03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN

LOCATION.--Lat 36°07'19", long 87°05'56", Cheatham County, Hydrologic Unit 05130204, on right bank 400 ft upstream from bridge on U.S. Highway 70, 1.7 mi northeast of Kingston Springs, 3.0 mi downstream from Turnbull Creek, and at mile 32.4.

DRAINAGE AREA.--681 mi^2, includes 15 mi^2 without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1924 to current year. Prior to July 1925 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 953: 1927, 1933, 1935-36. WSP 1033: 1927(M), 1932-33(M), 1935(M), 1937(M). WSP 1706: 1945(P). WSP 2110: Drainage area.

GAGE.--Data collection platform. Datum of gage is 447.04 ft above NGVD of 1929. July 8, 1925, to Jan. 22, 1939, nonrecording gage at site 150 ft downstream, and Jan. 22, 1939, to July 26, 1988, water-stage recorder at present site at datum 1.0 ft higher.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Jan. 7, 1946. Flood of March 1902 reached a stage about 3 ft lower than that of Jan. 7, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 5	2300	*24,100	*23.54	Apr 22	1230	14,800	18.06

Minimum discharge, 90 ft^3/s, July 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	353	164	1,160	1,390	887	1,030	1,010	720	1,270	733	189	240
2	318	158	912	1,420	842	4,420	860	1,270	753	1,400	155	351
3	289	151	748	1,310	1,460	3,460	739	1,360	639	996	156	887
4	265	146	681	1,120	1,780	2,170	639	1,130	480	650	123	706
5	247	204	657	1,060	10,600	2,170	552	954	399	499	2,560	476
6	237	282	599	1,210	19,300	8,700	494	801	347	430	1,740	373
7	230	240	533	1,120	17,900	6,140	457	673	295	576	720	314
8	216	221	473	963	6,180	3,030	432	561	260	534	467	270
9	207	187	441	907	3,140	2,180	409	470	243	381	361	237
10	208	171	609	840	2,550	1,710	378	421	285	373	297	216
11	209	166	1,080	730	2,110	1,420	351	881	300	372	251	193
12	206	162	1,010	658	1,860	1,230	991	878	411	298	233	300
13	198	195	814	598	1,720	1,060	3,280	709	621	304	240	273
14	204	195	1,110	547	1,540	931	5,170	649	857	491	249	348
15	228	233	1,070	505	1,420	844	3,090	4,910	495	326	223	464
16	224	388	1,020	465	1,290	804	1,980	3,570	380	252	196	281
17	202	442	1,200	436	1,180	752	1,500	2,080	322	216	180	537
18	194	969	1,060	929	1,110	666	1,210	1,520	317	190	179	1,710
19	181	2,680	917	2,420	1,080	613	997	1,280	314	164	171	1,100
20	172	2,100	782	1,640	1,010	608	847	975	264	143	185	650
21	158	1,390	665	1,250	942	1,260	878	782	221	127	242	491
22	152	989	583	1,040	840	1,080	8,220	648	198	115	336	399
23	143	761	756	885	743	861	4,590	546	186	111	333	340
24	138	1,310	1,520	777	696	737	4,120	464	182	102	331	298
25	137	1,740	1,550	2,630	637	646	2,520	412	308	95	438	261
26	206	1,340	1,200	4,390	595	576	1,790	367	290	401	455	227
27	251	1,060	991	2,560	680	529	1,340	338	289	356	613	203
28	242	1,070	846	1,830	758	490	1,050	311	274	339	624	185
29	214	2,910	890	1,440	649	588	877	289	207	219	465	174
30	196	1,580	1,910	1,230	---	1,400	792	273	261	161	331	166
31	177	---	1,820	1,040	---	1,250	---	3,030	---	201	281	---
TOTAL	6,602	23,604	29,607	39,340	85,499	53,355	51,563	33,272	11,668	11,555	13,324	12,670
MEAN	213	787	955	1,269	2,948	1,721	1,719	1,073	389	373	430	422
MAX	353	2,910	1,910	4,390	19,300	8,700	8,220	4,910	1,270	1,400	2,560	1,710
MIN	137	146	441	436	595	490	351	273	182	95	123	166
MED	207	335	912	1,060	1,180	1,060	994	720	304	326	281	307
CFSM	0.31	1.16	1.40	1.86	4.33	2.53	2.52	1.58	0.57	0.55	0.63	0.62
IN.	0.36	1.29	1.62	2.15	4.67	2.91	2.82	1.82	0.64	0.63	0.73	0.69

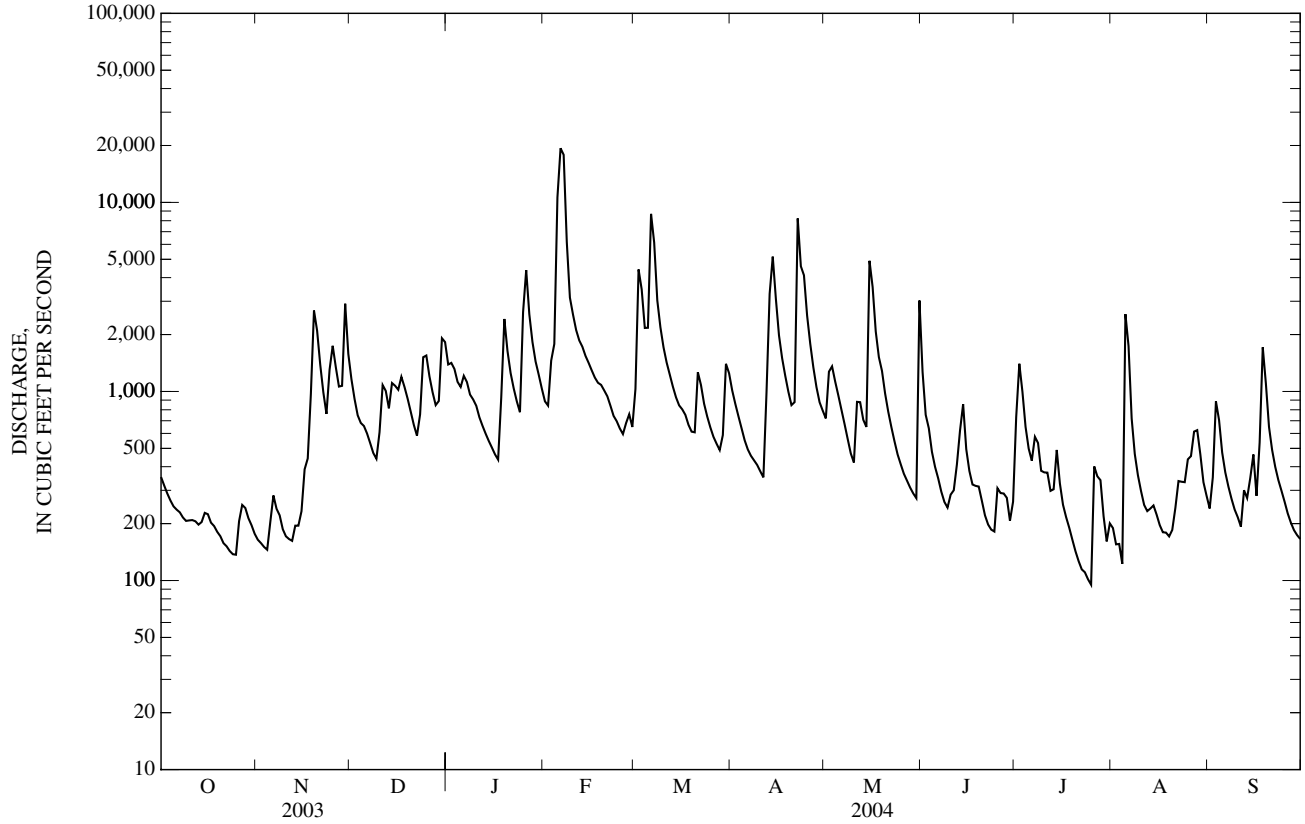
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2004, BY WATER YEAR (WY)

MEAN	233	623	1,306	1,844	2,097	2,140	1,473	1,051	528	272	213	226
MAX	1,516	2,761	6,274	6,975	6,078	6,806	3,942	5,107	2,849	1,071	1,099	2,530
(WY)	(1976)	(1980)	(1927)	(1937)	(1950)	(1975)	(1927)	(1984)	(1928)	(1989)	(1926)	(1979)
MIN	28.9	63.2	94.9	116	187	279	269	99.3	59.0	62.7	38.5	25.0
(WY)	(1932)	(1955)	(1936)	(1940)	(1941)	(1941)	(1967)	(1941)	(1988)	(1954)	(1954)	(1939)

03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1925 - 2004	
ANNUAL TOTAL	465,266		372,059			
ANNUAL MEAN	1,275		1,017		996	
HIGHEST ANNUAL MEAN					2,000	1973
LOWEST ANNUAL MEAN					249	1941
HIGHEST DAILY MEAN	24,000	Feb 16	19,300	Feb 6	43,100	Feb 14, 1948
LOWEST DAILY MEAN	116	Aug 27	95	Jul 25	16	Sep 28, 1939
ANNUAL SEVEN-DAY MINIMUM	127	Aug 24	122	Jul 19	18	Sep 22, 1939
MAXIMUM PEAK FLOW			24,100	Feb 5	60,000	Jan 7, 1946
MAXIMUM PEAK STAGE			23.54	Feb 5	a32.20	Jan 7, 1946
INSTANTANEOUS LOW FLOW			90	Jul 25	12	Sep 18, 1939
ANNUAL RUNOFF (CFSM)	1.87		1.49		1.46	
ANNUAL RUNOFF (INCHES)	25.42		20.32		19.87	
10 PERCENT EXCEEDS	2,150		1,880		2,240	
50 PERCENT EXCEEDS	591		598		356	
90 PERCENT EXCEEDS	162		188		72	

a From high-water mark in gage house.



03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN—Continued

WATER-QUALITY DATA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Suspended sediment concentration mg/L (80154)
DEC					
04...	0815	670	400	8.5	6
APR					
21...	1200	827	310	15.0	9
AUG					
12...	1040	235	372	22.5	20

THIS PAGE IS INTENTIONALLY BLANK