Water-Data Report 2011

03419800 CALFKILLER RIVER AT HWY 111 BELOW SPARTA, TN

Upper Cumberland Basin
Caney Subbasin

LOCATION.--Lat 35°54'43.46", long 85°28'34.86" referenced to North American Datum of 1927, White County, TN, Hydrologic Unit 05130108, on right bank, 3 ft streamward of right downstream end of Hwy 111 bridge, 1.4 mi southwest of Sparta, TN, 4.6 mi north northeast of Doyle, TN, and 1.8 mi north of Cummings, TN.

DRAINAGE AREA.--175 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1940 to September 1971; published as "below Sparta, TN" (03420000). October 2001 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 820.66 ft above NGVD of 1929.

REMARKS.--Records fair except for discharges above 8,000 ft^3/s and estimated daily values, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft^3/s, Jan. 24, 2002; gage height 25.80 ft Jan. 5, 1949 (from gage 0.75 miles downstream); minimum discharge, 8.5 ft^3/s, Oct. 23, 2008.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a discharge of about 25,000 ft^3/s in this vicinity.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 1	0000	5,620	7.34
Feb 25	1330	4,980	7.09
Mar 1	0630	6,240	7.58
Mar 6	1330	5,910	7.45
Apr 5	0830	5,910	7.45
Apr 16	1300	6,840	7.82
Apr 28	1130	*7,550	*8.11
Jun 23	0200	4,770	7.01

Minimum discharge, 19 ft^3/s, on several days, gage height, 4.39 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	28	41	3,850	1,440	418	4,770	1,140	922	e95	316	57	27
2	26	37	e1,500	2,200	439	2,040	931	736	95	262	55	28
3	25	35	757	1,140	458	1,370	757	882	90	222	53	27
4	24	35	507	814	415	1,060	771	1,920	86	195	52	25
5	23	37	401	617	414	1,040	4,510	1,220	83	182	52	84
6	22	49	330	509	393	4,790	2,300	894	87	178	55	872
7	23	43	272	434	359	2,790	1,450	688	99	166	59	750
8	22	38	227	381	373	1,660	1,110	551	89	147	58	367
9	22	35	191	320	370	2,040	938	447	81	140	51	226
10	22	34	169	277	351	3,040	780	371	79	130	48	149
11	22	32	160	258	346	2,530	678	314	74	117	46	112
12	21	30	484	241	327	1,770	1,050	269	73	106	45	90
13	21	29	743	216	301	1,330	1,410	249	69	115	43	77
14	22	28	487	200	286	1,080	1,060	262	65	125	42	68
15	20	28	369	199	268	974	1,390	273	94	134	41	68
16	20	76	417	201	249	e870	5,820	261	195	561	41	66
17	20	496	1,190	205	241	767	2,420	246	209	434	41	59
18	21	243	869	234	236	679	1,340	224	180	200	40	56
19	21	133	591	464	233	603	1,030	201	404	139	39	55
20	20	95	435	562	234	540	893	180	596	115	38	e85
21	20	78	353	471	230	492	849	169	380	109	37	e120
22	20	69	311	402	238	457	731	157	1,800	108	37	e110
23	20	88	274	349	269	428	752	142	3,870	106	37	e105
24	19	248	237	308	705	594	630	133	1,830	91	34	e100
25	28	217	221	293	3,910	503	523	127	1,100	81	33	94
26	43	176	205	557	2,210	459	464	167	794	75	31	80
27	115	266	185	834	1,340	532	1,430	175	1,150	70	30	70
28	111	202	164	736	2,620	593	6,100	153	757	66	30	65
29	76	143	154	636	---	667	2,330	134	589	62	30	61
30	54	2,450	151	542	---	1,070	1,290	118	443	58	29	56
31	45	---	152	465	---	1,540	---	e103	---	58	28	---
Total	996	5,511	16,356	16,505	18,233	43,078	46,877	12,688	15,556	4,868	1,312	4,152
Mean	32.1	184	528	532	651	1,390	1,563	409	519	157	42.3	138
Max	115	2,450	3,850	2,200	3,910	4,790	6,100	1,920	3,870	561	59	872
Min	19	28	151	199	230	428	464	103	65	58	28	25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	93.3	193	542	723	863	824	846	569	190	138	78.6	109
Max	427	555	1,367	1,785	2,722	1,462	1,563	1,653	519	464	273	295
(WY)	(2010)	(2005)	(2005)	(2002)	(2003)	(2002)	(2011)	(2003)	(2011)	(2004)	(2009)	(2009)
Min	12.5	20.4	74.1	124	221	368	250	137	38.5	41.6	21.3	16.2
(WY)	(2009)	(2009)	(2008)	(2008)	(2007)	(2005)	(2010)	(2008)	(2007)	(2007)	(2007)	(2007)

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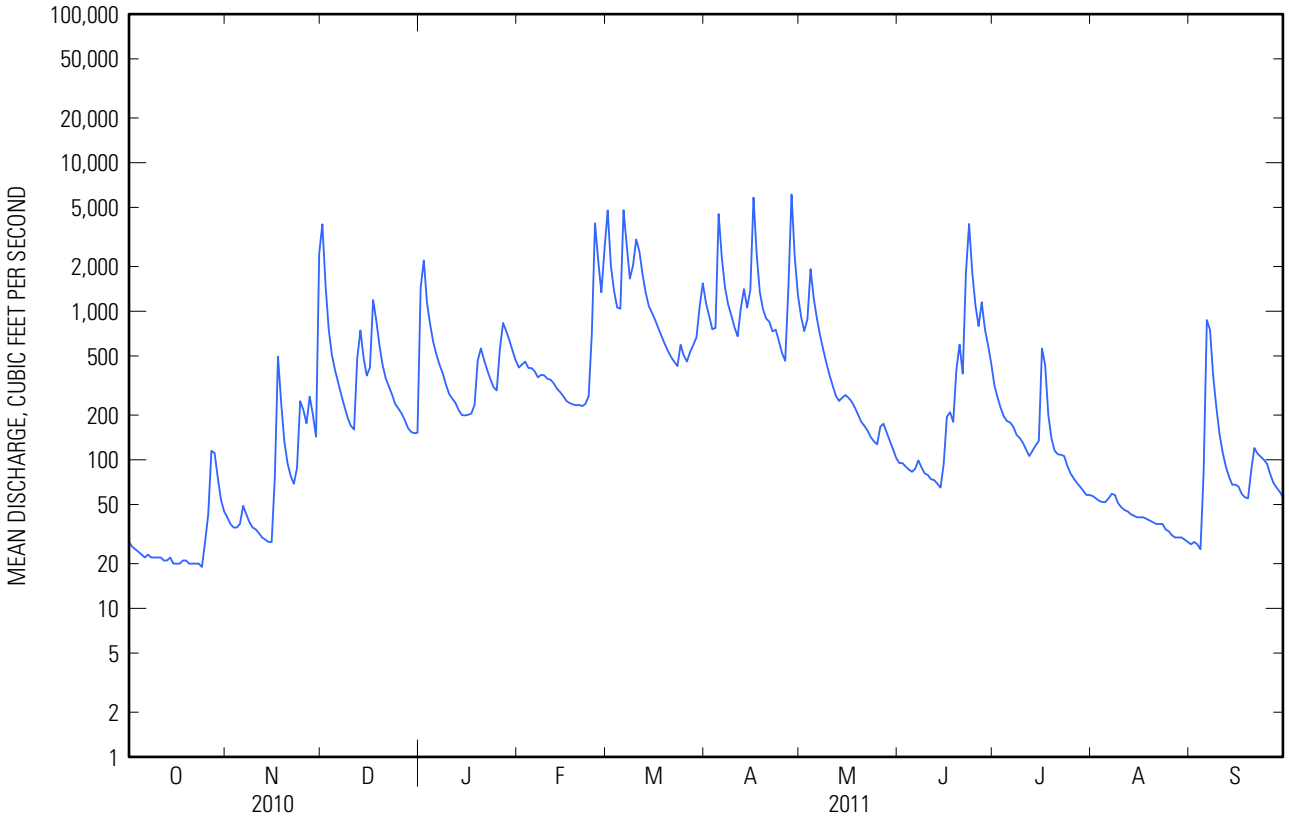
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 2000 - 2011	
Annual total	125,009		186,132			
Annual mean	342		510		429	
Highest annual mean					762	2003
Lowest annual mean					192	2007
Highest daily mean	5,200	Jan 25	6,100	Apr 28	20,400	Jan 24, 2002
Lowest daily mean	19	Oct 24	19	Oct 24	9.7	Oct 22, 2008
Annual seven-day minimum	20	Oct 18	20	Oct 18	9.9	Oct 17, 2008
Maximum peak flow			7,550	Apr 28	[a]22,000	Jan 24, 2002
Maximum peak stage			8.11	Apr 28	[b]25.80	Jan 5, 1949
Instantaneous low flow			[c]19	Oct 15	8.5	Oct 23, 2008
10 percent exceeds	752		1,310		990	
50 percent exceeds	172		216		168	
90 percent exceeds	31		30		24	

[a] From rating curve extended above 8,000 ft³/s.
[b] From gage 0.75 mile downstream.
[c] Also occurred Several days.