Table 3. Results of Kendall's tau trend analysis of annual peak flows for all Kansas stream-gaging stations with more than 38 years of record

[Shading indicates statistically significant at the 95-percent confidence level (probability value less than or equal to 0.05). (ft^3/s)/yr, cubic feet per second per year; <, less than]

Map index number (fig. 4)	Station number	Station name	Start-end years	Number of years used	Number of years missing	Kendall's tau	Probability value	Slope [(ft^3/s)/yr]
1	06814000	Turkey Creek near Seneca	1949–98	50	0	0.193	0.048	100
2	06815700	Buttermilk Creek near Willis	1957–97	40	1	-.251	.023	-36.5
3	06844900	South Fork Sappa Creek near Achilles	1960–98	39	0	-.055	.628	-3.48
4	06845100	Long Branch Draw near Norcatur	1957–98	42	0	-.243	.024	-8.83
5	06846500	Beaver Creek at Cedar Bluffs	1946–98	53	1	-.267	.005	-7.27
6	06847600	Prairie Dog Creek tributary at Colby	1957–97	41	0	.145	.185	4.44
7	06853800	White Rock Creek near Burr Oak	1950–98	41	8	-.017	.884	-3.81
8	06860000	Smoky Hill River at Elkader	1938–98	60	1	-.212	.017	-33.3
9	06861000	Smoky Hill River near Arnold	1938–98	52	9	-.394	<.001	-131
10	06863400	Big Creek tributary near Ogallah	1957–98	42	0	-.048	.664	-1.09
11	06863500	Big Creek near Hays	1947–98	52	0	-.236	.014	-31
12	06863700	Big Creek tributary near Hays	1957–98	40	1	-.146	.187	-1.29
13	06864300	Smoky Hill River tributary at Dorrance	1957–98	42	0	.182	.091	5.82
14	06867000	Saline River near Russell	1946–98	48	5	-.241	.016	-73
15	06868300	Coon Creek tributary near Luray	1957–98	42	0	-.045	.680	-2
16	06871000	North Fork Solomon River at Glade	1953–98	46	0	-.319	.002	-66
17	06871500	Bow Creek near Stockton	1951–98	48	0	-.207	.038	-17.4
18	06873000	South Fork Solomon River above Webster Reservoir	1908–98	56	35	-.416	<.001	-163
19	06873300	Ash Creek tributary near Stockton	1957–98	41	1	.017	.884	0
20	06876700	Salt Creek near Ada	1960–98	39	0	.005	.971	2.31
22	06878000	Chapman Creek near Chapman	1951–98	46	2	.013	.910	5
23	06884200	Mill Creek at Washington	1960–98	39	0	.003	.990	2.73
24	06884300	Mill Creek tributary near Washington	1957–98	42	0	.328	.002	19.2
25	06884400	Little Blue River near Barnes	1958–98	41	0	.141	.196	116
26	06885500	Black Vermillion River near Frankfort	1948–98	46	5	.005	.970	3.75
27	06887200	Cedar Creek near Manhattan	1957–98	42	0	-.023	.837	-1.67
28	06888500	Mill Creek near Paxico	1951–98	46	2	.216	.035	206
29	06889200	Soldier Creek near Delia	1959–98	40	0	.237	.032	60
30	06889500	Soldier Creek near Topeka	1929–98	70	0	.289	<.001	88.7
32	06892000	Stranger Creek near Tonganoxie	1929–98	70	0	.146	.074	49.4
33	06911500	Salt Creek near Lyndon	1940–98	59	0	.038	.676	9.86
34	06914000	Pottawatomie Creek near Garnett	1929–98	60	10	-.04	.655	-24.4
35	06917000	Little Osage River at Fulton	1949–98	50	0	.13	.186	77.9
36	06917400	Marmaton River tributary near Fort Scott	1957–98	42	0	.166	.124	11.5
37	07138600	White Woman Creek tributary near Selkirk	1957–97	40	1	-.167	.132	-1.61

Table 3. Results of Kendall's tau trend analysis of annual peak flows for all Kansas stream-gaging stations with more than 38 years of record—Continued

Map index number (fig. 4)	Station number	Station name	Start-end years	Number of years used	Number of years missing	Kendall's tau	Probability value	Slope [(ft^3/s)/yr]
38	07139700	Arkansas River tributary near Dodge City	1957–98	40	2	-0.173	0.118	-3.99
39	07141200	Pawnee River at Rozel	1925–98	74	0	-.203	.011	-18.6
40	07141900	Walnut Creek at Albert	1959–98	40	0	-.323	.003	-48.3
41	07142300	Rattlesnake Creek near Macksville	1960–98	39	0	-.031	.790	-1.08
42	07143100	Little Cheyenne Creek tributary near Claflin	1957–98	42	0	-.271	.012	-2.45
43	07143300	Cow Creek near Lyons	1929–98	54	16	-.097	.303	-12.1
44	07144200	Little Arkansas River at Valley Center	1916–98	81	2	.169	.025	58.3
[1]45	07144300	Arkansas River at Wichita	1898–1998	101	0	.183	.007	65
46	07145200	South Fork Ninnescah River near Murdock	1951–98	48	0	-.027	.797	-12.3
47	07145700	Slate Creek at Wellington	1960–98	39	0	-.004	.981	-1.05
48	07149000	Medicine Lodge River near Kiowa	1938–98	61	0	-.234	.013	-61.7
49	07151500	Chikaskia River near Corbin	1923–98	40	36	-.047	.675	-29.1
50	07156700	Cimarron River tributary near Satanta	1957–97	41	0	-.239	.028	-5.91
51	07157500	Crooked Creek near Englewood	1943–98	56	0	-.506	<.001	-59.2
52	07166200	Sandy Creek near Yates Center	1957–98	42	0	-.045	.680	-6
53	07167500	Otter Creek at Climax	1947–98	51	1	.045	.649	22.9
54	07172000	Caney River near Elgin	1939–98	60	0	.024	.794	16.8
55	07180500	Cedar Creek near Cedar Point	1939–98	60	0	-.006	.949	-2.15
57	07184000	Lightning Creek near McCune	1938–98	48	13	.123	.220	47.7

[1]Peak flows at the station are partially regulated by John Martin Reservoir in southeastern Colorado.