

Loxahatchee River-Lake Worth Creek Aquatic Preserve

SEACAR Discrete Water Quality Analysis

Last compiled on 14 August, 2024

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Indicators

Nutrients

Total Nitrogen - Discrete

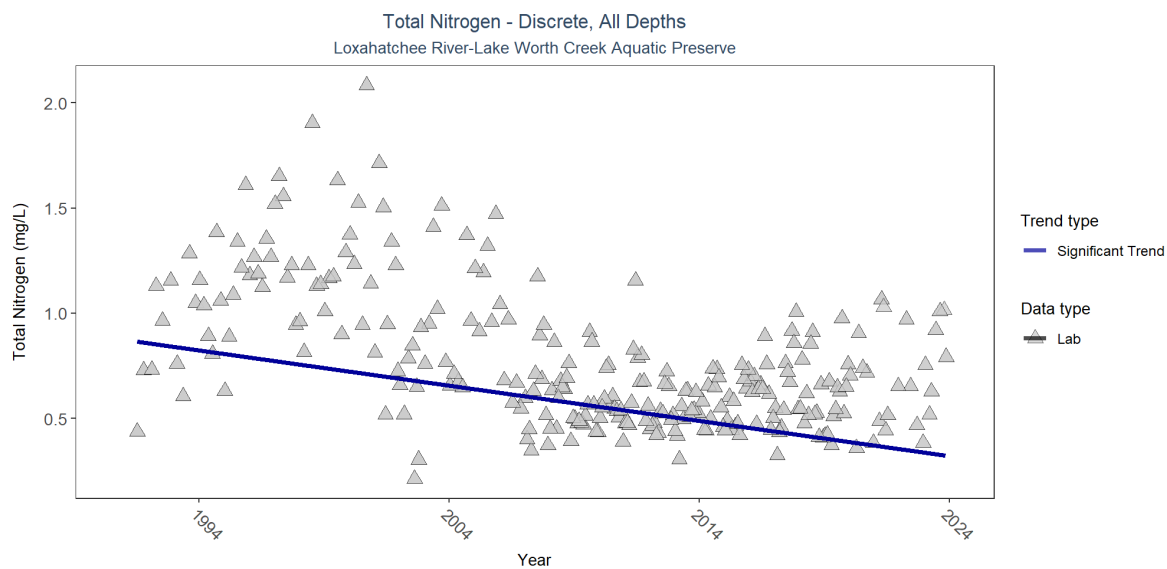


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	3321	33	1991 - 2023	0.696	-0.2627	0.87509	-0.01679	0.0000

Total Phosphorus - Discrete

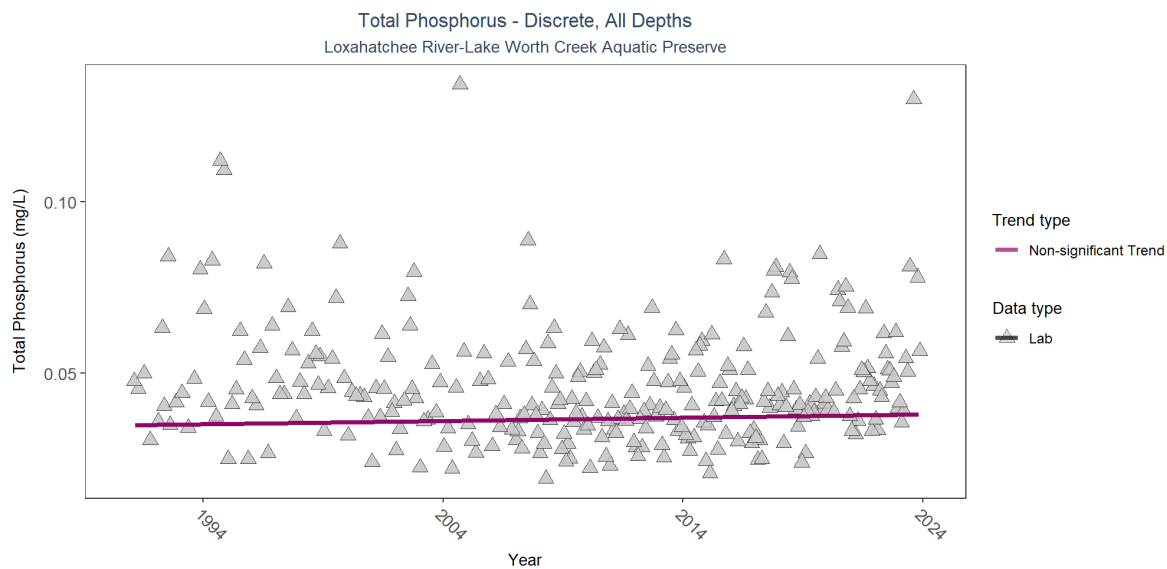


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	4263	33	1991 - 2023	0.042	0.0623	0.03485	0.00009	0.2939

Water Quality

Dissolved Oxygen - Discrete

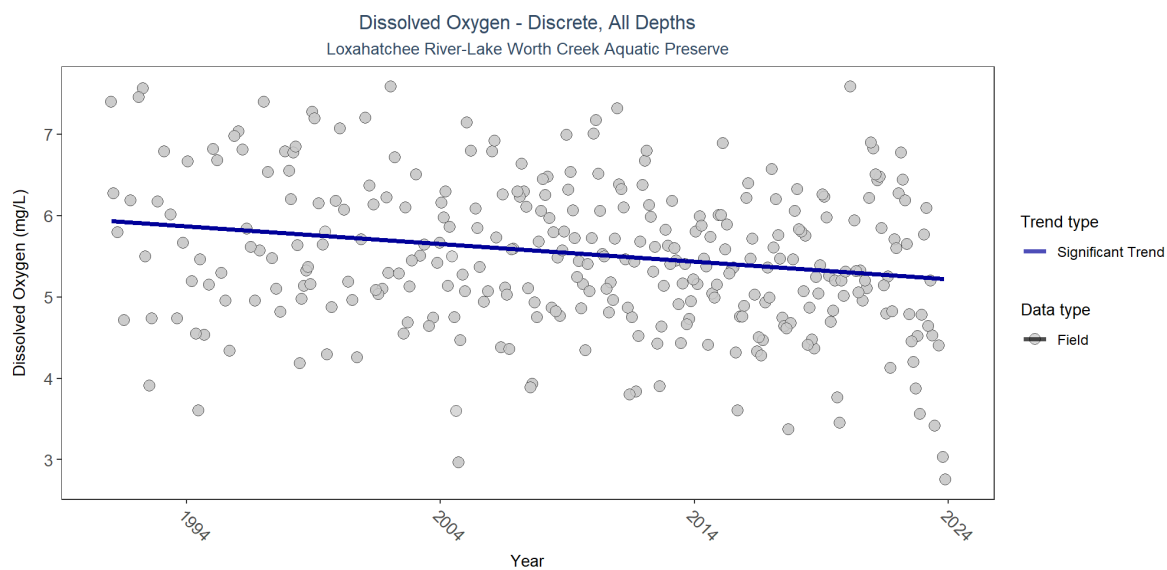


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	8713	33	1991 - 2023	5.66	-0.2238	5.93269	-0.02173	0.0000

Dissolved Oxygen Saturation - Discrete

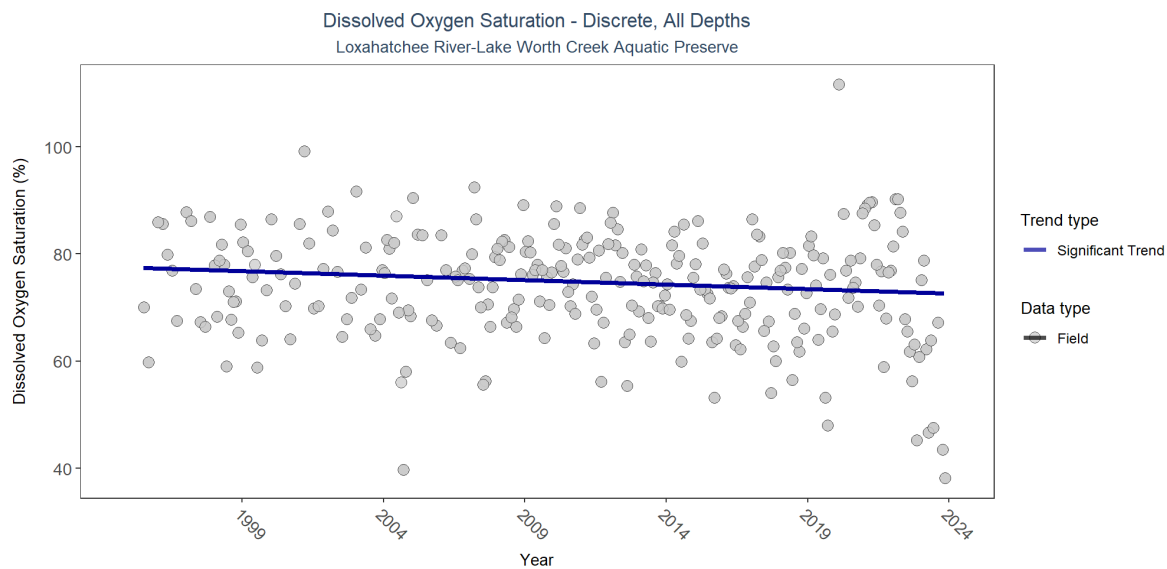


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	7160	29	1995 - 2023	77.2	-0.1073	77.49672	-0.16741	0.0118

Salinity - Discrete

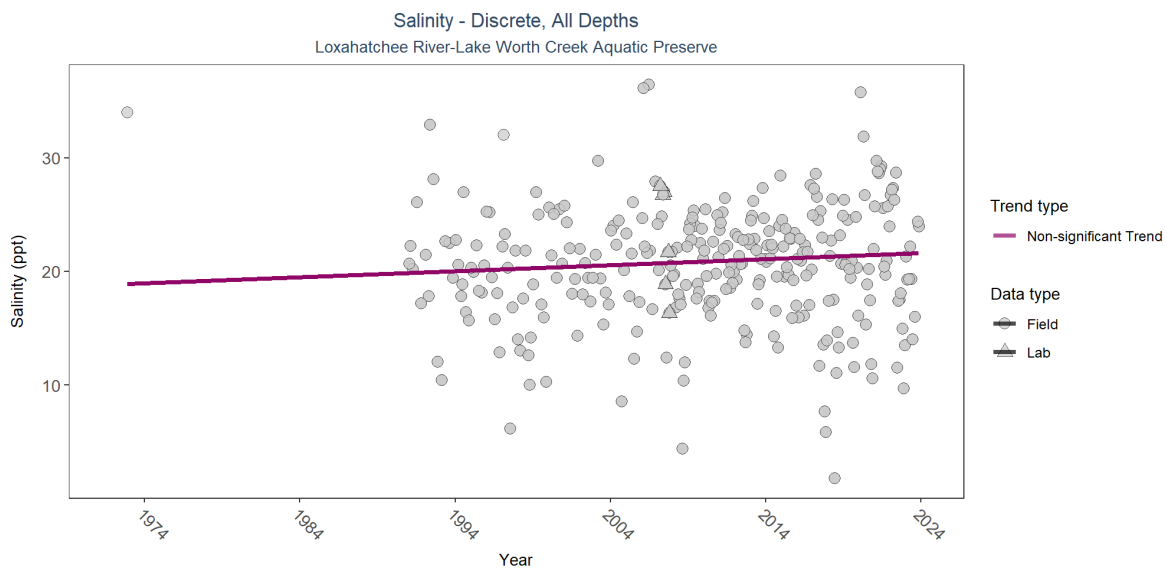


Table 5: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	No significant trend	7669	34	1972 - 2023	25.1	0.0543	18.87549	0.05265	0.1153

Salinity - Continuous

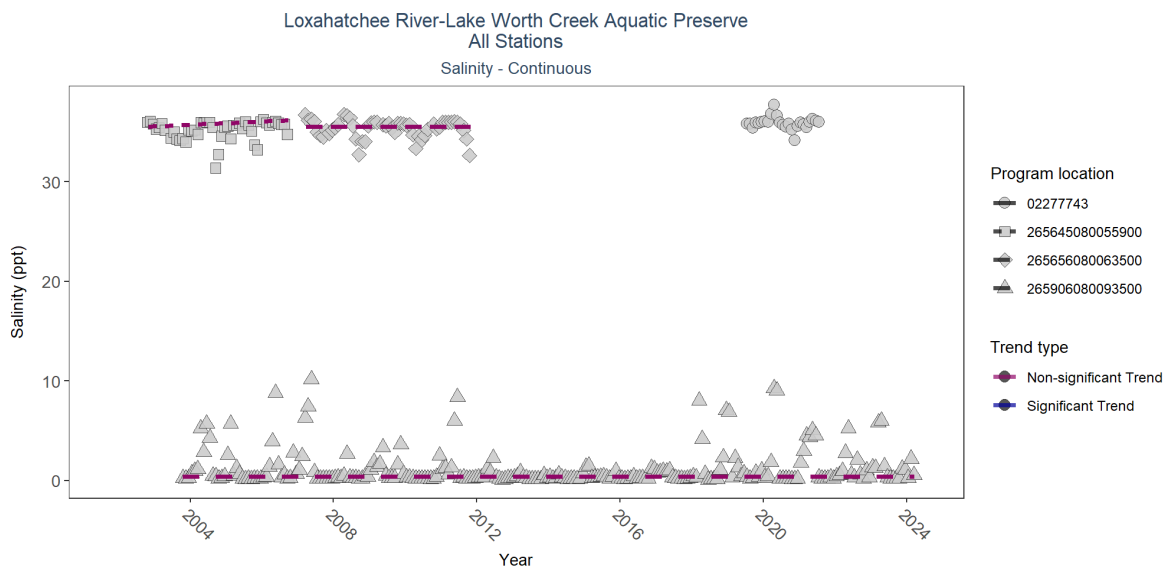


Table 6: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
265906080093500	No significant trend	9503	22	2003 - 2024	0.3	0	0.37	0	0.9424
265645080055900	No significant trend	1354	5	2002 - 2006	36.0	0.22	35.43	0.16	0.1594
265656080063500	No significant trend	2046	5	2007 - 2011	36.0	0.01	35.53	0	1.0000
02277743	Insufficient data to calculate trend	910	3	2019 - 2021	36.0	-	-	-	-

Water Temperature - Discrete

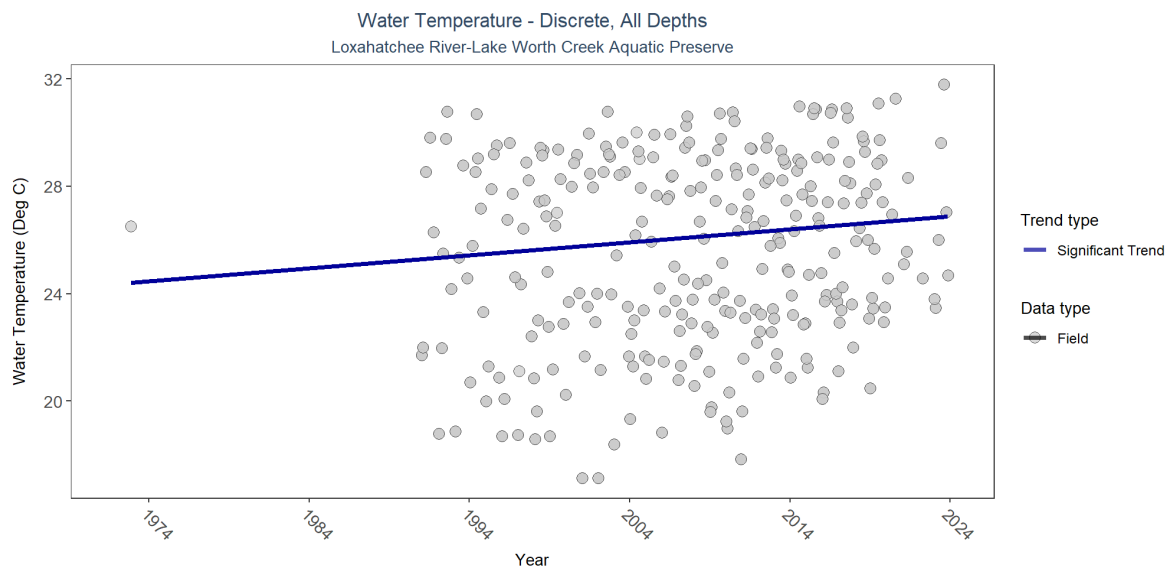


Table 7: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	6480	34	1972 - 2023	25.6	0.2249	24.36324	0.04867	0.0000

Water Temperature - Continuous

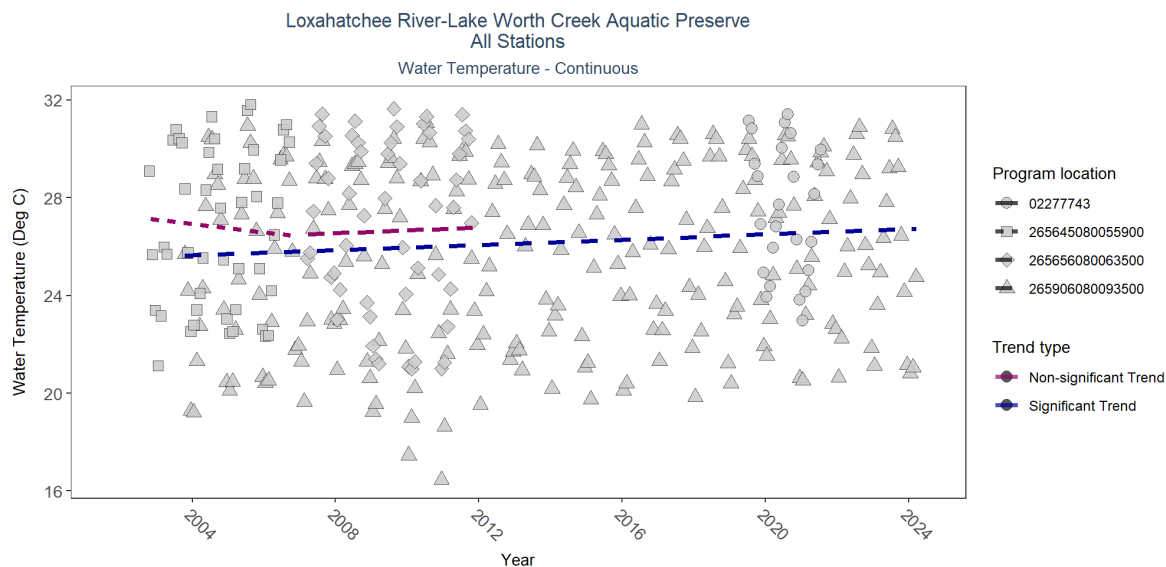


Table 8: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
265906080093500	Significantly increasing trend	11603	22	2003 - 2024	26.2	0.29	25.6	0.05	0.0000
265645080055900	No significant trend	1354	5	2002 - 2006	26.6	-0.29	27.27	-0.17	0.0704
265656080063500	No significant trend	2664	5	2007 - 2011	27.6	0.08	26.5	0.06	0.4533
02277743	Insufficient data to calculate trend	1075	3	2019 - 2021	27.9	-	-	-	-

pH - Discrete

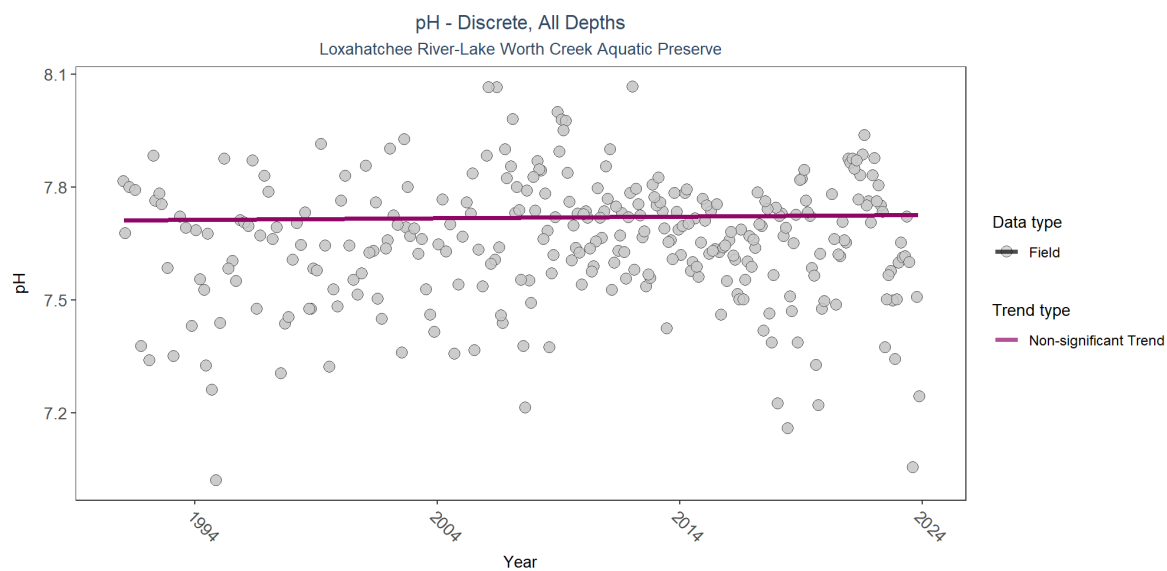


Table 9: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	8413	33	1991 - 2023	7.72	-0.0063	7.7118	0.0004	0.6888

Water Clarity

Turbidity - Discrete

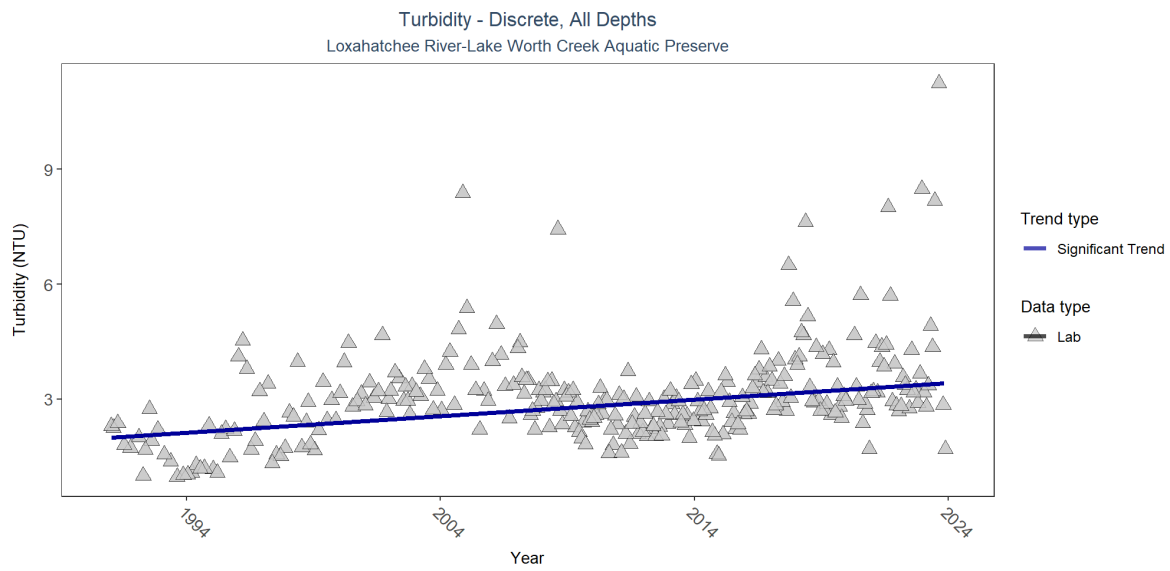


Table 10: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	3951	33	1991 - 2023	2.64	0.2933	1.9965	0.04325	0.0000

Total Suspended Solids - Discrete

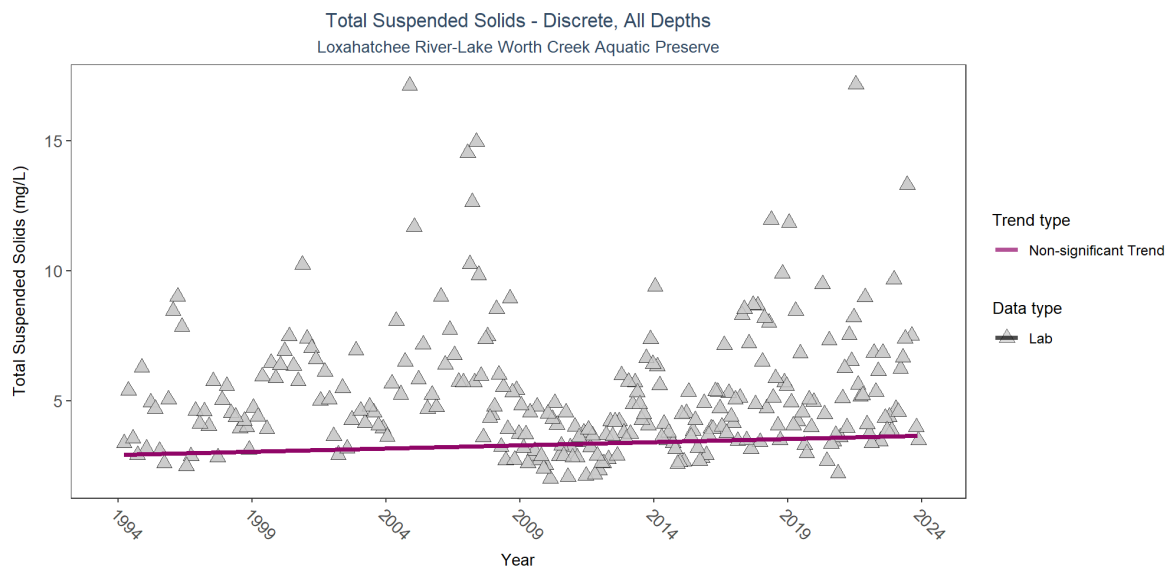


Table 11: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	3751	30	1994 - 2023	4	0.1038	2.91434	0.02515	0.0895

Chlorophyll a, Uncorrected for Pheophytin - Discrete

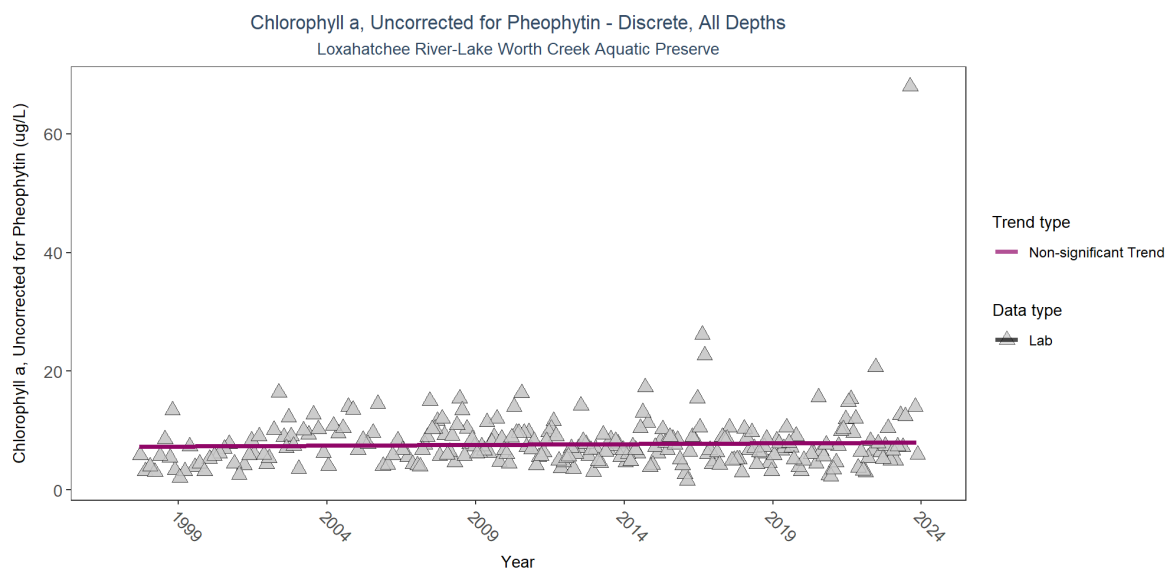


Table 12: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	3805	27	1997 - 2023	5.6	0.042	7.24599	0.02761	0.3120

Chlorophyll a, Corrected for Pheophytin - Discrete

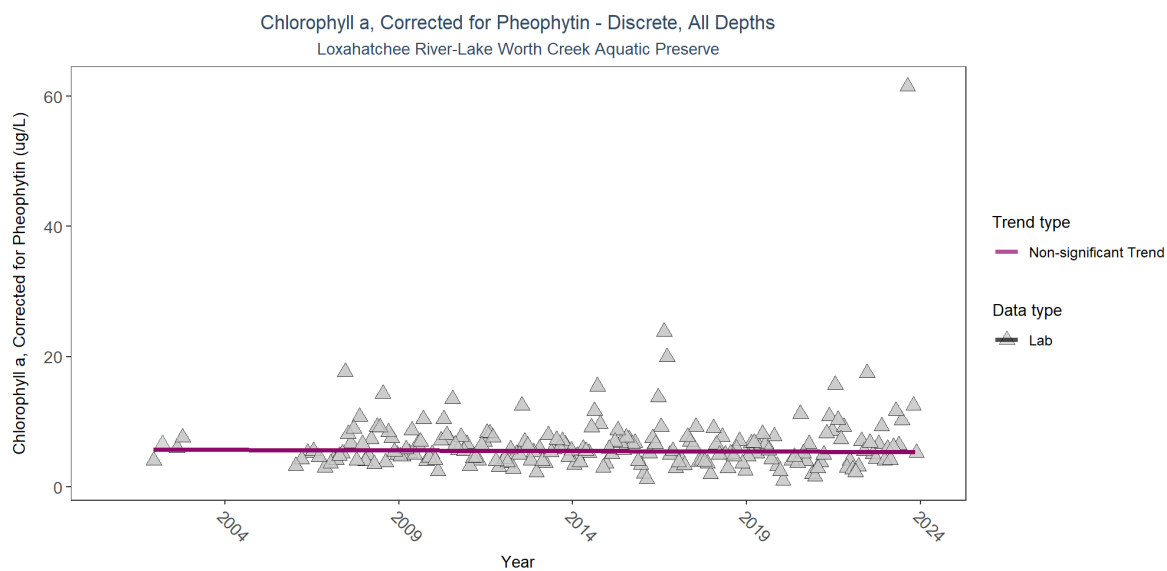


Table 13: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	2780	20	2001 - 2023	4.4	-0.0351	5.76485	-0.01727	0.5064

Secchi Depth - Discrete

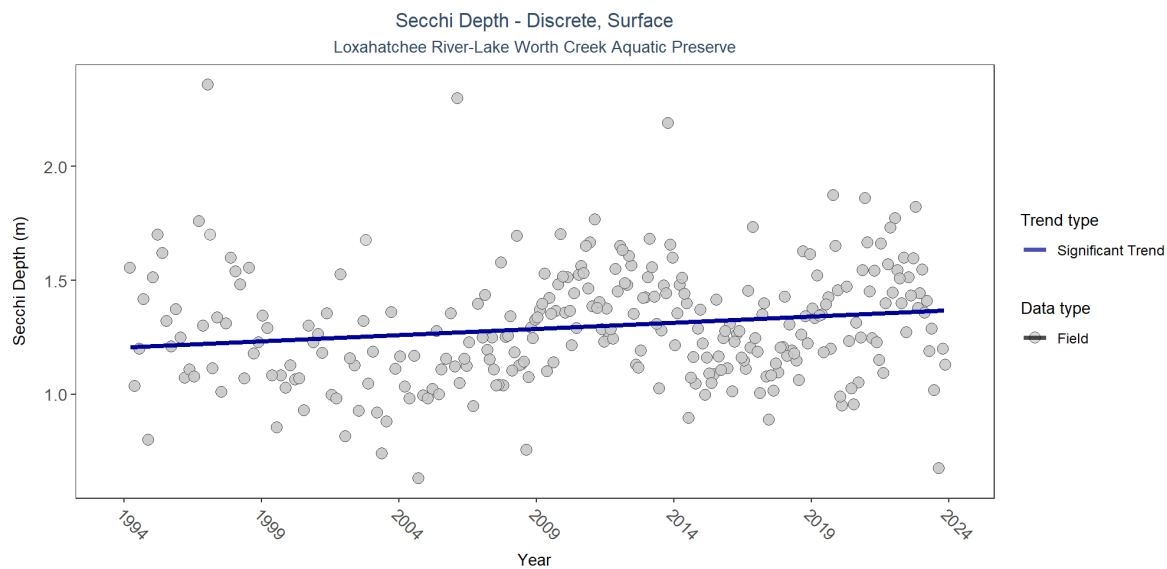


Table 14: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	3795	30	1994 - 2023	1.3	0.0974	1.20623	0.00544	0.0050

Colored Dissolved Organic Matter - Discrete

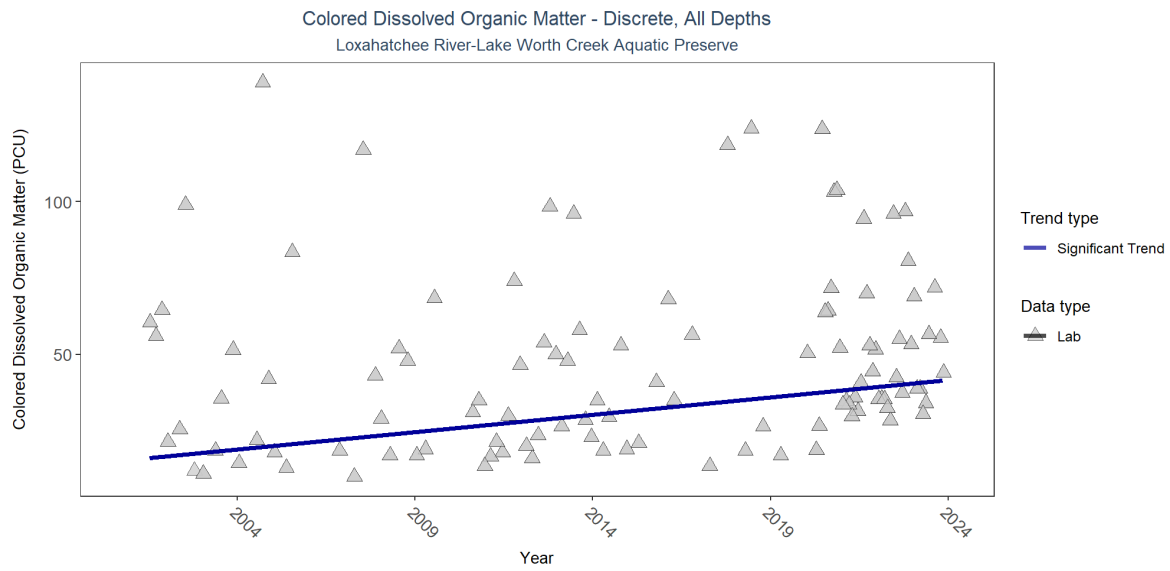


Table 15: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	607	23	2001 - 2023	45	0.3507	15.4231	1.13889	0.0000