

Loxahatchee River-Lake Worth Creek Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 27 January, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

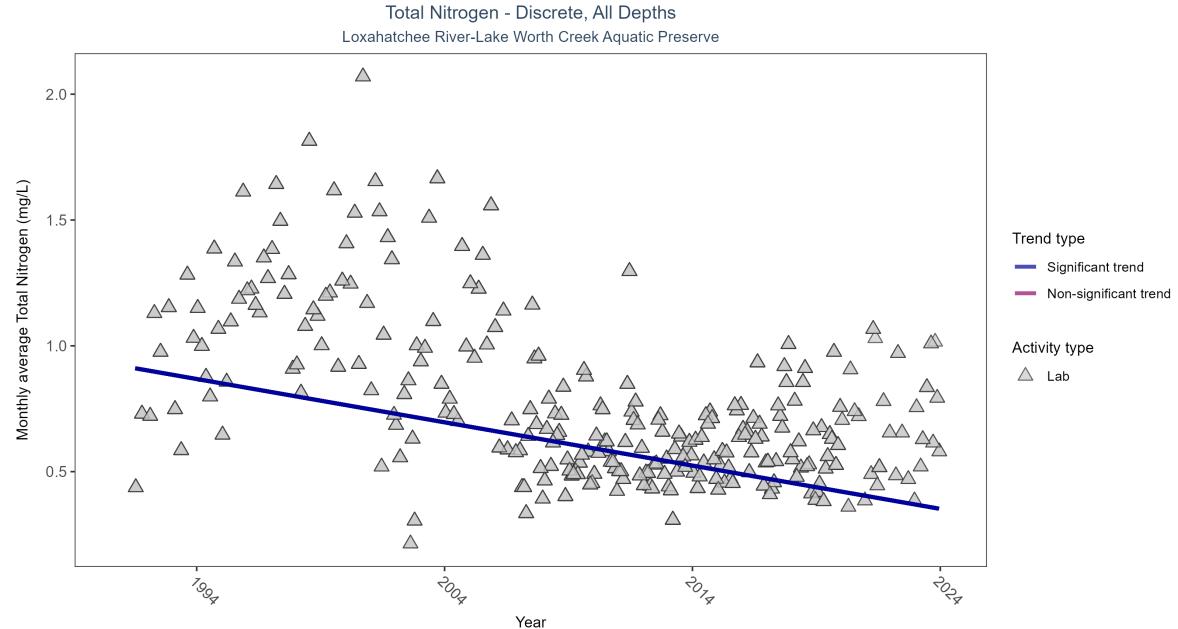


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	4763	33	1991 - 2023	0.706	-0.2729	0.91973	-0.0172	0.0000

Total Phosphorus - Discrete

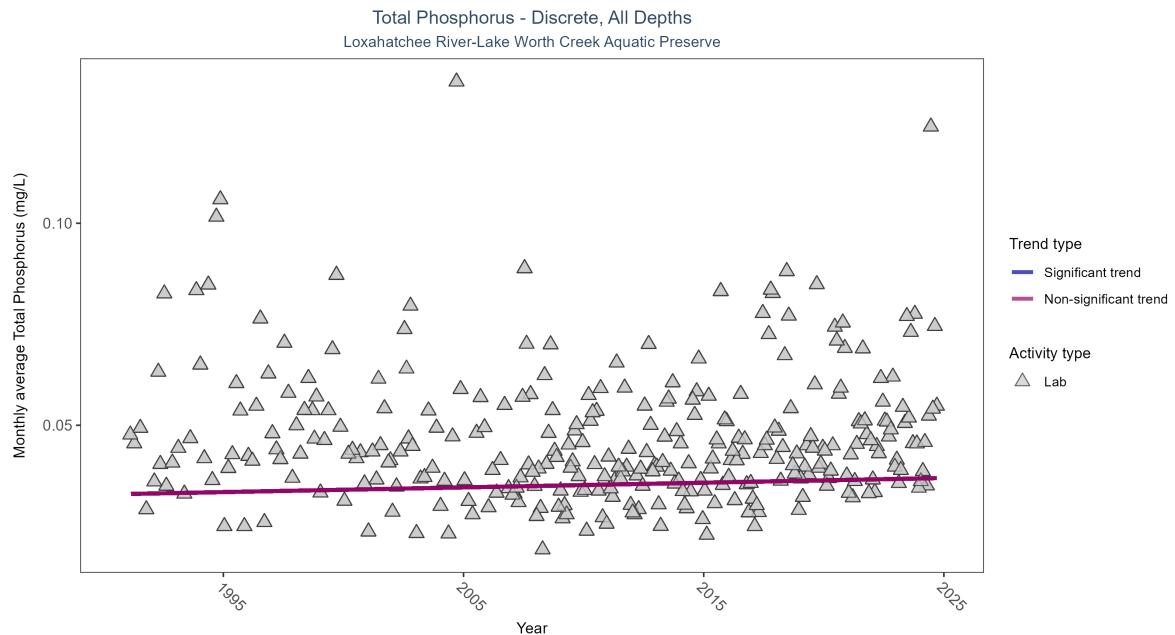


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	6665	34	1991 - 2024	0.042	0.0727	0.03298	0.00012	0.1778

Water Quality

Dissolved Oxygen - Discrete

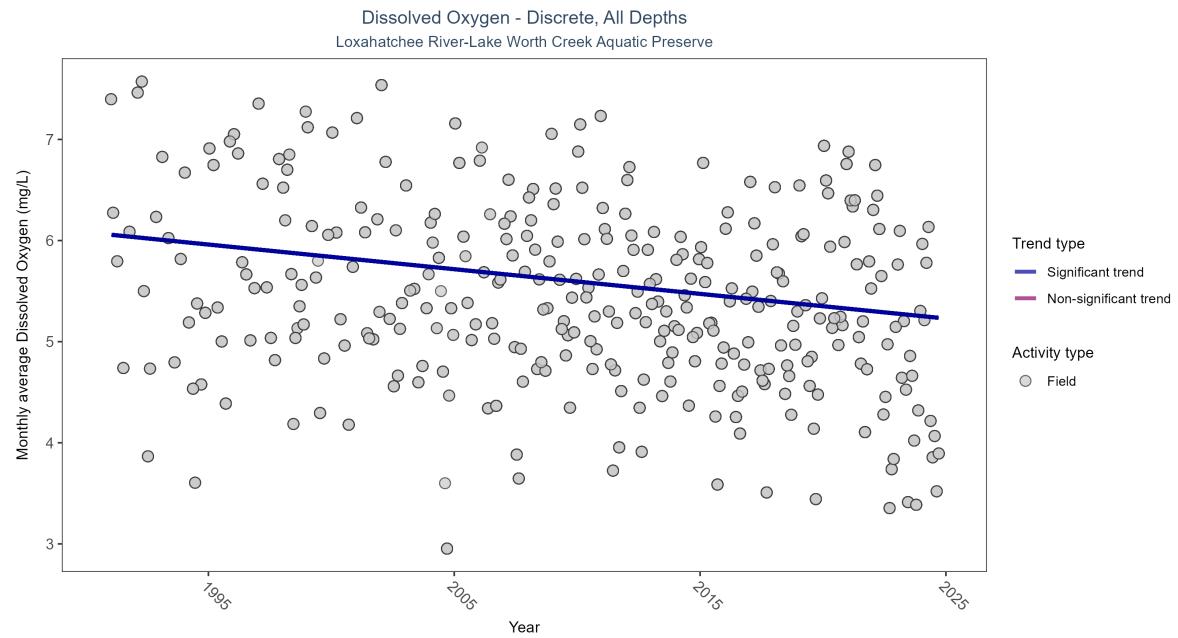


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly decreasing trend	13244	34	1991 - 2024	5.61	-0.2581	6.05813	-0.02439	0.0000

Dissolved Oxygen Saturation - Discrete

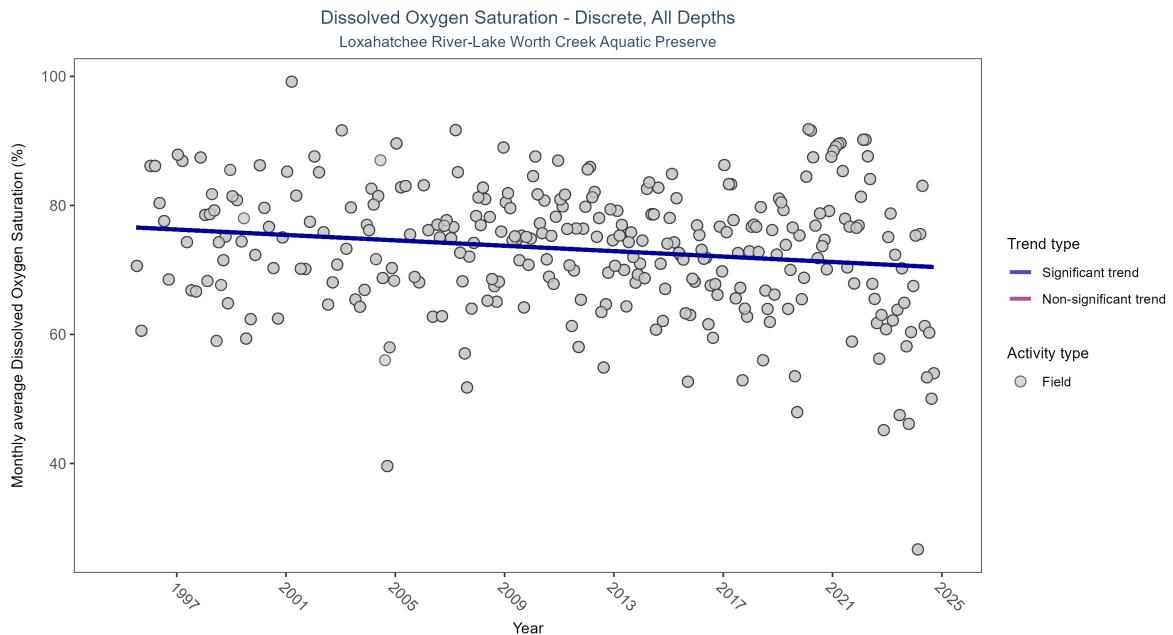


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly decreasing trend	10944	30	1995 - 2024	76.2	-0.1408	76.6766	-0.2094	0.0006

Salinity - Discrete

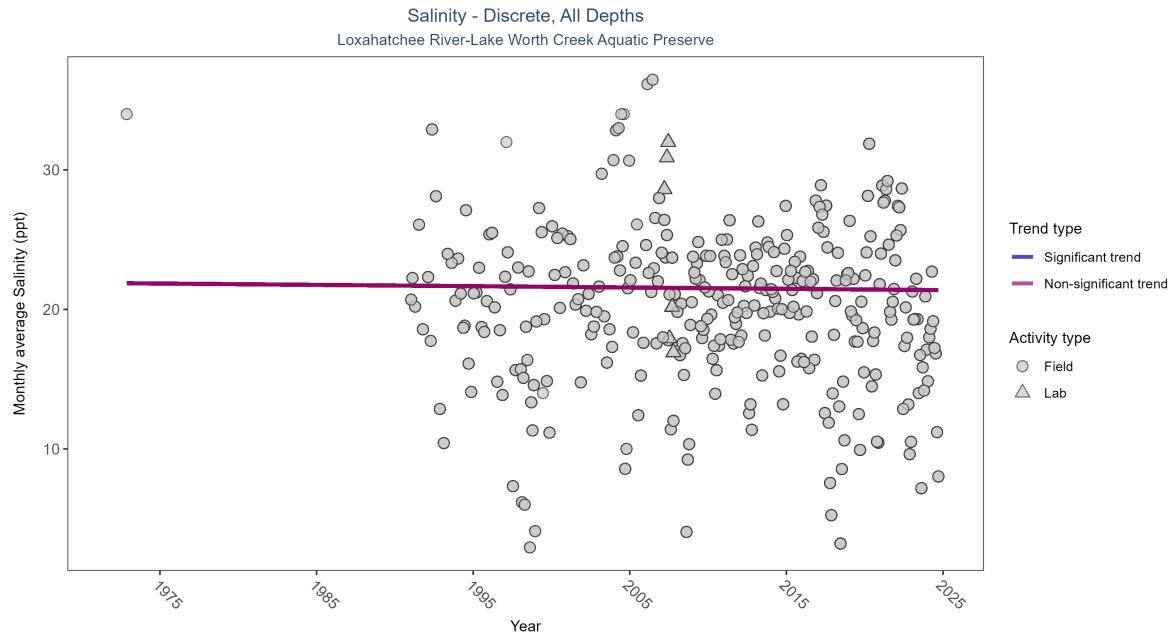


Table 5: Seasonal Kendall-Tau Results for - Salinity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
All	No significant trend	11869	35	1972 - 2024	24.6	-0.0139	21.88197	-0.00946	0.7723

Salinity - Continuous

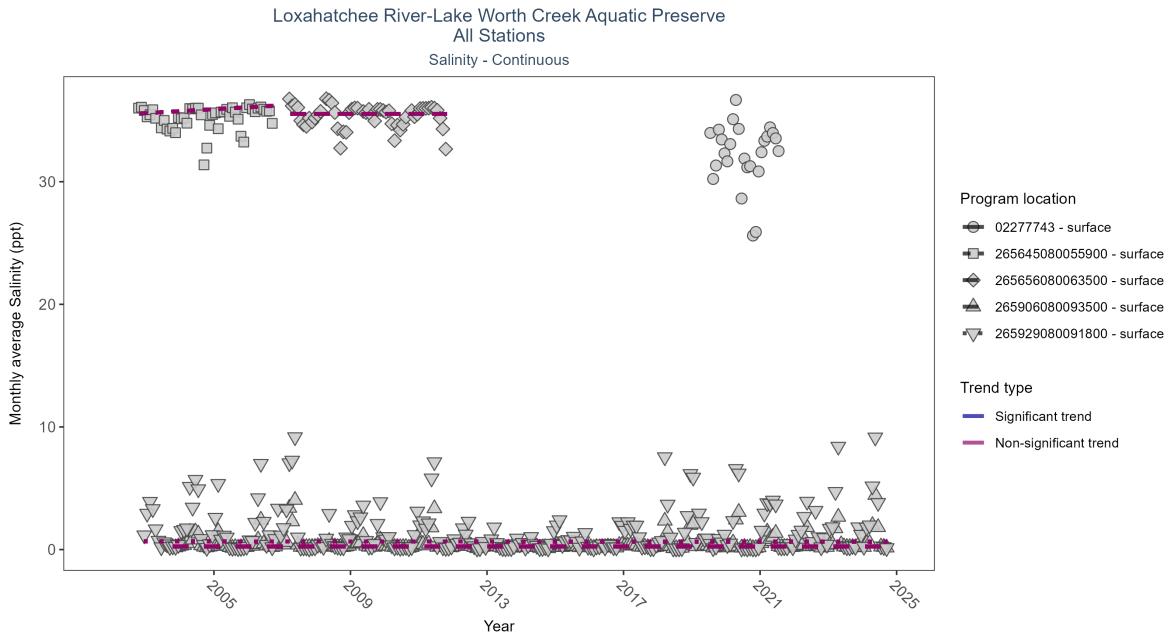


Table 6: Seasonal Kendall-Tau Results for All Stations - Salinity

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
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
265929080091800	No significant trend	7774	23	2002 - 2024	0.4	-0.02	0.67	0	0.6773
265906080093500	No significant trend	8826	22	2003 - 2024	0.3	-0.01	0.25	0	0.8273
02277743	Insufficient data to calculate trend	1144	3	2019 - 2021	32.0	-	-	-	NA

Water Temperature - Discrete

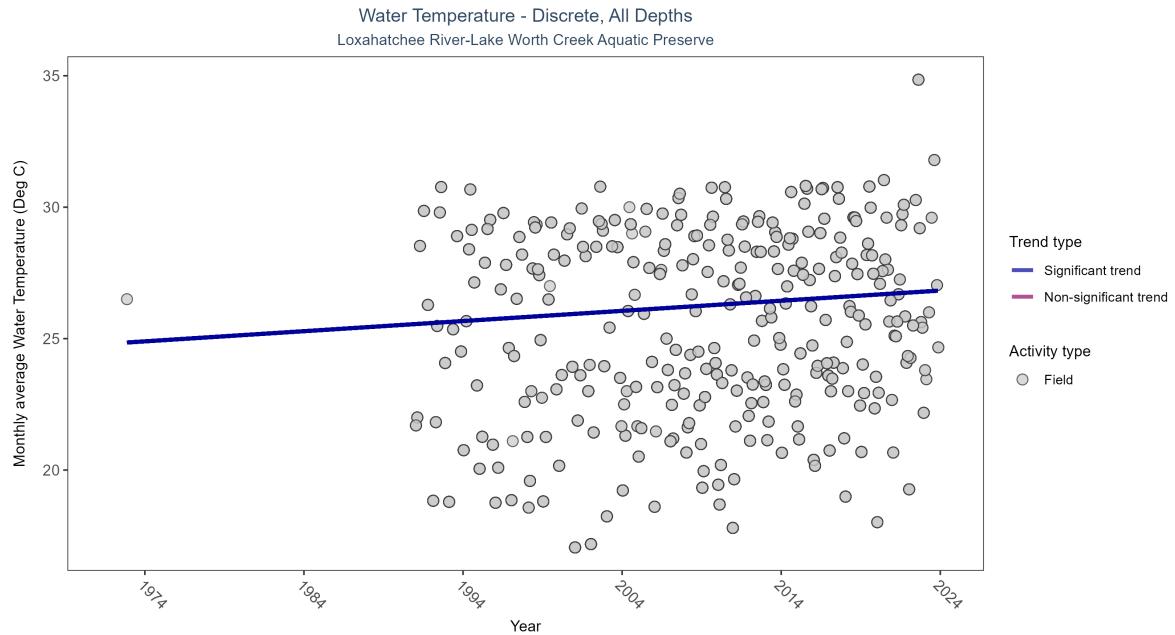


Table 7: Seasonal Kendall-Tau Results for - Water Temperature

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly increasing trend	10672	34	1972 - 2023	25.7	0.1689	24.81834	0.03866	0.0000

Water Temperature - Continuous

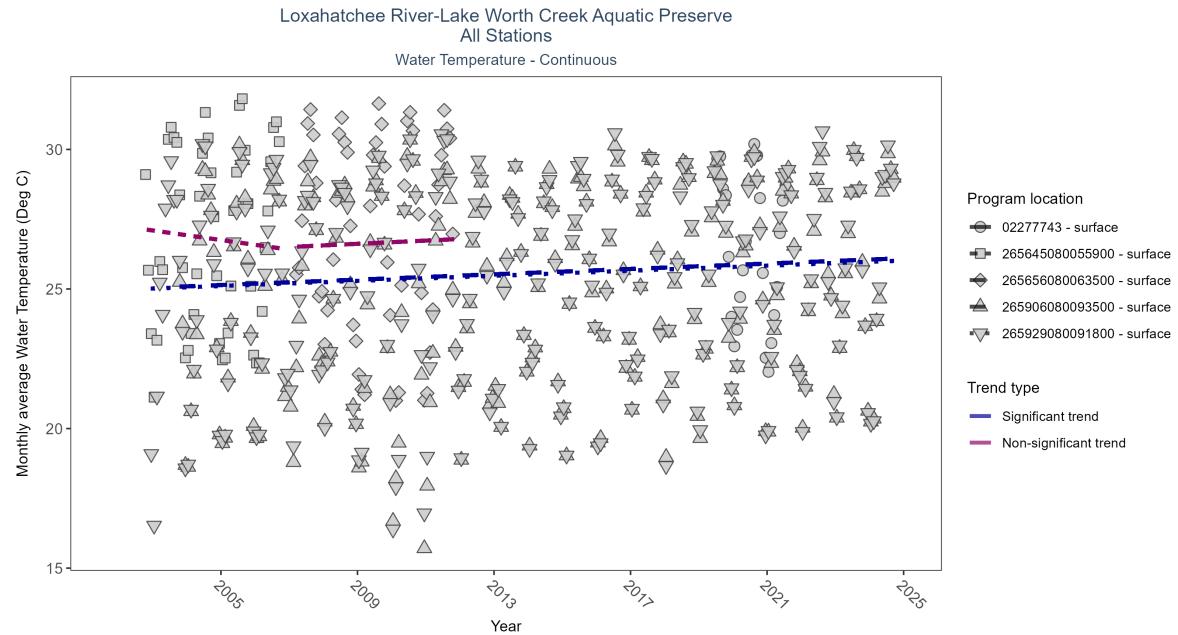


Table 8: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
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
265929080091800	Significantly increasing trend	7798	23	2002 - 2024	25.8	0.24	24.97	0.05	0.0000
265906080093500	Significantly increasing trend	11688	22	2003 - 2024	25.7	0.28	25.05	0.05	0.0000
02277743	Insufficient data to calculate trend	1122	3	2019 - 2021	26.3	-	-	-	NA

pH - Discrete

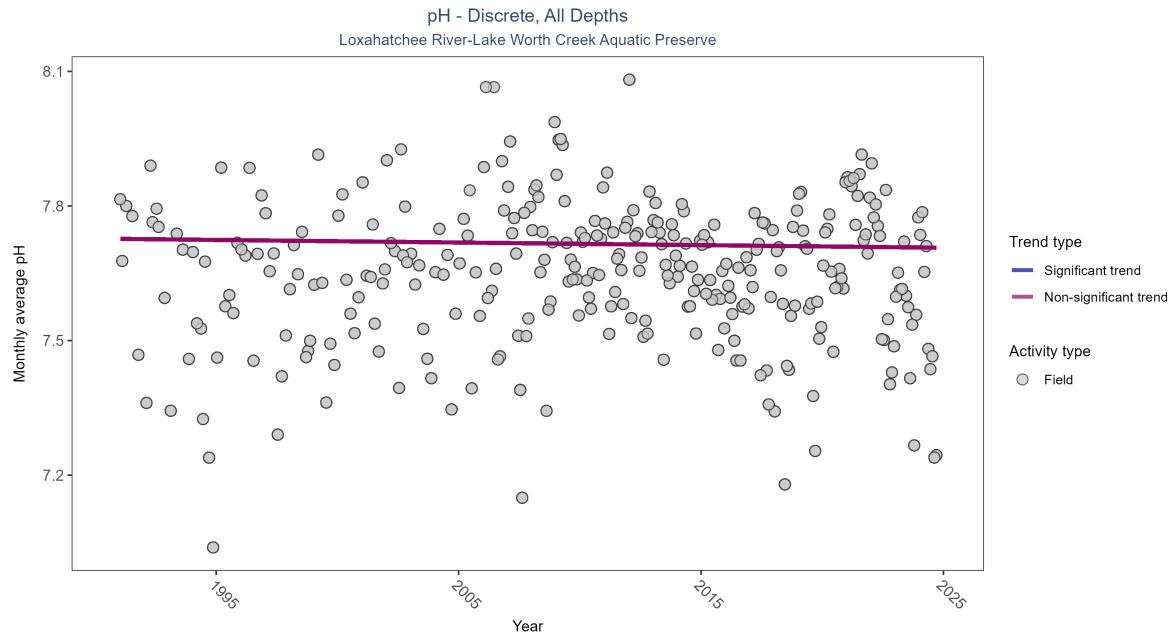


Table 9: Seasonal Kendall-Tau Results for - pH

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	No significant trend	12943	34	1991 - 2024	7.7	-0.0372	7.72667	-0.00058	0.6449

Water Clarity

Turbidity - Discrete

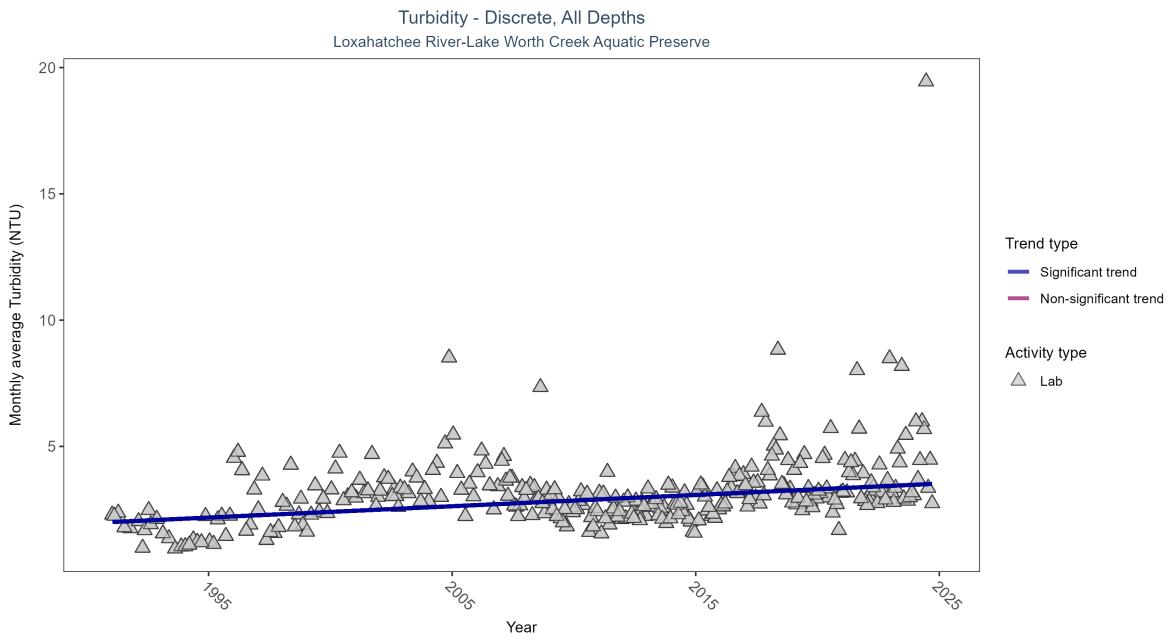


Table 10: Seasonal Kendall-Tau Results for - Turbidity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly increasing trend	6468	34	1991 - 2024	2.7	0.3197	2.00458	0.0448	0.0000

Total Suspended Solids - Discrete

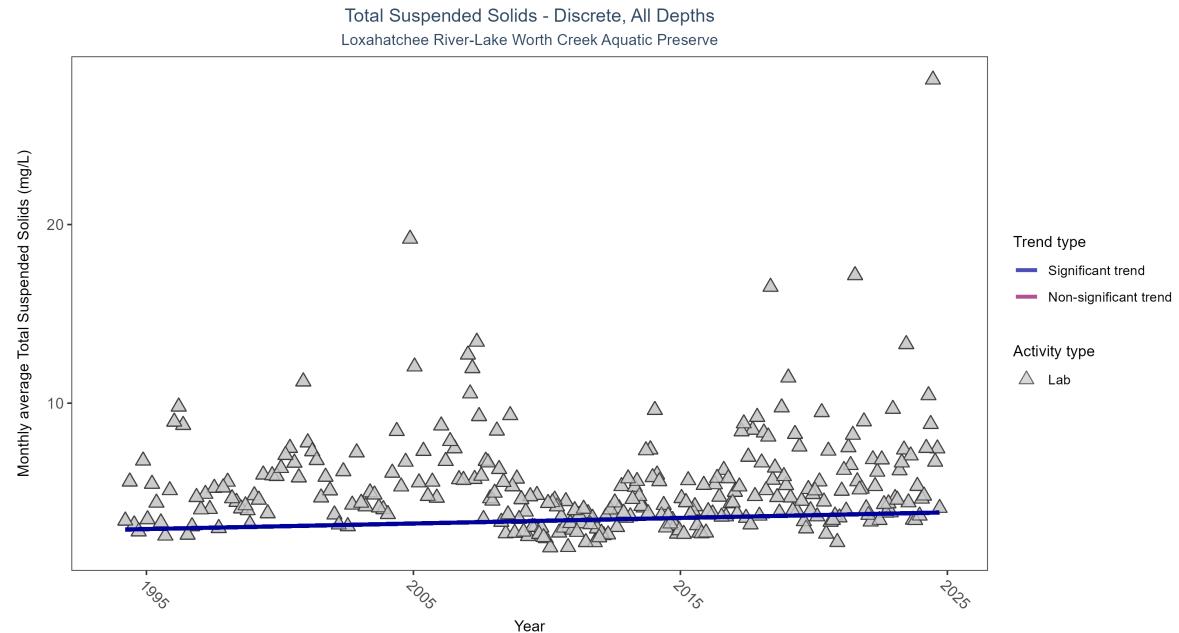


Table 11: Seasonal Kendall-Tau Results for - Total Suspended Solids

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P	
Lab	Significantly increasing trend	6099	31	1994 - 2024		4	0.1305	2.92019	0.03113	0.0196

Chlorophyll a, Uncorrected for Pheophytin - Discrete

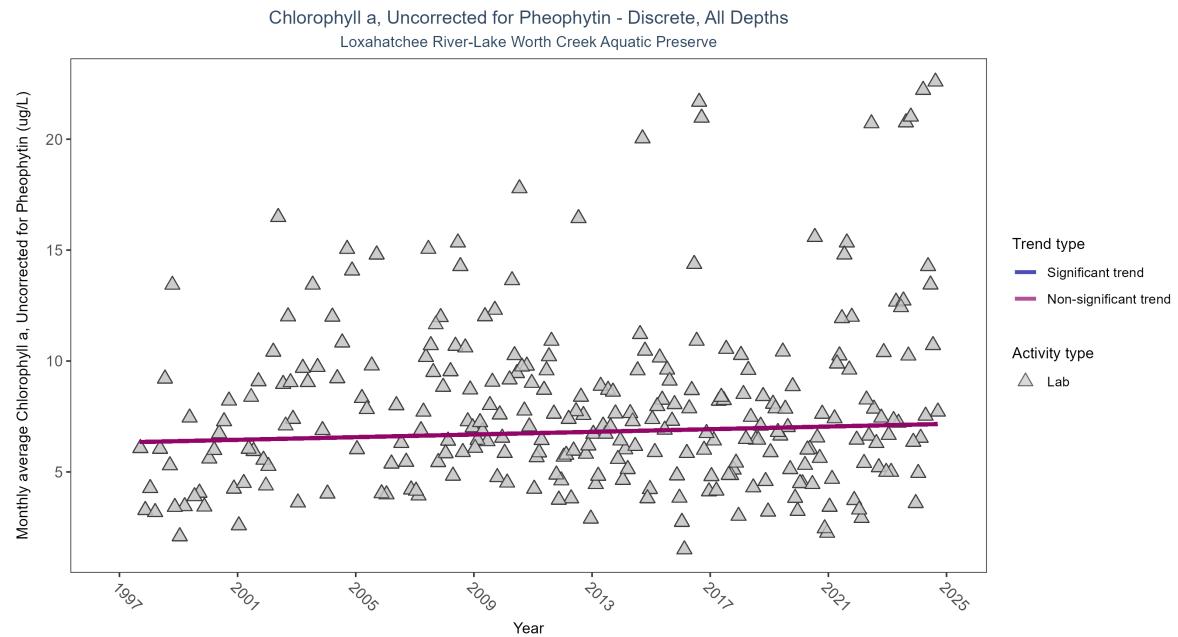


Table 12: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	5989	28	1997 - 2024	5.6	0.0569	6.32879	0.02992	0.1797

Chlorophyll a, Corrected for Pheophytin - Discrete

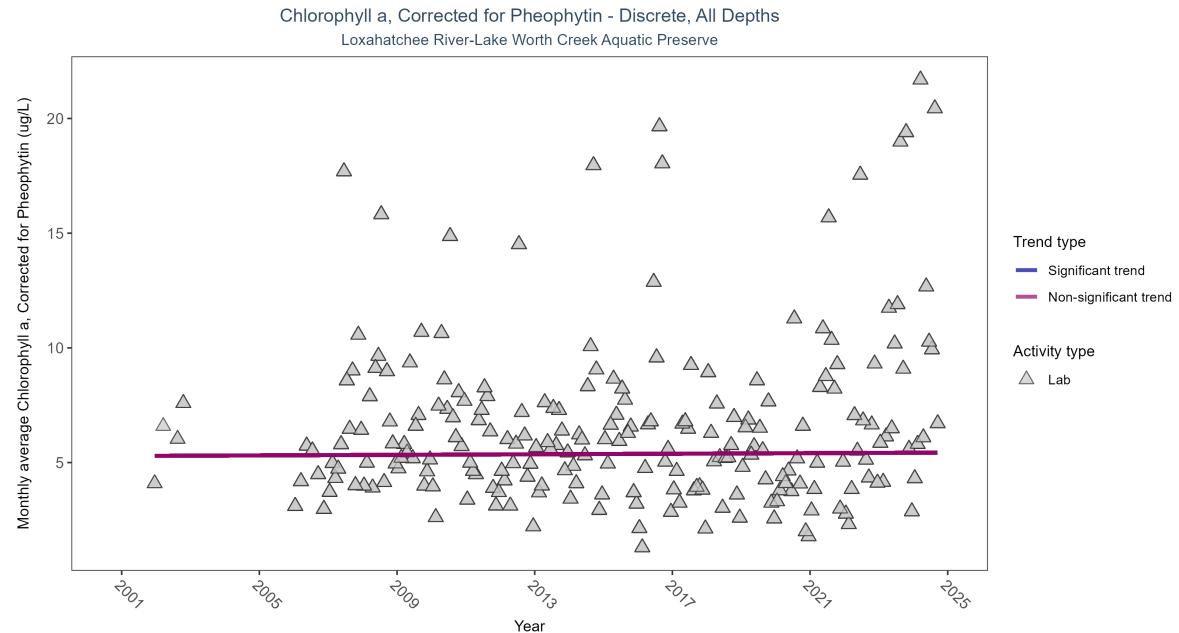


Table 13: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	4461	21	2001 - 2024	4.5	0.0104	5.28772	0.00611	0.8350

Secchi Depth - Discrete

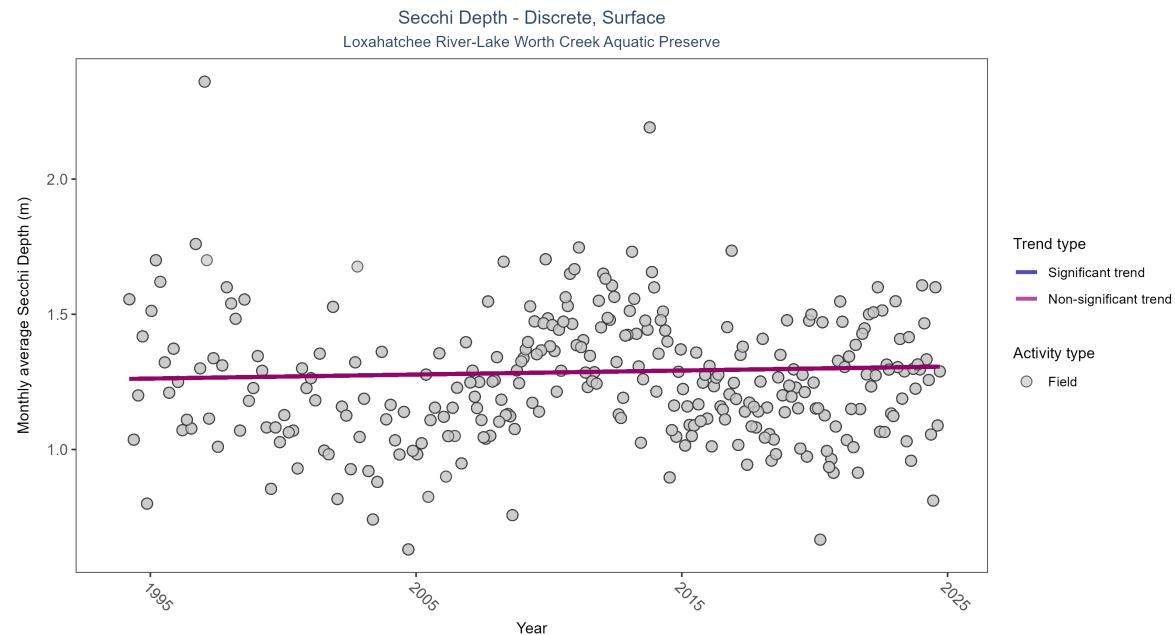


Table 14: Seasonal Kendall-Tau Results for - Secchi Depth

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	No significant trend	4782	31	1994 - 2024	1.2	-0.0009	1.26086	0.00149	0.4644

Colored Dissolved Organic Matter - Discrete

Colored Dissolved Organic Matter - Discrete, All Depths
Loxahatchee River-Lake Worth Creek Aquatic Preserve

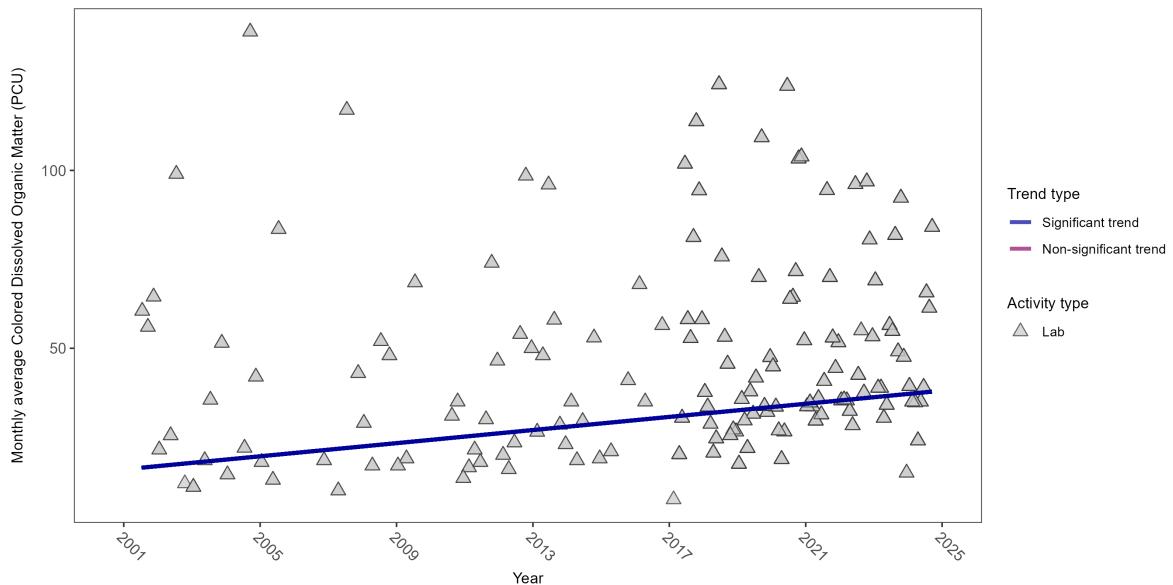


Table 15: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly increasing trend	1125	24	2001 - 2024	45	0.2997	15.94198	0.92262	0.0000