

Water-Data Report 2008

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.--Records good except those for estimated daily discharges, which are fair. 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.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	36	54	81	184	331	185	189	141	160	67	60	79
2	36	52	79	163	232	170	186	137	143	63	47	74
3	37	51	118	e152	207	164	177	138	136	62	45	69
4	39	50	87	e143	221	684	197	133	126	61	42	66
5	43	50	82	136	195	534	272	129	118	60	40	63
6	43	59	78	130	264	381	261	126	114	90	38	61
7	40	51	75	124	239	463	218	122	110	65	40	60
8	39	49	75	119	212	496	202	122	107	60	40	57
9	38	49	80	126	196	396	190	155	103	107	36	106
10	38	49	76	138	181	355	182	139	99	78	37	66
11	36	48	73	412	171	323	183	221	96	68	35	78
12	34	48	72	199	165	297	232	164	93	59	33	67
13	34	49	83	172	185	272	184	146	91	66	38	63
14	34	56	81	156	157	271	176	140	94	63	39	59
15	34	175	87	145	149	371	169	151	94	56	35	61
16	34	73	167	137	145	337	164	209	92	54	33	58
17	34	64	108	184	215	288	159	158	87	53	34	58
18	38	61	97	152	273	269	155	161	82	50	33	56
19	87	58	93	142	190	430	194	177	80	49	33	53
20	47	57	92	133	176	397	162	233	78	49	30	52
21	39	57	134	e129	185	341	154	267	77	47	28	51
22	38	204	106	169	238	314	150	200	77	54	27	50
23	207	103	216	170	193	290	146	205	74	56	27	49
24	287	85	161	146	178	269	142	228	70	47	27	47
25	99	80	141	e135	172	251	140	186	68	45	94	46
26	75	145	132	133	252	236	138	170	66	49	917	47
27	66	130	122	127	202	223	137	162	79	48	373	48
28	61	103	180	123	183	213	236	159	73	44	173	48
29	58	94	171	124	177	220	157	153	98	120	123	46
30	56	87	240	232	---	199	146	143	74	53	99	45
31	54	---	222	148	---	189	---	139	---	54	88	---
Total	1,841	2,291	3,609	4,883	5,884	9,828	5,398	5,114	2,859	1,897	2,744	1,783
Mean	59.4	76.4	116	158	203	317	180	165	95.3	61.2	88.5	59.4
Max	287	204	240	412	331	684	272	267	160	120	917	106
Min	34	48	72	119	145	164	137	122	66	44	27	45
Cfs/m	1.14	1.47	2.24	3.03	3.91	6.11	3.47	3.18	1.84	1.18	1.71	1.15
In.	1.32	1.64	2.59	3.50	4.22	7.04	3.87	3.67	2.05	1.36	1.97	1.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	116	156	222	276	314	314	273	213	172	141	121	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)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1941 - 2008	
Annual total	43,992		48,131			
Annual mean	121		132		202	
Highest annual mean					286	2005
Lowest annual mean					109	1986
Highest daily mean	663	Jan 1	917	Aug 26	3,620	Sep 17, 2004
Lowest daily mean	34	Oct 12	27	Aug 22	27	Aug 22, 2008
Annual seven-day minimum	34	Oct 11	29	Aug 18	29	Aug 18, 2008
Maximum peak flow			2,940	Aug 26	^a 6,300	Jun 16, 1949
Maximum peak stage			5.93	Aug 26	9.70	Jun 16, 1949
Instantaneous low flow			25	Aug 24	25	Aug 24, 2008
Annual runoff (cfs)	2.32		2.53		3.90	
Annual runoff (inches)	31.53		34.50		52.93	
10 percent exceeds	215		237		367	
50 percent exceeds	95		108		162	
90 percent exceeds	43		40		67	

^aSee Remarks.