

Trend Analysis Results for Each Statistical Method (Linear Regression, Mann-Kendall, Seasonal Kendall)

Method: Linear Regression - Yearly Geometric Means

Site	Description	Freq. of Secchi Depth < 1.2 m				Turbidity				Fecal Coliform Bacteria				E. Coli Bacteria			
		Dry	Wet	All	Adj	Dry	Wet	All	Adj	Dry	Wet	All	Adj	Dry	Wet	All	Adj
9MILE	Ninemile Creek	-2	-2	-2	-2	-13	-12	-13	-12	1	-2	1	1	-5	-4	-6	-5
MAPLE	Maple Bay	-2	-2	-2	-2	-13	-13	-14	-13	3	-1	1	1	-1	-4	-2	-2
WIL	Wilkenston	-1	-2	-1	-1	-14	-12	-13	-13	1	-1	0	1	-4	-5	-4	-4
LKPK	Lake Park	-1	-3	-2	-2	-14	-13	-14	-14	1	-1	0	0	-6	-6	-7	-7
BLBRK	Bloody Brook	-7	-3	-3	-2	-17	-18	-18	-17	2	-16	-13	-6	-5	-14	-11	-5
LS_N	All Northern Sites	-1	-3	-2	-2	-14	-14	-14	-14	2	-1	0	1	-4	-4	-5	-4
LEY	Ley Creek	-4	-7	-7	-6	-16	-19	-17	-16	-1	-12	-7	-5	-2	-13	-9	-7
MID_S	Mid South	-3	-5	-3	-3	-13	-19	-16	-15	15	-1	9	10	3	-6	0	1
HARB	Harbor Brook	-3	-6	-5	-5	-13	-17	-15	-14	8	-2	-1	2	1	-2	-2	0
LS_S	All Southern Sites	-3	-6	-5	-5	-14	-18	-16	-15	7	-5	0	2	0	-9	-4	-2
LS_ALL	All Lakeshore	-2	-3	-3	-2	-14	-15	-15	-14	5	2	3	4	-2	-5	-4	-3
SOUTH	South Deep	-2	-2	-2	-2	-5	-7	-5	-5	1	-1	0	0	-2	0	-1	-1

Method: Mann-Kendall - Yearly Geometric Means

Site	Description	Freq. of Secchi Depth < 1.2 m				Turbidity				Fecal Coliform Bacteria				E. Coli Bacteria			
		Dry	Wet	All	Adj	Dry	Wet	All	Adj	Dry	Wet	All	Adj	Dry	Wet	All	Adj
9MILE	Ninemile Creek	-2	-2	-2	-2	-14	-12	-12	-12	2	-2	1	1	-5	-4	-6	-6
MAPLE	Maple Bay	-2	-1	-2	-2	-13	-15	-14	-15	3	0	0	1	-1	-4	-2	-2
WIL	Wilkenston	0	-1	-1	-1	-13	-11	-13	-13	1	-2	1	1	-2	-6	-5	-4
LKPK	Lake Park	0	-1	-1	-1	-15	-13	-15	-14	0	-2	-1	0	-2	-7	-8	-6
BLBRK	Bloody Brook	-5	-3	-2	-2	-17	-20	-18	-18	2	-16	-8	-3	-5	-12	-12	-6
LS_N	All Northern Sites	-1	-2	-1	-1	-16	-13	-14	-14	2	-1	1	2	-2	-5	-5	-4
LEY	Ley Creek	-5	-8	-7	-6	-15	-18	-18	-16	-1	-14	-8	-6	-4	-14	-10	-7
MID_S	Mid South	-3	-5	-4	-3	-13	-18	-16	-15	16	-1	10	13	1	-4	0	3
HARB	Harbor Brook	-2	-7	-5	-4	-13	-18	-15	-14	6	-2	-2	4	0	-2	-4	3
LS_S	All Southern Sites	-4	-6	-5	-5	-13	-18	-16	-15	8	-4	2	3	1	-7	-3	1
LS_ALL	All Lakeshore	-2	-3	-2	-2	-14	-15	-15	-14	5	3	3	5	-2	-4	-3	-2
SOUTH	South Deep	0	-1	-2	-1	-10	-7	-5	-5	1	-3	-1	1	-2	-2	1	-1

Method: Seasonal Kendall - Monthly Geometric Means

Site	Description	Freq. of Secchi Depth < 1.2 m				Turbidity				Fecal Coliform Bacteria				E. Coli Bacteria			
		Dry	Wet	All	Adj	Dry	Wet	All	Adj	Dry	Wet	All	Adj	Dry	Wet	All	Adj
9MILE	Ninemile Creek	0	0	0	-1	-11	-11	-12	-11	0	-2	3	1	0	-4	-4	-3
MAPLE	Maple Bay	0	0	0	-1	-13	-15	-15	-15	0	1	2	1	0	-1	-1	-1
WIL	Wilkenston	0	0	0	0	-13	-13	-13	-14	0	1	1	1	0	-5	-4	-4
LKPK	Lake Park	0	0	0	-1	-12	-15	-14	-14	0	1	1	1	0	-5	-4	-2
BLBRK	Bloody Brook	0	0	0	0	-17	-19	-18	-18	0	-10	-6	-2	0	-12	-7	-3
LS_N	All Northern Sites	0	-1	-1	-1	-13	-15	-14	-14	1	2	2	1	-1	-4	-4	-3
LEY	Ley Creek	0	-7	-6	-5	-16	-18	-16	-14	2	-8	-5	-5	0	-12	-9	-7
MID_S	Mid South	0	-4	-3	-2	-14	-19	-16	-15	18	3	12	14	7	-4	2	4
HARB	Harbor Brook	0	-6	-5	-5	-14	-18	-15	-15	6	1	3	4	0	-7	-2	3
LS_S	All Southern Sites	-3	-6	-5	-5	-15	-18	-16	-15	8	1	3	6	2	-10	-3	-3
LS_ALL	All Lakeshore	-1	-3	-2	-2	-13	-17	-14	-15	5	6	5	4	1	-5	-4	-2
SOUTH	South Deep	0	0	0	0	-10	-11	-9	-9	0	3	2	1	0	-6	-4	-3

Significance levels Decreasing $p < .05$ $p < .10$ Increasing $p < .05$ $p < .10$ Trend Analysis Method: SeasonalKendall

Trend Slopes expressed as % of values < 1.2 m per year for Secchi and % of long-term geometric mean for turbidity and bacteria

Dry/Wet samples classified based upon 3-day antecedent precipitation at Hancock Airport <> 0.2 inches

Adj. = All data adjusted for correlations with antecedent rainfall by linear regression before performing trend analysis.