

Water-Data Report 2007

02087500 NEUSE RIVER NEAR CLAYTON, NC

Neuse Basin
Upper Neuse Subbasin

LOCATION.--Lat 35°38'50", long 78°24'19" referenced to North American Datum of 1983, Johnston County, NC, Hydrologic Unit 03020201, on left bank at downstream side of bridge on North Carolina Highway 42, 2.3 mi upstream from Mill Creek, and 3 mi east of Clayton.

DRAINAGE AREA.--1,150 mi².

SURFACE-WATER RECORDS

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 March 18, 1942, at site 1,100 ft upstream at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Falls Lake (station 02087182), since December 7, 1983. The City of Raleigh diverts water upstream from station at Falls Lake, most of which is returned upstream from station as treated effluent. Prior to regulation, maximum discharge: 22,900 ft³/s, September 19, 1945; gage height: 22.12 ft; minimum discharge: 44 ft³/s, September 15, 1932; gage height: 0.28 ft, at site then in use.

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.

02087500 NEUSE RIVER NEAR CLAYTON, 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	362	317	4,050	1,960	638	957	620	571	255	316	305	251
2	323	301	4,400	2,040	924	2,180	620	557	251	283	272	246
3	291	284	4,170	1,920	762	2,240	616	548	517	254	262	235
4	273	270	4,200	1,860	680	1,770	611	549	1,730	229	257	237
5	261	264	4,130	1,820	645	1,560	605	489	567	249	259	236
6	297	265	4,050	2,740	618	1,850	536	419	429	287	255	235
7	696	386	4,000	2,230	612	2,010	504	401	372	293	282	234
8	552	3,510	3,940	2,170	607	1,980	511	391	317	282	253	231
9	523	1,570	3,880	2,040	589	1,260	498	398	293	283	243	233
10	424	820	3,850	2,690	581	956	449	456	378	287	279	236
11	352	565	3,100	3,230	572	947	418	455	338	304	350	231
12	346	1,470	1,250	3,360	560	930	908	475	307	617	282	233
13	324	2,330	516	3,310	581	919	1,270	1,330	298	401	257	233
14	278	2,130	422	3,270	865	688	1,170	657	472	281	260	271
15	261	2,750	408	3,220	841	587	1,650	591	367	274	257	822
16	252	3,250	395	2,870	1,160	1,420	3,370	601	315	279	256	412
17	259	4,190	379	1,950	1,190	4,330	1,960	585	335	267	257	258
18	731	2,320	382	1,230	1,160	1,820	2,020	451	338	2,210	272	250
19	587	2,510	384	1,290	1,130	1,200	2,760	383	290	1,310	258	256
20	452	2,670	379	760	1,110	2,030	2,990	367	284	554	257	245
21	415	2,710	369	651	1,110	2,220	2,970	354	304	387	259	278
22	334	5,100	394	1,720	1,110	2,120	2,900	344	287	303	284	266
23	326	6,160	1,480	1,370	677	2,060	2,850	330	275	257	270	248
24	299	2,180	854	1,460	488	1,770	2,440	318	274	249	326	238
25	276	1,270	1,360	1,360	509	1,650	2,250	311	288	293	282	228
26	245	930	4,150	1,300	957	1,610	1,780	303	285	247	249	225
27	278	718	1,730	1,510	961	1,600	892	295	291	225	317	222
28	724	901	1,050	1,500	988	941	770	285	317	403	275	218
29	639	2,070	1,730	1,470	---	651	619	290	306	481	213	212
30	426	3,270	2,020	1,440	---	678	589	267	410	478	258	216
31	355	---	1,930	819	---	633	---	248	---	367	258	---
Total	12,161	57,481	65,352	60,560	22,625	47,567	42,146	14,019	11,490	12,950	8,364	7,936
Mean	392	1,916	2,108	1,954	808	1,534	1,405	452	383	418	270	265
Max	731	6,160	4,400	3,360	1,190	4,330	3,370	1,330	1,730	2,210	350	822
Min	245	264	369	651	488	587	418	248	251	225	213	212

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2007^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	681	727	968	1,334	1,698	2,147	1,705	852	690	621	637	847
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	399	312	290	292	267	234	204	136
(WY)	(1984)	(1992)	(1995)	(2001)	(2006)	(2006)	(1986)	(2002)	(1999)	(1983)	(1983)	(1985)

02087500 NEUSE RIVER NEAR CLAYTON, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1983 - 2007 ^a	
Annual total	316,362		362,651			
Annual mean	867		994		1,072	
Highest annual mean					2,052	2003
Lowest annual mean					425	2002
Highest daily mean	11,600	Jun 15	6,160	Nov 23	19,700	Sep 17, 1999
Lowest daily mean	231	Aug 15	212	Sep 29	105	Sep 16, 1985
Annual seven-day minimum	241	Aug 12	223	Sep 24	117	Sep 12, 1985
Maximum peak flow			7,550	Nov 23	20,500	Sep 17, 1999
Maximum peak stage			11.44	Nov 23	20.67	Sep 17, 1999
Instantaneous low flow			191	Aug 29	78	Sep 18, 1985
10 percent exceeds	2,520		2,570		3,040	
50 percent exceeds	384		511		466	
90 percent exceeds	265		254		256	

^a Regulated period only (1983-2007). See Remarks.

