Water-Data Report 2012

03433500 HARPETH RIVER AT BELLEVUE, TN

Lower Cumberland Basin
Harpeth Subbasin

LOCATION.--Lat 36°03'16.21", long 86°55'42.63" referenced to North American Datum of 1927, Davidson County, TN, Hydrologic Unit 05130204, 11.2 mi. southwest of the State Capitol in downtown Nashville, on right upstream bank at bridge on State Highway 100, 0.1 mi. downstream from Little Harpeth River, 0.9 mi. southeast of Bellevue, and at mile 62.1.

DRAINAGE AREA.--409 mi^2 of which 16 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1920 to current year. Monthly discharge only November 1929 to December 1931, published in WSP 1306.

REVISED RECORDS.--WSP 953: 1920-30, 1932-35. WSP 1386: 1948. WSP 1556: Drainage area. WSP 1910: 1960. WDR TN 2010-1: 1948(M), 1975(M).

GAGE.--Data collection platform. Datum of gage is 541.04 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Apr. 11, 1920 to Oct. 31, 1929, Jan. 1, 1932 to Sept. 30, 1933, nonrecording gage at site 2.8 mi downstream at datum 7.85 ft lower.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,500 ft^3/s, May 2, 2010, gage height, 33.23 from crest-stage gage mark; no flow Oct. 5-10, 1922.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 23	1815	*6,760	*11.00

Minimum discharge, 7.3 ft^3/s, July 6.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 03433500, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/03433500.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	95	53	999	731	e1,050	768	280	108	69	13	50	32
2	82	48	752	640	998	592	267	93	72	11	45	57
3	74	59	614	562	787	815	250	86	66	11	43	185
4	65	106	516	490	738	635	227	77	59	11	41	99
5	58	98	791	434	981	530	498	79	60	12	40	162
6	54	82	3,290	384	899	463	1,390	95	54	10	66	325
7	50	82	2,420	350	756	413	624	249	51	18	56	202
8	48	68	1,600	332	649	556	462	167	46	13	45	335
9	46	58	1,140	321	573	2,700	378	119	41	296	42	210
10	45	55	870	308	520	1,740	324	95	39	142	64	129
11	44	54	714	3,670	488	1,150	286	79	39	98	47	98
12	43	53	611	3,700	439	902	256	68	61	105	36	77
13	44	50	516	1,750	404	749	234	933	51	307	34	64
14	44	49	451	1,170	390	629	207	1,210	42	280	62	54
15	46	79	421	911	375	796	188	666	40	711	55	46
16	46	228	457	744	379	2,520	184	457	72	274	44	41
17	41	406	543	678	378	1,940	201	338	40	169	160	259
18	40	371	514	1,030	354	2,020	201	267	34	127	196	1,000
19	41	243	441	811	405	1,330	186	241	30	115	106	648
20	42	273	400	677	916	1,010	166	208	28	3,030	71	386
21	45	617	511	1,540	774	811	223	180	24	750	55	268
22	43	1,240	1,550	2,560	669	694	234	157	24	422	43	196
23	39	833	3,020	e3,990	862	660	189	138	22	287	38	151
24	36	633	1,630	e4,300	762	573	165	123	21	209	33	122
25	35	463	1,100	e2,200	628	523	141	108	20	162	30	98
26	36	358	866	e1,800	542	475	141	96	19	128	36	75
27	36	490	2,520	e3,200	486	428	227	85	19	101	35	64
28	46	3,060	2,830	e2,300	443	386	174	76	15	81	31	55
29	69	2,960	1,550	e1,680	424	356	136	70	15	68	27	50
30	69	1,550	1,120	e1,340	---	330	122	77	15	61	28	44
31	59	---	889	e1,110	---	307	---	83	---	58	37	---
Total	1,561	14,719	35,646	45,713	18,069	27,801	8,561	6,828	1,188	8,080	1,696	5,532
Mean	50.4	491	1,150	1,475	623	897	285	220	39.6	261	54.7	184
Max	95	3,060	3,290	4,300	1,050	2,700	1,390	1,210	72	3,030	196	1,000
Min	35	48	400	308	354	307	122	68	15	10	27	32
Cfsm	0.13	1.25	2.93	3.75	1.59	2.28	0.73	0.56	0.10	0.66	0.14	0.47
In.	0.15	1.39	3.37	4.33	1.71	2.63	0.81	0.65	0.11	0.76	0.16	0.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	129	366	838	1,140	1,269	1,285	877	618	271	143	111	128
Max	953	1,678	3,952	4,305	3,606	4,263	2,579	3,274	1,834	827	663	1,685
(WY)	(1976)	(1987)	(1927)	(1937)	(1950)	(1975)	(1927)	(2010)	(1928)	(1989)	(1926)	(1979)
Min	1.90	10.4	32.3	40.5	90.2	167	138	38.7	13.1	15.6	5.76	1.28
(WY)	(1932)	(1940)	(1940)	(1940)	(1941)	(1941)	(1967)	(1941)	(1988)	(1954)	(1954)	(1948)

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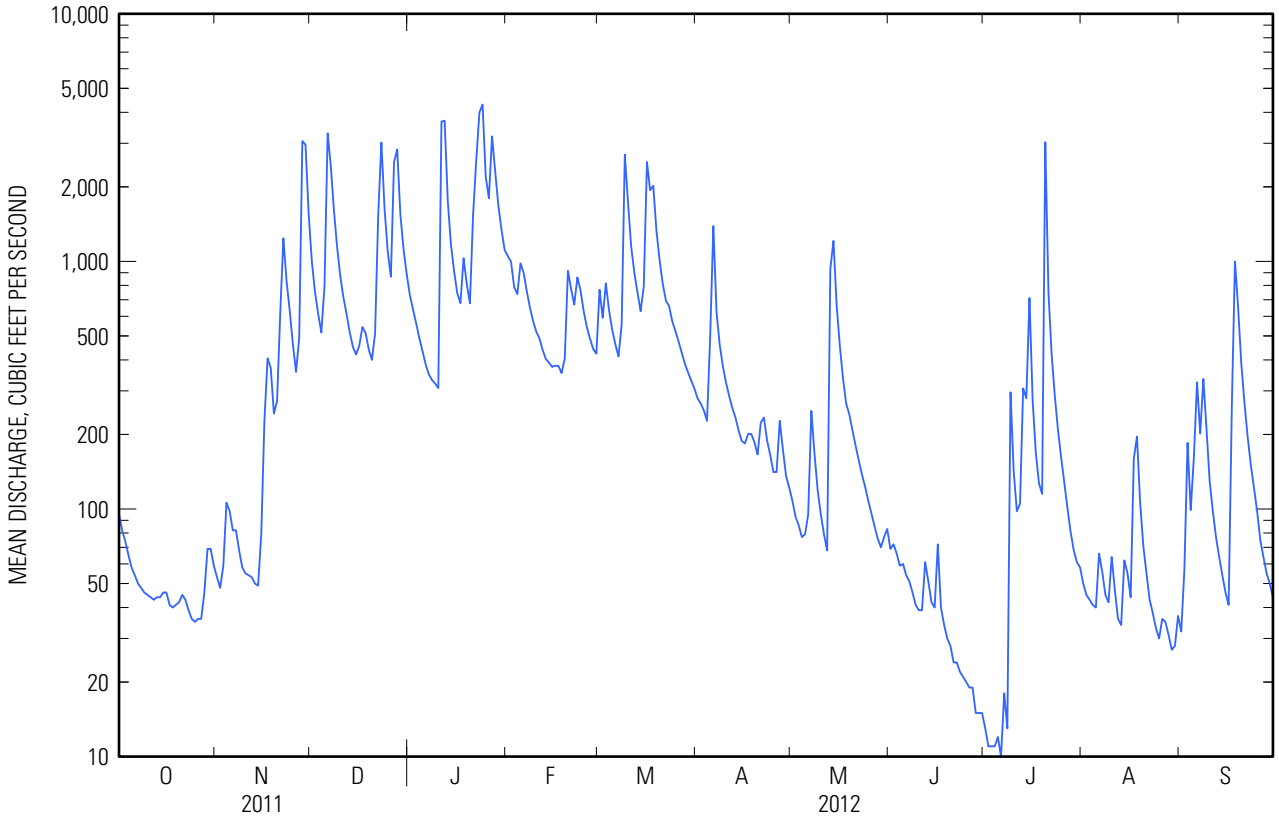
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1920 - 2012	
Annual total	234,074		175,394			
Annual mean	641		479		595	
Highest annual mean					1,157	1973
Lowest annual mean					137	1941
Highest daily mean	11,000	Apr 28	[a] 4,300	Jan 24	33,000	May 2, 2010
Lowest daily mean	19	Aug 30	10	Jul 6	0.00	Oct 5, 1922
Annual seven-day minimum	21	Aug 26	12	Jun 30	0.07	Oct 4, 1922
Maximum peak flow			6,760	Jan 23	46,500	May 2, 2010
Maximum peak stage			11.00	Jan 23	[b]33.23	May 2, 2010
Instantaneous low flow			7.3	Jul 6	[c]0.00	Oct 5, 1922
Annual runoff (cfsm)	1.63		1.22		1.51	
Annual runoff (inches)	22.16		16.60		20.56	
10 percent exceeds	1,620		1,160		1,360	
50 percent exceeds	273		201		199	
90 percent exceeds	42		38		19	

[a] Estimated
[b] From mark on crest-stage gage.
[c] Also occurred Oct. 6-10, 1922.