

Table 13.--Summary of the Seasonal Kendall trend test results for selected water-quality data stored in U.S. Environmental Protection Agency Storage and Retrieval System and collected for selected previous investigations in the study area--Continued

[Only results with a probability less than 0.05 are shown. The alpha significance level was 0.05. The null hypothesis tested was that there is no trend. * indicates that trend tests were made but trends were insignificant or data were questionable; <0.001 indicates probability level less than 0.001; --, insufficient data for analysis]

Water-quality zone or location identifier (table 9)	Probability (P)	Trend slope (Slope)	Number of observations (N)	Period of record (Record)	Dissolved oxygen	pH	Alkalinity	Turbidity	Total solids	Total volatile solids	Total non-volatile solids	Suspended solids	Volatile suspended solids	Non-volatile suspended solids	Total hardness	Salinity	Dissolved chloride	Total organic carbon	Total ammonia nitrogen	Total ammonia plus organic nitrogen	Total nitrite plus nitrate	Total phosphorus	Dissolved phosphorus	Biochemical oxygen demand	Fecal streptococci	Fecal coliform	Chlorophyll-a, corrected for phaeopigments	Chlorophyll-a	
Chowan River water-quality zones or location																													
CH1	P	.029	.028	*	.018	.002	*	*	.001	*	*	--	*	--	--	.027	<.001	*	<.001	--	*	--	--	*	--	--	*	*	
	Slope	-.047	.024	--	-.650	-2.00	--	--	-.33	--	--	--	--	--	--	-.003	-.023	--	-.005	--	--	--	--	--	--	--	--	--	
	N	721	538	40	42	272	108	108	301	147	145	8	53	13	0	2,178	2,246	2,115	2,237	1	168	1	0	0	0	0	214	48	
	Record	1953-88	1953-88	1969-87	1973-88	1974-88	1974-85	1974-85	1974-88	1974-85	1974-85	1983-85	1981-88	1969-73	0	1953-88	1969-88	1971-88	1969-88	1982	1969-88	1969	0	0	0	0	1981-88	1982-88	
CH2	P	*	.006	--	--	*	--	--	<.001	--	--	--	--	--	--	*	*	*	*	--	--	--	--	--	--	--	*	--	
	Slope	--	-.079	--	--	--	--	--	-1.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	N	280	239	0	0	88	33	33	111	42	43	0	15	0	0	166	184	167	171	0	35	0	0	0	0	0	100	13	
	Record	1973-83	1973-83	0	0	1974-83	1974-75	1974-75	1974-83	1974-75	1974-75	0	1981-82	0	0	1974-83	1973-83	1974-83	1974-83	0	1974-75	0	0	0	0	0	0	1981-83	1982-83
CH3	P	.012	*	--	--	*	--	--	*	--	--	--	--	--	--	*	*	*	*	--	--	--	--	--	--	--	--	--	
	Slope	-.150	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	N	264	221	0	0	84	54	54	117	70	68	0	19	0	25	173	176	165	166	0	60	0	0	0	0	0	69	5	
	Record	1953-82	1953-83	0	0	1974-82	1974-75	1974-75	1974-82	1974-75	1974-75	0	1981-82	0	1982	1953-82	1973-82	1974-82	1974-82	0	1974-75	0	0	0	0	0	0	1981-82	1982
CH4	P	.001	*	.021	.040	*	*	*	<.001	*	<.001	--	*	--	--	*	*	*	*	--	*	--	--	--	--	--	<.001	--	
	Slope	-.075	--	-.833	-1.17	--	--	--	-.544	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-1.27	--	
	N	756	470	65	48	267	234	235	305	293	293	2	79	5	19	475	483	463	475	0	328	0	0	0	0	0	119	40	
	Record	1961-88	1961-88	1974-87	1980-88	1974-88	1974-85	1974-85	1974-88	1974-85	1974-85	1983	1981-88	1976-84	1972-77	1971-88	1971-88	1971-88	1971-88	0	1974-81	0	0	0	0	0	0	1981-88	1982-88
CH5	P	.004	*	.003	*	*	*	*	<.001	*	<.001	--	*	--	--	*	*	*	*	--	.037	--	--	--	--	--	<.001	*	
	Slope	-.038	--	-1.00	--	--	--	--	-.50	--	-.388	--	--	--	--	--	--	--	--	--	-.033	--	--	--	--	--	-.50	--	
	N	1,087	743	136	96	312	234	230	387	290	293	21	255	10	30	946	648	635	625	32	394	5	2	2	2	233	92		
	Record	1953-88	1953-88	1969-87	1973-88	1974-88	1974-85	1974-85	1974-88	1974-85	1974-85	1983-86	1962-88	1976-84	1972-83	1953-88	1972-88	1972-88	1971-88	1970-74	1974-86	1969	1980	1980	1980	1981-88	1982-88		
CH6	P	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	*	--	--	--	--	--	--	--	--	--	
	Slope	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	N	131	114	0	0	26	0	0	49	0	0	0	12	0	0	71	84	74	74	0	0	0	0	0	0	0	48	0	
	Record	1973-88	1973-81	0	0	1981-82	0	0	1981-82	0	0	0	1981	0	0	1981-82	1973-82	1981-82	1981-82	0	0	0	0	0	0	0	0	81	0
CH7	P	*	*	.001	*	.014	.008	.010	<.001	*	<.001	--	*	*	*	*	*	*	<.001	*	*	<.001	--	--	--	--	*	.003	
	Slope	--	--	-1.00	--	1.80	.875	2.36	-.500	--	-.400	--	--	--	--	--	--	--	-.003	--	--	-.036	--	--	--	--	--	.333	
	N	1,666	944	361	260	496	312	296	605	351	343	64	577	99	238	811	833	874	735	66	709	1	1	1	1	5	334	263	
	Record	1953-88	1953-88	1968-87	1973-88	1974-88	1974-86	1974-86	1974-88	1974-86	1974-86	1983-88	1970-88	1976-88	1972-88	1953-88	1972-88	1958-88	1972-88	1970-86	1969-88	1970	1972-80	1972-80	1972-80	1981-88	1981-88		