

## TENNESSEE RIVER BASIN

03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC

LOCATION.--Lat 36°14'18", long 81°49'22", 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 mi<sup>2</sup>.

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 sea level. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at low flow caused by small mills above station. Maximum discharge for period of record from rating curve extended above 4,900 ft<sup>3</sup>/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, result of freezeup.

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 ft<sup>3</sup>/s, from rating curve extended above 4,900 ft<sup>3</sup>/s, on basis of slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	25	41	e38	65	96	421	67	67	321	236	86
2	30	25	40	e38	61	90	331	72	75	210	204	76
3	30	25	40	e37	58	86	294	65	61	253	174	168
4	37	26	39	e36	56	111	256	63	61	274	176	175
5	34	27	38	e36	56	142	223	65	59	244	163	102
6	29	26	e38	e35	54	128	201	60	59	192	136	84
7	28	26	37	e35	52	119	182	57	55	147	119	77
8	27	27	37	e34	51	114	162	55	57	237	114	71
9	26	102	35	e34	51	119	147	59	51	376	115	68
10	27	247	35	e33	55	108	135	54	47	211	107	76
11	27	70	35	e33	51	100	125	53	45	203	187	72
12	27	50	36	e32	50	99	117	51	43	137	295	63
13	27	44	34	e32	52	129	121	50	45	114	452	59
14	26	41	46	e31	78	109	110	47	83	102	314	58
15	26	38	47	e31	125	144	104	45	57	93	198	55
16	27	37	49	e30	116	156	99	45	48	86	156	53
17	26	40	178	e30	159	137	101	65	44	81	135	51
18	26	37	93	e50	126	122	99	51	40	76	122	51
19	26	36	72	274	106	109	96	69	38	83	110	49
20	26	36	e64	306	94	134	91	123	41	140	100	68
21	27	35	e60	165	90	469	87	69	63	94	92	63
22	26	e35	e56	123	89	407	84	70	300	81	86	53
23	27	e34	e54	101	92	359	81	67	235	73	83	49
24	27	34	e52	90	89	289	81	61	104	67	125	63
25	30	63	e50	80	121	250	79	136	102	95	88	70
26	33	97	e48	81	136	200	74	141	373	202	79	53
27	29	62	e44	70	114	165	71	86	309	538	77	49
28	28	52	e42	64	104	144	69	74	184	437	76	47
29	27	47	e40	61	---	385	66	74	181	595	71	45
30	26	44	e40	81	---	909	65	63	198	518	69	44
31	25	---	e39	74	---	529	---	59	---	298	70	---
TOTAL	869	1488	1559	2195	2351	6458	4172	2116	3125	6578	4529	2098
MEAN	28.0	49.6	50.3	70.8	84.0	208	139	68.3	104	212	146	69.9
MAX	37	247	178	306	159	909	421	141	373	595	452	175
MIN	25	25	34	30	50	86	65	45	38	67	69	44
CFSM	.30	.54	.55	.77	.91	2.26	1.51	.74	1.13	2.30	1.59	.76
IN.	.35	.60	.63	.89	.95	2.61	1.69	.85	1.26	2.66	1.83	.85

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2001, BY WATER YEAR (WY)

	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
MEAN	111	151	171	212	265	307	258	182	145	111	120	108				
MAX	380	662	434	817	643	858	689	411	583	461	1169	691				
(WY)	1965	1978	1951	1995	1998	1979	1987	1973	1992	1989	1940	1979				
MIN	19.2	34.6	45.6	55.5	67.5	77.0	82.1	67.5	41.4	35.0	25.6	18.1				
(WY)	1955	1982	1964	1956	1941	1988	1986	1941	1988	1944	1956	1954				

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1940 - 2001	
ANNUAL TOTAL	41422		37538			
ANNUAL MEAN	113		103		176	
HIGHEST ANNUAL MEAN					297	
LOWEST ANNUAL MEAN					84.7	
HIGHEST DAILY MEAN	1150	Mar 20	909	Mar 30	15900	Aug 13 1940
LOWEST DAILY MEAN	25	Oct 31	25	Oct 31	13	Sep 19 1954
ANNUAL SEVEN-DAY MINIMUM	26	Oct 29	26	Oct 29	15	Sep 13 1954
MAXIMUM PEAK FLOW			1790		50800*	
MAXIMUM PEAK STAGE			5.86		29.60	
INSTANTANEOUS LOW FLOW			12*		6.5*	
ANNUAL RUNOFF (CFSM)	1.23		1.12		1.91	
ANNUAL RUNOFF (INCHES)	16.73		15.16		26.00	
10 PERCENT EXCEEDS	242		210		325	
50 PERCENT EXCEEDS	70		69		115	
90 PERCENT EXCEEDS	32		30		39	

e Estimated.

\* See REMARKS.

03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC--Continued

