

Table 12.--Summary of the Seasonal Kendall trend test results for selected discharge-unadjusted and discharge-adjusted water-quality data collected at National Stream Quality Accounting Network stations, and National Atmospheric Deposition Program/National Trends Network stations

[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.  $\mu\text{S/cm}$  at 25 °C, microsiemens per centimeter at 25 degrees Celsius; "Raw" indicates discharge-unadjusted data; "Adjusted" indicates discharge-adjusted data; \* 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; NADP/NTN, National Atmospheric Deposition Program/National Trends Network]

River or station name and number <sup>1</sup>	Specific conductance ( $\mu\text{S/cm}$ at 25 °C)																							
	Dissolved oxygen		pH		Alkalinity		Bicarbonate		Suspended sediment		Hardness		Daily values		Periodic samples		Dissolved solids		Chloride		Total ammonia plus organic nitrogen		Total phosphorus	
	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted	Raw	Adjusted
<b>Nottoway River, 02047000</b>																								
P	.047	*	*	*	*	*	*	*	*	*	*	*	*	*	.042	*	.045	*	<.001	<.001	*	.028	*	*
Slope	-.085	--	--	--	--	--	--	--	--	--	--	--	--	--	1.40	--	.144	--	.071	.042	--	.035	--	--
N	75	67	109	101	51	51	46	46	76	67	89	89	3,846	3,846	83	75	117	109	117	109	76	68	77	69
Record	1977-88		1945-88		1968-87		1945-78		1977-88		1945-85		1968-80		1952-88		1945-88		1945-88		1978-88		1977-88	
<b>Blackwater River, 02049500</b>																								
P	<.001	.025	*	.017	*	*	*	*	*	*	.001	<.001	*	*	.005	.006	<.001	.003	<.001	<.001	*	*	*	*
Slope	-.23	-.21	--	-.010	--	--	--	--	--	--	.306	.283	--	--	.893	.723	.714	.535	.104	.090	--	--	--	--
N	86	78	146	138	65	65	48	48	118	110	96	96	3,846	3,846	136	128	116	108	124	116	114	106	118	110
Record	1977-88		1945-88		1968-87		1945-78		1974-88		1945-85		1968-80		1951-88		1945-88		1945-88		1974-88		1974-88	
<b>Meherrin River, 02052000</b>																								
P	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Slope	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N	54	66	289	223	331	272	304	245	56	48	334	275	3,846	3,846	362	295	354	289	362	295	58	50	58	50
Record	1977-88		1952-88		1967-87		1952-79		1979-88		1952-85		1968-80		1952-88		1952-88		1952-88		1979-88		1979-88	
<b>Roanoke River, 02080500</b>																								
P	*	*	*	*	.002	.002	*	*	.006	.035	*	*	*	.022	.009	.028	*	*	<.001	.001	*	*	*	*
Slope	--	--	--	--	.775	.805	--	--	-.333	-.211	--	--	--	1.48	.926	.857	--	--	.133	.125	--	--	--	--
N	99	83	110	98	81	81	80	80	125	110	72	72	2,922	2,922	110	94	90	90	90	90	81	81	86	86
Record	1976-88		1957-88		1976-87		1957-85		1975-88		1957-86		1976-84		1957-88		1957-88		1957-88		1976-88		1976-88	
<b>Tar River, 02083500</b>																								
P	*	*	<.001	<.001	*	*	.045	*	*	*	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.023	.023	*	*	.005	.022
Slope	--	--	-.014	-.017	--	--	.112	--	--	--	.200	.150	.766	.647	.643	.400	.727	.627	.040	.024	--	--	.004	.004
N	166	149	297	269	218	209	280	268	145	130	271	260	9,485	9,485	310	284	269	269	288	277	116	116	122	122
Record	1968-88		1955-88		1953-88		1953-85		1973-88		1953-86		1953-86		1953-88		1953-88		1953-88		1973-88		1972-88	
<b>Neuse River, 02089500</b>																								
P	*	*	*	*	*	*	.029	.006	*	*	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	*	*	*	*
Slope	--	--	--	--	--	--	.111	.070	--	--	.167	.158	1.200	.894	1.29	.783	.810	.614	.092	.042	--	--	--	--
N	169	154	299	284	158	156	238	238	159	146	227	227	7,969	7,969	310	284	248	248	252	252	130	130	135	135
Record	1973-88		1955-88		1973-88		1955-86		1973-88		1955-87		1955-86		1953-88		1955-88		1955-88		1973-88		1973-88	
<b>Contentnea Creek, 02091500</b>																								
P	*	*	--	--	.031	*	.035	.057	.002	*	<.001	<.001	*	.006	<.001	<.001	.002	.014	.004	*	*	*	.011	.027
Slope	--	--	--	--	.354	--	.191	.114	-1.19	--	.391	.305	--	1.907	1.85	.958	1.09	.815	.145	--	--	--	.0271	.011
N	87	72	107	92	73	73	67	67	104	89	55	55	2,463	2,463	277	262	82	82	82	82	64	64	65	65
Record	1968-88		1955-88		1968-88		1955-86		1975-88		1955-86		1979-84		1955-88		1955-88		1955-88		1979-88		1972-88	
<b>Lewiston NADP/NTN station, 0340320</b>																								
P	--	--	*	--	--	--	--	--	--	--	*	--	--	--	.001	--	--	--	*	--	--	--	--	--
Slope	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.92	--	--	--	--	--	--	--	--	--
N	0	0	232	0	0	0	0	0	0	0	382	0	0	0	226	0	0	0	385	0	0	0	0	0
Record	0		1978-87		0		0		0		1978-87		0		1978-87		0		1978-87		0		0	
<b>Clinton NADP/NTN station, 0340560</b>																								
P	--	--	*	--	--	--	--	--	--	--	*	--	--	--	*	--	--	--	*	--	--	--	--	--
Slope	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N	0	0	259	0	0	0	0	0	0	0	386	0	0	0	254	0	0	0	357	0	0	0	0	0
Record	0		1978-87		0		0		0		1978-87		0		1978-87		0		1978-87		0		0	

<sup>1</sup>U.S. Geological Survey downstream order number.

<sup>2</sup>Positive slope values indicate increasing trends; negative slope values indicate decreasing trends.