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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

03432500 - WEST HARPETH RIVER NEAR LEIPERS FORK, TN

LOCATION.--Lat 35°53'56", long 86°58'01", Williamson County, on downstream end of center pier of bridge on State Highway 96, 0.6 mile downstream from Murfrees Fork, 1.2 miles upstream from and 5.8 miles west of the square in Franklin.

DRAINAGE AREA.-- 66.9 mi².

PERIOD OF RECORD.-- October 1954 - September 1961.

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
0.01	0.03	0.03	0.06	0.30	1.0
80	70	60	50	40	30
3.33	7.17	12.5	21.5	41.9	73.9
20	10	5	2	1	0.5
119	212	342	628	1010	1330

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	0.1	0.0	0.0	0.0	
3	0.1	0.0	0.0	0.0	
7	0.2	0.0	0.0	0.0	
14					
30					
60					
120					
183					

03433500 - HARPETH RIVER AT BELLEVUE, TN

LOCATION.--Lat 36° 03'16", long 86° 55'42", Davidson County, on right bank 45 ft upstream from bridge on State Highway 100, 0.1 mile downstream from Little Harpeth River, 0.9 mile southeast of Bellevue, and at mile 61.75.

DRAINAGE AREA.--408 mi² (includes 15 mi² without surface drainage).

PERIOD OF RECORD.-- May 1920 to October 1929, January 1932 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
1.20	1.85	2.00	3.15	7.00	14.4
80	70	60	50	40	30
29.3	51.3	92.2	167	284	464
20	10	5	2	1	0.5
759	1400	2280	4190	5980	8200

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	4.77	1.49	0.69	0.30	
3	5.26	1.66	0.77	0.33	
7	6.41	1.92	0.88	0.42	
14	7.90	2.83	1.52	0.88	
30	13.3	5.16	2.92	1.75	
60	22.6	9.39	5.70	3.69	
120	61.3	29.9	19.6	13.5	
183	99.1	54.2	38.5	28.6	

LOCATION.-- Lat 36°07'18", long 87°05'56", Cheatham County, on right bank 400 ft upstream from bridge on U.S. Highway 70, 2 miles north-east of Kingston Springs, 3 miles downstream from Turnbull Creek, and at mile 32.4.

DRAINAGE AREA.--681 mi² (includes 15 mi² without surface drainage).

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
23.2	26.6	27.2	33.4	45.0	62.0
80	70	60	50	40	30
93.7	134	199	309	495	784
20	10	5	2	1	0.5
1260	2240	3700	6900	9800	13900

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	39.8	26.8	21.8	18.4	15.3
3	41.3	28.0	22.8	19.4	16.1
7	44.5	30.1	24.5	20.7	17.1
14	50.0	33.3	26.9	22.5	18.3
30	62.8	41.5	33.1	27.3	21.9
60	82.6	52.1	41.2	34.0	27.4
120	141	88.3	69.0	56.3	44.7
183	197	123	96.4	78.9	63.1

03435000 - CUMBERLAND RIVER BELOW CHEATHAM DAM, TN

LOCATION.-- Lat 36°19'26", long 87°13'32", Cheatham County, on downstream end of lower lock wall at Cheatham Dam, 2.0 miles southwest of Neptune, 3.0 miles upstream from Half Pone Creek, 9.7 miles west of Ashland City, and at mile 148.4.

DRAINAGE AREA.-- 14,356 mi² at former lock and dam B prior to April 16, 1966; 14,163 mi² thereafter.

PERIOD OF RECORD.-- October 1954 to September 1975.

REMARKS: Some regulation by Lake Cumberland, Dale Hollow Reservoir, Great Falls Lake, Center Hill Reservoir, Old Hickory Lake, and Cheatham Dam.

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
1400	1740	1820	2420	3650	5090
80	70	60	50	40	30
7550	9860	12600	15700	20200	27100
20	10	5	2	1	0.5
37300	52500	68700	94100	111000	125000

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	1700	1010	775	621	
3	2810	1720	1290	999	
7	3670	2330	1740	1330	
14	4520	3060	2410	1930	
30	5750	4290	3560	2990	
60	7530	5770	4850	4120	
120	9110	6970	5930	5120	
183	10900	8300	7140	6280	

03435030 - RED RIVER NEAR PORTLAND, TN

LOCATION.-- Lat 36°33'24", long 86°34'14", Sumner County, near left bank on downstream wingwall of county road bridge, 1.5 miles upstream from Austin Branch, 2.8 miles north of New Deal, 3.5 miles southwest of Portland, and at mile 93.0.

DRAINAGE AREA.-- 15.1 mi².

PERIOD OF RECORD.-- October 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
0.96	1.10	1.13	1.48	2.02	2.49
80	70	60	50	40	30
3.46	4.76	7.08	10.7	15.4	21.8
20	10	5	2	1	0.5
30.9	48.1	79.1	159	230	401

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	0.7	0.3	0.2	0.1	
3	0.7	0.3	0.2	0.1	
7	0.9	0.4	0.2	0.1	
14					
30					
60					
120					
183					

03435500 - RED RIVER NEAR ADAMS, TN

LOCATION.-- Lat 36°35'19", long 87°05'21", Robertson County, on downstream end of right bank pier of bridge on U.S. Highway 41, 0.5 mile downstream from Elk Fork, 1.3 miles northwest of Adams, and at mile 33.0.

DRAINAGE AREA.--706 mi² (includes 397 mi² without surface drainage).

PERIOD OF RECORD.--July 1920 to October 1969.

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
40.4	44.0	45.0	48.8	62.0	77.6
80	70	60	50	40	30
114	161	238	359	551	849
20	10	5	2	1	0.5
1340	2340	3460	5700	7920	11000

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	55.5	42.2	37.6	34.7	32.1
3	58.3	44.4	39.6	36.5	33.8
7	62.1	47.3	42.1	38.7	35.6
14	66.7	50.7	45.1	41.4	38.2
30	78.8	57.3	49.5	44.4	39.7
60	97.9	67.7	57.1	50.1	43.7
120	138	90.5	75.5	66.2	58.2
183	204	127	101	85.1	70.7

LOCATION.-- Lat 36°30'55", long 87°03'32", Robertson County, on left bank 600 ft downstream from county highway bridge, 2.8 miles downstream from Millers Creek, 4.1 miles southwest of Cedar Hill, 4.6 miles south of Adams, and 10.2 miles upstream from mouth.

DRAINAGE AREA.-- 186 mi² (includes 21 mi² without surface drainage).

PERIOD OF RECORD.-- February 1939 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
4.94	5.84	6.02	7.66	11.6	15.0
80	70	60	50	40	30
22.2	31.9	47.0	73.0	117	185
20	10	5	2	1	0.5
305	574	953	1730	2500	3400

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	9.36	5.73	4.34	3.41	2.57
3	9.59	5.82	4.39	3.44	2.59
7	10.2	6.17	4.69	3.71	2.83
14	11.0	6.84	5.32	4.33	3.42
30	14.0	9.12	7.44	6.35	5.37
60	19.6	12.4	9.88	8.23	6.74
120	26.3	17.3	14.8	13.3	12.2
183	41.4	26.5	21.7	18.8	16.2

03436100 - RED RIVER AT PORT ROYAL, TN

LOCATION.-- Lat 36°33'17", long 87°08'31", Montgomery County, on left bank at county road bridge at Port Royal, 250 ft downstream from Sulphur Fork and at mile 25.5.

DRAINAGE AREA.-- 935 mi² (includes 437 mi² without surface drainage).

PERIOD OF RECORD.-- August 1961 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
61.4	67.0	67.7	75.3	88.8	110
80	70	60	50	40	30
159	220	327	489	762	1200
20	10	5	2	1	0.5
1830	2980	4470	7620	11300	16900

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	86.2	67.5	61.8	58.4	
3	87.9	68.6	62.7	59.2	
7	91.4	71.0	64.6	60.8	
14	101	77.3	69.4	64.4	
30	109	81.6	72.7	67.3	
60	120	91.9	84.8	81.2	
120	175	120	104	95.1	
183	281	193	163	143	

LOCATION.-- Lat 36°31'20", long 87°22'40", Montgomery County, at Louisville & Nashville Railroad bridge at Clarksville, 1.3 miles upstream from Red River, 18.0 miles upstream from lock and dam C, and at mile 126.5.

DRAINAGE AREA.-- 15,897 mi², includes that of Red River.

PERIOD OF RECORD.-- October 1924 to July 1943.

REMARKS: Some regulation by Great Falls Lake (for period of record) and by Dale Hollow Reservoir (since August 1943).

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
540	646	673	840	1260	1870
80	70	60	50	40	30
3300	4950	7540	11100	16800	24100
20	10	5	2	1	0.5
35300	64500	94700	125000	147000	167000

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	971	600	457	362	
3	1110	669	499	385	
7	1250	743	546	416	
14	1420	895	694	559	
30	1770	1090	849	687	
60	2390	1420	1080	864	
120	4440	2560	1860	1400	
183	6420	3840	2860	2210	

03436700 - YELLOW CREEK NEAR SHILOH, TN

LOCATION.-- Lat 36°20'55", long 87°32'15", Montgomery County, on downstream end of left bank pier of bridge on State Highway 13, 2.5 miles downstream from Leatherwood Creek, 3 miles west of Shiloh, 7 miles upstream from mouth, and 9 miles east of Erin.

DRAINAGE AREA.-- 124 mi².

PERIOD OF RECORD.-- October 1957 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
20.7	22.0	22.5	23.8	26.2	29.5
80	70	60	50	40	30
35.3	43.7	57.8	79.3	113	165
20	10	5	2	1	0.5
233	386	589	1100	1690	2290

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	23.5	19.8	18.5	17.6	
3	23.8	20.2	18.8	18.0	
7	24.6	20.9	19.6	18.8	
14	25.6	21.9	20.7	20.0	
30	27.4	24.5	23.9	23.5	
60	30.6	27.0	26.2	25.9	
120	38.2	31.0	28.6	27.1	
183	53.5	40.6	35.4	31.8	

LOCATION.-- Lat 36°29'26", long 87°50'20", Stewart County, on center pier of bridge on U.S. Highway 79 at Dover, 0.1 mile upstream from Dyers Creek, 0.8 mile upstream from lock and dam D, and at mile 88.8.

DRAINAGE AREA.-- 16,437 mi², at lock and dam D.

PERIOD OF RECORD.-- October 1943 to September 1961.

REMARKS: Some regulation by Lake Cumberland (since July 1950), by Dale Hollow Reservoir (since August 1943), by Great Falls Lake (for period of record), by Center Hill Reservoir (since October 1948), and by Old Hickory Lake (since June 1954), and by Cheatham and other navigation dams on Cumberland River.

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
- 678	820	850	1110	1900	2900
80	70	60	50	40	30
5300	8390	11600	16000	20600	29300
20	10	5	2	1	0.5
42100	62300	84400	115000	137000	150000

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	1070	575	432	348	
3	1610	842	596	446	
7	2100	1130	799	594	
14	2620	1430	1010	733	
30	3340	1770	1190	833	
60	4300	2230	1520	1080	
120	5940	3670	2840	2300	
183	8660	5920	4790	3980	

03455000 - FRENCH BROAD RIVER NEAR NEWPORT, TN

LOCATION.-- Lat 35°58'54", long 83°09'40", Cocke County, on left bank 15 ft downstream from bridge on U.S. Highway 411 at Oldtown, 1 mile northeast of Newport city limits, 3.7 miles upstream from Pigeon River, and at mile 77.5.

DRAINAGE AREA.-- 1,858 mi².

PERIOD OF RECORD.-- November 1902 to December 1905, October 1920 to September 1975.

REMARKS: Diurnal fluctuation during low flow caused by powerplants 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
484	544	560	660	805	992
80	70	60	50	40	30
1320	1620	1940	2290	2680	3180
20	10	5	2	1	0.5
3910	5430	7480	10800	13900	17400

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	802	572	473	402	332
3	844	605	501	424	349
7	894	641	530	449	369
14	955	688	572	487	404
30	1060	760	629	534	441
60	1230	871	716	604	495
120	1520	1080	894	761	632
183	1800	1310	1110	958	813

03461000 - PIGEON RIVER AT HARTFORD, TN

LOCATION.-- Lat 35°48'52", long 83°08'42", Cocke County, 600 ft downstream from highway bridge at Hartford, and 4.5 miles downstream from Big Creek and North Carolina-Tennessee State line.

DRAINAGE AREA.-- 547 mi².

PERIOD OF RECORD.-- September 1925 to September 1948.

REMARKS: Considerable regulation (since 1930) by Lake Junaluska, Lake Logan, and Lake Walters during periods of low flow.

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
27.0	35.8	37.8	54.1	100	190
80	70	60	50	40	30
350	481	589	728	895	1100
20	10	5	2	1	0.5
1370	1790	2310	3360	4520	5640

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	38.6	19.5	14.8	12.2	
3	136	78.9	58.4	45.3	
7	221	160	135	117	
14	267	209	186	169	
30	298	231	203	182	
60	355	276	240	214	
120	456	349	301	265	
183	533	415	365	328	

03461200 - COSBY CREEK ABOVE COSBY, TN

LOCATION.-- Lat 35°47'02", long 83°13'08", Cocke County, on downstream left wingwall of bridge on State Highway 32, 1,000 ft downstream from Crying Creek, 3,000 ft upstream from Stillhouse Branch, 2.4 miles southeast of Cosby, and at mile 10.6.

DRAINAGE AREA.--10.2 mi².

PERIOD OF RECORD.--October 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
2.20	2.60	2.68	3.60	5.18	7.64
80	70	60	50	40	30
12.1	15.6	19.3	23.0	27.5	33.1
20	10	5	2	1	0.5
40.9	56.7	79.5	117	146	184

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	1.5	0.3	0.1	0.05	
3	1.5	0.5	0.2	0.1	
7	1.8	0.6	0.3	0.2	
14					
30					
60					
120					
183					

03461500 - PIGEON RIVER AT NEWPORT, TN

LOCATION.-- Lat 35°57'36", long 83°10'26", Cocke County, on left bank 100 ft upstream from bridge on U.S. Highway 70 at Newport, 0.6 mile downstream from Morell Branch, and at mile 6.8.

DRAINAGE AREA.--666 mi².

PERIOD OF RECORD.--October 1903 to September 1905, December 1907 to September 1929.

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
170	195	200	240	307	372
80	70	60	50	40	30
481	630	762	892	1050	1260
20	10	5	2	1	0.5
1600	2220	3010	4410	6140	7680

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	310	216	170	136	
3	312	222	178	145	
7	322	237	194	161	
14	351	259	211	173	
30	397	284	228	185	
60	460	333	270	222	
120	567	423	357	308	
183	694	544	479	431	

03461500 - PIGEON RIVER AT NEWPORT, TN

LOCATION.-- Lat 35°57'36", long 83°10'26", Cocke County, on left bank 100 ft upstream from bridge on U.S. Highway 70 at Newport, 0.6 mile downstream from Morell Branch, and at mile 6.8.

DRAINAGE AREA.-- 666 mi².

PERIOD OF RECORD.-- August 1948 to September 1975.

REMARKS: Considerable regulation (since 1930) by Lake Junaluska, Lake Logan, and Lake Walters during periods of low flow.

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
79.7	105	109	146	227	316
80	70	60	50	40	30
468	617	778	960	1190	1490
20	10	5	2	1	0.5
1910	2540	3040	4210	5400	6940

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	89.0	61.7	52.2	45.9	40.3
3	148	101	82.2	69.3	57.2
7	245	157	120	93.7	69.2
14	313	201	151	115	81.3
30	389	260	200	157	117
60	456	311	248	202	158
120	585	401	323	267	213
183	703	505	420	360	301

03465000 - NORTH INDIAN CREEK NEAR UNICOI, TN

LOCATION.-- Lat 36°10'35", long 82°17'36", Unicoi County, on right bank 100 ft upstream from unnamed tributary, 200 ft north of State Highway 107, 900 ft upstream from Rocky Branch, and 3.4 miles southeast of Unicoi.

DRAINAGE AREA.-- 15.9 mi².

PERIOD OF RECORD.-- October 1944 to September 1957.

REMARKS: Some diversion from Davis Spring, 1 mile upstream, for part of water supply of Johnson City.

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
2.45	2.65	2.68	2.94	3.49	4.51
80	70	60	50	40	30
6.36	8.64	11.4	15.0	19.0	24.0
20	10	5	2	1	0.5
30.4	42.6	61.3	95.6	120	150

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	3.99	2.85	2.42	2.13	
3	4.07	2.89	2.44	2.13	
7	4.26	3.00	2.52	2.19	
14	4.53	3.16	2.64	2.29	
30	4.97	3.39	2.79	2.38	
60	5.68	3.74	2.98	2.47	
120	7.42	4.75	3.74	3.05	
183	9.19	6.26	5.13	4.36	

03465500 - NOLICHUCKY RIVER AT EMBREEVILLE, TN

LOCATION.--Lat 36°10'35", long 82°27'27", Washington County, on left bank, at Embreeville, 2000 ft upstream from bridge on State Highway 81, 3 miles northwest of Erwin, 5.2 miles downstream from North Indian Creek, and at mile 89.0.

DRAINAGE AREA.--805 mi².

PERIOD OF RECORD.-- July 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
210	225	229	263	329	409
80	70	60	50	40	30
546	680	829	1000	1200	1450
20	10	5	2	1	0.5
1800	2510	3490	5100	6690	8600

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	321	227	186	156	126
3	341	244	200	168	137
7	359	261	218	187	156
14	386	282	238	205	173
30	434	314	261	223	185
60	505	362	300	255	211
120	640	461	385	330	276
183	782	575	487	423	360

LOCATION.-- Lat 36°03'59", long 82°52'18", Greene County, on right bank 0.30 mile downstream from Nolichucky Dam, 2.2 miles upstream from Cove Creek, 7.0 miles south of Greeneville, and at mile 45.7.

DRAINAGE AREA.-- 1,184 mi².

PERIOD OF RECORD.-- May 1919 to September 1973.

REMARKS: Low flow regulated by Lake Davy Crockett.

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
79.0	200	209	280	410	529
80	70	60	50	40	30
720	883	1090	1330	1650	1990
20	10	5	2	1	0.5
2570	3240	4490	6740	8940	11400

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	164	52.9	27.9	16.0	8.30
3	378	240	180	139	100
7	463	341	285	244	203
14	517	393	336	293	249
30	581	446	384	338	291
60	680	508	430	372	313
120	843	617	518	446	374
183	1020	756	639	553	468

03467000 - LICK CREEK AT MOHAWK, TN

LOCATION.-- Lat 36°12'09", long 83°02'53", Greene County, on right bank 0.25 mile east of Mohawk, 0.6 mile upstream from Riley Creek, and 17.5 miles upstream from mouth.

DRAINAGE AREA.-- 220 mi².

PERIOD OF RECORD.-- August 1964 to September 1971.

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
12.2	13.6	13.9	16.3	18.9	22.3
80	70	60	50	40	30
29.4	39.7	56.8	81.2	119	176
20	10	5	2	1	0.5
262	530	948	1780	2300	3190

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	17.3	13.4	11.5	10.1	
3	17.8	13.8	11.9	10.5	
7	18.8	14.6	12.6	11.2	
14	20.2	15.4	13.3	11.8	
30	22.4	17.7	15.9	14.6	
60	26.8	20.7	18.3	16.6	
120	37.1	25.5	21.8	19.5	
183	58.0	38.4	31.6	27.2	

03467500 - NOLICHUCKY RIVER NEAR MORRISTOWN, TN

LOCATION.--Lat 36°10'49", long 83°10'32", Hamblen County, on right bank 0.25 mile upstream from Susong Bridge, 1.1 miles upstream from Forgey Island, 7 miles southeast of Morristown, and at mile 14.5.

DRAINAGE AREA.--1,679 mi².

PERIOD OF RECORD.-- December 1920 - September 1957.

REMARKS: Low flow partly regulated by Lake Davy Crockett.

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
160	200	207	277	407	546
80	70	60	50	40	30
780	1010	1240	1540	1920	2410
20	10	5	2	1	0.5
3060	4270	6120	9250	12000	15000

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	194	125	99.8	83.2	68.0
3	343	210	159	124	92.8
7	470	310	243	196	152
14	528	371	304	257	212
30	613	430	353	298	244
60	726	503	409	342	277
120	922	646	535	456	381
183	1130	813	682	590	501

03469000 - FRENCH BROAD RIVER BELOW DOUGLAS DAM, TN

LOCATION.--Lat 35°57'06", long 83°33'05", Sevier County, on right bank 1.0 mile downstream from Douglas Dam, 1.7 miles upstream from Millican Creek, 5.8 miles north of Sevierville, and at mile 31.3.

DRAINAGE AREA.--4,543 mi².

PERIOD OF RECORD.--October 1918 to March 1942.

REMARKS: No regulation during this period of record. See also next page.

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
934	1040	1060	1230	1600	2000
80	70	60	50	40	30
2670	3390	4110	4940	5910	7030
20	10	5	2	1	0.5
8690	12300	17000	24700	32100	40000

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	1460	961	742	586	
3	1590	1090	863	696	
7	1750	1230	992	815	
14	1870	1330	1090	911	
30	2070	1480	1220	1030	
60	2430	1760	1460	1240	
120	3080	2240	1890	1630	
183	3800	2820	2400	2100	

03469000 - FRENCH BROAD RIVER BELOW DOUGLAS DAM, TN

LOCATION.-- Lat 35° 57' 06", long 83° 33' 05", Sevier County, on right bank 1.0 mile downstream from Douglas Dam, 1.7 miles upstream from Millican Creek, 5.8 miles north of Sevierville, and at mile 31.3.

DRAINAGE AREA.-- 4,543 mi².

PERIOD OF RECORD.-- February 1943 to June 1974.

REMARKS: Flow completely regulated by Douglas Lake during this period of record.

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
18.8	24.8	25.8	37.0	740	1460
80	70	60	50	40	30
2900	4200	5380	6520	7380	8360
20	10	5	2	1	0.5
10000	12900	15500	19200	22700	25700

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	20.3	15.1	14.3	13.0	
3	63.8	22.0	16.1	14.0	
7	413	89.5	36.8	20.0	
14	1200	312	120	60.1	
30	2570	1370	870	563	
60	3480	2380	1880	1500	
120	4650	3610	3100	2710	
183	5420	4420	3930	3540	

03469010 - MILLICAN CREEK NEAR DOUGLAS DAM, TN

LOCATION.-- Lat 35°55'45", long 83°32'26", Sevier County, on right bank 1,150 ft upstream from State Highway 66 bridge, and 1,950 ft upstream from mouth of Little Millican Creek.

DRAINAGE AREA.-- 4.2 mi².

PERIOD OF RECORD.-- October 1943 to September 1962.

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	0.01
80	70	60	50	40	30
0.04	0.09	0.27	0.60	1.09	1.93
20	10	5	2	1	0.5
3.18	8.05	22.3	56.9	86.1	113

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	0.0	0.0	0.0	0.0	
30	0.03	0.01	0.0	0.0	
60	0.13	0.05	0.03	0.02	
120	0.39	0.18	0.12	0.09	
183	0.70	0.34	0.24	0.18	

03470000 - LITTLE PIGEON RIVER AT SEVIERVILLE, TN

LOCATION.--Lat 35°52'34", long 83°34'36", Sevier County, on left bank 0.5 mile downstream from city limits of Sevierville, 0.5 mile downstream from West Fork Little Pigeon River, and at mile 4.5.

DRAINAGE AREA.--353 mi².

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

REMARKS:Some regulation at low flow caused by small mills above station prior to 1967. During the period April 1966 to July 1967, Tennessee Valley Authority constructed a flood-control project for town of Sevierville, widening and deepening Little Pigeon River through the town and 1.8 miles down- stream, and relocating the lower portion of **FLOW DURATION** West Prong Little Pigeon River.

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

99.5	99.1	99	98	95	90
39.1	45.5	46.7	57.0	75.2	98.1
80	70	60	50	40	30
148	200	262	339	433	553
20	10	5	2	1	0.5
739	1140	1790	3040	4320	5700

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	67.4	41.6	30.6	23.0	16.2
3	69.5	47.0	37.7	31.1	24.9
7	74.0	51.1	42.0	35.6	29.6
14	82.7	56.9	46.7	39.7	33.0
30	103	68.1	54.2	44.6	35.6
60	136	88.0	69.0	56.0	43.9
120	204	136	109	89.6	71.8
183	263	184	152	129	108

03470500 - FRENCH BROAD RIVER NEAR KNOXVILLE, TN

LOCATION.--Lat 35°57'30", long 83°46'26", Knox County, on left bank 45 ft upstream from Riverdale Ferry, 0.7 mile downstream from Johnson Hollow, 7.5 miles upstream from confluence with Holston River, and 8 miles east of Knoxville.

DRAINAGE AREA.-- 5,101 mi².

PERIOD OF RECORD.--October 1945 to September 1975.

REMARKS:Flow regulated by Douglas Lake.

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
490	755	791	1120	1680	2300
80	70	60	50	40	30
3730	5010	6130	7140	8190	9340
20	10	5	2	1	0.5
11100	13800	17200	21900	25000	29100

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	591	306	203	139	
3	1150	544	321	193	
7	2000	1100	638	357	
14	2390	1520	950	580	
30	3430	2090	1420	961	
60	4060	2770	2160	1710	
120	5160	3940	3360	2920	
183	5960	4770	4200	3750	

03476500 - SOUTH FORK HOLSTON RIVER BELOW SOUTH HOLSTON DAM, TN

LOCATION.--Lat 36°31'25", long 82°05'50", Sullivan County, on right bank 1,900 ft downstream from South Holston Dam powerhouse, 1.0 mile upstream from bridge at Bristol waterworks, 1.0 mile upstream from Thomas Creek, 6.7 miles southeast of Bristol, and at mile 49.4.

DRAINAGE AREA.-- 703 mi².

PERIOD OF RECORD.-- August 1951 to June 1974.

REMARKS:Flow completely regulated by South Holston Lake.

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
5.20	5.33	5.36	5.69	6.79	7.99
80	70	60	50	40	30
12.0	194	566	905	1220	1490
20	10	5	2	1	0.5
1690	2080	2390	2920	3130	3230

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	5.70	3.24	2.04	1.27	
3	6.12	4.34	3.63	3.13	
7	7.41	5.75	5.54	4.68	
14	31.1	12.0	7.38	4.99	
30	131	43.6	22.1	11.9	
60	355	173	104	63.5	
120	552	376	304	254	
183	689	532	467	421	

03477000 - SOUTH FORK HOLSTON RIVER AT BLUFF CITY, TN

LOCATION.--Lat 36°28'38", long 82°15'47", Sullivan County, on right bank at Bluff City, 100 ft upstream from bridge on U. S. Highways 11E and 19, 600 ft downstream from Southern Railway bridge, 0.8 mile downstream from Indian Creek, and 4.8 miles upstream from Beaver Creek.

DRAINAGE AREA.--813 mi².

PERIOD OF RECORD.-- September 1900 to October 1950.

REMARKS:Site now inundated by Boone Lake.

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
93	143	147	177	219	264
80	70	60	50	40	30
352	449	594	746	952	1220
20	10	5	2	1	0.5
1600	2450	3490	5300	6700	8630

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	229	156	120	93.5	67.9
3	245	171	131	101	72.4
7	262	182	139	106	74.7
14	277	193	149	117	85.0
30	298	206	161	127	94.6
60	326	227	187	158	131
120	419	291	243	211	181
183	538	370	305	261	219

03479500 - WATAUGA RIVER AT NORTH CAROLINA - TENNESSEE STATE LINE

LOCATION.-- Lat 36°17'25", long 81°55'33", Johnson County, on left bank, 0.6 mile downstream from North Carolina - Tennessee State line, 1.9 miles downstream from Stone Mountain Branch, and 7.5 miles southeast of Butler.

DRAINAGE AREA.-- 152 mi².

PERIOD OF RECORD.-- October 1942 to June 1955.

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
18.5	21.4	21.8	25.9	34.2	49.3
80	70	60	50	40	30
81.4	111	140	178	218	269
20	10	5	2	1	0.5
349	507	725	1160	1610	1990

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	32.9	17.9	13.1	10.1	
3	38.7	22.5	17.1	13.7	
7	43.3	25.5	19.4	15.4	
14	50.3	30.3	23.2	18.7	
30	56.7	33.2	25.2	20.2	
60	68.5	39.6	29.9	23.8	
120	91.4	50.3	37.1	29.0	
183	118	72.7	56.9	46.7	

03480000 - WATAUGA RIVER AT STUMP KNOB, TN

LOCATION.--Lat 36°18'37", long 81°57'31", Johnson County, on left bank, 200 ft downstream from Dugger Bridge, 0.25 mile upstream from former post office of Stump Knob, 2.75 miles upstream from Elk River and 4.25 miles upstream from former site of Butler.

DRAINAGE AREA.--171 mi².

PERIOD OF RECORD.-- November 1927 to September 1945.

REMARKS: Site now inundated by Watauga Lake.

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
36.8	40.7	41.5	48.1	58.2	73.0
80	70	60	50	40	30
102	132	164	198	237	286
20	10	5	2	1	0.5
371	548	801	1270	1750	2360

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	53.3	38.1	32.0	27.7	
3	55.8	40.2	34.0	29.6	
7	59.1	43.8	37.7	33.4	
14	65.5	47.9	40.7	35.5	
30	71.3	51.4	43.6	38.2	
60	85.0	59.9	50.5	44.1	
120	128	81.9	65.0	53.8	
183	158	110	91.5	79.3	

03482000 - ROAN CREEK NEAR NEVA, TN

LOCATION.-- Lat 36°22'37", long 81°53'14", Johnson County, 1.1 miles downstream from Avery Branch, 1.7 miles southwest of Neva, and 2.2 miles upstream from Hopper Creek.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.-- July 1942 to June 1955.

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
8.80	9.34	9.48	11.0	14.3	18.5
80	70	60	50	40	30
27.6	36.7	48.4	64.5	85.1	112
20	10	5	2	1	0.5
146	213	306	496	681	927

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	14.3	9.62	7.69	6.35	
3	14.7	9.88	7.92	6.57	
7	15.6	10.5	8.48	7.06	
14	17.9	12.2	9.88	8.26	
30	19.9	13.6	10.9	9.08	
60	23.0	15.2	12.2	10.1	
120	29.8	19.6	15.9	13.5	
183	39.8	27.6	22.9	19.6	

03482500 - ROAN CREEK AT BUTLER, TN

LOCATION.-- Lat 36°20'22", long 81°59'36", Johnson County, 0.5 mile north-east of former site of Butler, and 0.7 mile upstream from mouth.

DRAINAGE AREA.-- 166 mi².

PERIOD OF RECORD.-- June 1934 to September 1948.

REMARKS: Site inundated by Watauga Lake.

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
27.0	28.7	29.2	32.6	38.6	45.0
80	70	60	50	40	30
54.6	64.6	79.7	97.6	125	163
20	10	5	2	1	0.5
217	337	520	820	1100	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	40.1	32.5	28.4	25.1	
3	41.5	33.9	29.8	26.4	
7	43.5	35.4	30.8	27.1	
14	46.0	37.4	32.5	28.4	
30	48.9	39.8	34.4	30.0	
60	55.5	43.3	36.8	31.7	
120	65.4	46.8	38.9	33.1	
183	78.7	55.4	45.1	37.7	

03483000 - WATAUGA RIVER AT BUTLER, TN

LOCATION.-- Lat 36°19'59", long 82°00'16", Johnson County, at former site of Butler, 1,000 ft downstream from site of highway bridge and 1,100 ft downstream from Roan Creek.

DRAINAGE AREA.-- 427 mi².

PERIOD OF RECORD.-- September 1900 to September 1948.

REMARKS: Site inundated by Watauga Lake.

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
123	129	130	142	162	192
80	70	60	50	40	30
253	314	380	455	559	700
20	10	5	2	1	0.5
902	1320	1880	3000	4000	5700

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	158	125	109	97.9	86.0
3	164	131	116	105	93.5
7	174	140	125	113	100
14	185	148	131	118	105
30	200	157	139	125	111
60	231	177	154	138	121
120	303	218	184	160	137
183	368	270	229	200	171

03484000 - WATAUGA RIVER BELOW WILBUR DAM, TN

LOCATION.-- Lat 36°20'39", long 82°07'46", Carter County, 1,800 ft downstream from Wilbur Dam, 0.7 mile downstream from Big Laurel Branch, 2.7 miles downstream from Watauga Dam, 5 miles east of Elizabethton, and at mile 33.6.

DRAINAGE AREA.--471 mi².

PERIOD OF RECORD.--December 1948 to September 1975.

REMARKS: Flow completely regulated by Watauga Lake.

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
4.60	6.13	6.60	11.0	40.4	48.7
80	70	60	50	40	30
59.1	81.6	292	557	813	1070
20	10	5	2	1	0.5
1350	1720	1990	2380	2700	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	35.2	19.8	12.3	7.56	
3	41.9	21.1	13.0	8.14	
7	54.4	27.1	16.9	10.8	
14	77.2	36.7	22.1	13.7	
30	145	58.5	31.0	16.8	
60	280	114	56.9	28.0	
120	508	237	119	56.7	
183	566	390	304	240	

LOCATION.-- Lat 36°20'40", long 82°12'37", Carter County, on left bank
1,500 ft upstream from bridge on State Highway 91 at Elizabethton,
and 1 mile upstream from mouth.

DRAINAGE AREA.-- 137 mi².

PERIOD OF RECORD.-- January 1912 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
37.7	40.5	41.0	46.3	55.5	66.6
80	70	60	50	40	30
86.2	107	133	163	198	240
20	10	5	2	1	0.5
299	417	579	871	1140	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	53.4	40.0	33.8	29.2	24.6
3	56.4	42.5	36.0	31.1	26.2
7	59.2	44.9	38.3	33.5	28.5
14	62.7	48.0	41.6	36.8	32.0
30	71.4	54.3	46.7	41.0	35.2
60	82.7	61.6	52.2	45.1	38.1
120	101	74.3	63.1	55.2	47.3
183	124	90.3	76.2	66.1	56.2

03486000 - WATAUGA RIVER AT ELIZABETHTON, TN

LOCATION.-- Lat 36°21'21", long 82°13'26", Carter County, on left bank 25 ft upstream from bridge on U. S. Highway 19E at Elizabethton, 0.6 mile downstream from Doe River, and at mile 25.9.

DRAINAGE AREA.-- 692 mi².

PERIOD OF RECORD.-- March 1926 to November 1948.

REMARKS: unregulated - see next page for present characteristics.

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
172	189	193	220	264	306
80	70	60	50	40	30
396	497	610	746	910	1110
20	10	5	2	1	0.5
1420	2000	2820	4190	5400	6950

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	227	174	152	137	
3	261	208	185	169	
7	282	227	204	187	
14	303	242	216	197	
30	327	259	230	210	
60	382	296	260	234	
120	492	361	308	270	
183	584	432	369	324	

03486000 - WATAUGA RIVER AT ELIZABETHTON, TN

LOCATION.-- Lat 36°21'21", long 82°13'26", Carter County, on left bank 25 ft upstream from bridge on U. S. Highway 19E at Elizabethton, 0.6 mile downstream from Doe River, and at mile 25.9.

DRAINAGE AREA.-- 692 mi².

PERIOD OF RECORD.--December 1948 to September 1975.

REMARKS: Flow partly regulated by Watauga Lake.

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
115	125	127	144	180	247
80	70	60	50	40	30
377	513	695	926	1190	1450
20	10	5	2	1	0.5
1740	2130	2490	3120	3630	4170

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	137	117	107	99.6	
3	167	129	113	102	
7	214	153	130	114	
14	308	207	166	136	
30	464	332	271	225	
60	596	441	368	312	
120	785	600	508	437	
183	891	708	617	545	

03486200 - BUFFALO CREEK AT MILLIGAN COLLEGE , TN

LOCATION.-- Lat 36°18'25", long 82°17'30", Carter County, on right bank 20 ft upstream from bridge on private road, 600 ft from Tennessee Highway 67 and 0.4 mile downstream from main entrance to Milligan College.

DRAINAGE AREA.-- 28.1 mi²

PERIOD OF RECORD.-- October 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
3.59	3.92	3.94	4.17	4.80	5.67
80	70	60	50	40	30
7.10	8.26	10.3	14.7	19.5	25.2
20	10	5	2	1	0.5
35.0	55.0	82.9	114	148	174

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	4.3	2.7	2.0	1.5	
3	4.9	2.8	2.2	1.8	
7	5.0	3.1	2.4	1.9	
14					
30					
60					
120					
183					

03487500 - SOUTH FORK HOLSTON RIVER AT KINGSPORT, TN

LOCATION.-- Lat 36°31'51", long 82°33'29", Sullivan County, on left bank on Long Island 1,000 ft downstream from bridge on State Highway 81, at Kingsport, 1.2 miles upstream from Reedy Creek, and 3.8 miles upstream from confluence with North Fork.

DRAINAGE AREA.-- 1,935 mi².

PERIOD OF RECORD.-- October 1925 to November 1948.

REMARKS: See next page for present characteristics.

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
464	481	487	530	591	697
80	70	60	50	40	30
891	1130	1410	1760	2190	2690
20	10	5	2	1	0.5
3480	5090	7250	10600	13600	16000

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	575	478	441	416	
3	604	507	469	444	
7	632	532	494	468	
14	670	555	510	480	
30	722	586	532	494	
60	841	647	569	515	
120	1090	790	666	578	
183	1300	940	787	678	