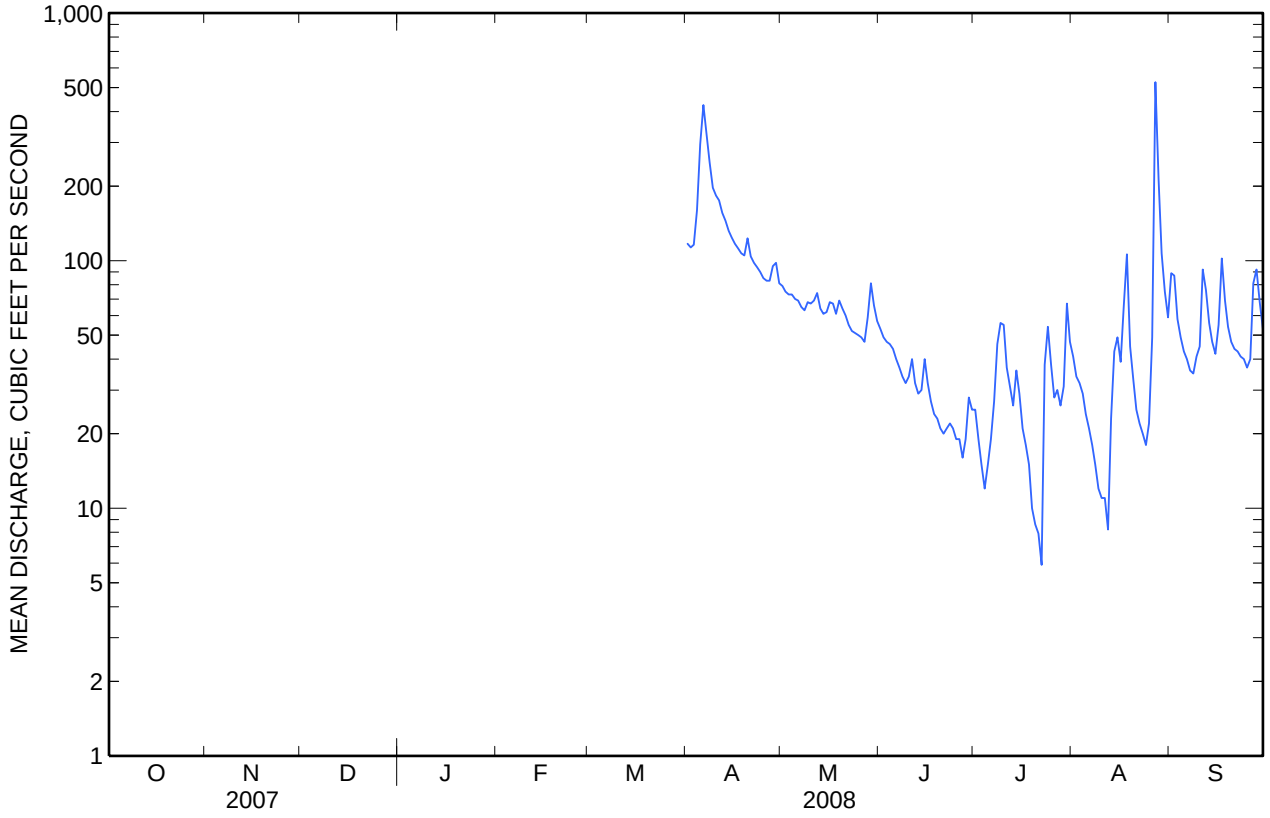
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	---	---	---	---	---	---	146	64.1	30.8	28.8	57.9	56.7
Max	---	---	---	---	---	---	146	64.1	30.8	28.8	57.9	56.7
(WY)	(---)	(---)	(---)	(---)	(---)	(---)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)
Min	---	---	---	---	---	---	146	64.1	30.8	28.8	57.9	56.7
(WY)	(---)	(---)	(---)	(---)	(---)	(---)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)

02152474 FIRST BROAD RIVER AT LAWNDALE, NC—Continued

SUMMARY STATISTICS

	Water Year 2008	
Highest daily mean	526	Aug 27
Lowest daily mean	5.9	Jul 22
Annual seven-day minimum	12	Jul 16
Maximum peak flow	790	Aug 27
Maximum peak stage	4.47	Aug 27
Instantaneous low flow	2.9	Jul 22



02152474 FIRST BROAD RIVER AT LAWNDALE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March to September 2008.

REMARKS.--Station operated in cooperation with the Cleveland County Sanitary District to characterize the total sediment load in the First Broad River basin upstream of the proposed reservoir north of Lawndale and downstream of the proposed dam location.

02152474 FIRST BROAD RIVER AT LAWNDALE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 1 of 4
[QC, quality control sample]

Date	Time	Sample medium and type	Instantaneous discharge, cfs (00061)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Location in X-sect. looking dwnstrm ft from l bank (00009)	Sampling method, code (82398)	Type of sample related QA data, code (99111)
Mar									
19...	1155	Surface water, regular	128	76	5	1.7	200	30	--
19...	1156	Surface water, regular	128	77	5	1.7	--	10	--
Apr									
25...	1456	Surface water, regular	78	79	4	.84	200	920	30
25...	*1457*	*QC - Surface water, replicate*	*78*	*83*	*3*	*.63*	*200*	*920*	--
28...	0919	Surface water, regular	91	95	7	1.7	200	920	--
29...	1430	Surface water, regular	97	94	5	1.3	200	920	--
May									
02...	1404	Surface water, regular	75	89	3	.61	200	920	--
06...	1354	Surface water, regular	69	79	4	.75	200	920	--
09...	1419	Surface water, regular	70	90	6	1.1	200	920	--
13...	1343	Surface water, regular	63	91	3	.51	200	920	--
16...	1339	Surface water, regular	69	96	7	1.3	200	920	--
20...	1412	Surface water, regular	62	93	4	.67	200	920	--
23...	*1405*	*QC - Surface water, replicate*	*52*	*92*	*4*	*.56*	*200*	*920*	--
23...	1407	Surface water, regular	52	92	4	.56	200	920	30
30...	1413	Surface water, regular	63	94	5	.85	200	920	--
Jun									
03...	1435	Surface water, regular	42	95	7	.78	200	920	--
06...	1429	Surface water, regular	39	88	6	.63	200	920	--
10...	1425	Surface water, regular	31	95	5	.42	200	920	--
13...	1338	Surface water, regular	29	--	5	.39	200	920	--
17...	1231	Surface water, regular	27	--	6	.43	200	920	--
20...	1335	Surface water, regular	20	--	5	.27	200	920	--
24...	1448	Surface water, regular	22	--	4	.24	200	920	--
27...	1325	Surface water, regular	13	--	13	.46	200	920	30
27...	*1328*	*QC - Surface water, replicate*	*13*	--	*16*	*.56*	*200*	*920*	--
Jul									
01...	1355	Surface water, regular	26	--	5	.35	200	920	--
04...	1542	Surface water, regular	11	--	3	.09	200	920	--
08...	1134	Surface water, regular	33	--	6	.53	200	920	--
15...	1110	Surface water, regular	28	--	7	.53	200	920	--
18...	1150	Surface water, regular	14	--	7	.26	200	920	--
22...	0847	Surface water, regular	5.9	--	8	.13	200	920	--
23...	0844	Surface water, regular	34	--	23	2.1	200	920	--
24...	0715	Surface water, regular	53	--	202	29	200	920	--
25...	0750	Surface water, regular	41	--	16	1.8	200	920	30
25...	*0753*	*QC - Surface water, replicate*	*41*	--	*15*	*1.7*	*200*	*920*	--
29...	0925	Surface water, regular	39	--	6	.63	200	920	--

02152474 FIRST BROAD RIVER AT LAWNDALE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 2 of 4
[QC, quality control sample]

Date	Type of replicate, code (99105)	Data base number	Medium code
Mar			
19...	--	01	WS
19...	--	01	WS
Apr			
25...	--	01	WS
25...	*10.00*	*04*	*WSQ*
28...	--	01	WS
29...	--	01	WS
May			
02...	--	01	WS
06...	--	01	WS
09...	--	01	WS
13...	--	01	WS
16...	--	01	WS
20...	--	01	WS
23...	*10.00*	*04*	*WSQ*
23...	--	01	WS
30...	--	01	WS
Jun			
03...	--	01	WS
06...	--	01	WS
10...	--	01	WS
13...	--	01	WS
17...	--	01	WS
20...	--	01	WS
24...	--	01	WS
27...	--	01	WS
27...	*10.00*	*04*	*WSQ*
Jul			
01...	--	01	WS
04...	--	01	WS
08...	--	01	WS
15...	--	01	WS
18...	--	01	WS
22...	--	01	WS
23...	--	01	WS
24...	--	01	WS
25...	--	01	WS
25...	*10.00*	*04*	*WSQ*
29...	--	01	WS

02152474 FIRST BROAD RIVER AT LAWNDALE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 3 of 4
[QC, quality control sample]

Date	Time	Sample medium and type	Instantaneous discharge, cfs (00061)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Bedload sediment, sieve diametr percent <.063mm (80226)	Bedload sediment, sieve diametr percent <.125mm (80227)	Bedload sediment, sieve diametr percent <.25mm (80228)
Aug									
01...	1639	Surface water, regular	38	--	9	.92	--	--	--
05...	0826	Surface water, regular	24	--	10	.65	--	--	--
08...	0952	Surface water, regular	16	--	9	.39	--	--	--
12...	1044	Surface water, regular	8.8	--	3	.07	--	--	--
14...	0723	Surface water, regular	41	--	19	2.1	--	--	--
15...	0858	Surface water, regular	48	--	24	3.1	--	--	--
18...	0725	Surface water, regular	121	96	102	33	--	--	--
19...	1316	Surface water, regular	43	--	12	1.4	--	--	--
22...	1323	Surface water, regular	21	--	5	.28	--	--	--
22...	*1330*	*QC - Surface water, replicate*	*21*	--	*9*	*.51*	--	--	--
26...	0930	Surface water, regular	44	--	10	1.2	--	--	--
26...	*0931*	*QC - Surface water, replicate*	*44*	--	*8*	*.95*	--	--	--
26...	0932	Surface water, regular	44	--	8	.97	--	--	--
26...	0950	Surface water, regular	45	--	--	--	4	4	7
26...	1719	Surface water, regular	47	--	8	1.0	--	--	--
27...	0751	Surface water, regular	482	83	410	534	--	--	--
27...	1414	Surface water, regular	786	75	403	855	--	--	--
27...	1415	Surface water, regular	786	71	459	974	--	--	--
27...	1500	Surface water, regular	783	--	--	--	.0	1	3
28...	1149	Surface water, regular	191	93	56	29	--	--	--
29...	1445	Surface water, regular	104	93	19	5.3	--	--	--
Sep									
02...	0848	Surface water, regular	91	99	45	11	--	--	--
05...	1236	Surface water, regular	43	--	6	.70	--	--	--
09...	1018	Surface water, regular	38	--	5	.51	--	--	--
11...	0859	Surface water, regular	77	--	22	4.6	--	--	--
12...	1237	Surface water, regular	72	--	10	1.9	--	--	--
16...	1401	Surface water, regular	54	--	9	1.3	--	--	--
19...	1352	Surface water, regular	53	--	6	.86	--	--	--
23...	0856	Surface water, regular	41	--	4	.44	--	--	--
23...	*0859*	*QC - Surface water, replicate*	*41*	--	*3*	*.33*	--	--	--
26...	1040	Surface water, regular	36	--	5	.49	--	--	--
27...	1114	Surface water, regular	75	--	10	2.0	--	--	--
30...	1413	Surface water, regular	54	--	3	.44	--	--	--

02152474 FIRST BROAD RIVER AT LAWNDALE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 4 of 4
[QC, quality control sample]

Date	Bedload sediment, sieve diametr percent <.5 mm (80229)	Bedload sediment, sieve diametr percent <1 mm (80230)	Bedload sediment, sieve diametr percent <2 mm (80231)	Bedload sediment, sieve diametr percent <4 mm (80232)	Bedload sediment, sieve diametr percent <8 mm (80233)	Bedload sediment, sieve diametr percent <16 mm (80234)	Location in X-sect. looking dwnstrm ft from l bank (00009)	Sampling method, code (82398)	Type of sample related QA data, code (99111)	Type of replicate, code (99105)	Data base number	Medium code
Aug												
01...	--	--	--	--	--	--	200	920	--	--	01	WS
05...	--	--	--	--	--	--	200	920	--	--	01	WS
08...	--	--	--	--	--	--	200	920	--	--	01	WS
12...	--	--	--	--	--	--	200	920	--	--	01	WS
14...	--	--	--	--	--	--	200	920	--	--	01	WS
15...	--	--	--	--	--	--	200	920	--	--	01	WS
18...	--	--	--	--	--	--	200	920	--	--	01	WS
19...	--	--	--	--	--	--	200	920	--	--	01	WS
22...	--	--	--	--	--	--	200	920	30	--	01	WS
22...	--	--	--	--	--	--	*200*	*920*	--	*10.00*	*04*	*WSQ*
26...	--	--	--	--	--	--	200	30	30	--	01	WS
26...	--	--	--	--	--	--	*200*	*30*	--	*10.00*	*04*	*WSQ*
26...	--	--	--	--	--	--	--	10	--	--	01	WS
26...	64	100	--	--	--	--	--	1000	--	--	01	WS
26...	--	--	--	--	--	--	200	920	--	--	01	WS
27...	--	--	--	--	--	--	200	920	--	--	01	WS
27...	--	--	--	--	--	--	200	30	--	--	01	WS
27...	--	--	--	--	--	--	--	10	--	--	01	WS
27...	20	42	69	89	100	100	--	1000	--	--	01	WS
28...	--	--	--	--	--	--	200	920	--	--	01	WS
29...	--	--	--	--	--	--	200	920	--	--	01	WS
Sep												
02...	--	--	--	--	--	--	200	920	--	--	01	WS
05...	--	--	--	--	--	--	200	920	--	--	01	WS
09...	--	--	--	--	--	--	200	920	--	--	01	WS
11...	--	--	--	--	--	--	200	920	--	--	01	WS
12...	--	--	--	--	--	--	200	920	--	--	01	WS
16...	--	--	--	--	--	--	200	920	--	--	01	WS
19...	--	--	--	--	--	--	200	920	--	--	01	WS
23...	--	--	--	--	--	--	200	920	--	--	01	WS
23...	--	--	--	--	--	--	*200*	*920*	--	--	*04*	*WSQ*
26...	--	--	--	--	--	--	200	920	--	--	01	WS
27...	--	--	--	--	--	--	200	920	--	--	01	WS
30...	--	--	--	--	--	--	200	920	--	--	01	WS