

Water-Data Report 2010

02068500 DAN RIVER NEAR FRANCISCO, NC

Roanoke Basin
Upper Dan Subbasin

LOCATION.--Lat 36°30'54", long 80°18'11" referenced to North American Datum of 1983, Stokes County, NC, Hydrologic Unit 03010103, on left bank 200 ft upstream from bridge on North Carolina Highway 704, 700 ft downstream of remains of Georges Mill, 0.2 mi downstream of Elk Creek, 3 mi east of Francisco, and 7.9 mi downstream of Little Dan River.

DRAINAGE AREA.--129 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1924 to September 1987, December 1991 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1303: 1938-50 (monthly runoff). WSP 1433: 1925-26, 1928-29, 1931, 1942, 1948. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 831.99 ft above NGVD of 1929. Prior to Nov. 15, 1929, nonrecording gage at same site and datum. Satellite telemetry at streamgage.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since 1938, considerable diurnal fluctuation and regulation by Talbott and Townes Reservoirs and Pinnacles Hydroelectric Plant in Virginia, 28 mi upstream. Minimum discharge for current water year occurred September 21, 22.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 15 ft, from information by local residents, discharge, 16,000 ft³/s.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	86	274	104	245	173	225	306	191	165	87	141	109
2	83	147	175	233	213	157	285	188	165	79	96	104
3	86	117	313	223	270	158	291	252	165	85	96	108
4	83	104	201	197	181	149	290	222	127	114	86	104
5	84	95	198	152	321	179	269	190	135	80	93	113
6	79	92	240	152	e962	175	262	183	118	78	140	79
7	87	83	215	154	e332	191	252	177	112	102	96	78
8	84	83	135	135	e271	196	281	176	109	100	118	76
9	79	84	624	130	e245	199	386	170	108	132	79	80
10	81	99	314	152	e282	199	291	166	113	128	83	73
11	80	406	313	148	e245	199	272	141	106	117	83	75
12	76	836	319	138	e235	215	263	146	107	92	98	81
13	84	442	399	183	e231	872	257	147	125	116	81	76
14	87	298	370	236	e217	612	249	141	116	97	236	73
15	100	250	188	214	e213	448	245	178	121	90	193	67
16	88	163	165	199	e222	370	237	153	125	87	138	67
17	86	133	153	373	e205	330	183	378	119	139	111	70
18	83	127	185	274	160	292	163	254	110	150	179	71
19	83	131	371	232	236	286	159	187	108	103	187	71
20	84	119	348	147	234	281	202	170	117	91	227	71
21	75	116	328	155	240	276	235	158	109	106	151	67
22	68	108	229	182	239	392	207	165	117	91	152	81
23	77	126	190	255	179	356	201	177	108	117	119	103
24	83	117	189	531	189	297	224	162	117	124	108	74
25	71	113	766	3,870	183	258	268	168	113	114	115	71
26	72	157	540	830	242	297	217	165	110	82	106	92
27	90	158	318	498	248	301	200	155	125	91	108	215
28	160	165	267	300	244	340	198	163	123	102	116	235
29	99	165	296	239	---	675	191	260	132	88	136	115
30	89	142	262	191	---	442	190	173	88	80	104	221
31	89	---	250	163	---	390	---	166	---	106	116	---
Total	2,656	5,450	8,965	11,131	7,212	9,757	7,274	5,722	3,613	3,168	3,892	2,920
Mean	85.7	182	289	359	258	315	242	185	120	102	126	97.3
Max	160	836	766	3,870	962	872	386	378	165	150	236	235
Min	68	83	104	130	160	149	159	141	88	78	79	67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2010^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	147	156	180	203	216	254	261	213	200	166	163	149
Max	543	327	479	424	463	571	677	405	719	425	514	630
(WY)	(1938)	(1980)	(1997)	(1978)	(1960)	(1993)	(1980)	(1949)	(2003)	(2003)	(1940)	(1979)
Min	49.7	61.3	77.5	76.2	94.9	94.2	118	95.3	77.9	54.8	52.5	50.4
(WY)	(1964)	(1954)	(1998)	(1956)	(1956)	(1981)	(2006)	(2000)	(2002)	(1986)	(1981)	(1968)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1938 - 2010 ^a	
Annual total	63,768		71,760			
Annual mean	175		197		192	
Highest annual mean					314 2003	
Lowest annual mean					93.6 2002	
Highest daily mean	1,510	Jan 7	3,870	Jan 25	6,830	Sep 22, 1979
Lowest daily mean	68	Oct 22	67	Sep 15	21	Sep 4, 1999
Annual seven-day minimum	76	Oct 20	69	Sep 15	28	Aug 24, 1981
Maximum peak flow			11,200	Jan 25	21,200	Aug 17, 1985
Maximum peak stage			12.35	Jan 25	19.50	Aug 17, 1985
Instantaneous low flow			^b 63	Sep 20	7.1	Sep 8, 1932
10 percent exceeds	313		313		316	
50 percent exceeds	130		158		154	
90 percent exceeds	83		83		79	

^a Regulated period only (1982-2010). See Period of Record.

^b See Remarks.

