

Lemon Bay Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 18 March, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

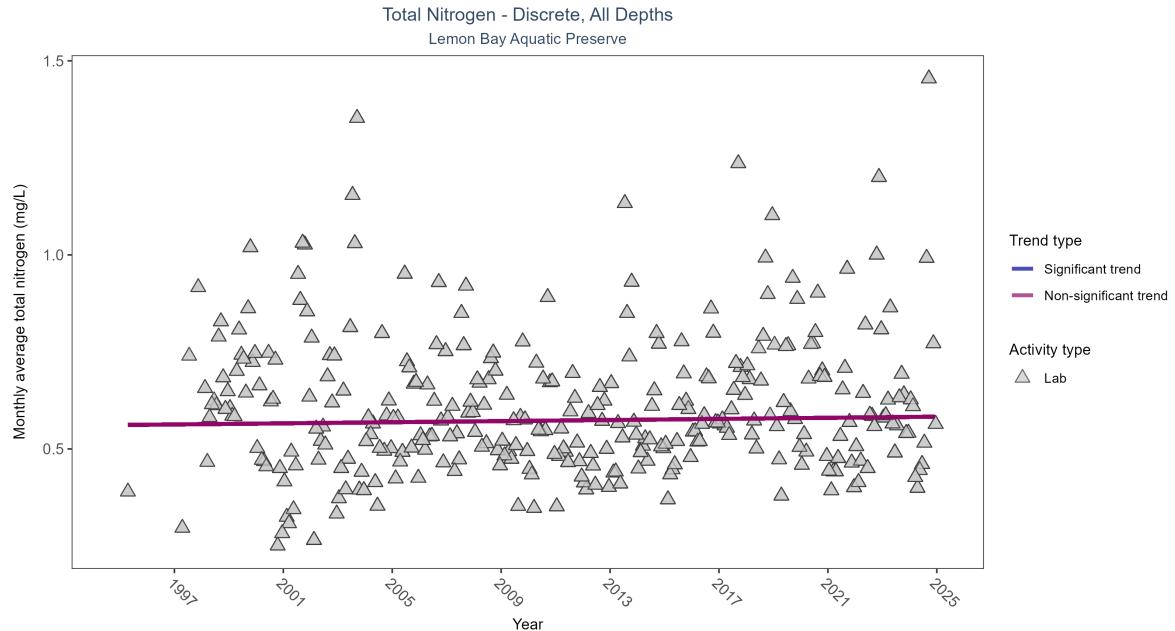
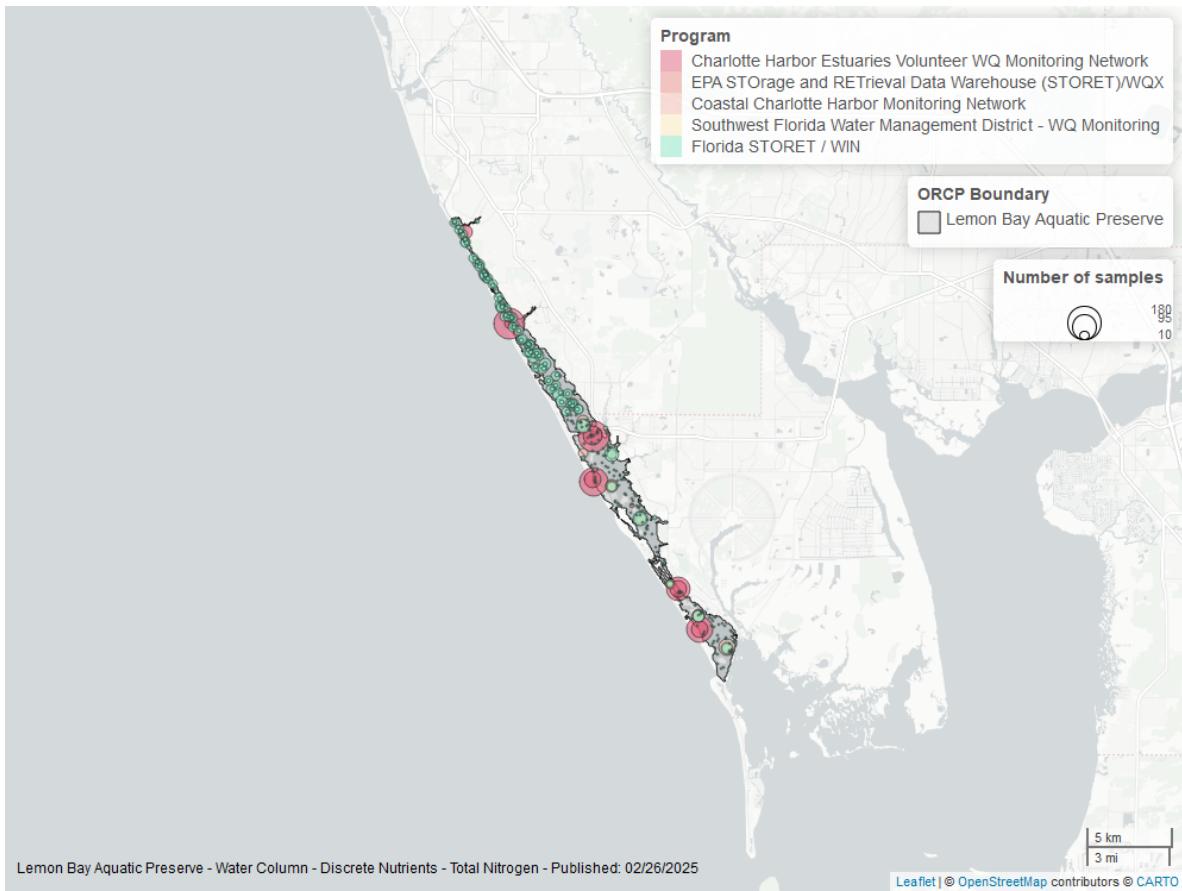


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	2969	29	1995 - 2024	0.555	0.03074	0.56174	0.00071	0.43874862919793788940125978115



Total Phosphorus - Discrete

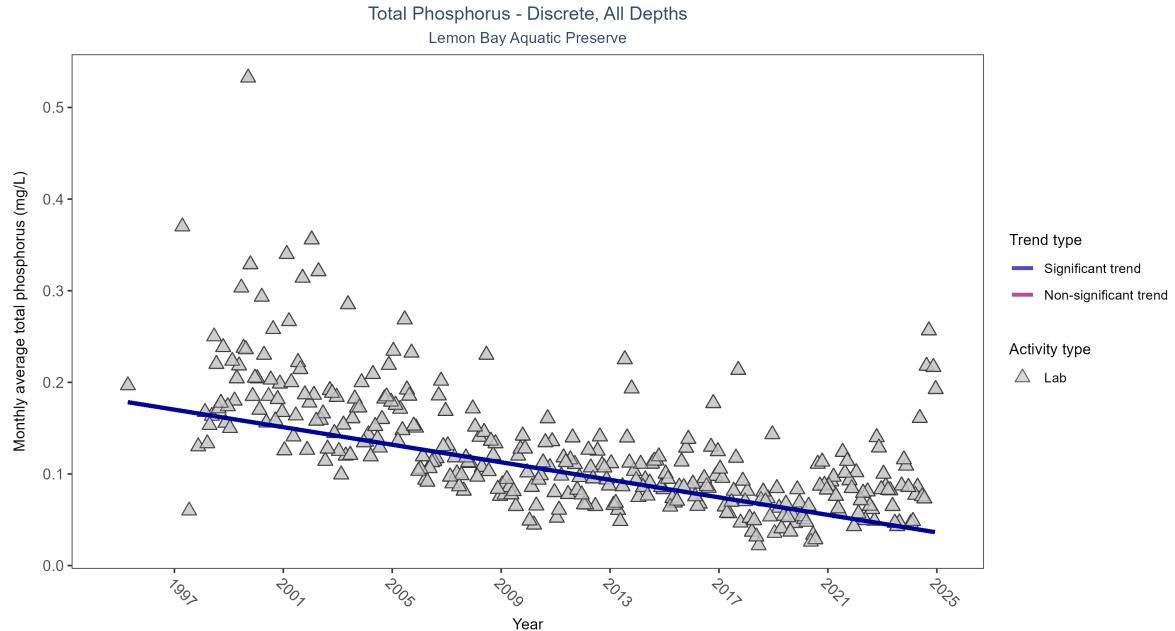
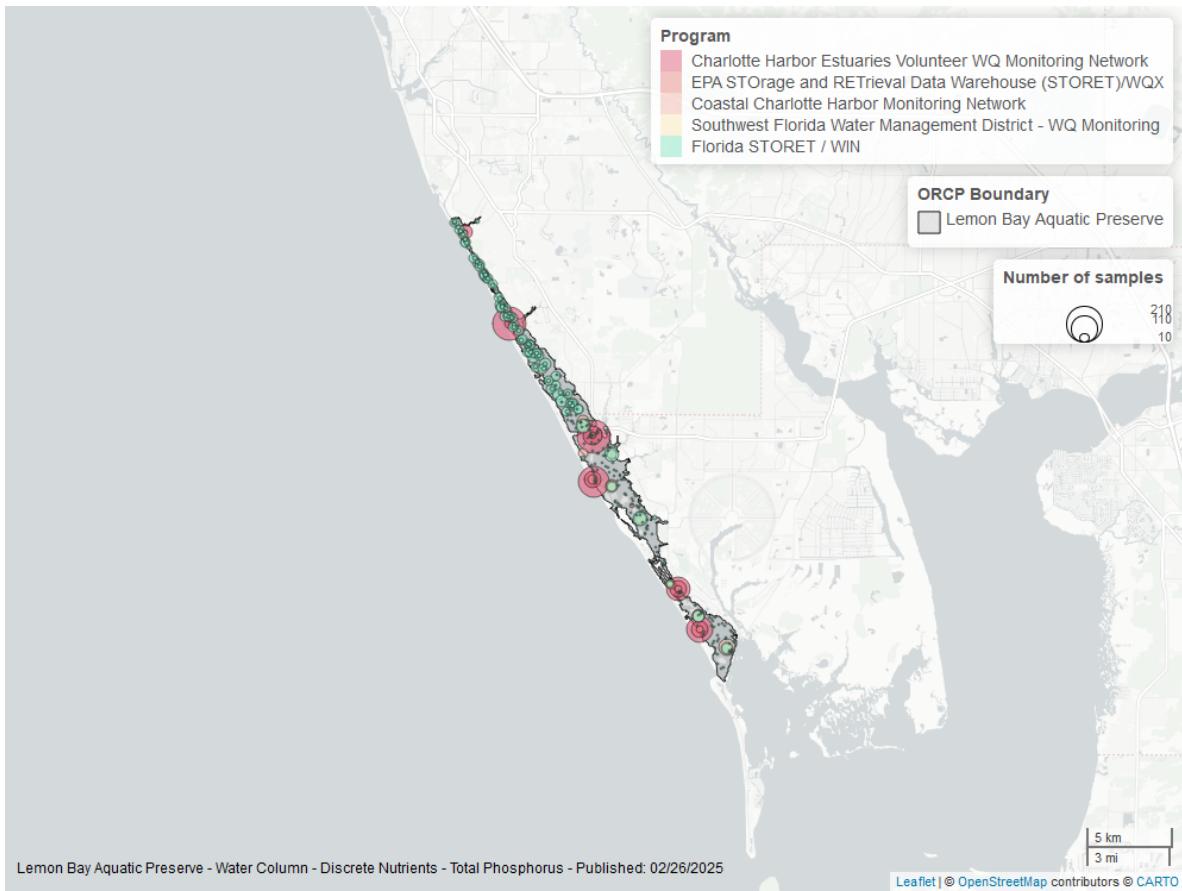


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus



Water Quality

Dissolved Oxygen - Discrete

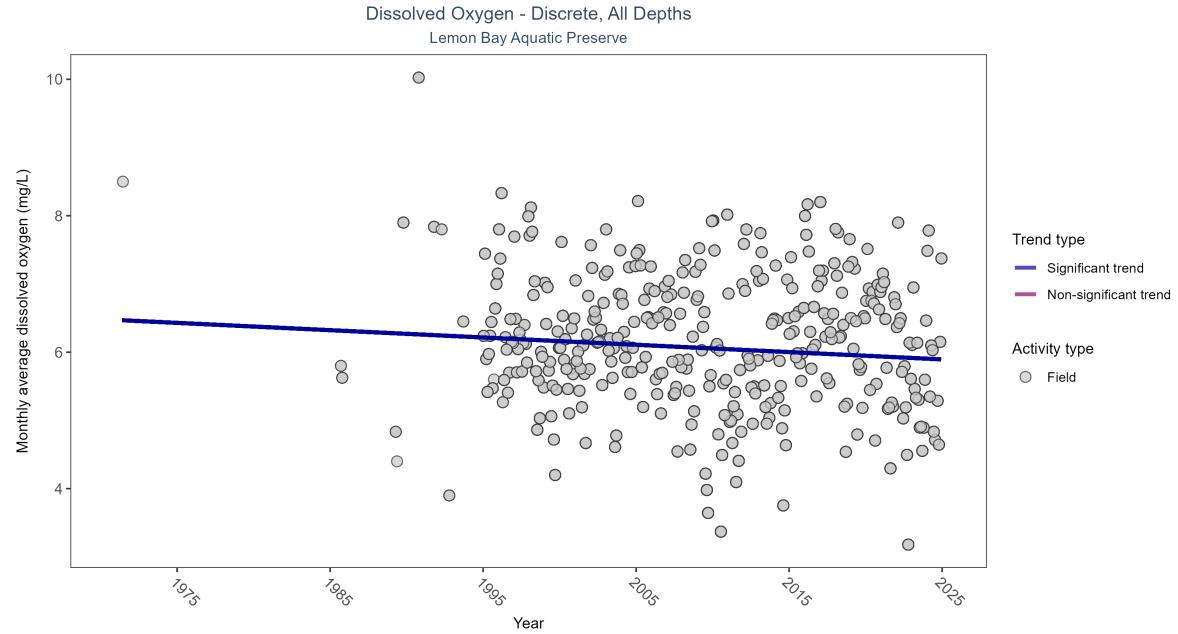
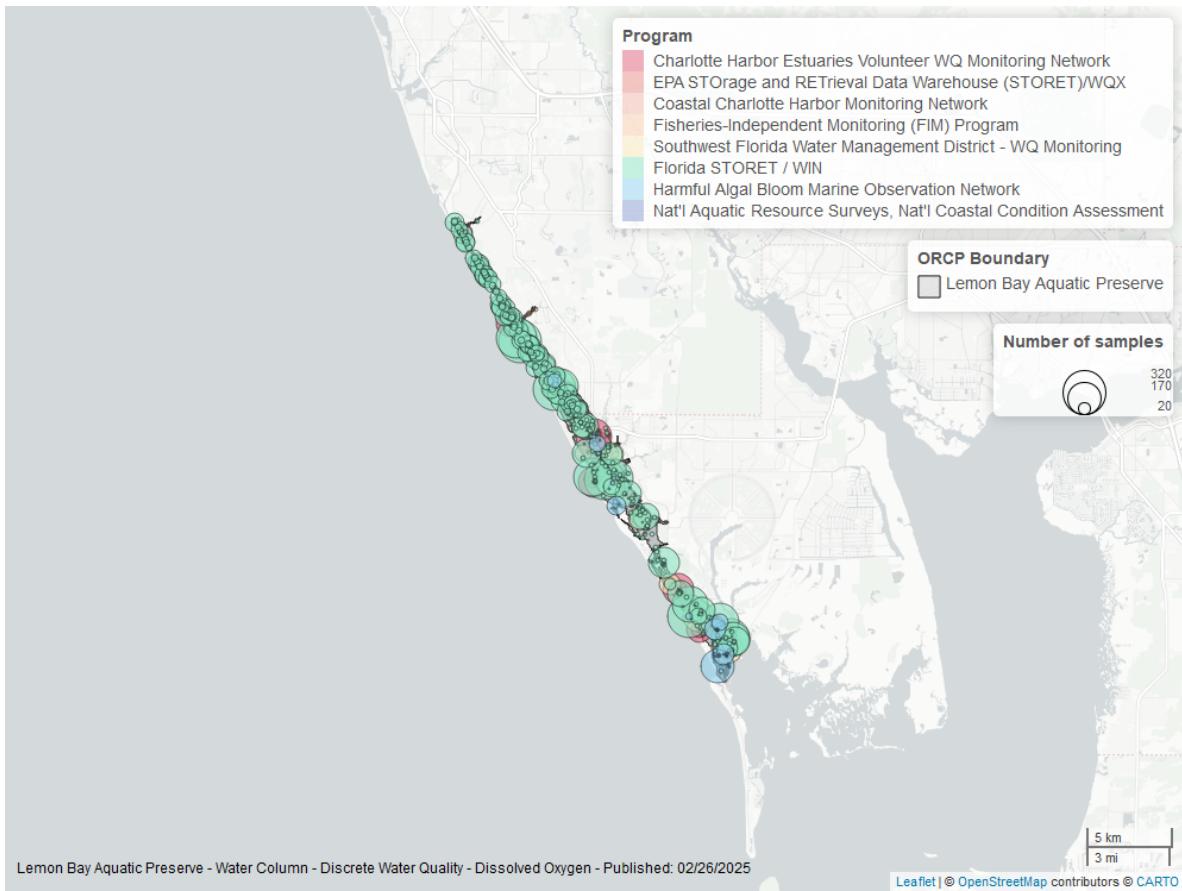


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

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	13585	37	1971 - 2024	6.1	-0.07413	6.47247	-0.01071	0.03051231476583252



Dissolved Oxygen Saturation - Discrete

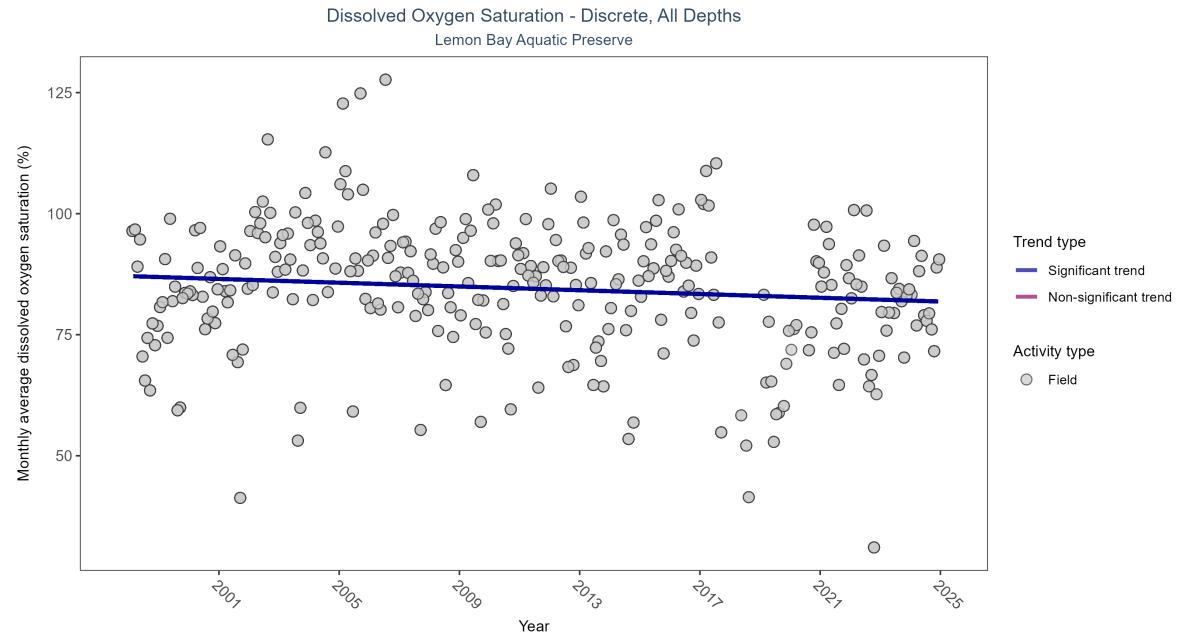
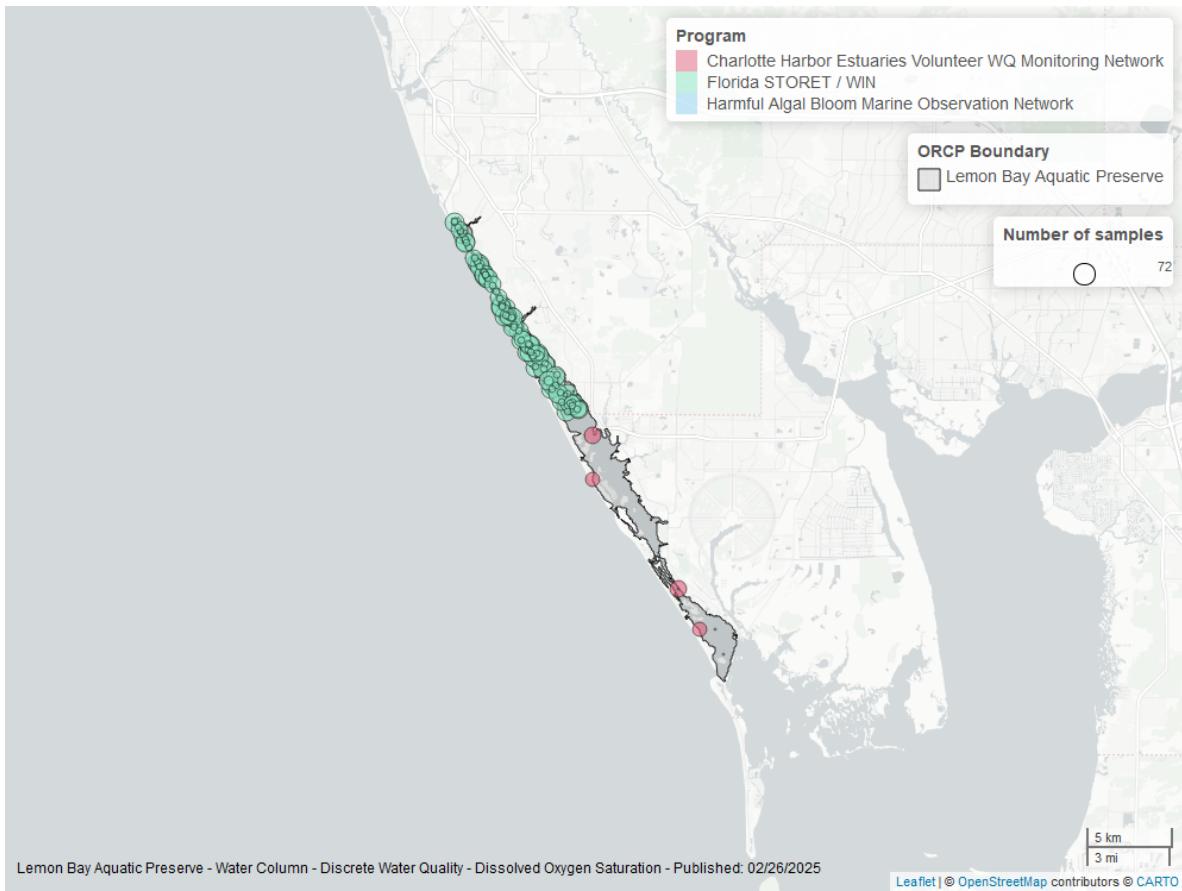


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

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	4496	27	1998 - 2024	87	-0.10589	87.10064	-0.19444	0.0101218515821044387215099646937233046628534793853759765625000000000000000000



Salinity - Discrete

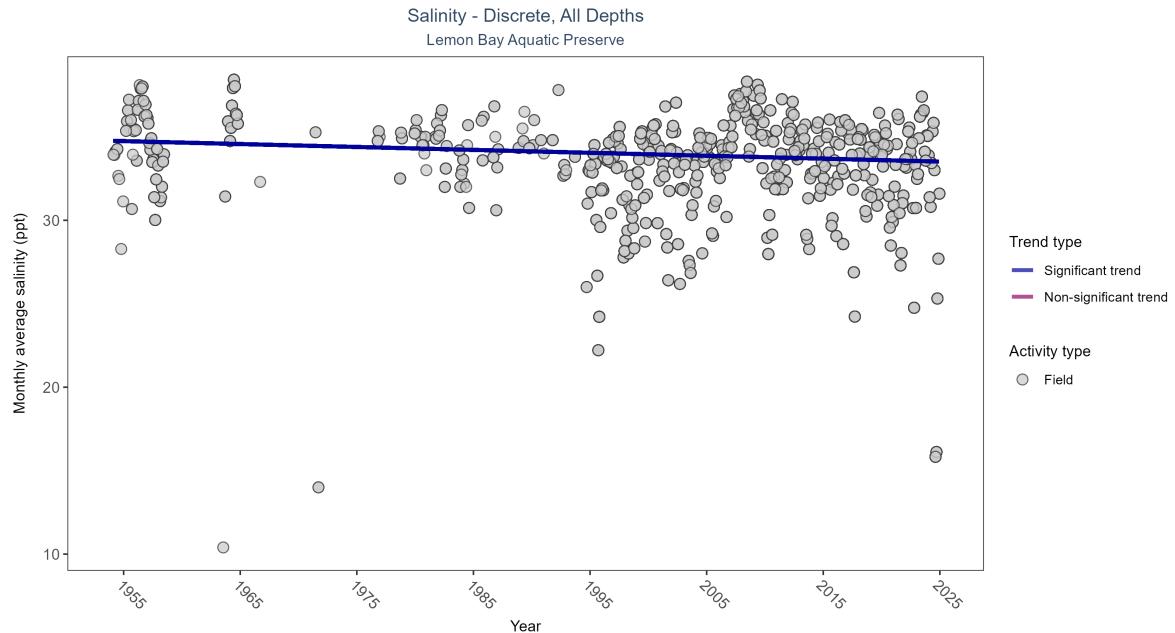
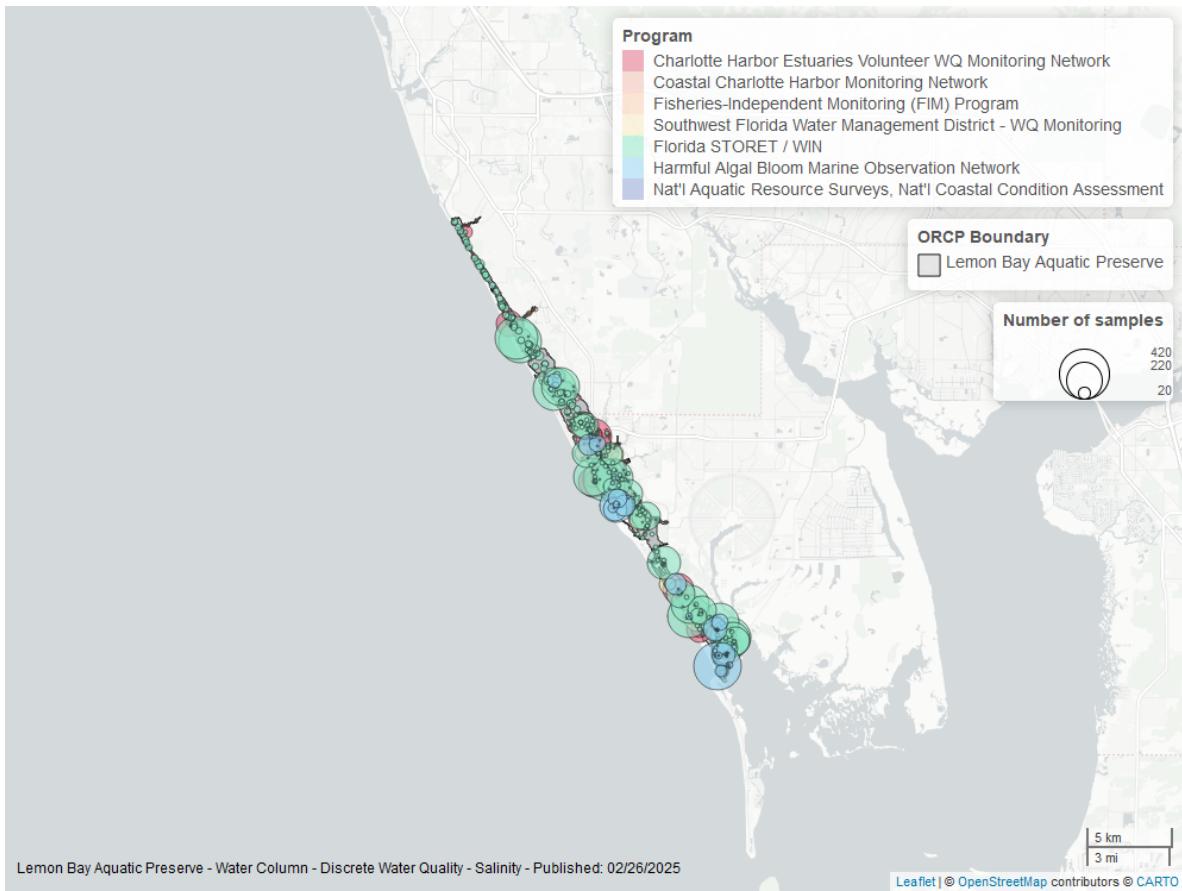


Table 5: Seasonal Kendall-Tau Results for - Salinity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
All	Significantly decreasing trend	11044	57	1954 - 2024	34	-0.09169	34.76	-0.01752	0.00204763860460653590589430450563668273389339447



Water Temperature - Discrete

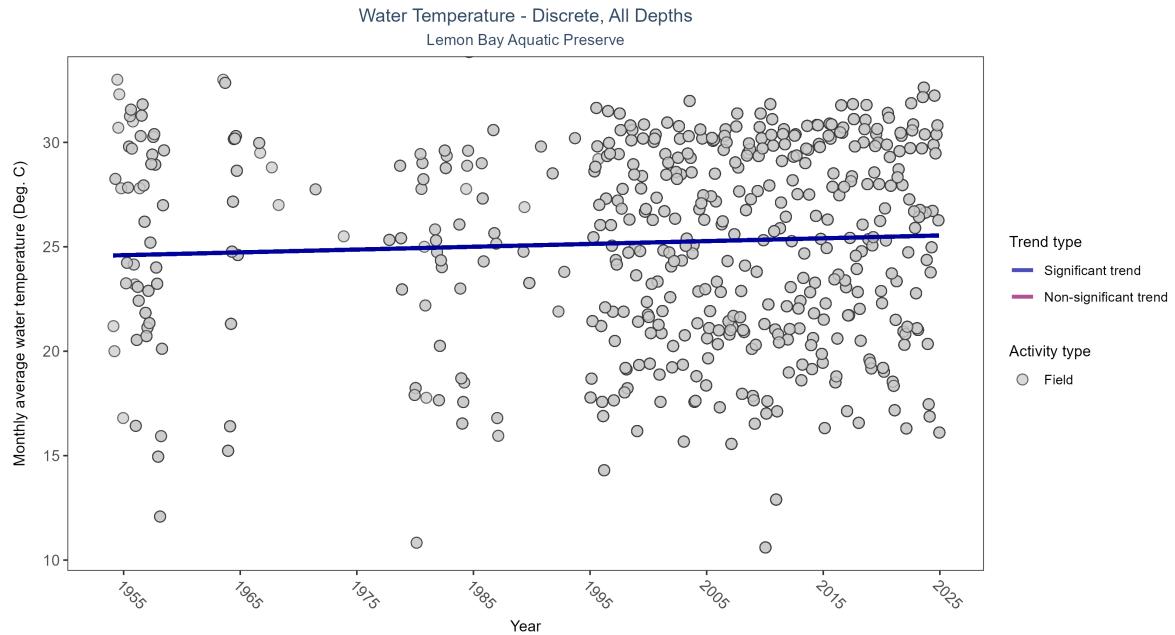
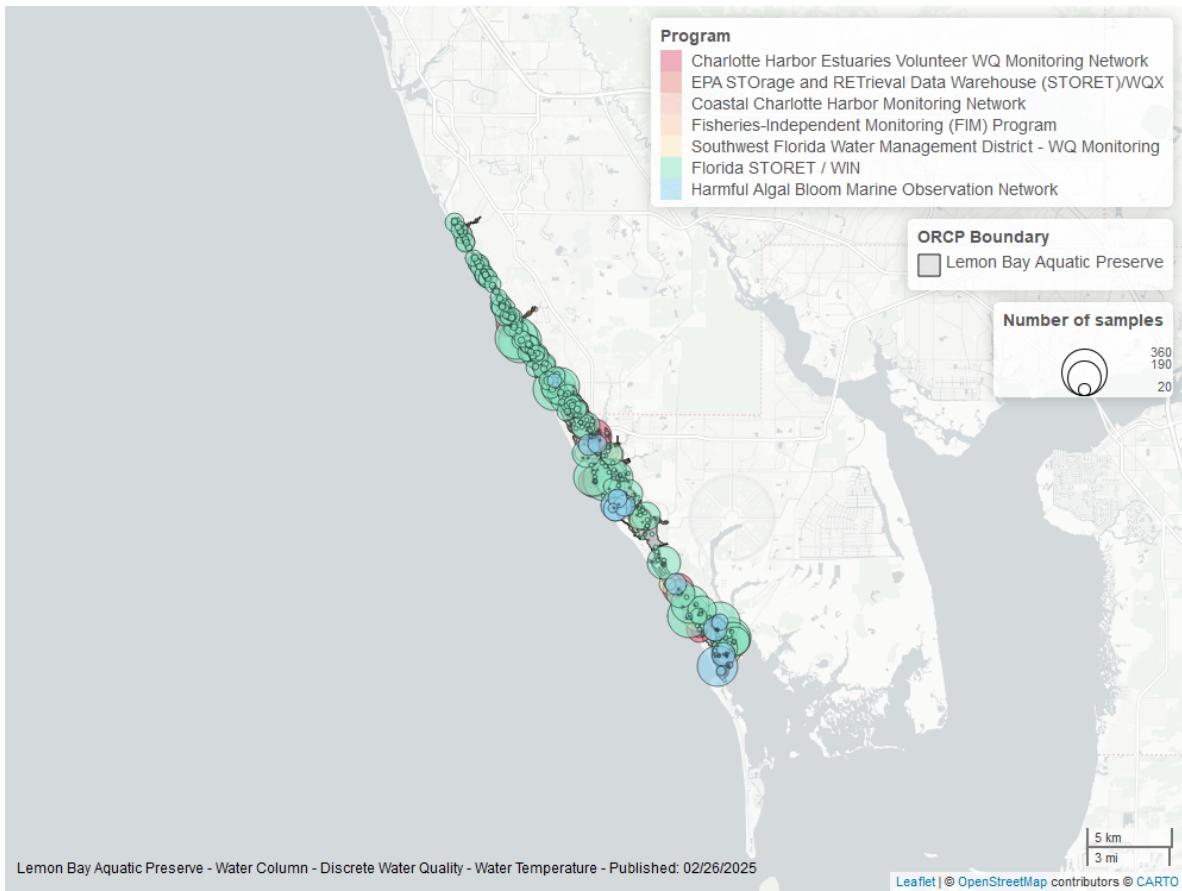


Table 6: Seasonal Kendall-Tau Results for - Water Temperature

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	14772	58	1954 - 2024	26.4	0.10586	24.58355	0.01349	0.000505405792359813



pH - Discrete

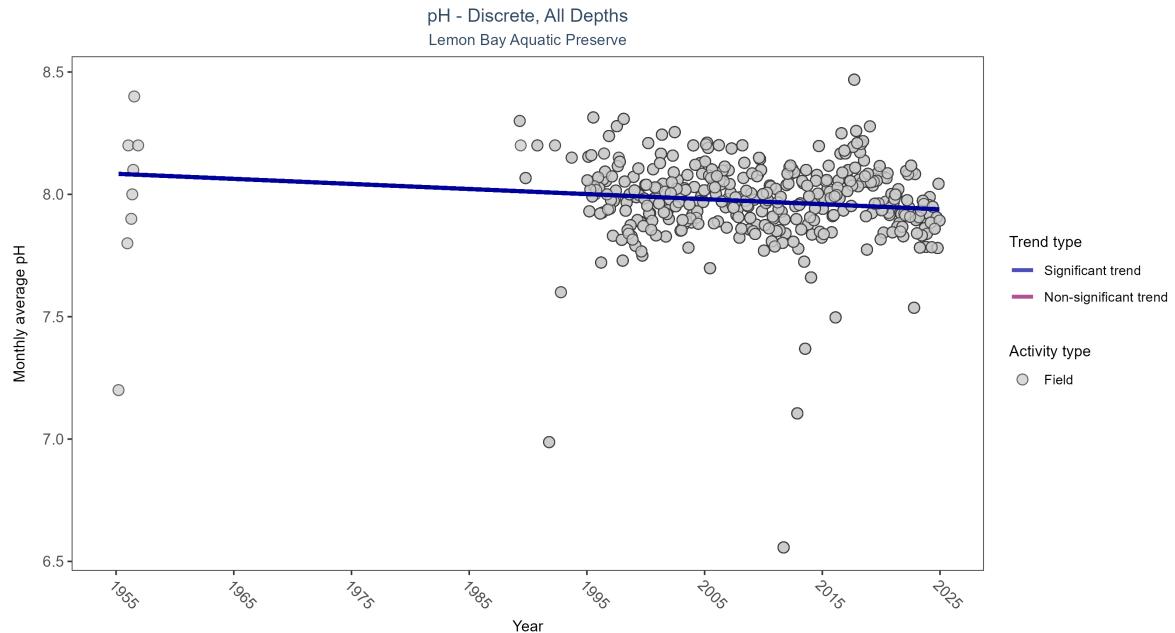
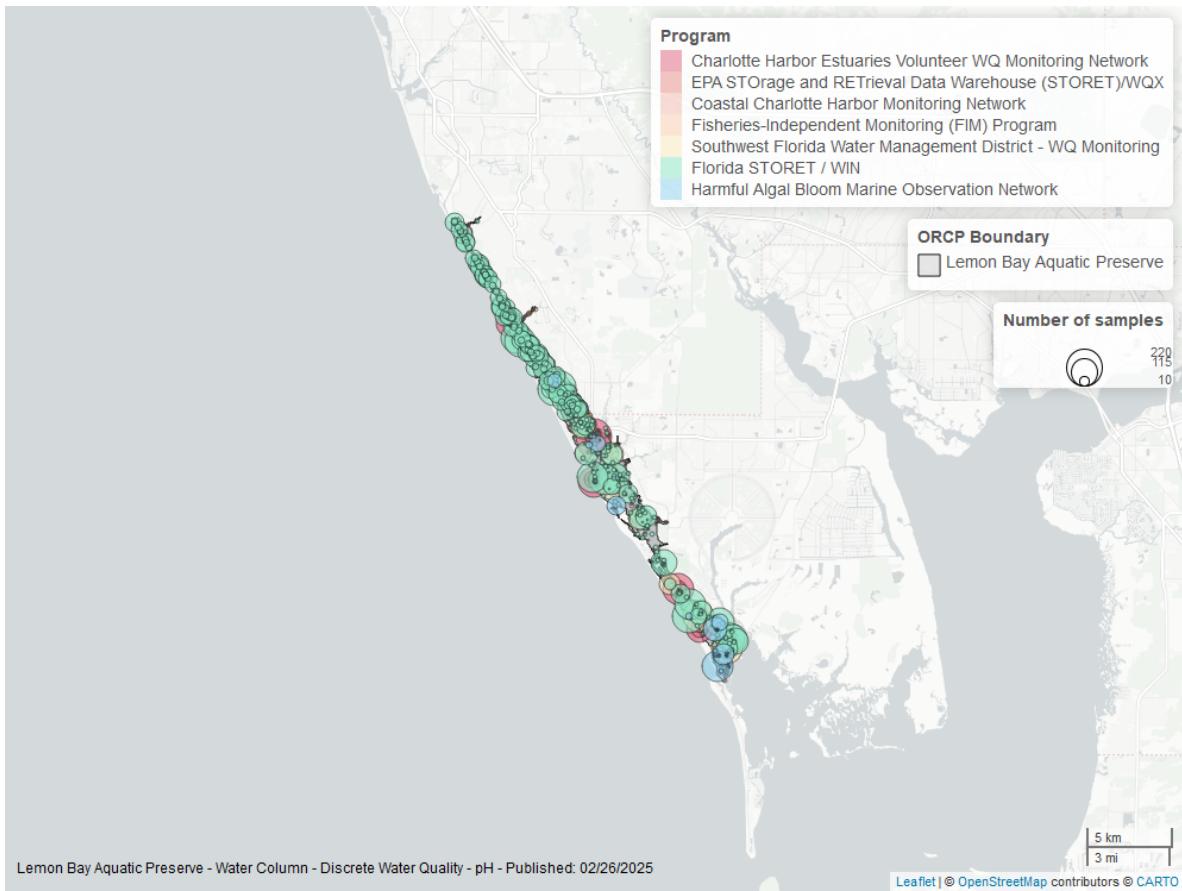


Table 7: Seasonal Kendall-Tau Results for - pH

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly decreasing trend	12006	37	1955 - 2024	8	-0.10142	8.08406	-0.00207	0.00443357422171032980462435091340012149885



Water Clarity

Turbidity - Discrete

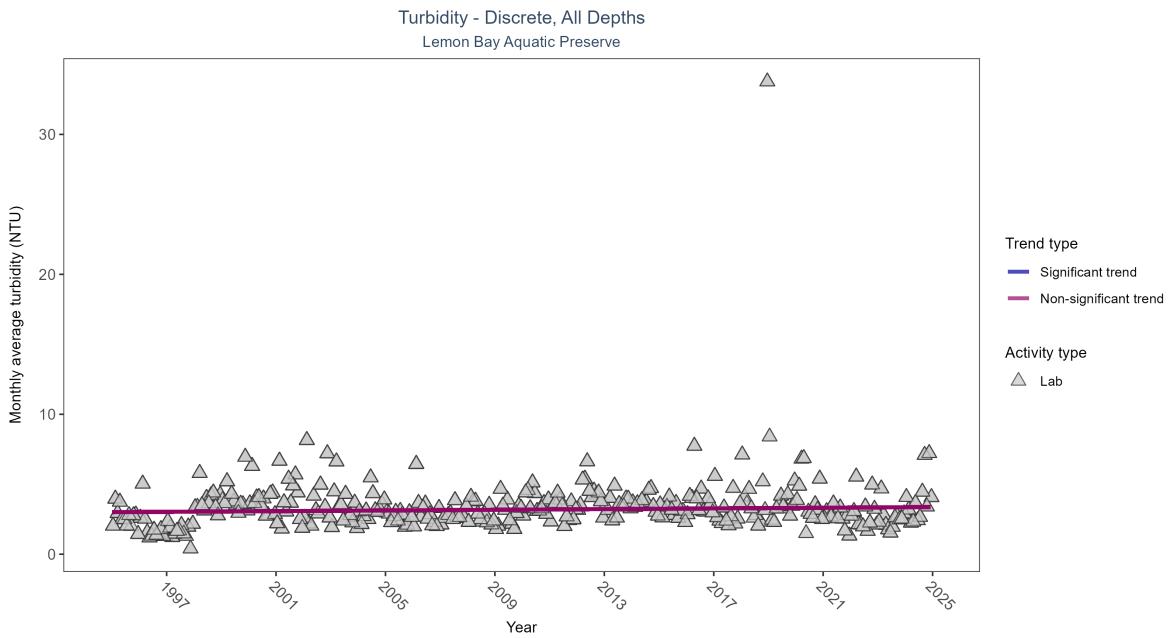
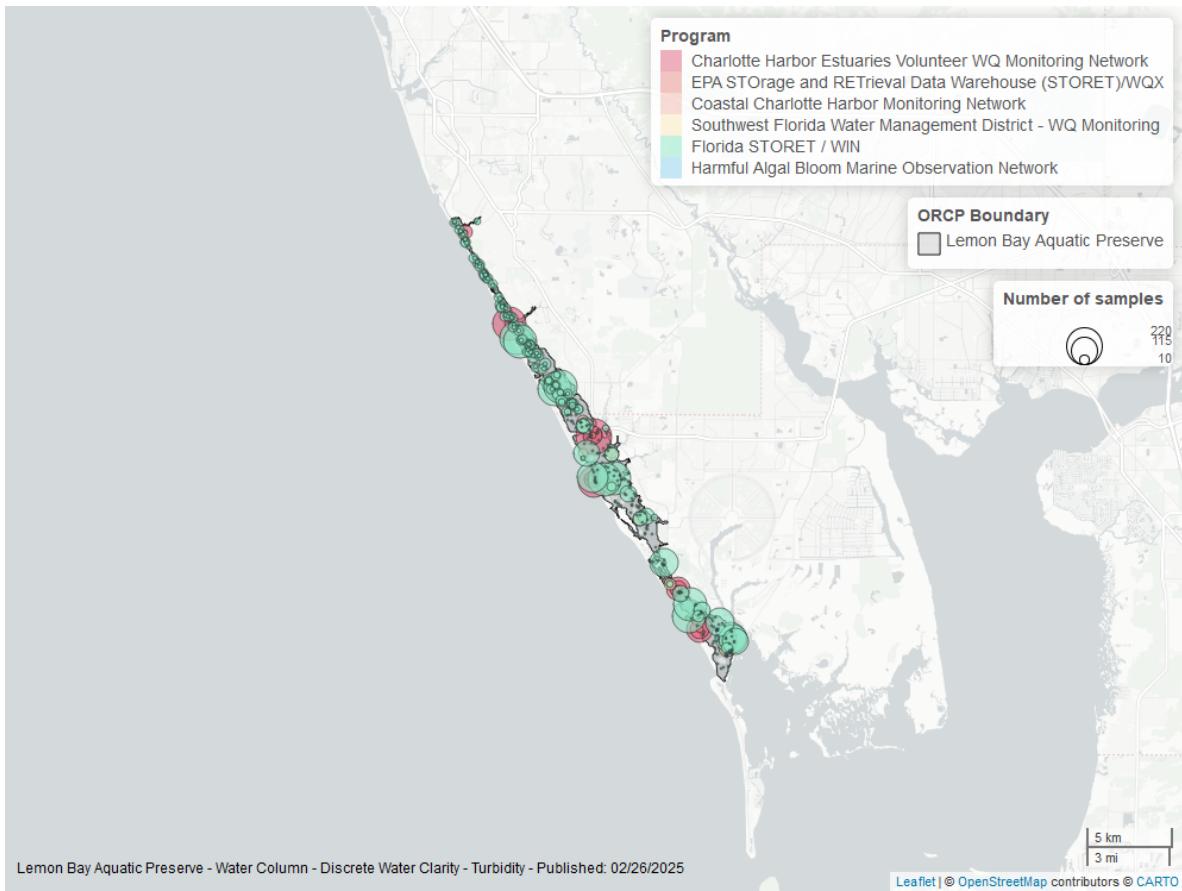


Table 8: Seasonal Kendall-Tau Results for - Turbidity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	6045	30	1995 - 2024	2.6	0.0613	3.00492	0.01214	0.10038765746418924774



Total Suspended Solids - Discrete

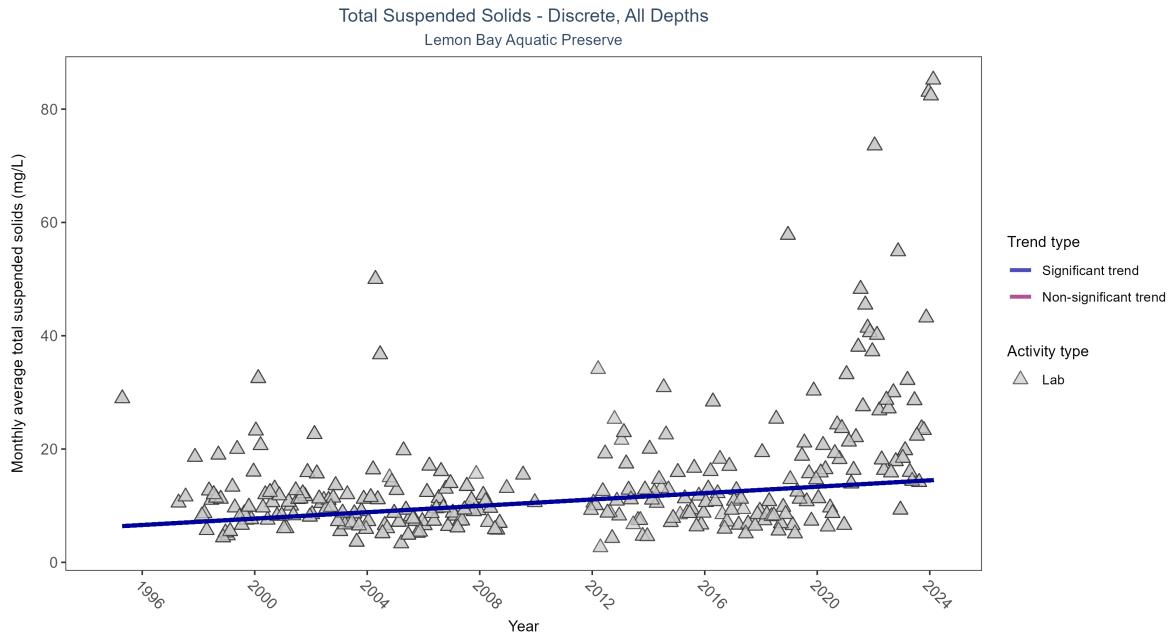
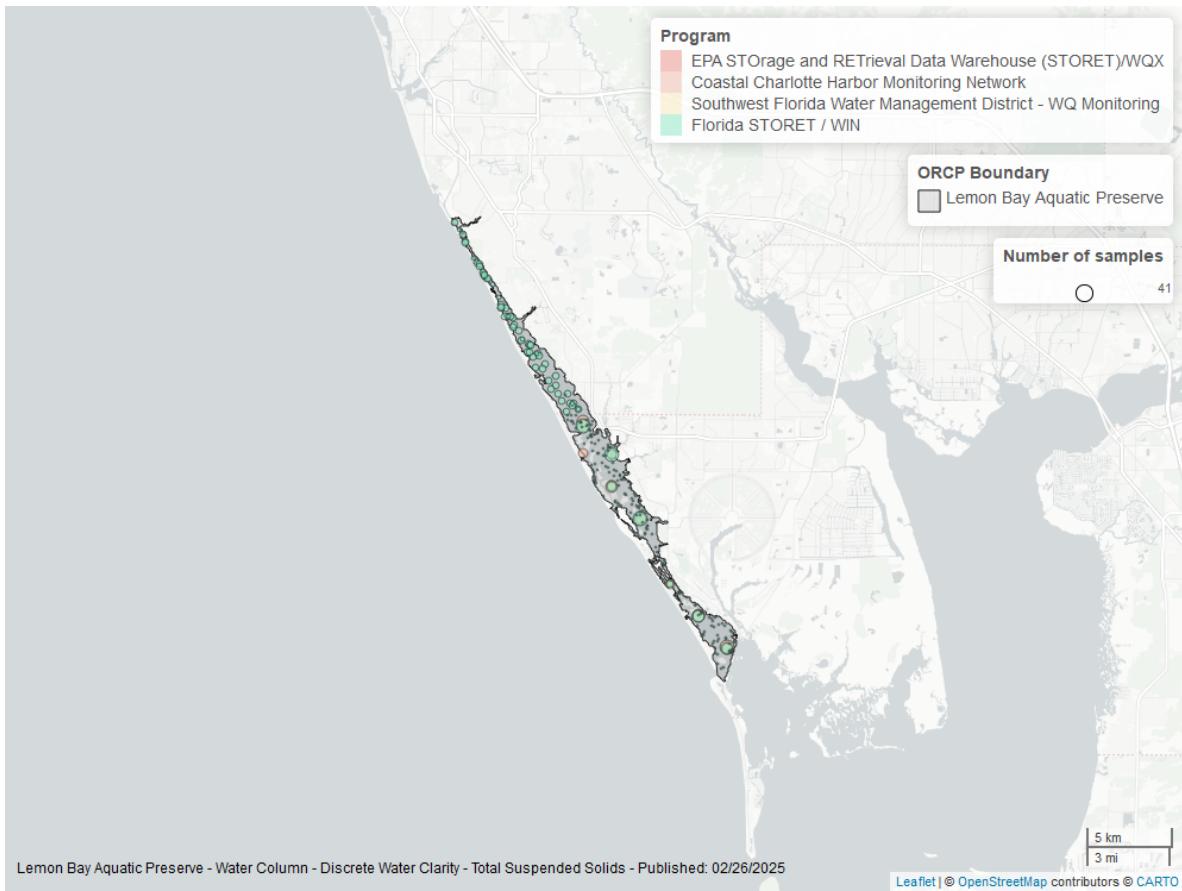


Table 9: Seasonal Kendall-Tau Results for - Total Suspended Solids

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	1183	28	1995 - 2024		10	0.25305	6.31179	0.28152	0.00000004787846509996544999698820



Chlorophyll a, Uncorrected for Pheophytin - Discrete

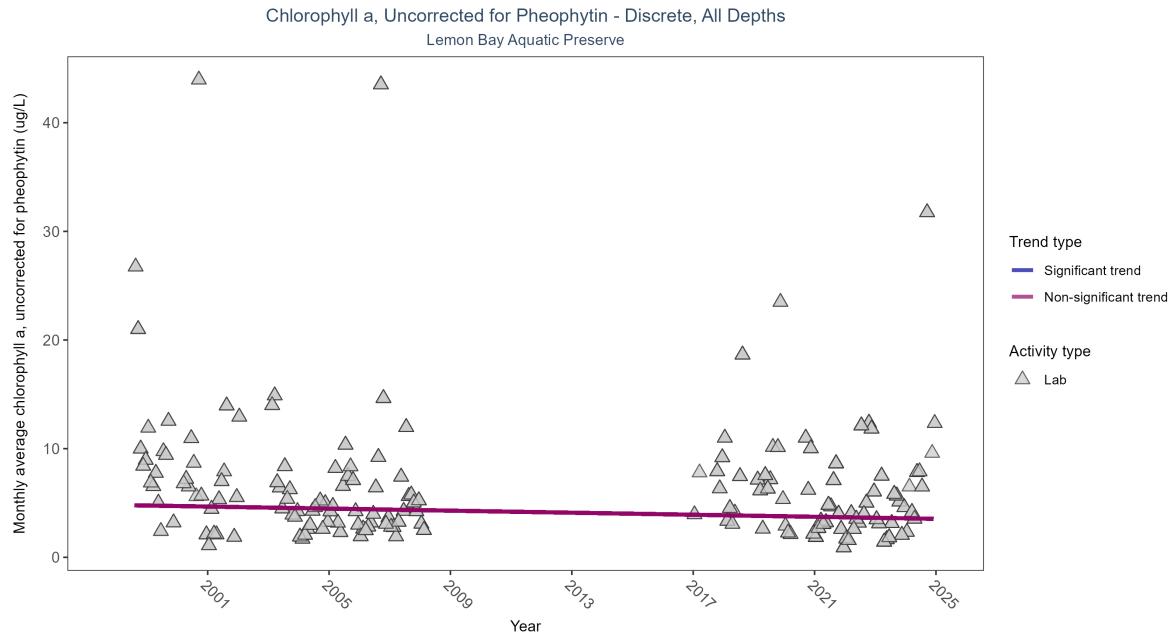
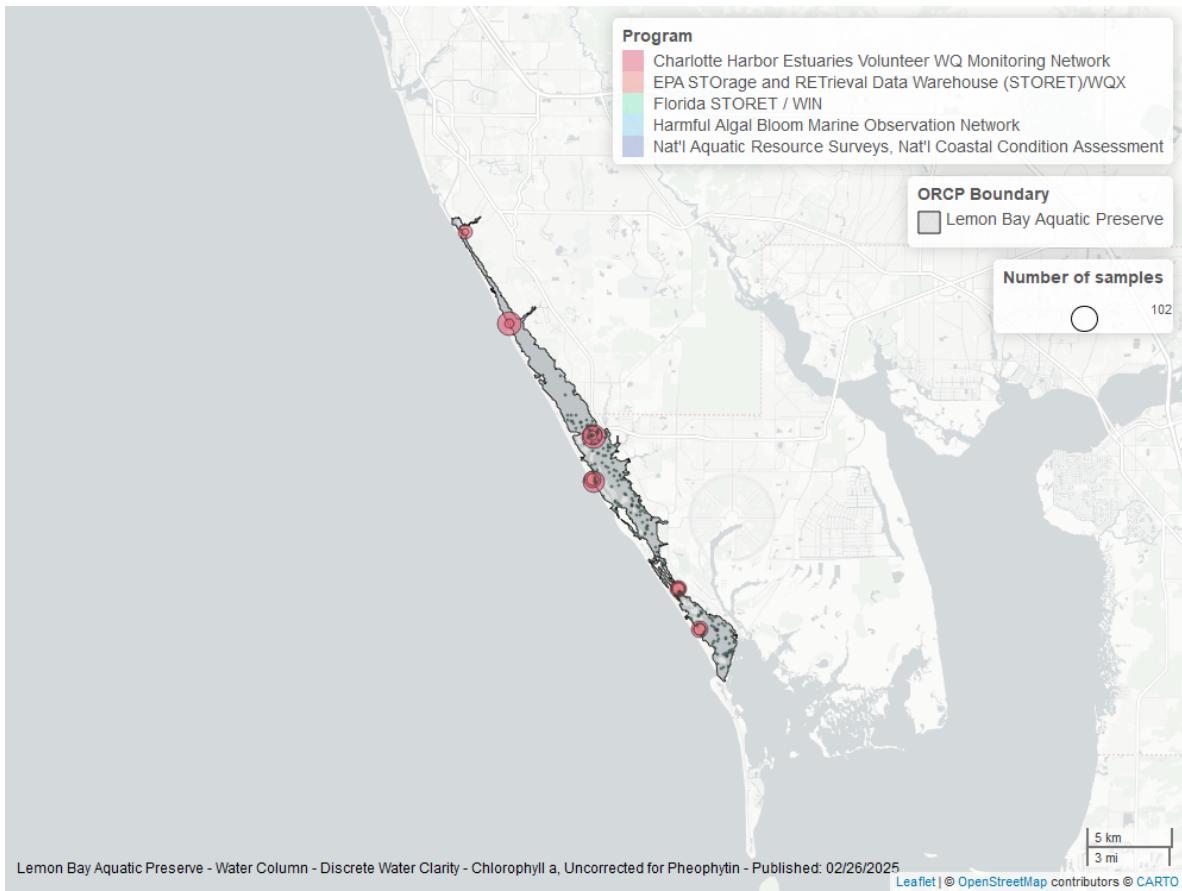


Table 10: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

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	872	19	1998 - 2024	3.855	-0.10283	4.81118	-0.04704	0.08972207987176070154156093



Chlorophyll a, Corrected for Pheophytin - Discrete

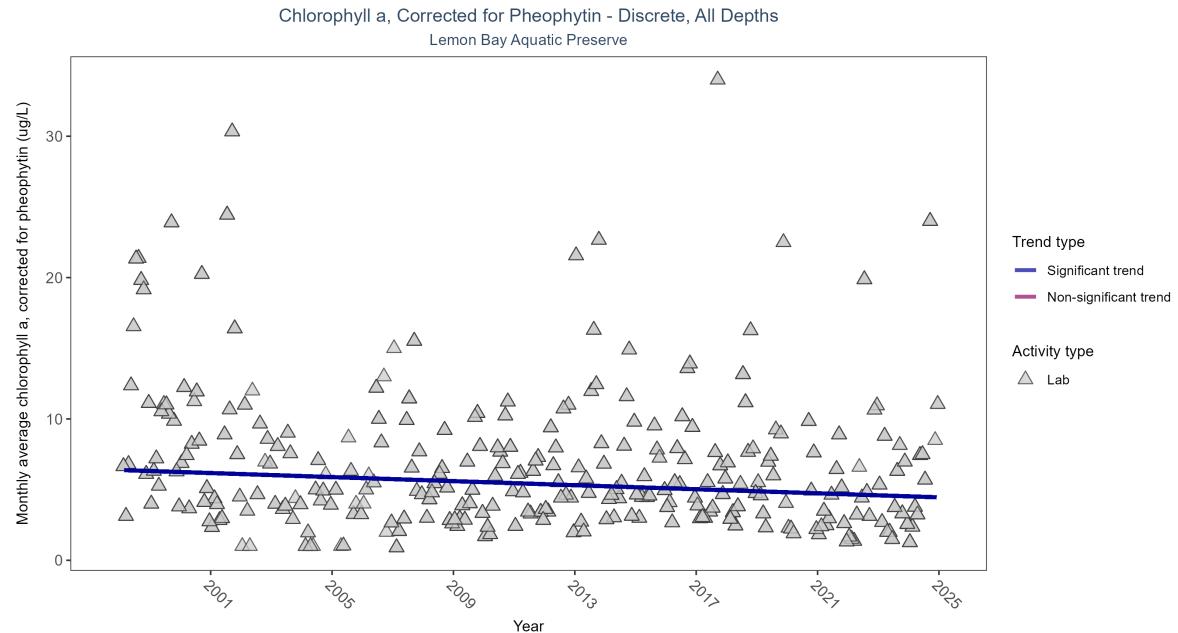
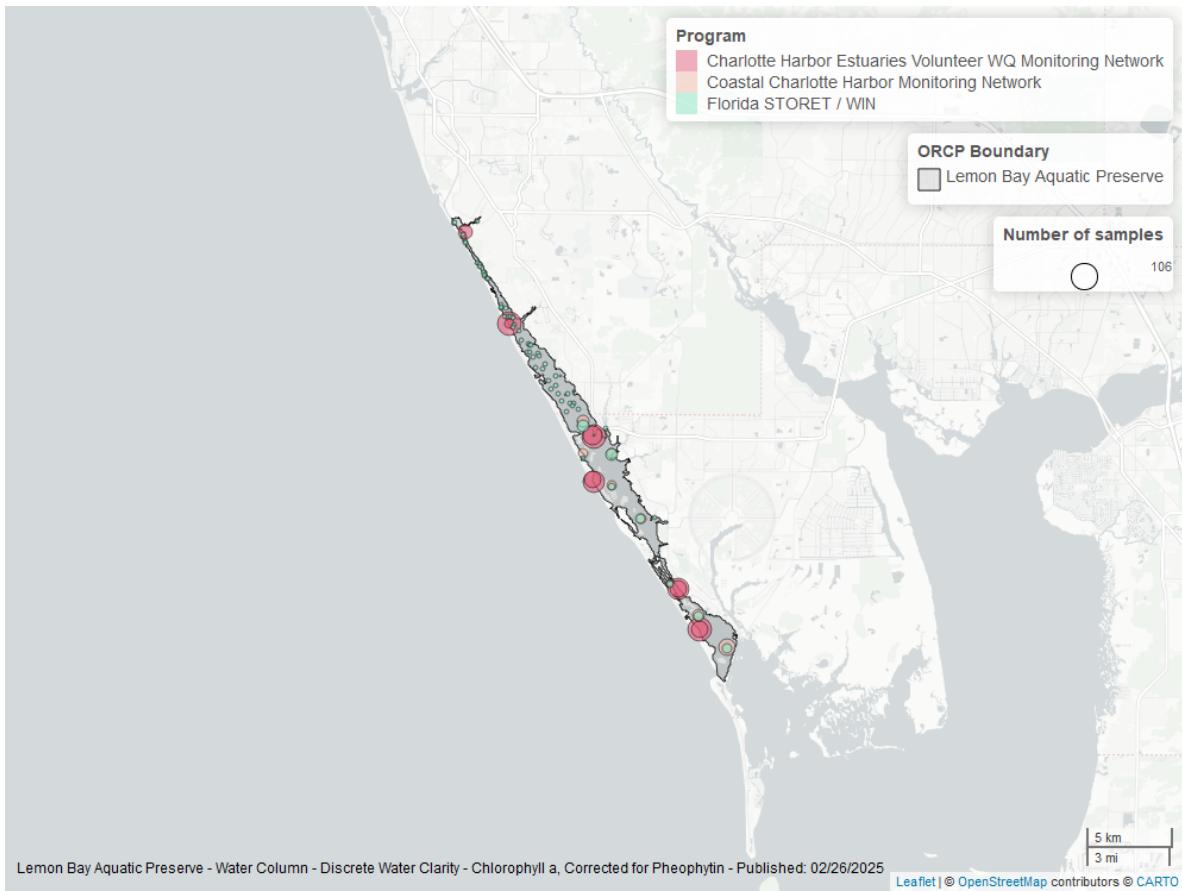


Table 11: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	1186	27	1998 - 2024	4.865	-0.13981	6.38843	-0.07167	0.0006845620673948223577562344



Secchi Depth - Discrete

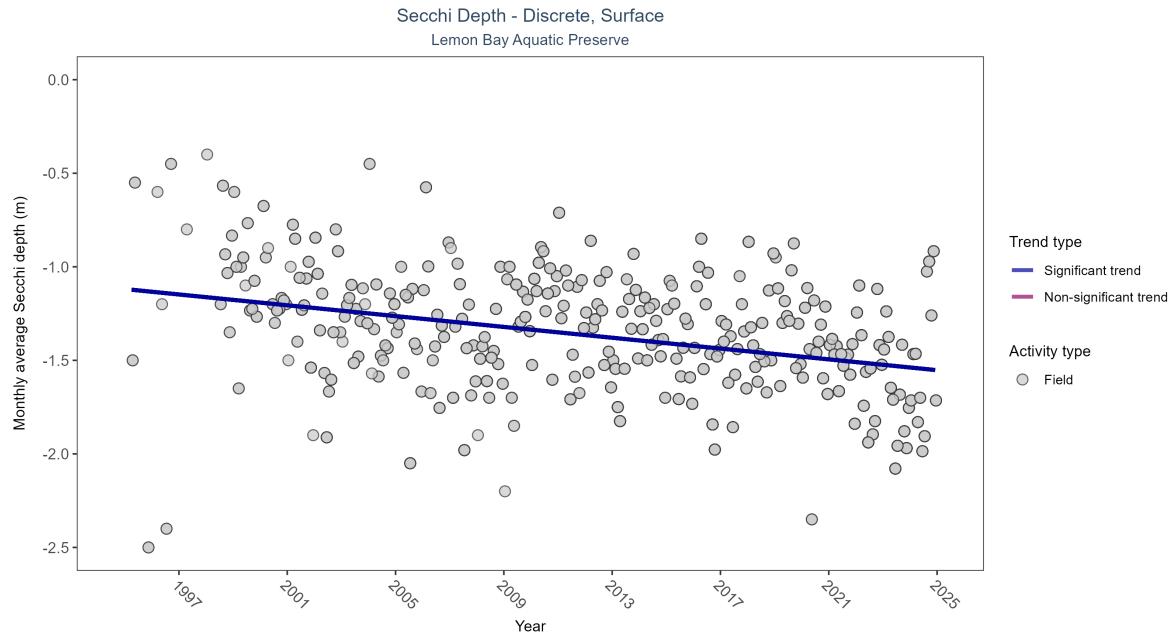
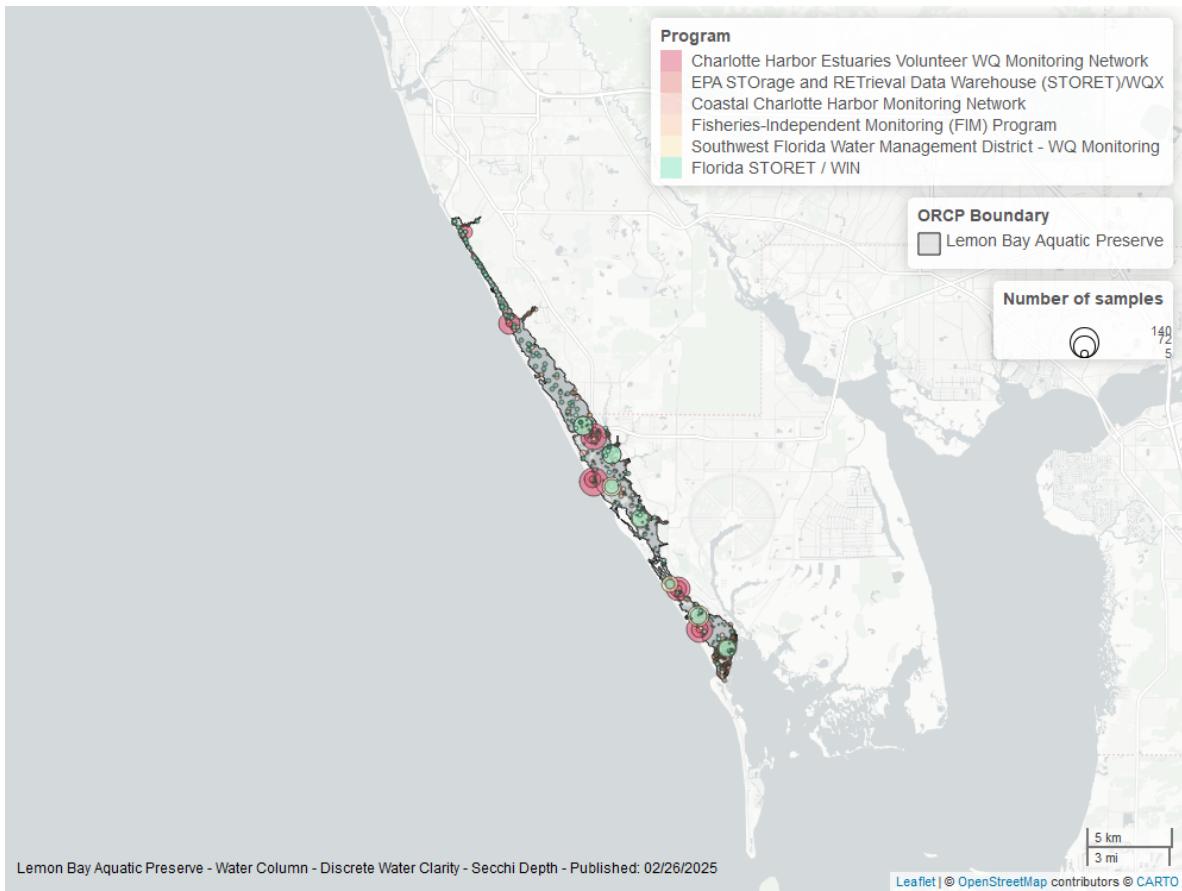


Table 12: Seasonal Kendall-Tau Results for - Secchi Depth

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly decreasing trend	3090	30	1995 - 2024		-1.3	-0.26051	-1.11899	-0.01445 0.000000000477084554257313749222



Colored Dissolved Organic Matter - Discrete

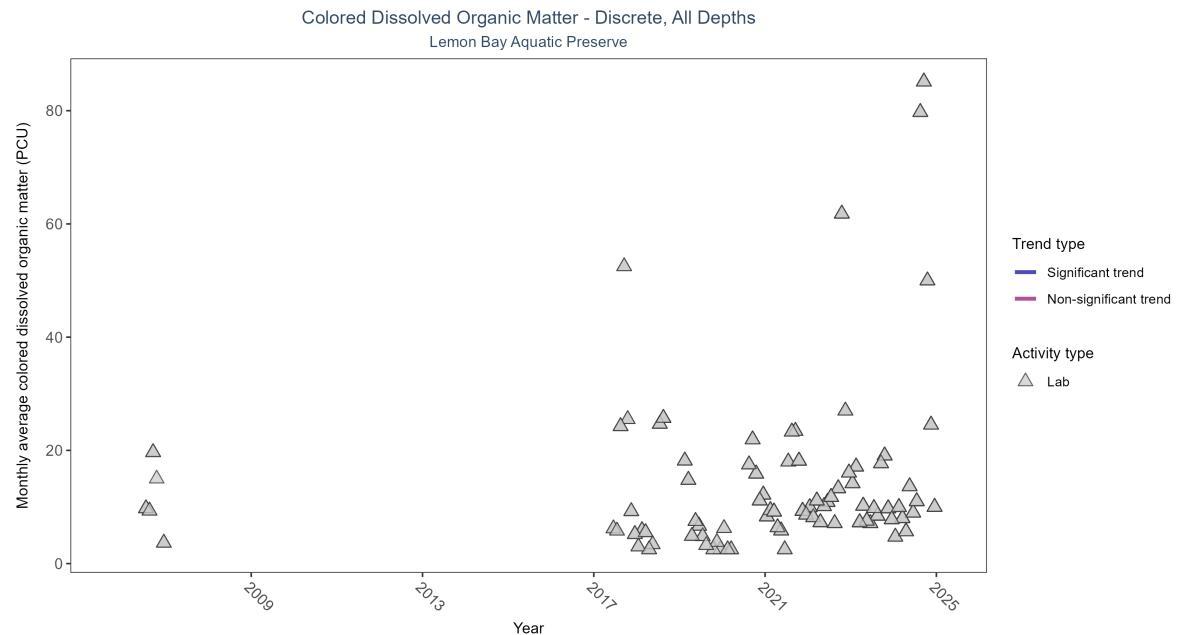


Table 13: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Insufficient data to calculate trend	496	9	2006 - 2024	10	-	-	-	NA

