

## 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 from 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 89.1 ft<sup>3</sup>/s, 1.2 mi upstream from station for municipal water supply, of which an average of 71.2 ft<sup>3</sup>/s 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.

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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	131	1,330	214	609	739	729	175	125	156	112	192
2	181	132	1,320	214	607	1,910	512	174	125	225	111	190
3	182	132	1,090	215	832	2,400	1,720	173	125	239	110	190
4	182	132	616	216	1,120	1,940	2,520	170	125	239	126	190
5	183	133	615	216	1,110	1,300	2,770	153	125	182	137	190
6	182	132	616	217	1,110	1,290	2,370	e124	125	154	132	189
7	144	132	380	217	1,110	1,120	1,450	127	125	175	163	189
8	120	132	206	217	751	858	807	125	125	176	192	190
9	121	132	207	217	450	925	1,050	123	125	176	178	191
10	122	132	209	217	274	1,020	1,290	123	125	176	154	191
11	122	132	211	217	164	1,020	1,290	124	126	176	154	191
12	122	133	212	217	164	1,020	971	124	126	141	155	191
13	122	133	415	218	164	1,020	430	125	127	110	155	191
14	123	133	1,480	219	164	739	314	125	127	111	155	191
15	124	133	2,130	682	423	353	315	125	127	111	131	189
16	125	133	2,130	1,780	612	353	316	125	126	131	115	189
17	124	132	1,840	1,780	614	356	317	125	167	171	115	185
18	125	132	1,320	2,060	407	1,080	318	125	197	189	117	184
19	125	704	1,320	2,450	257	1,920	319	125	196	189	122	184
20	126	1,670	1,320	2,450	256	1,920	272	125	170	139	145	185
21	127	1,660	1,310	2,110	258	1,490	250	126	158	112	156	158
22	127	803	715	1,770	218	773	253	125	185	110	171	129
23	127	183	211	1,780	190	1,010	255	125	201	110	172	129
24	128	184	212	1,480	190	2,100	256	126	209	108	172	171
25	129	185	212	1,120	190	1,480	228	126	226	109	171	193
26	130	183	213	580	190	973	204	125	226	143	181	193
27	130	183	213	166	190	970	186	125	214	162	205	173
28	130	184	212	167	192	558	175	125	171	161	219	150
29	130	549	213	166	---	1,680	176	125	119	136	219	149
30	130	1,330	213	167	---	2,730	176	125	119	112	220	149
31	131	---	213	426	---	2,060	---	125	---	113	203	---
TOTAL	4,255	10,199	22,904	24,165	12,816	39,107	22,239	4,093	4,567	4,742	4,868	5,376
MEAN	137	340	739	780	458	1,262	741	132	152	153	157	179
MAX	183	1,670	2,130	2,450	1,120	2,730	2,770	175	226	239	220	193
MIN	120	131	206	166	164	353	175	123	119	108	110	129
†	-12	187	-126	12	84	64	-251	-63	-87	-198	-221	-332

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005,\* BY WATER YEAR (WY)

MEAN	399	377	569	776	1,169	1,531	1,210	516	323	307	305	424
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)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005*	
ANNUAL TOTAL	144,107		159,331		656 (UNADJUSTED)	
ANNUAL MEAN	394		437		1,312	2003
HIGHEST ANNUAL MEAN					123	2002
LOWEST ANNUAL MEAN					7,420	Sep 16, 1996
HIGHEST DAILY MEAN	2,680	Feb 11	2,770	Apr 5	55	Jan 10, 1995
LOWEST DAILY MEAN	107	May 14	108	Jul 24	56	Jan 10, 1995
ANNUAL SEVEN-DAY MINIMUM	107	May 14	117	Jul 29	7,650*	Sep 16, 1996
MAXIMUM PEAK FLOW			2,970	Apr 5	8.05*	Sep 16, 1996
MAXIMUM PEAK STAGE			3.54	Apr 5	NOT DETERMINED	
INSTANTANEOUS LOW FLOW			105	Jul 26		
10 PERCENT EXCEEDS	1,290		1,320		2,130	
50 PERCENT EXCEEDS	226		185		181	
90 PERCENT EXCEEDS	112		125		98	

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

\* Regulated period only (1983-2005). See REMARKS.

‡ Adjusted for change in contents.

e Estimated.

