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LOW - FLOW FREQUENCY
AND FLOW DURATION
OF TENNESSEE STREAMS

U. S. Geological Survey



OPEN-FILE REPORT 78-807

Prepared in cooperation with the
Tennessee Department of Conservation
Division of Water Resources

03584500 - ELK RIVER NEAR PROSPECT, TN

LOCATION.-- Lat 35°01'39", long 86°56'52", Giles County, on right bank 50 ft upstream from highway bridge, 1.1 miles downstream from Richland Creek, 3.2 miles east of Prospect, 5.4 miles upstream from Ford Creek, 7.9 miles upstream from Tennessee-Alabama state line, and at mile 41.5.

DRAINAGE AREA.-- 1,784 mi².

PERIOD OF RECORD.-- May 1952 to September 1975.

REMARKS: Flow regulated by Woods Reservoir (since May 1952), and by Tims Ford Lake since December 1970.

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
154	171	175	194	237	309
80	70	60	50	40	30
467	663	921	1330	1910	2790
20	10	5	2	1	0.5
4190	7260	12200	20700	26300	30900

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	208	163	149	140	
3	222	170	152	141	
7	242	178	155	142	
14	263	188	161	143	
30	310	217	182	159	
60	395	266	218	186	
120	549	376	317	278	
183	773	532	449	394	

03588000 - SHOAL CREEK AT LAWRENCEBURG, TN

LOCATION.-- Lat 35°14'31", long 87°21'14", Lawrence County, on left bank at downstream side of highway bridge, 1,500 ft upstream from Crowson Creek, 1,800 ft downstream from Little Shoal Creek, 1.1 miles west of the courthouse in Lawrenceburg, and at mile 55.6.

DRAINAGE AREA.-- 55.5 mi².

PERIOD OF RECORD.-- July 1932 to March 1934, March 1967 to September 1975.

REMARKS: About 5 ft³/s is diverted by the City of Lawrenceburg above the gage for water supply. No adjustments have been made for that diversion.

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
19.4	20.3	20.6	23.0	26.3	29.2
80	70	60	50	40	30
34.8	40.9	48.0	57.1	70.3	89.9
20	10	5	2	1	0.5
119	192	335	670	1070	1400

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	18	14	12	11	
3	18	15	13	12	
7	19	15	14	13	
14					
30					
60					
120					
183					

03588400 - CHISHOLM CREEK AT WESTPOINT, TN

LOCATION.-- Lat 35°08'04", long 87°31'45", Lawrence County, on downstream side of left pier of county road bridge 0.3 mile northeast of Westpoint, and 1.2 miles above mouth.

DRAINAGE AREA.-- 43.0 mi².

PERIOD OF RECORD.-- August 1962 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
11.1	11.5	11.6	12.7	14.7	17.2
80	70	60	50	40	30
21.3	25.5	30.8	37.7	49.5	68.2
20	10	5	2	1	0.5
95.4	167	276	464	740	1070

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	13.7	10.4	9.17	8.31	
3	13.9	10.5	9.27	8.39	
7	14.4	10.9	9.61	8.70	
14	15.4	12.0	10.6	9.72	
30	17.6	13.3	11.6	10.4	
60	19.5	14.7	12.8	11.6	
120	23.9	17.8	15.7	14.5	
183	27.6	20.9	18.7	17.3	

03588500 - SHOAL CREEK AT IRON CITY, TN

LOCATION.-- Lat 35°01'27", long 87°34'44", Lawrence County, on downstream side near center of bridge on county road, 400 ft downstream from Holly Creek, 1,350 ft upstream from Louisville & Nashville Railroad bridge, 1,350 ft northeast of post office at Iron City, and at mile 22.0.

DRAINAGE AREA.-- 348 mi².

PERIOD OF RECORD.-- July 1925 to September 1975.

REMARKS: Prior to January 1951, diurnal fluctuation at low flow caused by powerplant near Lawrenceburg.

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
70.2	78.0	78.9	89.3	105	125
80	70	60	50	40	30
152	183	228	293	392	544
20	10	5	2	1	0.5
787	1330	2070	3720	5480	7900

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	102	78.9	68.2	60.1	51.8
3	106	83.1	72.7	64.9	56.8
7	110	87.8	77.7	70.1	62.3
14	116	92.9	82.4	74.5	66.5
30	129	102	90.9	82.3	73.6
60	141	112	101	93.1	86.0
120	172	137	125	118	112
183	210	164	149	139	129

03593300 - SNAKE CREEK NEAR ADAMSVILLE, TN

LOCATION.-- Lat 35°13'11", long 88°25'36", McNairy County, on left bank at bridge on U. S. Highway 64, 1.7 miles downstream from Little Snake Creek and 2.3 miles Southwest of Adamsville.

DRAINAGE AREA.-- 49.4 mi².

PERIOD OF RECORD.-- November 1939 to September 1959.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
0.00	0.30	0.40	0.65	1.30	2.24
80	70	60	50	40	30
4.21	6.77	10.5	16.3	24.4	41.7
20	10	5	2	1	0.5
70.4	137	284	658	1000	1400

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	1.42	0.46	0.22	0.05	
3	1.47	0.46	0.23	0.10	
7	1.70	0.58	0.30	0.10	
14	1.95	0.68	0.34	0.12	
30	3.03	0.91	0.41	0.19	
60	4.31	1.83	1.16	0.80	
120	8.08	4.12	2.98	2.31	
183	12.1	6.37	4.59	3.51	

03593500 - TENNESSEE RIVER AT SAVANNAH, TN

LOCATION.-- Lat 35°13'29", long 88°15'36", Hardin County, on left bank pier of bridge on U. S. Highway 64 at Savannah, 16.8 miles downstream from Pickwick Landing Dam, and at mile 189.9.

DRAINAGE AREA.-- 33,140 mi² (approximately).

PERIOD OF RECORD.-- October 1935 to September 1975.

REMARKS: Increasing regulation since 1936 as reservoirs have been built above station.

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
9970	12000	12400	14800	19100	23000
80	70	60	50	40	30
27200	31800	35900	40500	46500	53900
20	10	5	2	1	0.5
69500	106000	157000	217000	263000	290000

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	10500	9400	5590	2400	
3	18500	13100	10300	8230	
7	21600	15700	12800	10600	
14	23400	17200	14100	11700	
30	25200	19900	17300	15200	
60	28600	22800	19900	17600	
120	31200	25000	21900	19400	
183	33600	27200	24100	21700	

03593800 - HORSE CREEK NEAR SAVANNAH, TN

LOCATION.-- Lat 35°10'37", long 88°12'34", Hardin County, on right bank at bridge on county road, 1.2 miles northeast of Maddox and 4 miles southeast of Savannah.

DRAINAGE AREA.-- 104 mi².

PERIOD OF RECORD.-- December 1939 to September 1970.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
22.6	23.9	24.3	26.4	31.9	38.5
80	70	60	50	40	30
47.4	54.4	63.2	77.1	97.6	132
20	10	5	2	1	0.5
184	281	431	787	1230	1900

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	34.7	27.1	23.7	21.0	18.3
3	35.1	27.6	24.1	21.5	18.7
7	35.9	28.1	24.5	21.7	18.9
14	36.9	28.9	25.2	22.4	19.5
30	39.5	31.0	27.0	24.0	20.9
60	43.4	34.7	30.8	27.8	24.8
120	50.4	40.4	36.1	33.0	29.9
183	58.7	46.8	41.2	37.0	32.6

03594040 - TURKEY CREEK NEAR SAVANNAH, TN

LOCATION.-- Lat 35°13'45", long 88°11'38", Hardin County, on left bank at bridge on U. S. Highway 64, and 3.2 miles east of Savannah.

DRAINAGE AREA.-- 53.7 mi².

PERIOD OF RECORD.-- November 1939 to September 1959.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
3.50	4.68	4.78	5.72	7.79	11.3
80	70	60	50	40	30
16.0	20.7	26.1	34.0	48.1	70.0
20	10	5	2	1	0.5
104	173	278	505	717	1000

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	9.66	5.01	3.34	2.31	
3	10.4	5.81	4.03	2.89	
7	10.7	6.14	4.37	3.21	
14	11.2	6.68	4.94	3.78	
30	12.2	7.63	5.88	4.70	
60	14.5	9.45	7.54	6.26	
120	18.6	12.0	9.65	8.07	
183	23.3	15.4	12.5	10.6	

03594058 - WHITE OAK CREEK NEAR MILLEDGEVILLE, TN

LOCATION.-- Lat 35°22'26", long 88°22'54", McNairy County, on left bank of White Oak Creek Drainage Ditch, 1 mile west of Milledgeville.

DRAINAGE AREA.-- 46.1 mi².

PERIOD OF RECORD.-- December 1939 to September 1959.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
0.74	0.90	0.95	1.18	2.14	3.73
80	70	60	50	40	30
6.68	9.49	13.5	19.4	30.4	49.4
20	10	5	2	1	0.5
80.4	151	276	760	1160	1580

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	2.50	0.85	0.37	0.10	
3	2.68	0.95	0.43	0.12	
7	3.10	0.97	0.64	0.42	
14	3.37	1.37	0.79	0.98	
30	4.00	1.86	1.21	0.83	
60	6.66	3.78	2.80	2.18	
120	11.9	7.19	5.58	4.56	
183	15.7	8.88	6.69	5.33	

03594120 - MIDDLETON CREEK NEAR MILLEDGEVILLE, TN

LOCATION.-- Lat 35° 24' 59", long 88° 21' 40", Hardin County, on right bank 1,600 ft downstream from Big Hurricane Creek and 3.2 miles north of Milledgeville.

DRAINAGE AREA.-- 45.5 mi².

PERIOD OF RECORD.-- December 1939 to September 1959.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
0.40	0.79	0.90	1.60	2.79	4.53
80	70	60	50	40	30
7.83	11.2	15.1	20.2	29.8	44.0
20	10	5	2	1	0.5
65.3	129	260	636	959	1450

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	1.42	0.46	0.22	0.08	
3	1.47	0.46	0.22	0.08	
7	1.71	0.58	0.28	0.10	
14	1.95	0.68	0.34	0.12	
30	3.03	0.91	0.41	0.19	
60	4.31	1.83	1.16	0.80	
120	8.08	4.12	2.98	2.31	
183	12.1	6.37	4.59	3.51	

03594160 - INDIAN CREEK NEAR CERRO GORDO, TN

LOCATION.-- Lat 35°18'25", long 88°07'31", Hardin County, on left bank 3.5 miles east of Cerro Gordo, 1,800 ft below the mouth of Smith Fork, at steel bridge known as "Upper Bridge".

DRAINAGE AREA.-- 201 mi²

PERIOD OF RECORD.-- January 1940 to September 1959.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
12.0	15.9	16.4	21.4	29.4	37.6
80	70	60	50	40	30
53.2	70.4	96.7	138	206	317
20	10	5	2	1	0.5
478	750	1190	2070	3150	4270

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	27.1	15.2	11.0	8.36	
3	27.6	15.4	11.2	8.45	
7	28.2	15.8	11.4	8.68	
14	30.2	17.3	12.7	9.75	
30	35.4	21.4	16.3	12.9	
60	43.2	28.0	22.7	19.1	
120	59.4	38.7	31.2	26.3	
183	77.9	52.1	42.9	36.9	

03594415 - BEECH RIVER NEAR LEXINGTON, TN

LOCATION.-- Lat 35°39'34", long 88°25'01", Henderson County, on left bank at downstream side of bridge on State Highway 20, 1.5 miles west of the courthouse in Lexington.

DRAINAGE AREA.-- 15.9 mi².

PERIOD OF RECORD.-- January 1953 to September 1963.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
6.78	6.94	6.97	7.37	7.97	8.62
80	70	60	50	40	30
9.69	10.9	12.2	13.3	14.6	16.7
20	10	5	2	1	0.5
20.3	32.2	60.1	160	250	354

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	7.88	7.26	6.60	6.30	
3	7.99	7.31	6.94	6.64	
7	8.24	7.57	7.24	6.99	
14	8.55	7.81	7.43	7.11	
30	8.96	8.08	7.64	7.30	
60	9.57	8.48	8.00	7.64	
120	11.4	9.61	8.81	8.20	
183	13.1	10.6	9.52	8.68	

03594430 - HARMON CREEK NEAR LEXINGTON, TN

LOCATION.-- Lat 35°38'16", long 88°21'15", Henderson County, on left bank at bridge on State Highway 20, 2 miles east of Lexington.

DRAINAGE AREA.-- 6.87 mi².

PERIOD OF RECORD.-- January 1953 to September 1963, April 1964 to September 1970.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
2.99	3.15	3.19	3.47	3.89	4.21
80	70	60	50	40	30
4.80	5.38	5.99	6.71	7.60	8.83
20	10	5	2	1	0.5
11.0	17.0	30.4	58.8	100	140

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	3.50	3.16	2.99	2.85	
3	3.60	3.23	3.05	2.90	
7	3.71	3.32	3.12	2.97	
14	3.88	3.50	3.31	3.15	
30	4.31	3.81	3.56	3.35	
60	4.78	4.12	3.82	3.58	
120	5.55	4.60	4.19	3.88	
183	6.17	5.14	4.68	4.33	

03594445 - BEECH RIVER NEAR CHESTERFIELD, TN

LOCATION.-- Lat 35°37'26", long 88°16'22", Henderson County, on right bank at bridge on Chesterfield-Middleburg road, 1 mile south of Chesterfield.

DRAINAGE AREA.-- 115 mi².

PERIOD OF RECORD.--February 1940 to June 1954, February 1960 to August 1965.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
23.0	23.5	23.6	25.0	28.2	32.2
80	70	60	50	40	30
43.4	57.0	70.4	88.1	110	140
20	10	5	2	1	0.5
194	367	713	1210	1740	2460

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	31.2	21.3	18.1	16.0	
3	31.9	22.1	18.9	16.9	
7	33.2	23.0	19.6	17.5	
14	35.3	24.5	20.8	18.5	
30	38.6	27.1	23.2	20.7	
60	45.0	30.8	26.0	22.9	
120	60.7	39.5	31.7	26.6	
183	71.3	46.0	36.9	31.0	

03594480 - TURKEY CREEK NEAR DECATURVILLE, TN

LOCATION.-- Lat 35°34'30", long 88°08'20", Decatur County, on right bank 1 air mile upstream from bridge on Middleburg Road, 1.2 miles southeast of Camp Ground Church, and 1.3 miles west of Decaturville.

DRAINAGE AREA.-- 8.40 mi².

PERIOD OF RECORD.-- January 1953 to September 1963.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
0.0	0.0	0.0	0.0	0.0	0.06
80	70	60	50	40	30
0.30	0.64	1.08	1.84	3.50	5.85
20	10	5	2	1	0.5
9.36	18.0	37.1	80.3	130	201

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.0	0.0	
7	0.0	0.0	0.0	0.0	
14	0.05	0.01	0.0	0.0	
30	0.09	0.01	0.0	0.0	
60	0.20	0.01	0.0	0.0	
120	0.56	0.18	0.09	0.05	
183	1.03	0.44	0.28	0.20	

03596000 - DUCK RIVER BELOW MANCHESTER, TN

LOCATION.--Lat 35°28'15", long 86°07'18", Coffee County, on right bank 50 ft downstream from Powers Bridge, 2 miles southwest of Manchester, 3.25 miles downstream from Little Duck River, 7 miles upstream from Crumpton Creek, and at mile 265.4.

DRAINAGE AREA.--107 mi².

PERIOD OF RECORD.--April 1934 to September 1975.

REMARKS: Occasional regulation for short periods during low flow by small reservoirs above station.

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
13.2	14.6	14.8	16.8	19.3	22.2
80	70	60	50	40	30
27.4	33.4	43.2	60.2	90.6	141
20	10	5	2	1	0.5
213	380	651	1260	1890	2950

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	17.0	13.2	11.5	10.0	8.89
3	17.5	13.6	11.8	10.0	9.11
7	18.5	14.4	12.0	11.0	9.43
14	19.9	15.6	13.4	11.7	9.99
30	22.0	17.7	15.7	14.1	12.5
60	24.7	19.7	17.6	16.1	14.6
120	32.7	24.6	21.4	19.2	17.0
183	42.5	31.7	27.6	24.9	22.3

03596500 - DUCK RIVER AT NORMANDY, TN

LOCATION.--Lat 35°27'26", long 86°15'25", Bedford County, on right bank 50 ft downstream from county road bridge, 0.5 mile north of Normandy, 1.7 miles downstream from Normandy Dam, 3.5 miles from L & N Railroad bridge, 7.5 miles upstream from Garrison Fork, and at mile 246.9.

DRAINAGE AREA.-- 208 mi².

PERIOD OF RECORD.-- December 1920 to September 1931, May 1972 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
41.8	43.3	43.7	47.7	57.0	64.7
80	70	60	50	40	30
81.8	103	134	182	254	355
20	10	5	2	1	0.5
517	879	1340	2490	3860	5580

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	60.7	52.0	48.1	45.1	
3	61.2	52.2	48.1	45.1	
7	61.3	52.3	48.2	45.2	
14	63.1	53.2	48.7	45.3	
30	69.6	58.0	52.3	47.8	
60	76.9	62.0	54.5	48.6	
120	101	72.2	60.3	51.8	
183	139	95.8	78.8	67.1	

03597000 - GARRISON FORK AT FAIRFIELD, TN

LOCATION.-- Lat 35°33'59", long 86°17'00", Bedford County, near left bank on downstream side of center pier of highway bridge, 0.1 mile east of Fairfield, 0.6 mile downstream from Noah Fork, and 4.5 miles northeast of Wartrace.

DRAINAGE AREA.-- 66.3 mi².

PERIOD OF RECORD.-- December 1953 to November 1958, April 1966 to September 1968.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
1.61	1.77	1.82	2.24	4.29	6.21
80	70	60	50	40	30
9.92	15.3	22.7	32.7	48.3	72.2
20	10	5	2	1	0.5
107	206	395	770	1490	2100

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	3.3	1.3	0.7	0.3	
3	4.0	2.1	1.5	1.0	
7	4.5	2.5	1.6	1.5	
14					
30					
60					
120					
183					

03597500 - WARTRACE CREEK AT BELL BUCKLE, TN

LOCATION.--Lat 35°35'16", long 86°20'22", Bedford County, on downstream right bank wingwall of bridge on State Highway 82, 0.2 mile downstream from Kelly Creek, 0.9 mile east of Bell Buckle, 4.0 miles northeast of Fairfield, and 7.7 miles upstream from mouth.

DRAINAGE AREA.--16.3 mi².

PERIOD OF RECORD.-- January 1954 to September 1961; January 1966 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
0.0	0.0	0.0	0.0	0.03	0.15
80	70	60	50	40	30
0.57	1.63	3.64	6.47	11.0	17.3
20	10	5	2	1	0.5
29.0	60.7	118	239	410	640

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	0.0	0.0	0.0	0.0	
3	0.01	0.0	0.0	0.0	
7	0.04	0.0	0.0	0.0	
14	0.08	0.01	0.0	0.0	
30	0.27	0.01	0.0	0.0	
60	1.12	0.23	0.08	0.03	
120	3.08	0.77	0.31	0.13	
183	6.02	2.04	0.99	0.50	

03598000 - DUCK RIVER NEAR SHELBYVILLE, TN

LOCATION.--Lat 35°28'49", long 86°29'57", Bedford County, on right bank 150 ft downstream from Sims Bridge, 2.1 miles upstream from Sugar Creek, 2.2 miles west of Shelbyville, 2.9 miles downstream from Flat Creek, and at mile 216.2.

DRAINAGE AREA.-- 481 mi².

PERIOD OF RECORD.-- May 1934 to September 1975.

REMARKS: Prior to 1948 diurnal fluctuation caused by powerplant upstream.

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
51.1	55.7	56.9	64.2	76.6	89.3
80	70	60	50	40	30
116	150	202	292	445	670
20	10	5	2	1	0.5
1030	1800	3000	5630	8520	12000

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	69.7	48.3	38.2	30.8	23.5
3	74.1	58.5	51.2	44.0	39.8
7	76.8	62.5	54.0	51.3	46.3
14	81.6	66.3	59.3	54.1	48.6
30	90.8	72.4	64.0	58.6	52.6
60	107	81.7	71.9	65.1	58.7
120	151	109	93.6	83.3	73.7
183	212	153	131	116	102

03599000 - BIG ROCK CREEK AT LEWISBURG, TN

LOCATION.-- Lat 35°26'56", long 86°47'09", Marshall County, on downstream side of center pier of bridge on State Highway 50, 800 ft east of courthouse in Lewisburg, and at mile 17.9.

DRAINAGE AREA.-- 24.9 mi².

PERIOD OF RECORD.-- February 1954 to September 1961, March 1966 to September 1968.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
0.0	0.0	0.0	0.0	0.02	0.19
80	70	60	50	40	30
1.11	2.73	5.46	9.64	16.7	27.2
20	10	5	2	1	0.5
44.2	82.7	153	323	525	735

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.0	0.0	
7	0.0	0.0	0.0	0.0	
14					
30					
60					
120					
183					

03599500 - DUCK RIVER AT COLUMBIA, TN

LOCATION.-- Lat 35°37'05", long 87°01'56", Maury County, on right bank 4 ft downstream from bridge on former U.S. Highway 31, 2 blocks north of public square at Columbia, 0.7 mile downstream from Columbia hydroelectric plant, 3.4 miles upstream from Rutherford Creek, and at mile 132.8.

DRAINAGE AREA.--1,208 mi².

PERIOD OF RECORD.-- October 1904 to December 1908, May 1920 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
25.7	40.0	41.3	55.8	79.4	109
80	70	60	50	40	30
177	274	422	668	1050	1600
20	10	5	2	1	0.5
2560	4870	8420	14600	20400	25600

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	50.3	22.8	13.7	8.62	4.83
3	64.5	34.1	30.0	25.0	19.0
7	77.0	46.1	33.0	25.3	20.0
14	81.6	54.6	43.7	36.2	29.0
30	104	68.9	55.1	45.7	36.8
60	157	95.3	73.6	59.6	47.1
120	299	172	127	97.9	72.4
183	472	292	225	181	140

03600000 RUTHERFORD CREEK NEAR CARTERS CREEK, TN

LOCATION.-- Lat 35°40'23", long 86°58'42", Maury County, on right bank upstream side of county road bridge, 1 mile downstream from Double Branch, 2.5 miles south of Neapolis, 3.2 miles south of town of Carters Creek, 3.5 miles upstream from Carters Creek, and 5.1 miles northeast of the courthouse in Columbia.

DRAINAGE AREA.-- 68.8 mi².

PERIOD OF RECORD.--October 1953 to December 1958.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
0.0	0.0	0.0	0.0	0.1	0.41
80	70	60	50	40	30
12.5	34.5	64.6	138	345	687
20	10	5	2	1	0.5
1200	2350	3940	8630	13400	19400

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.0	0.0	
7	0.0	0.0	0.0	0.0	
14					
30					
60					
120					
183					

03600500 - BIG BIGBY CREEK AT SANDY HOOK, TN

LOCATION.-- Lat 35°29'19", long 87°13'59", Maury County, on right bank 45 ft west of Louisville & Nashville Railroad track, 0.2 mile downstream from bridge on U.S. Highway 43, 0.4 mile northeast of Sandy Hook, 0.5 mile upstream from Dry Creek, and 3.5 miles southwest of Mount Pleasant.

DRAINAGE AREA.-- 17.5 mi².

PERIOD OF RECORD.-- September 1953 to October 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
2.16	2.41	2.47	2.96	3.64	4.48
80	70	60	50	40	30
5.75	6.83	8.33	10.9	14.9	21.5
20	10	5	2	1	0.5
32.4	54.1	89.5	174	302	440

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	3.65	2.68	2.22	1.87	
3	3.77	2.74	2.25	1.88	
7	3.92	2.86	2.36	1.98	
14	4.20	3.13	2.61	2.22	
30	4.79	3.59	3.00	2.54	
60	5.52	4.01	3.32	2.80	
120	6.49	4.78	3.96	3.34	
183	7.82	5.52	4.66	4.07	

03602000 - DUCK RIVER AT CENTERVILLE, TN

LOCATION.-- Lat 35°47'16", long 87°27'56", Hickman County, on right bank, 0.4 mile downstream from bridge on State Highways 48 and 100, 0.4 mile downstream from Defeated Creek, 0.6 mile north of Centerville, 1.25 miles upstream from Louisville & Nashville Railroad bridge, 4 miles downstream from Big Swan Creek, and at mile 72.1.

DRAINAGE AREA.-- 2,048 mi².

PERIOD OF RECORD.-- Some diurnal fluctuation at low flow caused by powerplants above station.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
130	144	148	173	217	270
80	70	60	50	40	30
384	541	799	1220	1800	2700
20	10	5	2	1	0.5
4270	7740	13000	22500	28800	33100

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	195	145	121	103	85.1
3	202	150	126	107	88.5
7	217	162	135	117	97.0
14	235	175	147	125	104
30	268	195	162	138	113
60	335	229	189	162	136
120	555	351	274	223	175
183	806	532	422	346	275

03602500 - PINEY RIVER AT VERNON, TN

LOCATION.--Lat 35°52'16", long 87°30'05", Hickman County, on right bank at county highway bridge, 40 ft upstream from Pretty Creek, 0.2 mile northwest of Vernon, 2.3 miles downstream from Mill Creek, 6.5 miles north of Centerville, and 8.3 miles upstream from mouth. Prior to Oct. 1, 1970, at site 350 ft upstream.

DRAINAGE AREA.-- 202 mi².

PERIOD OF RECORD.-- August 1925 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
47.2	49.0	49.4	54.0	61.1	69.9
80	70	60	50	40	30
81.4	94.8	113	141	186	258
20	10	5	2	1	0.5
370	617	958	1690	2600	4180

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	65.8	54.2	48.8	44.6	40.3
3	66.3	54.7	49.2	45.0	40.7
7	67.1	55.3	49.8	45.6	41.1
14	68.9	56.8	51.2	47.0	42.5
30	72.4	59.9	54.3	50.0	45.6
60	78.5	64.8	58.9	54.7	50.4
120	87.3	72.1	66.8	63.4	60.3
183	104	81.8	73.5	67.9	62.6

03603000 - DUCK RIVER ABOVE HURRICANE MILLS, TN

LOCATION.--Lat 35°55'48", long 87°44'35", Humphreys County, on left bank 0.4 mile downstream from Tumbling Creek, 1.3 miles upstream from bridge on State Highway 13, 3.6 miles southeast of Hurricane Mills, and at mile 26.0.

DRAINAGE AREA.--2,557 mi².

PERIOD OF RECORD.-- August 1925 to September 1975.

REMARKS: Occasional minor fluctuations at low flow from small dams upstream. Prior to about 1953, fluctuation and regulation were more pronounced. Minor diversions for irrigation.

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
394	298	305	350	427	511
80	70	60	50	40	30
674	894	1210	1690	2440	3550
20	10	5	2	1	0.5
5360	9480	15900	26400	35300	42800

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	394	315	283	259	239
3	402	322	290	260	245
7	418	336	296	279	256
14	447	358	321	294	268
30	508	395	347	312	301
60	617	458	393	346	301
120	853	610	511	440	372
183	1120	809	687	602	522

03604000 - BUFFALO RIVER NEAR FLATWOODS, TN

LOCATION.--Lat 35°29'45", long 87°49'58", Perry County, on right bank 0.5 mile downstream from Little Opossum Creek and bridge on State Highway 13, 1.3 miles north of Flat Woods, 3.9 miles upstream from Sinking Creek, and at mile 58.7.

DRAINAGE AREA.-- 447 mi².

PERIOD OF RECORD.-- June 1920 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
103	112	115	126	146	169
80	70	60	50	40	30
203	239	284	352	453	620
20	10	5	2	1	0.5
881	1460	2300	4270	6660	9620

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	141	113	99.4	89.4	79.2
3	143	114	101	91.2	81.2
7	146	117	104	94.7	84.8
14	153	123	110	99.7	89.5
30	168	136	121	110	98.6
60	187	152	137	125	114
120	218	177	162	152	144
183	255	204	186	175	165

03604100 - COON CREEK NEAR HOHENWALD, TN

LOCATION.--Lat 35°36'23", long 87°42'43", Perry County, on downstream right wingwall of bridge of private drive 150 ft south of State Highway 20, 0.1 mile upstream from Edwards Branch, and 11 miles northwest of Hohenwald.

DRAINAGE AREA.-- 10.1 mi².

PERIOD OF RECORD.-- December 1966 to September 1974.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

99.5	99.1	99	98	95	90
1.50	1.74	1.80	1.93	2.28	2.71
80	70	60	50	40	30
3.41	4.08	4.94	6.09	7.77	11.3
20	10	5	2	1	0.5
15.6	26.2	39.3	76.8	120	220

MAGNITUDE AND FREQUENCY

LOWEST AVERAGE FLOW IN CUBIC FEET PER SECOND, FOR INDICATED RECURRENCE INTERVAL IN YEARS.

PERIOD (CONSECUTIVE DAYS)	2	5	10	20	50
1	0.92	0.45	0.31	0.22	
3	0.98	0.46	0.33	0.24	
7	1.0	0.50	0.36	0.26	
14					
30					
60					
120					
183					