

Water-Data Report 2007

**02106500 BLACK RIVER NEAR TOMAHAWK, NC**

Cape Fear Basin  
Black Subbasin

LOCATION.--Lat 34°45'18", long 78°17'19" referenced to North American Datum of 1983, Sampson County, NC, Hydrologic Unit 03030006, on left bank 30 ft upstream from bridge on North Carolina Highway 411, 0.2 mi downstream of Clear Run Swamp, and 3.8 mi northeast of Tomahawk.

DRAINAGE AREA.--676 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1723: 1955(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 24.61 ft above NGVD of 1929. Nonrecording gage on downstream side of bridge October 1, 1951 to June 29, 1961. Water-stage recorder was at present site at datum of 24.26 ft June 30, 1961 to September 30, 1964. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for period of record, from floodmarks. Minimum discharge for period of record and current water year also occurred on September 14, 2007.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 22.0 ft, present datum; discharge, 14,500 ft<sup>3</sup>/s and floods in 1945 and 1948 reached a stage of 17.6 ft, present datum; discharge, 5,420 ft<sup>3</sup>/s, from information furnished by North Carolina State Highway Commission.

## 02106500 BLACK RIVER NEAR TOMAHAWK, NC—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	395	965	2,750	2,900	1,150	677	362	282	65	35	46	13
2	356	739	2,300	2,490	1,410	700	351	259	59	57	48	12
3	327	596	1,990	2,080	1,760	846	336	237	78	59	53	11
4	303	519	1,770	1,750	2,010	853	322	221	143	48	59	11
5	284	479	1,600	1,520	2,130	792	306	217	163	39	51	10
6	266	456	1,460	1,440	2,080	731	288	269	156	35	41	12
7	253	456	1,370	1,540	1,850	676	277	385	126	33	35	11
8	252	717	1,280	1,630	1,580	642	268	311	101	69	29	9.2
9	284	923	1,190	1,630	1,390	616	259	255	91	121	26	8.7
10	311	915	1,100	1,580	1,250	587	256	236	79	97	25	8.2
11	295	850	1,030	1,450	1,150	566	256	220	70	70	34	7.9
12	272	783	966	1,320	1,050	543	261	201	65	54	74	8.6
13	254	802	914	1,220	967	515	279	211	64	45	56	8.1
14	238	826	873	1,150	1,030	492	273	449	65	39	40	8.4
15	228	811	842	1,110	1,220	475	495	408	57	34	30	19
16	213	888	810	1,090	1,320	491	1,110	341	54	31	25	67
17	203	1,280	773	1,060	1,340	640	1,340	283	50	29	22	92
18	237	1,550	742	1,010	1,270	687	1,440	288	47	37	20	67
19	306	1,880	719	1,050	1,130	648	1,450	294	43	121	18	52
20	310	2,170	691	1,100	1,010	598	1,300	256	42	144	17	41
21	289	2,300	671	1,070	940	562	1,040	224	48	169	16	34
22	267	2,920	661	1,130	895	532	833	195	49	141	19	35
23	280	4,320	982	1,340	846	507	665	182	41	104	17	33
24	308	7,370	1,290	1,470	782	491	553	164	36	80	21	29
25	285	9,280	1,470	1,530	727	481	471	144	37	65	17	25
26	270	8,930	1,850	1,530	742	442	416	126	46	53	16	22
27	273	7,690	2,260	1,460	766	416	380	112	38	43	18	20
28	588	5,970	2,700	1,380	724	398	355	100	32	41	16	18
29	1,030	4,480	3,200	1,320	---	382	337	89	31	41	15	17
30	1,150	3,460	3,380	1,270	---	380	308	81	30	36	14	15
31	1,130	---	3,240	1,200	---	376	---	71	---	39	13	---
<b>Total</b>	11,457	75,325	46,874	44,820	34,519	17,742	16,587	7,111	2,006	2,009	931	725.1
<b>Mean</b>	370	2,511	1,512	1,446	1,233	572	553	229	66.9	64.8	30.0	24.2
<b>Max</b>	1,150	9,280	3,380	2,900	2,130	853	1,450	449	163	169	74	92
<b>Min</b>	203	456	661	1,010	724	376	256	71	30	29	13	7.9
<b>Cfsm</b>	0.55	3.71	2.24	2.14	1.82	0.85	0.82	0.34	0.10	0.10	0.04	0.04
<b>In.</b>	0.63	4.15	2.58	2.47	1.90	0.98	0.91	0.39	0.11	0.11	0.05	0.04

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2007, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	517	532	729	1,117	1,283	1,373	1,033	535	475	520	689	719
<b>Max</b>	4,421	2,511	2,164	2,903	4,212	3,410	3,070	1,687	3,089	3,949	2,810	5,812
<b>(WY)</b>	(2000)	(2007)	(1993)	(1993)	(1998)	(1983)	(1973)	(1978)	(1995)	(2003)	(1974)	(1999)
<b>Min</b>	29.6	57.1	238	287	448	423	225	117	66.9	64.8	25.2	13.4
<b>(WY)</b>	(1955)	(1974)	(1989)	(1986)	(1989)	(2006)	(1981)	(2001)	(2007)	(2007)	(1954)	(1954)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1952 - 2007	
<b>Annual total</b>	322,880		260,106.1			
<b>Annual mean</b>	885		713		791	
<b>Highest annual mean</b>					1,300	1960
<b>Lowest annual mean</b>					327	1986
<b>Highest daily mean</b>	9,280	Nov 25	9,280	Nov 25	27,300	Sep 18, 1999
<b>Lowest daily mean</b>	134	Jun 3	7.9	Sep 11	7.9	Sep 11, 2007
<b>Annual seven-day minimum</b>	162	May 31	8.4	Sep 8	8.4	Sep 8, 2007
<b>Maximum peak flow</b>			9,420	Nov 25	28,500	Sep 18, 1999
<b>Maximum peak stage</b>			20.15	Nov 25	<sup>a</sup> 27.14	Sep 18, 1999
<b>Instantaneous low flow</b>			<sup>a</sup> 7.7	Sep 11	<sup>a</sup> 7.7	Sep 11, 2007
<b>Annual runoff (cfsm)</b>	1.31		1.05		1.17	
<b>Annual runoff (inches)</b>	17.77		14.31		15.90	
<b>10 percent exceeds</b>	1,590		1,560		1,760	
<b>50 percent exceeds</b>	503		311		512	
<b>90 percent exceeds</b>	238		25		106	

<sup>a</sup> See Remarks.

