

**03432390 SPENCER CREEK NEAR FRANKLIN, TN**

Lower Cumberland Basin  
Harpeth Subbasin

LOCATION.--Lat 35°56'36.20", long 86°51'16.80" referenced to North American Datum of 1927, Williamson County, TN, Hydrologic Unit 05130204, on right downstream side of bridge on U.S. Highway 31, 1.5 mi northeast of Franklin. This site was discontinued September 2005. A new structure was placed on the downstream side of the bridge on January 24, 2012.

DRAINAGE AREA.--10.3 mi<sup>2</sup>, Streamstats calculates at 10.37 mi<sup>2</sup>--01-26-2012. D League

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--April 1999 to September 2005, January 25, 2012 to September 30, 2012 (discontinued). Occasional low-flow measurements, water year 1959, 1975.

GAGE.--Data collection platform, water quality monitor, automated water sampler, and crest-stage gage.

COOPERATION.--Tennessee Department of Transportation.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,910 ft<sup>3</sup>/s, May 5, 2003, gage height, 12.04 ft; minimum discharge, 0.77 ft<sup>3</sup>/s, June 30, 2000.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar 15	1915	*1,820	*10.30
May 6	2030	863	9.28
Jul 14	1705	801	9.18
Jul 20	0330	1,110	9.62
Sep 17	1345	748	9.09

Minimum discharge, 1.7 ft<sup>3</sup>/s, on several days.

## 03432390 SPENCER CREEK NEAR FRANKLIN, TN—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	54	16	9.0	4.9	3.3	1.7	6.6	7.0
2	---	---	---	---	33	13	8.0	4.3	3.1	1.8	6.6	51
3	---	---	---	---	25	11	7.4	3.7	2.9	1.9	6.2	22
4	---	---	---	---	32	9.6	6.9	3.6	4.3	2.0	8.4	16
5	---	---	---	---	24	8.5	76	3.6	3.3	2.0	23	46
6	---	---	---	---	19	7.7	31	92	3.1	2.0	10	35
7	---	---	---	---	17	7.0	16	28	2.8	2.0	7.7	19
8	---	---	---	---	15	82	12	12	2.7	5.9	6.3	57
9	---	---	---	---	13	57	9.5	8.9	2.5	45	29	20
10	---	---	---	---	12	31	8.0	7.2	2.8	23	11	15
11	---	---	---	---	11	22	6.8	5.4	3.9	12	8.6	12
12	---	---	---	---	10	18	6.1	11	3.9	48	7.2	10
13	---	---	---	---	9.1	15	5.4	234	3.0	25	22	8.9
14	---	---	---	---	9.9	15	4.8	62	2.6	91	12	7.6
15	---	---	---	---	8.7	177	4.4	34	2.5	35	9.5	6.7
16	---	---	---	---	13	91	7.6	21	3.1	18	7.8	6.4
17	---	---	---	---	9.5	65	9.2	15	3.1	13	38	155
18	---	---	---	---	8.4	49	7.4	14	2.8	11	14	50
19	---	---	---	---	25	38	5.4	12	2.5	9.0	11	28
20	---	---	---	---	15	31	4.3	9.3	2.3	166	8.7	20
21	---	---	---	---	13	26	24	7.9	2.2	31	7.2	15
22	---	---	---	---	18	32	8.5	6.9	2.1	21	6.3	13
23	---	---	---	---	14	27	7.4	5.9	2.0	17	5.9	11
24	---	---	---	---	12	22	6.1	5.1	2.0	14	5.9	9.3
25	---	---	---	34	11	19	4.5	4.4	2.0	12	6.0	8.2
26	---	---	---	50	9.6	16	52	3.9	1.9	10	6.1	7.4
27	---	---	---	45	8.7	14	19	3.6	1.9	8.9	6.1	6.9
28	---	---	---	32	8.0	12	9.3	3.4	1.9	8.0	5.5	6.5
29	---	---	---	25	33	11	6.9	3.8	1.7	7.5	9.4	6.0
30	---	---	---	20	---	10	5.7	4.1	1.7	7.2	9.6	6.2
31	---	---	---	18	---	9.7	---	3.3	---	6.9	7.9	---
<b>Mean</b>	---	---	---	---	16.9	31.0	13.0	20.6	2.66	21.3	10.6	22.7
<b>Max</b>	---	---	---	---	54	177	76	234	4.3	166	38	155
<b>Min</b>	---	---	---	---	8.0	7.0	4.3	3.3	1.7	1.7	5.5	6.0

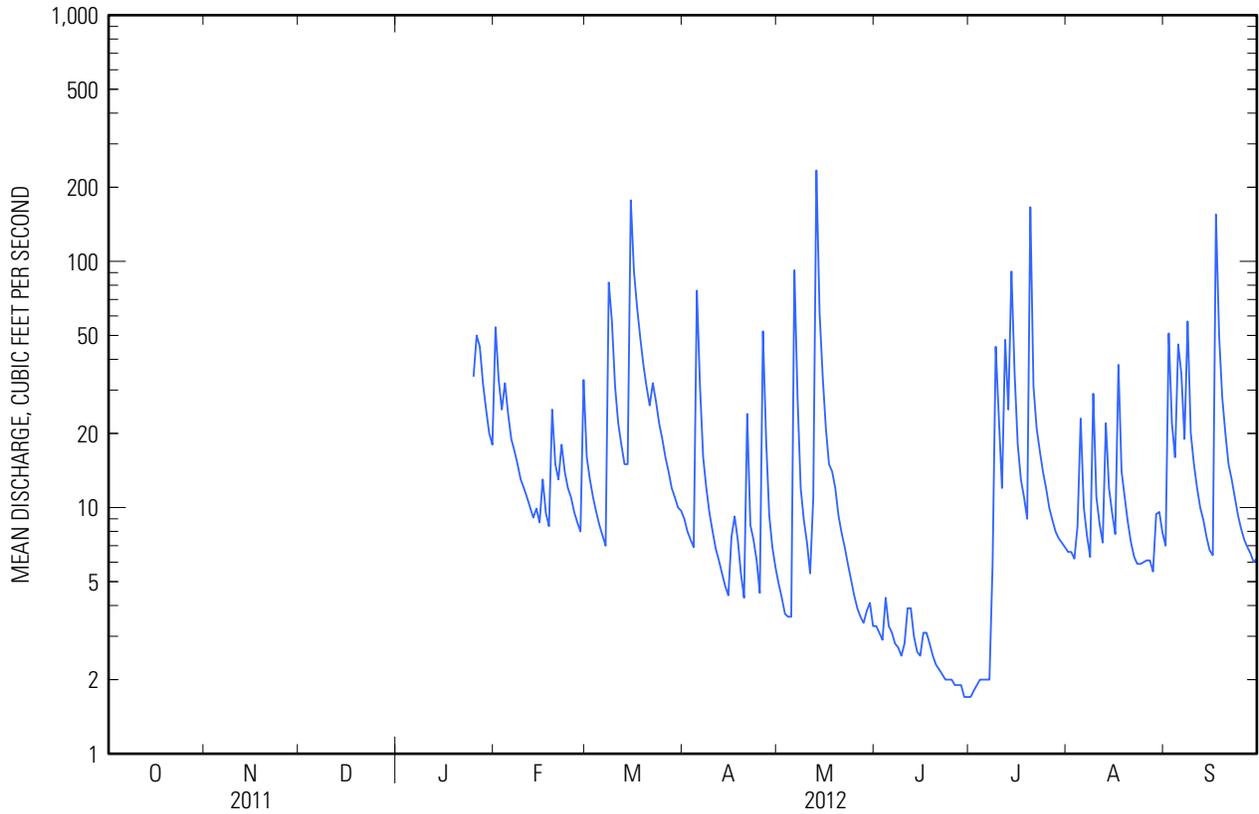
**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2012, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	11.7	19.0	27.9	22.2	43.7	28.0	20.3	25.6	9.31	9.04	8.48	12.3
<b>Max</b>	25.3	30.9	57.8	35.1	95.1	54.9	35.8	60.2	21.0	21.3	16.0	27.8
<b>(WY)</b>	(2005)	(2005)	(2005)	(2002)	(2003)	(2002)	(2005)	(2003)	(2003)	(2012)	(2004)	(2003)
<b>Min</b>	1.80	7.77	9.54	11.0	15.0	18.4	9.83	8.03	2.66	3.42	2.73	2.44
<b>(WY)</b>	(2001)	(2000)	(2000)	(2003)	(2002)	(2003)	(2001)	(2005)	(2012)	(2000)	(1999)	(1999)

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SUMMARY STATISTICS

Water Years 1999 - 2012		
Annual mean	20.5	
Highest annual mean	27.3	2003
Lowest annual mean	14.5	2000
Highest daily mean	695	Feb 5, 2004
Lowest daily mean	0.78	Sep 18, 1999
Annual seven-day minimum	0.99	Sep 6, 1999
Maximum peak flow	3,910	May 5, 2003
Maximum peak stage	12.04	May 5, 2003
Instantaneous low flow	0.77	Jun 30, 2000
10 percent exceeds	39	
50 percent exceeds	9.2	
90 percent exceeds	2.9	



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**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--January 25, 2012 to September 30, 2012.

EXTREMES FOR CURRENT YEAR.-- TURBIDITY: Maximum, 520 FNU, March 15; minimum, <1 FNU, many days, 2012 water year.

**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	65	5.5	6.2
27	---	---	---	---	---	---	---	---	---	30	5.0	6.2
28	---	---	---	---	---	---	---	---	---	5.4	3.5	3.9
29	---	---	---	---	---	---	---	---	---	4.2	2.9	3.2
30	---	---	---	---	---	---	---	---	---	3.9	2.6	2.8
31	---	---	---	---	---	---	---	---	---	3.3	2.5	2.8
<b>Max</b>	---	---	---	---	---	---	---	---	---	---	---	---
<b>Min</b>	---	---	---	---	---	---	---	---	---	---	---	---

## 03432390 SPENCER CREEK NEAR FRANKLIN, TN—Continued

**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	61	2.8	17	18	3.6	4.7	2.4	1.8	2.0	2.2	1.6	1.9
2	28	3.2	3.9	4.2	3.2	3.6	2.5	1.6	2.0	2.8	1.5	1.8
3	3.6	2.4	2.8	4.0	3.2	3.6	2.5	1.8	2.2	2.6	1.7	1.9
4	9.7	2.6	5.3	3.9	3.1	3.4	2.9	2.1	2.5	2.8	1.4	1.8
5	3.9	2.4	2.7	3.8	2.9	3.3	200	2.4	29	2.1	1.4	1.7
6	2.9	2.0	2.4	3.7	3.0	3.3	22	3.6	5.6	240	1.5	3.2
7	2.5	1.9	2.2	4.0	3.4	3.7	3.8	2.0	2.3	40	4.2	6.5
8	2.5	1.8	2.1	130	3.5	8.8	2.5	1.7	2.0	4.7	2.1	2.6
9	2.4	1.5	1.9	30	4.8	7.0	2.4	1.4	1.9	2.8	1.5	2.1
10	2.0	1.4	1.7	5.0	3.7	4.3	2.5	1.1	1.7	2.5	1.4	1.7
11	1.9	1.1	1.3	4.6	3.0	3.4	2.2	0.9	1.6	2.6	1.4	1.8
12	1.7	0.8	1.1	4.2	3.2	3.6	1.6	0.6	1.1	42	1.3	2.0
13	1.5	0.8	1.0	4.0	3.0	3.5	1.7	0.8	1.2	110	12	33
14	1.6	1.0	1.3	8.5	2.6	3.4	1.9	1.1	1.3	54	6.7	8.2
15	2.0	1.2	1.4	520	2.5	5.2	1.9	1.3	1.6	7.5	4.8	5.6
16	5.3	1.9	2.6	77	21	46	11	1.5	3.6	5.9	3.8	4.6
17	2.4	1.8	2.1	29	11	18	9.1	1.8	2.8	4.9	3.3	3.7
18	2.4	1.9	2.1	16	5.9	7.3	6.0	2.2	2.7	16	2.9	3.6
19	30	2.2	7.3	6.2	3.7	4.5	2.8	2.0	2.3	12	2.8	3.8
20	4.6	2.4	2.8	4.6	2.9	3.5	2.9	2.1	2.5	4.4	2.4	2.9
21	2.8	2.4	2.6	4.0	2.2	2.8	72	2.1	8.8	4.3	2.3	3.0
22	7.5	2.5	5.6	76	2.1	3.1	3.3	2.0	2.3	4.4	2.1	2.5
23	24	2.9	3.2	---	---	---	2.7	1.4	1.8	3.8	2.0	2.6
24	3.4	2.6	2.9	---	---	---	1.7	1.0	1.4	3.5	1.9	2.4
25	7.9	2.4	2.8	---	---	---	2.3	1.3	1.7	3.2	2.0	2.4
26	3.1	2.6	2.9	---	---	---	240	1.6	2.2	3.3	2.2	2.6
27	3.3	2.7	2.9	1.8	1.1	1.3	42	3.4	6.8	3.5	2.3	2.8
28	3.3	2.6	2.9	1.9	1.2	1.5	3.5	2.0	2.5	4.4	2.9	3.3
29	330	2.9	3.5	2.1	1.4	1.7	4.9	1.7	2.1	4.8	2.0	3.5
30	---	---	---	2.3	1.6	1.9	2.3	1.7	2.0	3.7	1.7	2.7
31	---	---	---	2.5	1.7	2.0	---	---	---	2.5	1.2	1.7
<b>Max</b>	330	3.2	17	---	---	---	240	3.6	29	240	12	33
<b>Min</b>	1.5	0.8	1.0	---	---	---	1.6	0.6	1.1	2.1	1.2	1.7

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**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	2.9	1.3	1.7	1.5	0.9	1.2	2.1	1.3	1.6	2.2	1.6	1.8
2	2.1	0.9	1.5	1.5	0.8	1.1	2.2	1.3	1.5	230	1.6	8.9
3	2.1	0.9	1.4	2.0	1.0	1.3	2.1	1.3	1.6	9.2	2.9	5.5
4	4.0	1.3	2.4	1.8	1.0	1.4	5.3	1.4	2.6	3.2	1.8	2.2
5	2.3	1.0	1.5	1.9	1.2	1.5	200	1.9	3.6	180	1.6	2.2
6	2.0	0.7	1.3	2.1	1.3	1.6	8.5	1.9	2.3	19	2.7	4.9
7	2.2	0.3	1.1	2.3	1.3	1.6	4.4	1.8	2.1	3.0	2.0	2.4
8	1.8	0.4	0.9	140	1.3	2.2	7.9	1.8	2.1	130	2.2	7.4
9	1.8	0.6	1.0	440	3.8	8.3	140	1.6	5.0	3.6	1.7	2.3
10	2.1	0.9	1.3	67	2.4	4.7	3.3	1.6	2.0	2.4	1.6	1.9
11	13	1.0	1.6	17	1.9	3.1	4.4	1.4	1.7	2.4	1.7	1.9
12	5.7	1.4	2.5	43	2.6	13	9.0	1.4	1.8	2.6	1.6	1.9
13	2.6	1.2	1.8	9.6	2.8	3.5	66	1.3	4.1	2.2	1.6	1.8
14	2.4	1.4	1.8	290	2.3	8.0	4.1	1.5	1.9	2.5	1.3	1.8
15	2.1	1.2	1.6	16	3.8	5.5	2.2	1.3	1.6	2.1	1.2	1.4
16	3.5	1.2	1.7	4.3	2.7	3.3	4.3	1.2	1.5	1.8	1.2	1.4
17	2.4	1.1	1.6	3.5	2.2	2.8	68	1.9	6.3	160	1.3	36
18	2.0	0.8	1.3	3.5	2.0	2.6	2.2	1.3	1.6	10	2.1	4.4
19	2.3	0.9	1.3	4.0	1.8	2.5	2.1	1.1	1.5	2.5	1.0	1.4
20	1.6	0.4	0.9	160	3.6	34	3.2	1.0	1.3	1.8	1.1	1.4
21	1.4	0.4	0.7	6.1	2.7	3.7	1.7	0.9	1.2	1.8	1.1	1.4
22	1.3	0.5	0.8	3.3	2.2	2.6	1.4	0.9	1.1	1.8	0.8	1.3
23	1.4	0.5	0.9	2.9	1.7	2.1	1.6	0.8	1.1	1.6	0.9	1.1
24	1.4	0.6	1.0	2.4	1.1	1.6	2.7	0.5	0.9	1.5	0.9	1.1
25	1.4	0.7	1.0	1.8	1.0	1.4	1.5	0.8	1.0	1.5	0.9	1.1
26	1.7	0.7	1.0	2.1	0.8	1.1	1.6	0.9	1.2	1.5	0.9	1.1
27	1.9	0.8	1.1	1.8	0.6	1.1	1.6	1.2	1.3	1.4	0.8	1.0
28	1.7	0.8	1.1	1.5	0.7	1.1	2.2	1.2	1.5	1.2	0.8	1.0
29	1.7	0.9	1.2	1.6	0.9	1.2	36	1.3	1.7	1.3	0.8	1.0
30	1.9	0.9	1.2	2.0	1.1	1.4	8.6	1.7	2.5	1.2	0.8	1.0
31	---	---	---	2.0	1.2	1.5	2.3	1.7	1.9	---	---	---
<b>Max</b>	13	1.4	2.5	440	3.8	34	200	1.9	6.3	230	2.9	36
<b>Min</b>	1.3	0.3	0.7	1.5	0.6	1.1	1.4	0.5	0.9	1.2	0.8	1.0