

Water-Data Report 2010

02093000 NEW RIVER NEAR GUM BRANCH, NC

Cape Fear Basin
New Subbasin

LOCATION.--Lat 34°50'57", long 77°31'10" referenced to North American Datum of 1983, Onslow County, NC, Hydrologic Unit 03030001, on right bank 5 ft downstream of Secondary Road 1314, 0.7 mi downstream of Jenkins Swamp, 1.8 mi southwest of Gum Branch, and 3.8 mi southeast of Richlands.

DRAINAGE AREA.--94 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1949 to September 1973. July 1987 to current year.

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 1.51 ft above North American Vertical Datum of 1988. Nonrecording gage August 19, 1949 to March 22, 1950 and water-stage recorder March 23, 1950 to March 25, 1969 at site 0.2 mi upstream at datum 2.52 ft. Satellite telemetry at streamgage.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 3,000 ft³/s by logarithmic plotting. Flow is affected by both astronomical and wind tides. The astronomical tides occur at primary harmonic periods of 12.42 hours and 24.84 hours. Daily mean discharge for this site may be affected by aliasing due to tides and can contain fluctuations that are not representative of net downstream discharge.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1908 reached a stage of about 18 ft at former site and datum, 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	55	31	92	369	272	107	68	21	16	27	12	7.7
2	48	35	121	292	250	129	62	19	17	19	11	8.8
3	47	32	786	222	302	377	57	19	22	11	11	12
4	43	31	819	184	257	289	54	18	18	9.7	8.3	6.3
5	41	28	591	170	298	212	50	18	16	9.2	11	6.9
6	45	29	630	155	1,000	171	47	17	13	8.7	10	6.8
7	47	24	380	138	1,320	142	44	16	14	7.8	15	6.5
8	42	24	275	131	759	123	40	15	12	7.9	16	6.3
9	42	27	300	112	364	113	40	15	11	7.9	14	7.8
10	40	38	308	102	329	101	43	13	12	7.5	8.7	8.1
11	39	512	228	95	267	110	41	14	12	15	7.9	9.3
12	37	1,220	183	95	221	e230	40	14	10	10	7.7	17
13	39	1,180	167	87	209	204	33	12	11	11	7.5	13
14	36	667	182	84	208	164	32	19	12	188	7.5	6.2
15	52	336	167	80	206	e130	32	15	12	91	7.7	6.1
16	48	229	150	75	208	e120	31	54	12	29	7.8	4.9
17	45	176	131	173	181	103	30	65	51	22	8.5	5.3
18	41	149	115	216	162	92	28	69	16	21	11	9.1
19	37	446	182	174	141	87	23	56	13	31	24	12
20	29	447	173	143	132	78	23	49	18	15	19	10
21	32	293	138	136	125	70	25	30	28	9.9	16	6.1
22	34	204	118	512	137	71	31	24	22	53	17	6.1
23	33	266	107	430	211	66	26	23	19	20	22	6.1
24	30	255	98	291	172	61	24	23	19	20	17	6.3
25	30	199	145	669	167	58	25	25	12	18	22	6.3
26	30	169	821	1,040	148	57	23	23	12	17	14	6.6
27	27	146	850	627	134	53	22	21	11	12	12	242
28	31	128	425	320	120	51	26	20	11	13	11	735
29	26	110	257	249	---	105	25	18	18	12	10	718
30	28	97	199	281	---	126	21	16	35	12	10	2,620
31	27	---	321	358	---	82	---	16	---	11	9.1	---
Total	1,181	7,528	9,459	8,010	8,300	3,882	1,066	777	505	746.6	385.7	4,522.6
Mean	38.1	251	305	258	296	125	35.5	25.1	16.8	24.1	12.4	151
Max	55	1,220	850	1,040	1,320	377	68	69	51	188	24	2,620
Min	26	24	92	75	120	51	21	12	10	7.5	7.5	4.9
Cfsm	0.41	2.67	3.25	2.75	3.15	1.33	0.38	0.27	0.18	0.26	0.13	1.60
In.	0.47	2.98	3.74	3.17	3.28	1.54	0.42	0.31	0.20	0.30	0.15	1.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2010^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	88.6	76.1	101	149	168	171	113	71.0	89.5	112	106	128
Max	553	451	305	374	584	418	377	188	423	717	734	1,110
(WY)	(1972)	(2007)	(2010)	(1993)	(1998)	(1959)	(1973)	(1969)	(1961)	(1962)	(1955)	(1999)
Min	2.01	4.30	13.3	30.4	33.1	27.7	21.0	16.4	11.3	7.21	6.25	4.25
(WY)	(1955)	(1955)	(1955)	(2008)	(1955)	(1955)	(1955)	(1957)	(1970)	(1993)	(1954)	(1954)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1949 - 2010 ^a	
Annual total	35,109.7		46,362.9			
Annual mean	96.2		127		115	
Highest annual mean					208	1972
Lowest annual mean					46.9	2008
Highest daily mean	1,220	Nov 12	2,620	Sep 30	10,100	Sep 16, 1999
Lowest daily mean	3.5	Jul 12	4.9	Sep 16	1.3	Aug 18, 2002
Annual seven-day minimum	6.1	Jul 6	6.8	Sep 20	2.0	Oct 4, 1954
Maximum peak flow			1,410	Feb 7	^b 15,000	Sep 16, 1999
Maximum peak stage			13.05	Feb 7	25.12	Sep 16, 1999
Instantaneous low flow			-0.76	Sep 23	-3.2	Jul 8, 2009
Annual runoff (cfsm)	1.02		1.35		1.22	
Annual runoff (inches)	13.89		18.35		16.57	
10 percent exceeds	219		299		243	
50 percent exceeds	48		38		54	
90 percent exceeds	15		9.3		13	

^a See Period of Record.

^b See Remarks.

