

Water-Data Report 2008

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. Minimum discharge for the current water year also occurred December 7, 15.

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.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	243	315	191	1,270	305	322	1,310	992	280	565	219	804
2	247	288	181	724	598	293	780	947	313	357	221	496
3	224	268	188	508	429	274	536	1,080	293	282	213	358
4	200	245	190	399	346	262	577	1,080	263	243	203	303
5	215	237	181	351	307	850	1,680	1,050	252	275	200	292
6	264	230	177	326	290	995	1,620	1,020	237	596	209	3,190
7	258	222	172	304	275	795	962	998	241	1,260	217	5,330
8	251	215	180	281	250	2,450	991	991	267	827	221	1,970
9	249	212	186	268	234	1,270	966	1,090	249	560	219	1,320
10	224	213	187	261	227	801	899	921	232	839	219	1,570
11	197	213	187	254	209	574	870	639	226	572	246	1,940
12	198	208	178	248	205	451	844	1,100	222	415	230	1,610
13	207	214	178	240	375	372	1,050	812	233	325	231	2,230
14	227	208	177	232	795	320	1,090	659	245	292	214	2,210
15	227	217	174	224	548	320	1,140	596	368	993	219	2,140
16	230	331	816	215	422	923	1,040	625	381	439	321	2,200
17	228	219	614	221	351	677	997	757	324	304	284	2,860
18	210	189	345	430	463	477	859	628	271	243	260	2,390
19	347	181	271	353	497	395	791	854	212	301	250	2,220
20	333	178	238	464	361	380	703	683	223	252	230	2,130
21	254	188	217	371	303	336	736	805	259	282	289	2,080
22	226	233	199	311	297	293	712	671	764	266	240	2,060
23	219	191	199	311	368	273	789	591	661	381	214	2,030
24	295	182	244	308	321	253	671	535	482	361	205	2,010
25	1,280	179	212	273	292	245	627	507	400	285	200	1,430
26	690	192	325	248	289	235	596	482	338	238	200	1,820
27	3,480	251	893	245	693	249	588	470	252	213	533	2,690
28	2,150	204	461	236	529	249	3,550	449	300	206	1,740	2,490
29	754	199	340	234	380	248	3,050	456	261	202	1,100	2,260
30	484	184	721	239	---	242	1,360	367	528	227	608	2,500
31	374	---	3,260	252	---	446	---	290	---	227	918	---
Total	14,985	6,606	12,082	10,601	10,959	16,270	32,384	23,145	9,577	12,828	10,873	58,933
Mean	483	220	390	342	378	525	1,079	747	319	414	351	1,964
Max	3,480	331	3,260	1,270	795	2,450	3,550	1,100	764	1,260	1,740	5,330
Min	197	178	172	215	205	235	536	290	212	202	200	292

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2008^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	674	707	946	1,296	1,646	2,084	1,681	848	675	613	626	890
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	342	378	312	290	292	267	234	204	136
(WY)	(1984)	(1992)	(1995)	(2008)	(2008)	(2006)	(1986)	(2002)	(1999)	(1983)	(1983)	(1985)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1983 - 2008 ^a	
Annual total	261,330		219,243			
Annual mean	716		599		1,054	
Highest annual mean					2,052	2003
Lowest annual mean					425	2002
Highest daily mean	4,330	Mar 17	5,330	Sep 7	19,700	Sep 17, 1999
Lowest daily mean	172	Dec 7	172	Dec 7	105	Sep 16, 1985
Annual seven-day minimum	181	Dec 6	181	Dec 6	117	Sep 12, 1985
Maximum peak flow			6,380	Sep 7	20,500	Sep 17, 1999
Maximum peak stage			10.16	Sep 7	20.67	Sep 17, 1999
Instantaneous low flow			^b 166	Nov 25	78	Sep 18, 1985
10 percent exceeds	1,950		1,290		2,980	
50 percent exceeds	335		312		460	
90 percent exceeds	212		205		252	

^aRegulated period only (1983-2008). See Remarks.^bSee Remarks.