

Water-Data Report 2010

03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC

Upper Tennessee Basin
Upper Little Tennessee Subbasin

LOCATION.--Lat 35°09'32", long 83°23'39" referenced to North American Datum of 1983, Macon County, NC, Hydrologic Unit 06010202, on downstream side of center pier of bridge on Secondary Road 1152, 0.1 mi downstream of unnamed creek, 1.8 mi south of Franklin, and 1.9 mi upstream from mouth.

DRAINAGE AREA.--57.1 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1961 to current year. Periodic low-flow measurements, water years 1944, 1947, 1953-55, 1958, 1960.

GAGE.--Water-stage recorder. Datum of gage is 2,017.18 ft above National Geodetic Vertical Datum of 1929. Satellite telemetry at streamgage.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 3,300 ft³/s on basis of contracted-opening measurement of peak flow. Minimum discharge for period of record also occurred August 24, 2008. Minimum discharge for current water year also occurred September 21, 22.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1949 reached a stage of 15.6 ft, from studies by Tennessee Valley Authority; discharge, about 7,000 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	131	260	159	238	239	170	148	125	99	60	58	36
2	121	207	463	221	310	183	144	124	110	58	44	35
3	113	184	432	208	293	177	141	255	114	52	46	34
4	103	167	290	199	269	169	138	185	102	49	43	32
5	204	155	248	191	926	159	134	158	93	47	43	32
6	136	145	218	184	739	155	131	145	89	45	46	31
7	138	138	202	180	467	151	128	135	83	44	47	30
8	118	131	206	176	370	150	183	125	77	42	40	32
9	110	125	620	166	331	150	174	117	79	48	38	33
10	113	291	364	162	301	151	150	115	82	54	38	31
11	105	1,200	283	158	277	162	142	119	94	48	46	58
12	160	514	250	157	265	172	137	112	83	100	67	87
13	144	337	314	151	253	198	132	107	76	72	58	43
14	157	275	279	149	239	180	129	103	70	80	74	37
15	230	238	258	148	243	168	126	108	72	59	52	35
16	232	214	232	147	225	161	124	108	75	58	43	34
17	184	201	217	388	214	156	121	126	68	53	43	34
18	156	383	276	255	206	154	116	105	e65	53	48	33
19	140	269	325	216	199	147	113	98	e61	63	53	32
20	131	233	266	203	192	143	117	93	e59	54	47	31
21	122	213	237	252	188	156	119	95	e58	49	197	30
22	114	205	222	245	222	249	111	94	57	46	109	30
23	119	202	212	220	205	185	109	88	58	45	65	34
24	157	185	207	425	196	171	155	84	60	45	56	31
25	123	175	935	713	188	163	257	84	66	43	48	30
26	114	167	542	396	184	167	178	83	67	43	45	60
27	246	159	374	308	180	154	159	80	86	44	45	86
28	328	154	e315	269	176	168	146	87	68	50	43	104
29	216	149	276	253	---	181	135	82	67	51	40	53
30	183	169	254	303	---	161	129	79	66	44	38	116
31	206	---	257	259	---	153	---	113	---	55	37	---
Total	4,854	7,445	9,733	7,540	8,097	5,164	4,226	3,532	2,304	1,654	1,697	1,324
Mean	157	248	314	243	289	167	141	114	76.8	53.4	54.7	44.1
Max	328	1,200	935	713	926	249	257	255	114	100	197	116
Min	103	125	159	147	176	143	109	79	57	42	37	30
Cfsm	2.74	4.35	5.50	4.26	5.06	2.92	2.47	2.00	1.35	0.93	0.96	0.77
In.	3.16	4.85	6.34	4.91	5.28	3.36	2.75	2.30	1.50	1.08	1.11	0.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2010, BY WATER YEAR (WY)

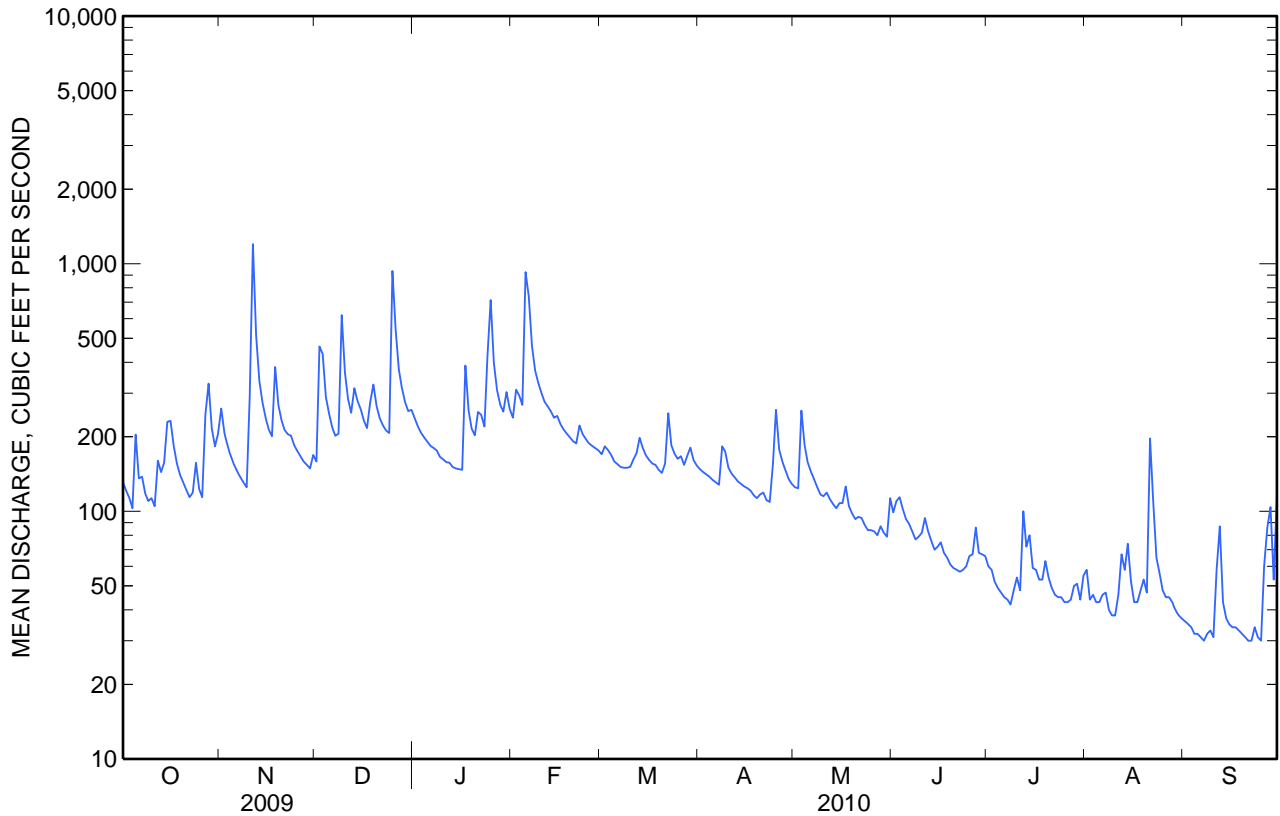
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	82.6	110	150	188	212	228	193	152	117	88.1	79.7	79.8
Max	295	266	317	336	460	440	375	339	285	267	185	393
(WY)	(1965)	(1993)	(1962)	(1996)	(1990)	(1980)	(1964)	(1976)	(2005)	(2005)	(1994)	(2004)
Min	24.7	35.0	52.2	55.2	94.6	84.7	72.9	56.3	42.3	32.7	28.7	25.6
(WY)	(2001)	(2009)	(1966)	(1981)	(2007)	(1988)	(1986)	(2001)	(1988)	(2000)	(2000)	(1999)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1961 - 2010	
Annual total	57,830		57,570			
Annual mean	158		158		139	
Highest annual mean					204	1990
Lowest annual mean					69.9	1986
Highest daily mean	1,290	Sep 21	1,200	Nov 11	3,340	Sep 17, 2004
Lowest daily mean	38	Jul 27	30	Sep 7	14	Aug 22, 2008
Annual seven-day minimum	43	Jul 21	31	Sep 19	16	Aug 18, 2008
Maximum peak flow			1,600	Nov 11	^a 6,440	Sep 17, 2004
Maximum peak stage			8.34	Nov 11	14.12	Sep 17, 2004
Instantaneous low flow			^a 27	Sep 7	^a 12	Aug 22, 2008
Annual runoff (cfsm)	2.77		2.76		2.44	
Annual runoff (inches)	37.68		37.51		33.17	
10 percent exceeds	271		275		255	
50 percent exceeds	121		138		105	
90 percent exceeds	51		43		45	

^a See Remarks.



03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1962, 1968, 1977-79, 2000-03, 2010.

REMARKS.--Water year 2010 samples were collected from the pedestrian bridge, 0.3 mi downstream from the gage.

WATER-QUALITY DATA**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**[ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius]

Date	Sample start time	Medium name	Sample type	Discharge, instantaneous, ft³/s (00061)	Temperature, water, °C (00010)	Sampling method (82398)	Suspended sediment concentration, mg/L (80154)
03-16-2010	1546	Surface water	Regular	161	8.5	EWI	7
04-07-2010	1630	Surface water	Regular	125	16.2	EWI	7
08-21-2010	1801	Surface water	Regular	667	21.3	EWI	1,690
09-24-2010	0615	Surface water	Regular	28	19.4	EWI	21