

## 02087183 NEUSE RIVER NEAR FALLS, NC

LOCATION.--Lat 35°56'24", long 78°34'51", Wake County, Hydrologic Unit 03020201, on right bank 300 ft downstream of Falls Lake Dam, and 0.3 mi northwest of Falls.

DRAINAGE AREA.--771 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1970 to current year.

REVISED RECORDS.--WDR NC-91-1: Drainage area. WRD NC 96-1: 1991-95 (M).

GAGE.--Water-stage recorder. Datum of gage is 194.69 ft above NGVD of 1929. Prior to Oct. 1, 1990, water-stage recorder at site 0.4 mi downstream at 182.62 ft. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Falls Lake (station 02087182). June 5, 1980, to May 6, 1981, flows affected by incidental storage in Falls Lake, under construction; May 6, 1981, to Jan. 13, 1983, gates closed and Falls Lake partially filled to provide storage for City of Raleigh water supply; Jan. 13, 1983, gates closed and normal pool elevation, 250.1 ft, reached Dec. 7, 1983. The City of Raleigh diverted an average of 85.2 ft<sup>3</sup>/s, 1.2 mi upstream from station for municipal water supply, most of which was returned downstream as treated effluent. Prior to regulation, maximum discharge: 13,600 ft<sup>3</sup>/s, July 17, 1975; gage height: 25.21 ft; minimum discharge: 4.6 ft<sup>3</sup>/s, Sept. 24, 1980; gage height: 2.13 ft, at site then in use. Maximum gage-height and discharge for period of record may have been higher during period of estimated record, Aug. 27-Sept. 30, 1996. Minimum discharge for period of record not determined due to intermittent gate closure at dam. Minimum discharge for current water year not determined due to regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1945 reached an elevation of 216.1 ft; discharge, 23,300 ft<sup>3</sup>/s at bridge 0.4 mi upstream, from information provided by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	769	176	173	390	247	382	193	295	138	110	114	1,080
2	435	176	173	333	247	383	335	250	138	111	114	1,300
3	284	177	173	293	247	384	478	226	138	110	115	1,480
4	183	178	173	293	248	383	979	226	138	111	115	1,490
5	184	179	173	294	249	384	343	226	138	110	114	1,500
6	184	179	173	295	250	384	225	226	138	111	114	1,520
7	184	179	173	293	251	385	226	226	138	111	115	1,520
8	186	179	173	292	251	384	226	227	122	125	e112	1,100
9	186	179	173	292	796	382	226	227	112	167	e109	706
10	186	179	173	294	1,910	384	227	227	112	167	107	1,020
11	186	179	175	292	2,680	314	227	227	112	167	107	1,550
12	186	179	791	292	2,680	243	227	228	112	137	108	1,550
13	186	179	1,310	293	2,090	244	228	193	112	111	108	1,260
14	187	177	1,320	266	1,440	243	228	107	113	111	110	663
15	187	177	1,320	247	1,440	244	552	107	113	111	110	203
16	187	177	2,060	247	1,430	246	808	107	113	112	110	157
17	188	177	2,910	247	1,430	246	841	107	113	112	857	154
18	672	177	2,880	247	1,430	246	840	107	112	112	1,350	155
19	358	177	2,870	248	1,280	246	838	107	112	112	1,370	155
20	173	176	2,860	247	834	246	837	107	112	112	1,390	432
21	173	176	2,840	247	709	247	837	107	112	112	1,380	691
22	174	176	2,590	247	706	246	694	107	125	112	1,380	688
23	174	176	1,360	247	704	245	383	107	151	112	1,370	685
24	175	176	392	247	545	244	381	107	171	112	784	685
25	176	174	391	247	383	245	381	107	170	112	313	684
26	176	174	391	247	383	245	382	107	170	112	188	684
27	176	174	390	247	383	246	381	116	171	112	166	390
28	176	175	390	247	382	246	379	138	170	112	166	181
29	176	174	390	247	381	222	344	138	134	112	167	181
30	176	173	392	247	---	193	294	138	110	113	168	181
31	176	---	390	248	---	193	---	138	---	114	341	---
TOTAL	7,219	5,304	30,142	8,413	26,006	8,925	13,540	5,063	3,920	3,665	13,172	24,045
MEAN	233	177	972	271	897	288	451	163	131	118	425	802
MAX	769	179	2,910	390	2,680	385	979	295	171	167	1,390	1,550
MIN	173	173	173	247	247	193	193	107	110	110	107	154
†	-109	38	61	-20	30	42	-75	32	-146	-20	461	-341

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, \*BY WATER YEAR (WY)

MEAN	411	379	561	776	1,201	1,544	1,232	534	330	314	311	435
MAX	3,217	1,535	1,883	2,014	3,462	3,992	3,687	1,821	1,427	1,501	1,099	3,953
(WY)	(2000)	(1996)	(2003)	(1984)	(1998)	(1989)	(2003)	(1989)	(2003)	(1995)	(1989)	(1996)
MIN	72.6	65.2	63.3	66.3	67.0	68.4	118	110	126	61.7	61.0	67.8
(WY)	(1984)	(1984)	(1992)	(2002)	(2002)	(2002)	(1995)	(1995)	(1987)	(1983)	(1983)	(1985)

02087183 NEUSE RIVER NEAR FALLS, NC—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004*	
ANNUAL TOTAL	413,943		149,414		666 (UNADJUSTED)	
ANNUAL MEAN	1,134		408		1,312 2003	
HIGHEST ANNUAL MEAN					123 2002	
LOWEST ANNUAL MEAN					7,420 Sep 16, 1996	
HIGHEST DAILY MEAN	5,870	Apr 18	2,910	Dec 17	123 2002	
LOWEST DAILY MEAN	164	Jul 1	107	May 14	55 Jan 10, 1995	
ANNUAL SEVEN-DAY MINIMUM	173	Nov 30	107	May 14	56 Jan 10, 1995	
MAXIMUM PEAK FLOW			3,080	Dec 17	7650* Sep 16, 1996	
MAXIMUM PEAK STAGE			3.59	Dec 17	8.05* Sep 16, 1996	
INSTANTANEOUS LOW FLOW			105*	May 18	NOT DETERMINED	
10 PERCENT EXCEEDS	3,340		1,150		2,220	
50 PERCENT EXCEEDS	433		226		180	
90 PERCENT EXCEEDS	176		112		89	

† Change in contents, equivalent in cubic feet per second, in Falls Reservoir, provided by U.S. Army Corps of Engineers.

\* Regulated period only (1983-2004). See REMARKS.

‡ Adjusted for change in contents.

e Estimated.

