

03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC

LOCATION.--Lat 36°14'21", long 81°49'20", Watauga County, Hydrologic Unit 06010103, on right bank 250 ft upstream from bridge on Secondary Road 1121, 300 ft downstream of Cove Creek, 2.3 mi southwest of Sugar Grove, and at mile 64.4.

DRAINAGE AREA.--92.1 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,607.84 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge for period of record from rating curve extended above 7,300 ft³/s on basis of slope-area measurement of peak flow, from profile based on floodmarks. Minimum discharge for period of record, result of freezeup. Minimum discharge for current water year also occurred Sept. 25.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 22.1 ft, from floodmarks on barn 0.25 mi upstream from station, as witnessed by local resident; discharge, 28,000 ft³/s, from rating curve extended above 4,900 ft³/s, on basis of slope-area measurement.

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	327	222	281	167	152	188	325	288	108	103	96	159
2	293	207	250	159	146	e174	817	247	307	115	86	126
3	269	199	236	153	187	e166	638	221	207	99	108	107
4	246	270	224	149	192	163	514	202	173	220	113	94
5	229	253	212	145	179	210	412	190	151	125	97	87
6	214	218	216	143	172	235	339	182	137	114	86	81
7	204	207	222	136	166	221	317	171	129	606	82	76
8	194	196	204	142	167	282	382	160	145	382	105	72
9	189	184	280	132	171	252	344	152	181	203	218	67
10	183	177	332	127	186	231	294	146	470	160	153	64
11	175	171	339	124	165	222	268	144	260	146	108	62
12	170	277	316	122	157	214	254	138	270	192	93	60
13	293	262	286	190	166	204	271	132	610	168	84	56
14	214	222	255	1,710	225	227	321	176	363	153	82	55
15	192	208	233	543	210	209	259	203	268	146	76	52
16	179	201	219	373	204	212	233	163	216	235	72	51
17	167	195	211	295	190	220	218	141	187	164	73	55
18	162	189	203	258	171	204	207	134	166	192	180	51
19	180	183	197	224	161	203	198	129	171	350	160	48
20	178	178	e186	212	159	194	188	176	173	421	135	46
21	166	170	e178	204	183	185	185	142	148	231	96	45
22	160	165	161	193	177	180	218	130	134	190	83	44
23	157	197	766	192	161	414	223	143	127	160	78	44
24	166	471	476	e181	178	343	206	130	116	137	76	42
25	157	552	332	e169	176	288	195	123	110	124	70	47
26	151	380	275	167	164	258	190	118	106	116	66	57
27	160	317	234	156	160	241	193	113	106	106	65	65
28	264	303	210	140	193	961	180	110	109	107	64	48
29	270	262	199	148	---	717	340	107	102	118	61	47
30	296	245	190	168	---	498	342	103	97	107	428	47
31	247	---	178	155	---	386	---	100	---	104	324	---
TOTAL	6,452	7,281	8,101	7,377	4,918	8,702	9,071	4,814	5,847	5,794	3,618	1,955
MEAN	208	243	261	238	176	281	302	155	195	187	117	65.2
MAX	327	552	766	1,710	225	961	817	288	610	606	428	159
MIN	151	165	161	122	146	163	180	100	97	99	61	42
CFSM	2.26	2.64	2.84	2.58	1.91	3.05	3.28	1.69	2.12	2.03	1.27	0.71
IN.	2.61	2.94	3.27	2.98	1.99	3.51	3.66	1.94	2.36	2.34	1.46	0.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

	111	155	173	210	262	303	259	179	147	113	119	121
MEAN	111	155	173	210	262	303	259	179	147	113	119	121
MAX	380	662	434	817	643	858	689	411	583	461	1,169	1,049
(WY)	(1965)	(1978)	(1951)	(1995)	(1998)	(1979)	(1987)	(1973)	(1992)	(1989)	(1940)	(2004)
MIN	19.2	34.6	45.6	55.5	67.5	77.0	82.1	67.5	41.4	35.0	23.9	18.1
(WY)	(1955)	(1982)	(1964)	(1956)	(1941)	(1988)	(1986)	(1941)	(1988)	(1944)	(2002)	(1954)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	92,233		73,930		177	
ANNUAL MEAN	252		203		84.7	
HIGHEST ANNUAL MEAN					297	1979
LOWEST ANNUAL MEAN					84.7	1988
HIGHEST DAILY MEAN	8,970	Sep 8	1,710	Jan 14	15,900	Aug 13, 1940
LOWEST DAILY MEAN	41	Aug 31	42	Sep 24	8.1	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	47	Aug 26	45	Sep 19	11	Sep 7, 2002
MAXIMUM PEAK FLOW			4,000	Jan 14	50,800*	Aug 13, 1940
MAXIMUM PEAK STAGE			8.89	Jan 14	29.60	Aug 13, 1940
INSTANTANEOUS LOW FLOW			41*	Sep 24	6.5*	Jan 1, 1954
ANNUAL RUNOFF (CFSM)	2.74		2.20		1.92	
ANNUAL RUNOFF (INCHES)	37.25		29.86		26.15	
10 PERCENT EXCEEDS	312		324		324	
50 PERCENT EXCEEDS	174		180		117	
90 PERCENT EXCEEDS	75		82		39	

* See REMARKS.

e Estimated.

