03436100 RED RIVER AT PORT ROYAL, TN

Lower Cumberland Basin
Red Subbasin

LOCATION.--Lat 36°33'14.42", long 87°08'31.09" referenced to North American Datum of 1927, Montgomery County, TN, Hydrologic Unit 05130206, on left bank at county road bridge at Port Royal, 250 ft downstream from Sulphur Fork, and at mile 25.5.

DRAINAGE AREA.--935 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1961 to September 1991. October 1991 to September 1996, crest-stage partial record station. October 1997 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 376.25 ft above NGVD of 1929. July 13, 1961 to Oct. 9, 1963, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,200 ft^3/s, May 3, 2010, gage height, 49.48 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 23, 1937 reached a stage of 44.4 ft; from flood profile of U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 25	1430	18,000	29.34
Mar 1	0400	19,400	30.52
Mar 6	0700	11,100	21.77
Apr 25	0800	12,200	23.09
Apr 28	0400	*33,200	*38.74
May 4	0230	22,200	32.93

Minimum discharge, 68 ft^3/s, Oct. 24, gage height, 3.19 ft.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	80	99	1,340	260	681	17,700	1,500	6,480	931	1,380	343	112
2	80	90	1,020	399	1,740	8,160	1,360	8,120	877	1,150	307	112
3	76	91	640	651	2,120	4,890	1,240	15,800	829	989	268	106
4	80	91	480	526	1,430	3,910	1,250	20,100	783	907	246	118
5	74	90	384	447	1,250	5,180	3,940	10,100	737	815	231	796
6	78	85	322	403	1,140	9,910	3,310	6,190	704	756	218	961
7	75	91	280	365	1,030	5,860	2,370	4,850	683	698	218	748
8	80	87	252	345	939	4,350	1,950	4,060	649	976	221	688
9	76	88	227	313	877	6,340	1,700	3,460	615	776	220	419
10	78	90	213	286	822	8,600	1,510	3,030	578	659	203	317
11	79	88	212	266	744	5,350	1,520	2,700	548	581	187	280
12	73	93	264	251	697	4,270	6,680	2,440	567	516	171	245
13	73	86	369	235	698	3,630	6,790	2,310	546	473	167	211
14	73	96	407	223	790	3,170	4,030	2,200	512	441	157	196
15	76	93	334	211	1,010	3,410	3,210	2,030	505	403	155	226
16	77	102	311	208	888	3,080	3,420	1,860	497	2,280	154	254
17	73	129	324	206	836	2,660	3,060	1,730	485	1,770	146	250
18	76	145	367	217	793	2,410	2,510	1,620	522	945	137	219
19	71	149	394	242	753	2,180	2,160	1,530	668	726	370	198
20	77	147	343	274	692	1,950	1,960	1,440	813	662	253	199
21	75	126	312	320	667	1,820	1,780	1,370	806	549	478	455
22	75	110	291	305	692	1,720	1,620	1,330	954	502	381	836
23	72	152	272	286	711	1,640	1,570	1,330	1,050	497	276	537
24	74	339	247	272	3,850	1,550	3,640	1,350	789	428	222	385
25	97	348	236	271	16,200	1,410	10,500	1,380	659	421	190	324
26	104	583	225	330	11,100	1,330	6,750	1,540	624	373	170	639
27	152	745	216	487	5,200	1,310	19,900	2,190	825	331	156	920
28	154	532	201	723	9,720	1,280	31,000	1,530	2,420	303	146	720
29	127	364	195	822	---	1,200	17,700	1,270	3,640	286	133	519
30	113	599	201	816	---	1,340	7,960	1,120	1,850	337	124	416
31	108	---	207	733	---	1,650	---	1,020	---	496	116	---
Total	2,676	5,928	11,086	11,693	68,070	123,260	157,890	117,480	26,666	22,426	6,764	12,406
Mean	86.3	198	358	377	2,431	3,976	5,263	3,790	889	723	218	414
Max	154	745	1,340	822	16,200	17,700	31,000	20,100	3,640	2,280	478	961
Min	71	85	195	206	667	1,200	1,240	1,020	485	286	116	106
Cfsm	0.09	0.21	0.38	0.40	2.60	4.25	5.63	4.05	0.95	0.77	0.23	0.44
In.	0.11	0.24	0.44	0.47	2.71	4.90	6.28	4.67	1.06	0.89	0.27	0.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	350	704	1,684	1,996	2,411	2,502	2,090	1,842	1,008	551	343	407
Max	2,303	3,610	5,054	5,984	7,429	9,874	6,482	7,482	5,467	2,858	1,277	3,939
(WY)	(2010)	(1980)	(1991)	(1974)	(1989)	(1975)	(1979)	(2010)	(1998)	(1989)	(2005)	(1979)
Min	68.2	74.4	73.4	91.7	562	724	490	270	140	143	78.4	71.1
(WY)	(1964)	(1964)	(1964)	(1981)	(1964)	(2000)	(1986)	(1988)	(1988)	(1988)	(2007)	(2007)

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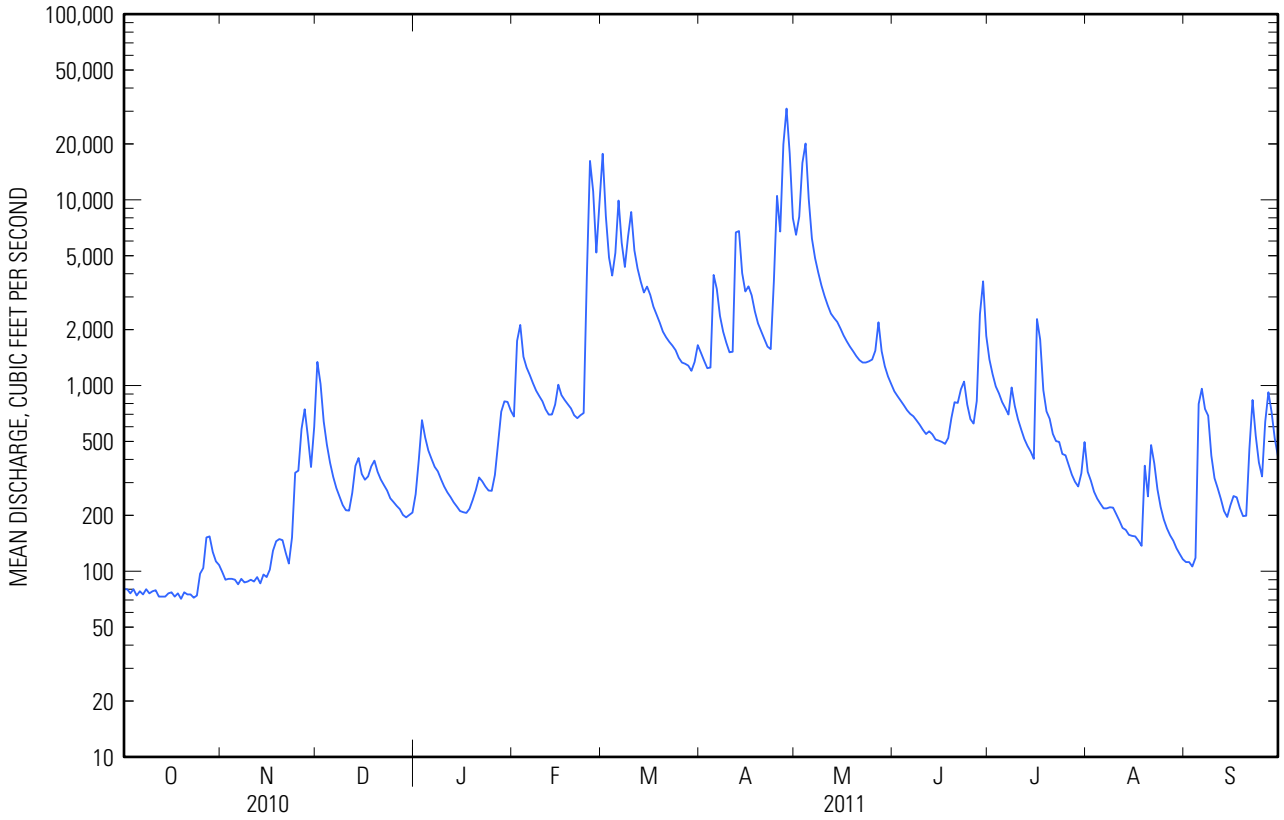
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1961 - 2011	
Annual total	485,416		566,345			
Annual mean	1,330		1,552		1,332	
Highest annual mean					2,594	1979
Lowest annual mean					514	2000
Highest daily mean	60,600	May 3	31,000	Apr 28	60,600	May 3, 2010
Lowest daily mean	71	Oct 19	71	Oct 19	49	Oct 13, 2007
Annual seven-day minimum	74	Oct 13	74	Oct 13	51	Oct 9, 2007
Maximum peak flow			33,200	Apr 28	63,200	May 3, 2010
Maximum peak stage			38.74	Apr 28	49.48	May 3, 2010
Instantaneous low flow			68	Oct 24	[a]48	Oct 11, 2007
Annual runoff (cfsm)	1.42		1.66		1.42	
Annual runoff (inches)	19.31		22.53		19.36	
10 percent exceeds	2,610		3,640		2,980	
50 percent exceeds	476		532		629	
90 percent exceeds	90		93		125	

[a] Also occurred Oct. 12, 13, 2007.