

02087500 NEUSE RIVER NEAR CLAYTON, NC

LOCATION.--Lat 35°38'51", long 78°24'21", Johnston County, Hydrologic Unit 03020201, on left bank at downstream side of bridge on State Highway 42, 2.3 mi upstream from Mill Creek, and 3 mi east of Clayton.

DRAINAGE AREA.--1,150 mi².

PERIOD OF RECORD.--July 1927 to current year.

REVISED RECORDS.--WSP 1032: 1930, 1935(M). WSP 1333: 1935. WSP 1503: 1949. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 128.41 ft above NGVD of 1929. Prior to Mar. 18, 1942, at site 1,100 ft upstream at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges which are fair. Flow regulated by Falls Lake (station 02087182), since Dec. 7, 1983. The City of Raleigh diverted an average of 76.8 ft³/s upstream from station, most of which was returned upstream from station as treated effluent. Prior to regulation, maximum discharge: 22,900 ft³/s, Sept. 19, 1945; gage height: 22.12 ft; minimum discharge: 44 ft³/s, Sept. 15, 1932; gage height: 0.28 ft, at site then in use. Minimum discharge for the current water year also occurred Oct. 8, 10.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1919, reached a stage of 21.15 ft, from floodmark at former site; discharge 21,200 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	1,900	485	2,930	1,080	2,660	3,640	4,420	4,720	705	1,070	1,190
2	229	2,180	479	2,680	1,030	2,850	4,250	4,250	4,590	1,230	2,440	649
3	227	2,300	449	2,180	941	2,440	4,280	3,750	4,500	2,290	888	525
4	224	2,270	411	2,090	1,250	3,110	4,240	2,510	4,160	1,380	616	486
5	218	2,250	1,580	1,930	1,520	3,330	4,300	1,740	3,100	1,680	950	733
6	204	3,030	2,310	1,850	2,030	4,190	4,430	1,230	1,860	1,680	1,110	585
7	198	2,160	1,380	1,760	3,520	3,240	4,640	1,100	1,730	2,550	822	485
8	194	1,600	1,010	826	3,400	1,630	3,230	1,030	3,850	3,130	1,810	463
9	192	1,450	796	579	2,770	1,290	3,460	999	2,750	3,150	4,130	673
10	195	1,380	851	549	2,820	2,260	5,650	936	2,990	3,100	1,790	517
11	1,450	1,360	2,290	523	2,880	2,870	6,140	866	3,310	982	1,720	454
12	7,560	1,830	2,890	500	2,830	3,640	3,200	845	3,250	509	1,410	427
13	3,470	3,370	3,020	491	2,750	4,120	2,170	821	1,860	462	1,090	419
14	1,650	2,450	4,910	485	2,670	4,340	2,720	803	1,160	701	1,490	411
15	1,020	2,210	3,480	477	1,300	4,220	3,340	663	1,200	835	1,770	412
16	1,100	2,040	2,910	469	889	4,150	3,890	737	1,570	542	1,450	396
17	1,020	2,350	2,950	491	984	3,570	4,810	611	1,870	937	2,910	408
18	686	2,980	3,410	484	1,010	3,880	5,850	544	1,960	664	3,150	501
19	514	2,850	3,530	461	2,410	4,360	6,250	894	2,230	1,020	2,880	1,700
20	425	2,660	3,770	459	2,470	5,720	6,310	1,110	2,550	1,030	2,500	911
21	897	2,530	4,070	457	2,570	7,590	6,280	1,180	2,230	783	2,370	653
22	1,440	2,450	3,720	450	2,010	2,440	6,300	1,840	1,520	575	2,350	540
23	1,580	1,960	3,550	447	4,130	1,480	6,210	1,950	1,290	513	2,210	1,070
24	1,750	1,730	3,580	434	2,230	1,150	5,940	1,240	1,170	486	1,060	1,180
25	939	1,690	3,840	442	2,970	2,320	5,440	1,280	855	449	808	1,890
26	542	1,130	3,380	460	3,000	3,190	5,590	1,980	700	474	578	2,080
27	418	970	e3,150	456	2,970	3,590	6,080	2,640	556	543	472	1,710
28	452	700	e3,150	423	5,480	3,800	5,520	3,310	496	530	446	1,650
29	1,210	498	e3,300	449	---	e3,850	5,270	3,750	569	536	423	1,620
30	1,720	491	e3,400	573	---	e4,120	4,960	4,280	511	1,190	402	1,580
31	1,960	---	e3,250	1,360	---	e2,950	---	4,550	---	881	416	---
TOTAL	33,917	58,769	81,301	28,165	65,914	104,350	144,390	57,859	65,107	35,537	47,531	26,318
MEAN	1,094	1,959	2,623	909	2,354	3,366	4,813	1,866	2,170	1,146	1,533	877
MAX	7,560	3,370	4,910	2,930	5,480	7,590	6,310	4,550	4,720	3,150	4,130	2,080
MIN	192	491	411	423	889	1,150	2,170	544	496	449	402	396

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003 *, BY WATER YEAR (WY)

MEAN	729	699	899	1,392	1,854	2,335	1,843	927	671	621	641	894
MAX	3,822	2,201	2,623	2,821	4,961	5,688	4,813	2,864	2,170	1,841	1,539	6,620
(WY)	(2000)	(1996)	(2003)	(1984)	(1998)	(1998)	(2003)	(1989)	(2003)	(1995)	(1989)	(1996)
MIN	212	215	237	375	452	422	290	292	267	234	204	136
(WY)	(1984)	(1992)	(1995)	(2001)	(2002)	(2002)	(1986)	(2002)	(1999)	(1983)	(1983)	(1985)

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003 *	
ANNUAL TOTAL	301,144		749,158		1,121	
ANNUAL MEAN	825		2,052		425	
HIGHEST ANNUAL MEAN					2,052	2003
LOWEST ANNUAL MEAN					425	2002
HIGHEST DAILY MEAN	7,560	Oct 12	7,590	Mar 21	19,700	Sep 17, 1999
LOWEST DAILY MEAN	192	Oct 9	192	Oct 9	105	Sep 16, 1985
ANNUAL SEVEN-DAY MINIMUM	204	Oct 4	204	Oct 4	117	Sep 12, 1985
MAXIMUM PEAK FLOW			8,720	Mar 21	20,500	Sep 17, 1999
MAXIMUM PEAK STAGE			12.57	Mar 21	20.67	Sep 17, 1999
INSTANTANEOUS LOW FLOW			176*	Oct 7	78	Sep 18, 1985
10 PERCENT EXCEEDS	2,300		4,230		3,240	
50 PERCENT EXCEEDS	379		1,700		466	
90 PERCENT EXCEEDS	233		460		255	

e Estimated.

* Regulated period only (1983-2003). See REMARKS.

