



Explanation:
 Median of monthly mean discharge for 25-year period 1921-45.
 Monthly mean discharge during water year 1952.

Figure 3.--Comparison of discharge at three key gaging stations during 1952 water year with median discharge for 25-year period.

CUMBERLAND RIVER BASIN

Poor Fork at Cumberland, Ky.

Location.--Lat 36°58'25", long. 82°59'35", at left end downstream side of Second Street Bridge at Cumberland, Harlan County, 0.1 mile upstream from Cloverlick Creek and 0.5 mile downstream from Looney Creek.

Drainage area.--82.1 sq mi.

Records available.--March 1940 to September 1952.

Gage.--Water-stage recorder. Datum of gage is 1,415.15 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--12 years, 141 cfs.

Extremes.--Maximum discharge during year, 2,530 cfs Dec. 15 (gage height, 5.28 ft); minimum, 2.6 cfs Sept. 12, 13, 30 (gage height, 0.24 ft).

1940-52: Maximum discharge, 7,500 cfs Jan. 7, 1946 (gage height, 9.65 ft), from rating curve extended above 2,900 cfs by logarithmic plotting; minimum, 2.1 cfs Oct. 8, 9, 1941.

Flood in January 1927 reached a stage about 0.5 ft higher than that of Jan. 7, 1946 (discharge, 12,000 cfs, estimated by Corps of Engineers). Flood of July 1939 reached a stage of 9.3 ft, from floodmarks.

Remarks.--Records good.

Revisions (water years).--W 923: 1940(M).

Rating tables, water year 1951-52 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 23				Mar. 24 to Sept. 30			
0.60	13	1.5	195	0.2	0	1.5	195
.65	18	2.0	380	.3	6.5	2.0	380
.7	25	3.0	860	.5	20	3.0	860
.8	40	5.0	2,310	.7	38	4.0	1,560
1.1	95			1.0	80		

Discharge, in cubic feet per second, water year October 1951 to September 1952

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2	18	456	111	115	210	225	102	232	155	25	58	13
3	17	189	93	103	180	219	*96	180	110	23	110	22
4	17	115	81	105	183	*324	82	148	88	20	42	16
5	*16	87	128	109	304	780	78	120	74	20	26	13
4	14	73	192	155	468	420	100	106	64	18	26	11
6	16	67	171	162	368	272	94	94	56	18	36	11
7	18	460	148	140	276	198	88	*80	48	19	28	9.3
8	19	*280	*981	130	216	155	86	74	43	20	22	6.5
9	22	148	715	132	183	130	84	70	46	20	21	5.8
10	19	97	492	740	155	285	82	236	106	20	19	5.2
11	17	75	332	460	140	1,180	80	336	*92	17	17	5.8
12	16	61	228	340	120	560	77	380	229	15	15	4.6
13	16	54	165	320	118	364	77	308	201	14	18	3.2
14	16	101	459	336	219	253	90	222	120	12	18	6.1
15	17	140	1,730	284	292	198	82	172	82	12	15	28
16	17	428	550	219	250	162	88	130	64	*33	14	22
17	17	360	328	198	219	138	96	102	57	42	17	15
18	17	210	535	272	186	130	106	140	49	35	*15	9.5
19	17	140	*508	256	171	168	104	222	40	74	14	30
20	17	103	476	296	158	168	96	195	35	34	11	60
21	17	83	1,320	304	140	165	88	192	33	29	14	24
22	19	71	540	*1,190	120	494	84	160	37	24	14	18
23	19	63	348	835	113	*1,830	75	125	140	19	16	15
24	34	336	246	408	107	650	84	102	90	16	17	12
25	32	625	204	284	99	368	140	98	60	12	12	10
26	32	580	204	225	87	253	395	90	44	11	10	*6.6
27	31	420	201	380	79	195	1,050	80	36	9.3	9.3	7.9
28	32	254	195	1,020	73	165	1,530	70	31	9.3	13	1.2
29	31	171	180	635	91	140	585	300	27	7.9	16	5.8
30	32	135	162	368	--	120	344	380	25	8.6	15	3.9
31	43	--	140	260	--	110	--	222	--	27	11	--
Total	665	6,378	12,163	10,781	5,325	10,819	6,147	5,366	2,282	664.1	691.3	409.2
Mean	21.5	213	392	348	184	349	205	173	76.1	21.4	22.3	13.6
Cfsm	0.262	2.59	4.77	4.24	2.24	4.25	2.50	2.11	0.927	0.261	0.272	0.166
In.	0.30	2.89	5.51	4.86	2.41	4.90	2.78	2.43	1.08	0.30	0.31	0.19
Calendar year 1951: Max		2,280		Min	11	Mean	195	Cfsm	2.38	In.	32.22	
Water year 1951-52: Max		1,830		Min	3.2	Mean	169	Cfsm	2.06	In.	27.93	

Peak discharge (base, 1,200 cfs)--Dec. 8 (4 p.m.) 1,600 cfs (4.05 ft); Dec. 15 (2:30 a.m.) 2,530 cfs (5.28 ft); Dec. 21 (4:30 a.m.) 1,720 cfs (4.23 ft); Jan. 22 (5:30 p.m.) 2,060 cfs (4.69 ft); Jan. 28 (1:30 p.m.) 1,270 cfs (3.59 ft); Mar. 11 (8 a.m.) 1,490 cfs (3.90 ft); Mar. 23 (9 a.m.) 2,260 cfs (4.96 ft); Apr. 28 (4 a.m.) 2,090 cfs (4.72 ft).

* Discharge measurement made on this day.

