

Water-Data Report 2007

03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC

Upper Tennessee Basin
Upper Little Tennessee Subbasin

LOCATION.--Lat 35°07'39", long 83°37'07" referenced to North American Datum of 1983, Macon County, NC, Hydrologic Unit 06010202, on right bank on Forest Service Road 437 in Nantahala National Forest, 300 ft upstream from Roaring Fork, 0.2 mi downstream of Buck Creek, 4 mi northwest of town of Rainbow Springs, and at river mile 34.3.

DRAINAGE AREA.--51.9 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 973: 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 3,072.97 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Occasional slight diurnal fluctuation at low flow caused by small ponds on tributaries upstream from station. Maximum discharge for period of record from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record also occurred October 29, November 1, 2, 1998. Minimum discharge for current water year also occurred September 30.

03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	74	118	427	663	188	226	200	128	108	67	89	69
2	67	125	289	367	184	422	205	125	104	86	75	50
3	65	108	243	302	167	250	165	124	86	70	69	47
4	63	104	218	269	159	214	206	123	85	65	67	46
5	61	100	201	350	164	195	172	165	78	63	69	43
6	68	96	190	342	173	182	163	145	75	60	71	42
7	58	154	180	425	152	173	156	126	72	121	67	41
8	57	167	168	591	147	165	150	122	73	93	60	42
9	57	126	161	440	142	157	146	119	71	100	57	40
10	55	117	155	373	137	152	143	119	67	120	55	39
11	59	122	150	332	133	147	142	145	69	238	54	41
12	58	115	145	307	133	142	148	162	73	148	52	44
13	52	108	159	283	151	139	134	136	79	105	52	40
14	51	104	142	264	178	136	139	122	129	95	49	213
15	51	351	136	256	140	136	298	118	104	90	48	107
16	54	621	130	254	132	393	192	117	77	92	47	58
17	507	352	126	227	133	222	176	114	71	86	46	51
18	235	280	123	234	128	195	169	107	95	84	45	48
19	159	241	120	222	129	183	162	105	132	78	44	45
20	209	215	117	208	126	175	155	102	147	82	43	43
21	146	196	116	297	161	168	150	99	84	73	43	44
22	135	186	274	343	134	162	145	97	74	70	42	44
23	119	174	185	268	125	156	141	95	70	88	45	45
24	110	164	154	248	122	151	140	94	67	88	85	41
25	104	155	192	230	181	146	137	92	78	76	65	40
26	98	148	209	217	148	143	164	90	80	73	139	40
27	172	143	179	209	136	140	173	90	68	67	70	39
28	209	141	167	202	132	137	141	86	68	82	53	38
29	148	137	158	190	---	151	136	83	141	71	52	37
30	134	288	156	184	---	140	132	81	76	67	56	36
31	124	---	328	177	---	133	---	79	---	94	66	---
Total	3,559	5,456	5,698	9,274	4,135	5,631	4,880	3,510	2,601	2,792	1,875	1,553
Mean	115	182	184	299	148	182	163	113	86.7	90.1	60.5	51.8
Max	507	621	427	663	188	422	298	165	147	238	139	213
Min	51	96	116	177	122	133	132	79	67	60	42	36
Cfsm	2.21	3.50	3.54	5.76	2.85	3.50	3.13	2.18	1.67	1.74	1.17	1.00
In.	2.55	3.91	4.08	6.65	2.96	4.04	3.50	2.52	1.86	2.00	1.34	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	117	157	224	278	316	314	274	214	173	142	122	115
Max	415	376	474	568	657	572	493	491	485	378	327	594
(WY)	(1965)	(1978)	(1993)	(1974)	(1957)	(1979)	(1979)	(1976)	(1989)	(2005)	(1994)	(2004)
Min	35.6	56.6	77.2	84.4	115	138	118	96.8	67.1	59.0	49.5	41.8
(WY)	(2001)	(1955)	(1959)	(1981)	(1941)	(1988)	(1986)	(1986)	(1986)	(1986)	(1986)	(1986)

03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1941 - 2007	
Annual total	55,436		50,964			
Annual mean	152		140		203	
Highest annual mean					286	2005
Lowest annual mean					109	1986
Highest daily mean	741	Jan 18	663	Jan 1	3,620	Sep 17, 2004
Lowest daily mean	45	Aug 27	36	Sep 30	29	Nov 1, 1998
Annual seven-day minimum	49	Aug 24	39	Sep 24	30	Oct 26, 1998
Maximum peak flow			1,490	Jan 1	^a 6,300	Jun 16, 1949
Maximum peak stage			3.89 Jan 1		9.70	Jun 16, 1949
Instantaneous low flow			^a 36	Sep 29	^a 29	Oct 28, 1998
Annual runoff (cfsm)	2.93		2.69		3.92	
Annual runoff (inches)	39.73		36.53		53.21	
10 percent exceeds	268		239		369	
50 percent exceeds	133		129		163	
90 percent exceeds	61		51		68	

^a See Remarks.

