

Pinellas County Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 06 March, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

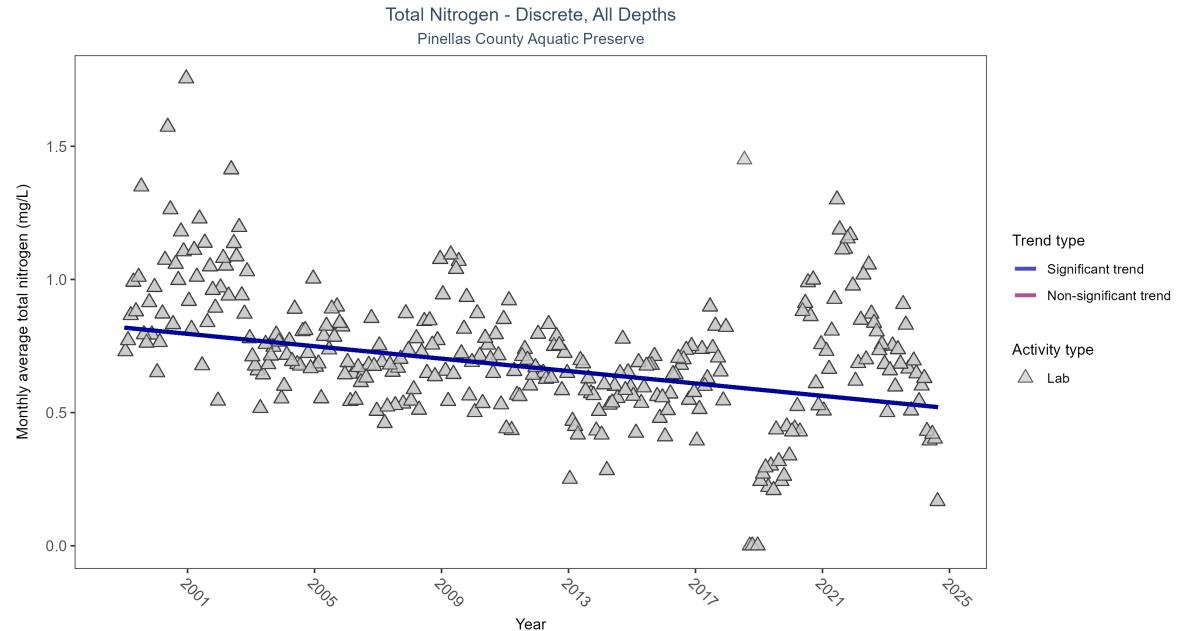
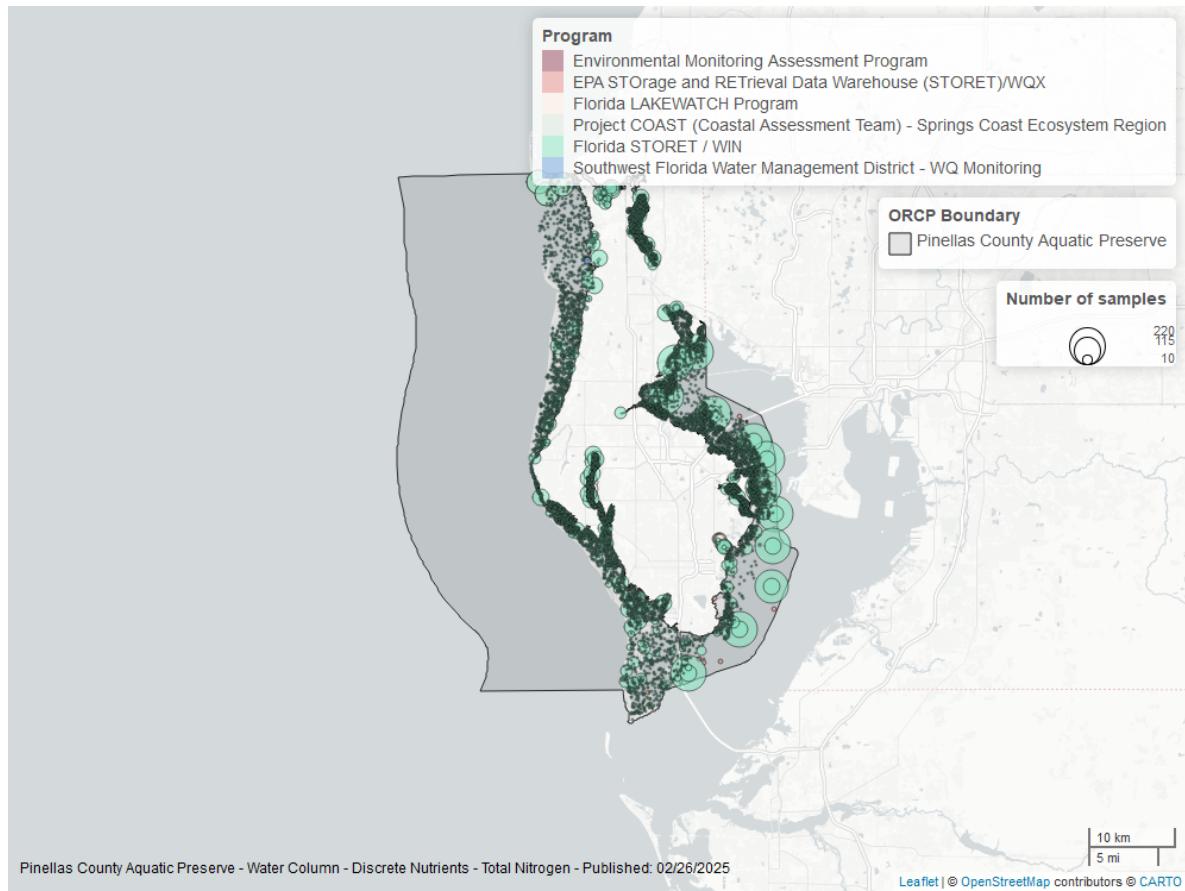


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	16034	26	1999 - 2024	0.59	-0.2761	0.81905	-0.01164	0.0000



Total Phosphorus - Discrete

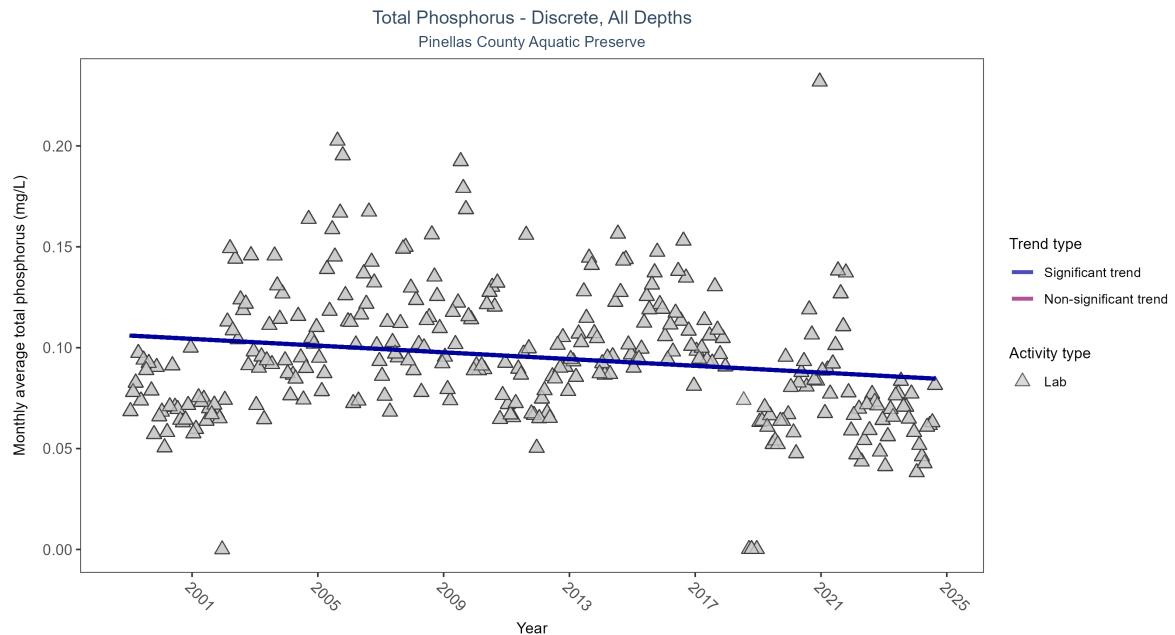
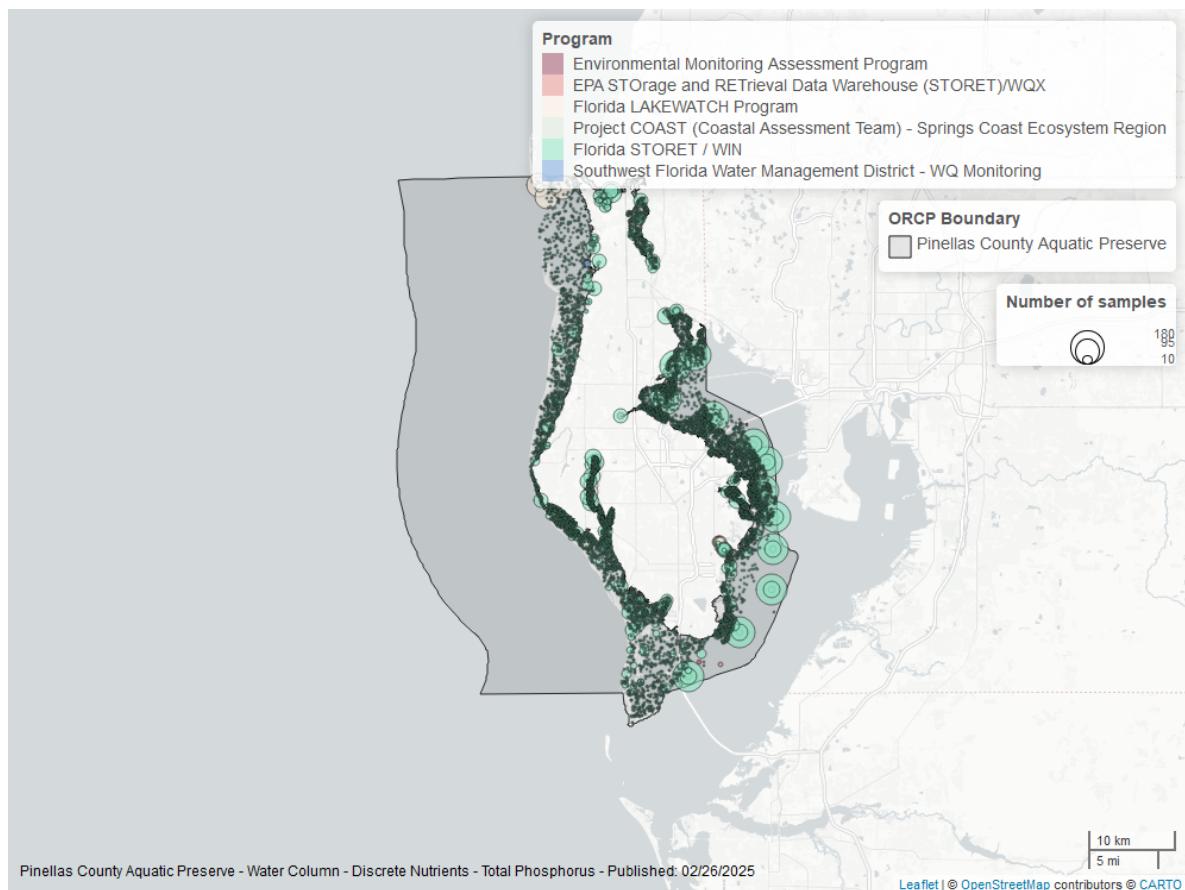


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	15870	26	1999 - 2024	0.088	-0.1522	0.10603	-0.00083	0.0002



Water Quality

Dissolved Oxygen - Discrete

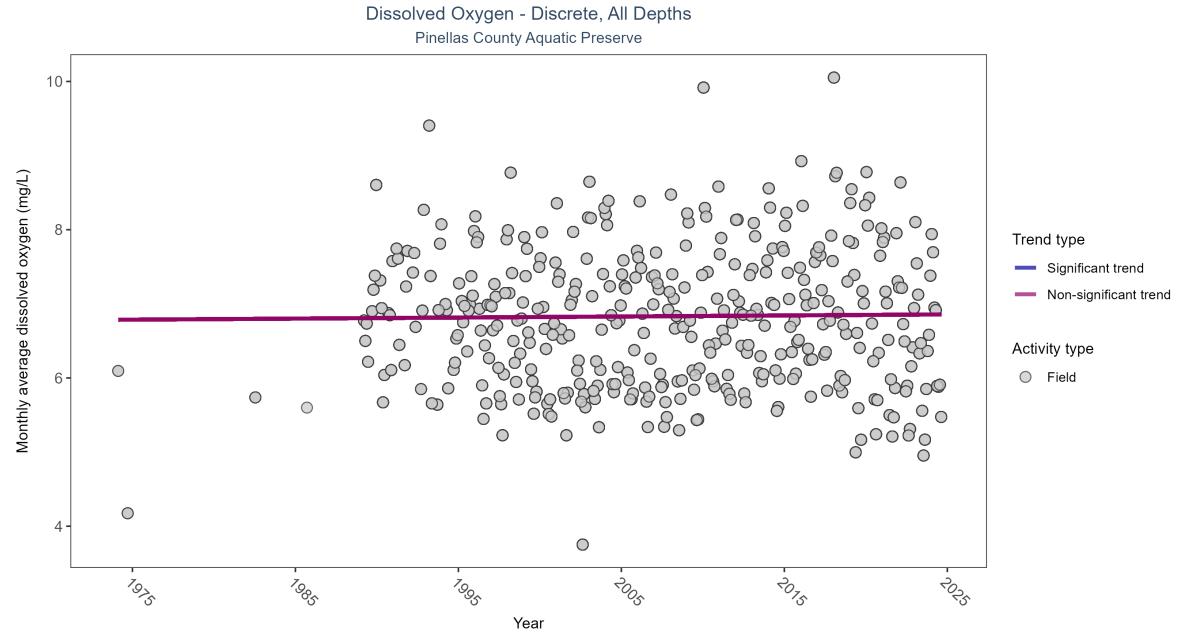
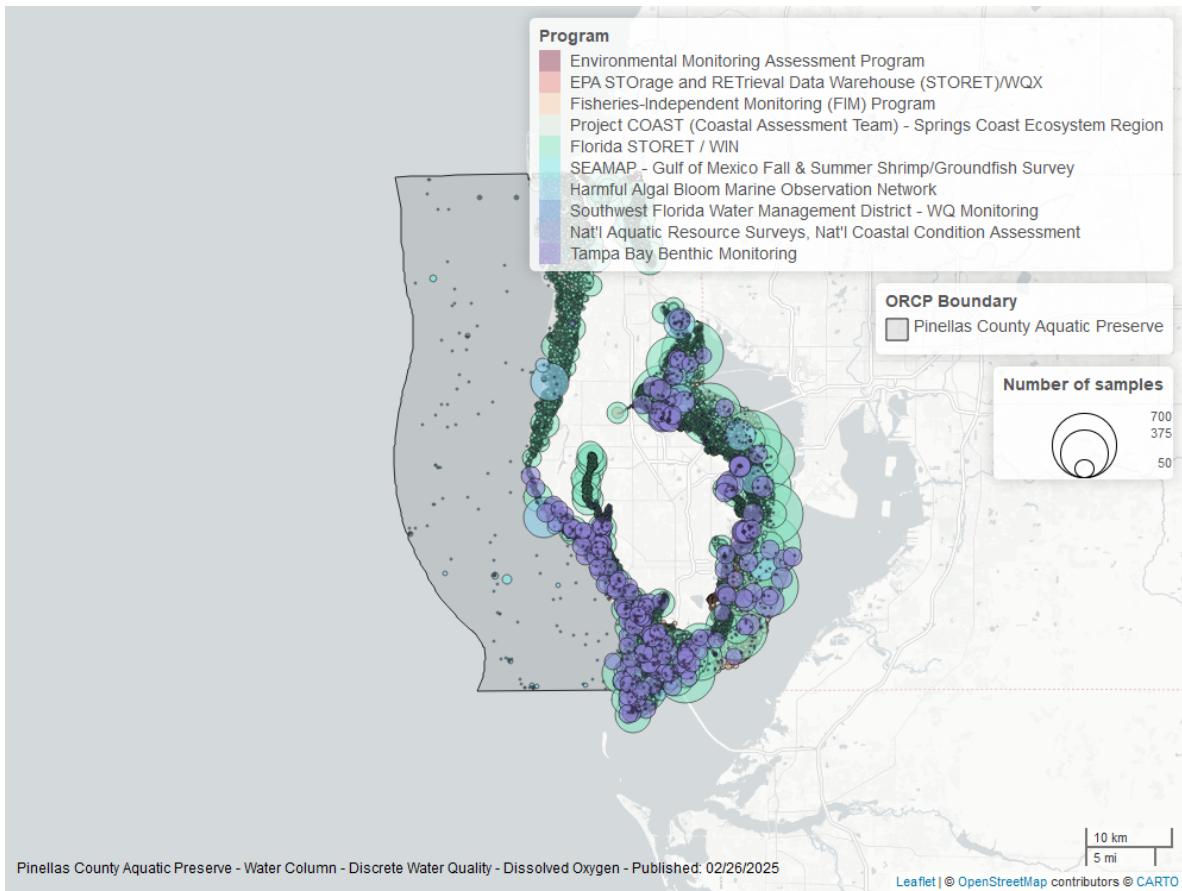


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	No significant trend	95575	39	1974 - 2024	6.6	0.0246	6.78518	0.00142	0.5699



Dissolved Oxygen Saturation - Discrete

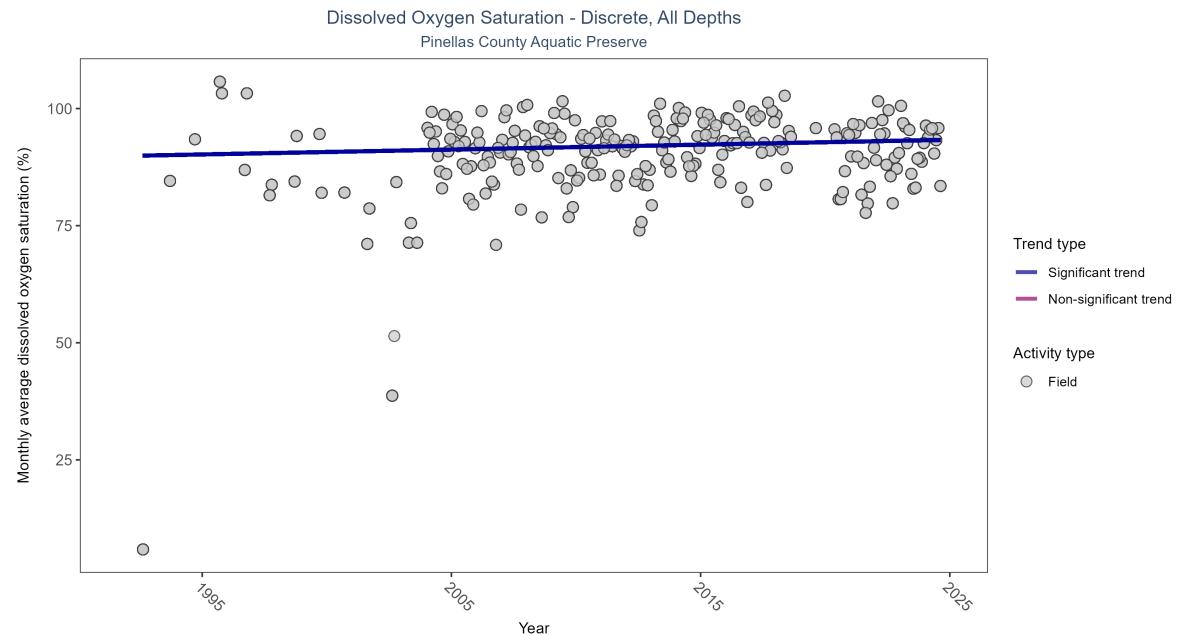
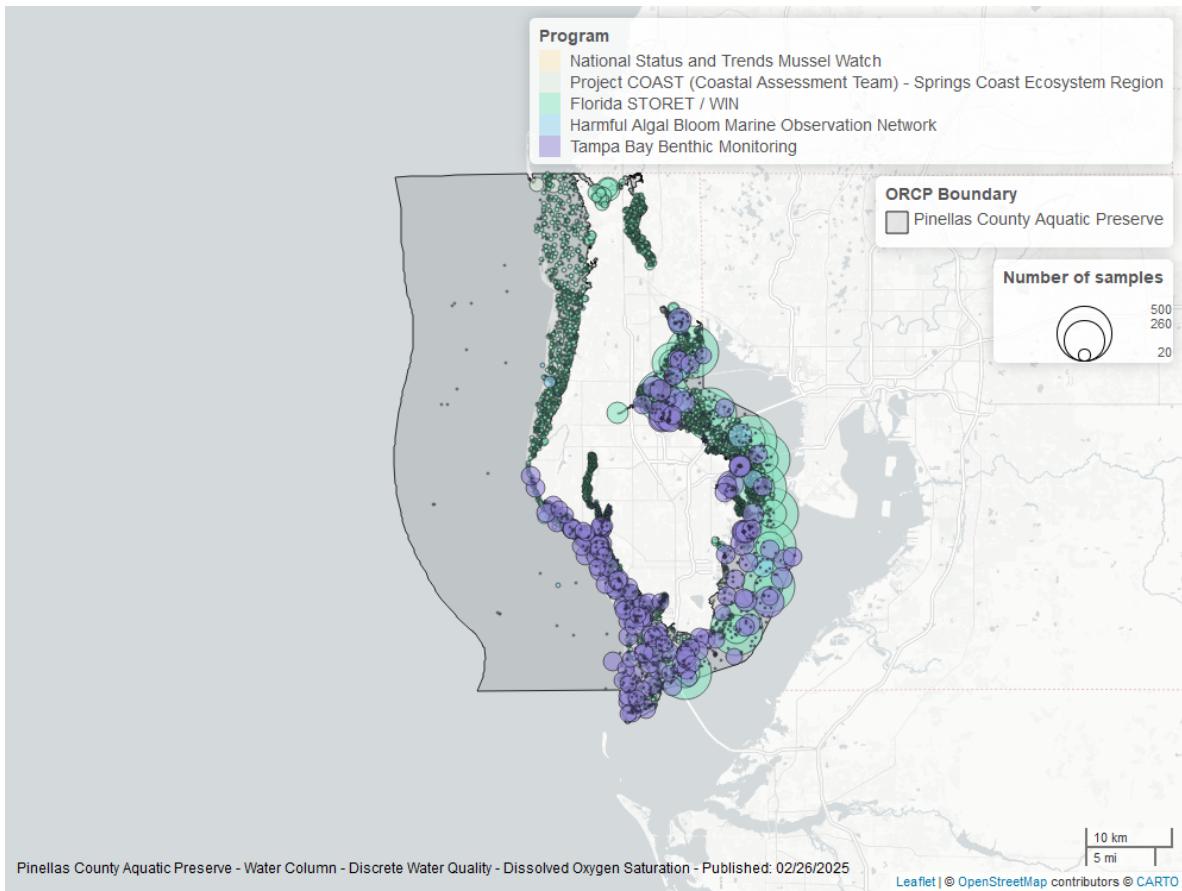


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly increasing trend	30215	33	1992 - 2024	90.9	0.0944	89.88893	0.10434	0.0395



Salinity - Discrete

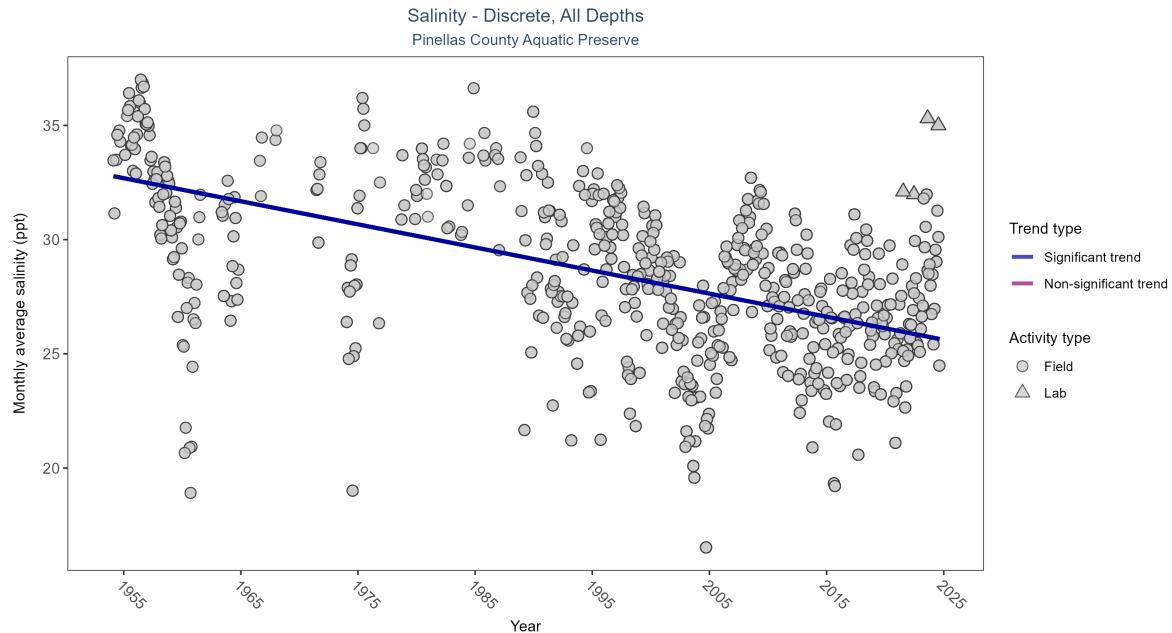
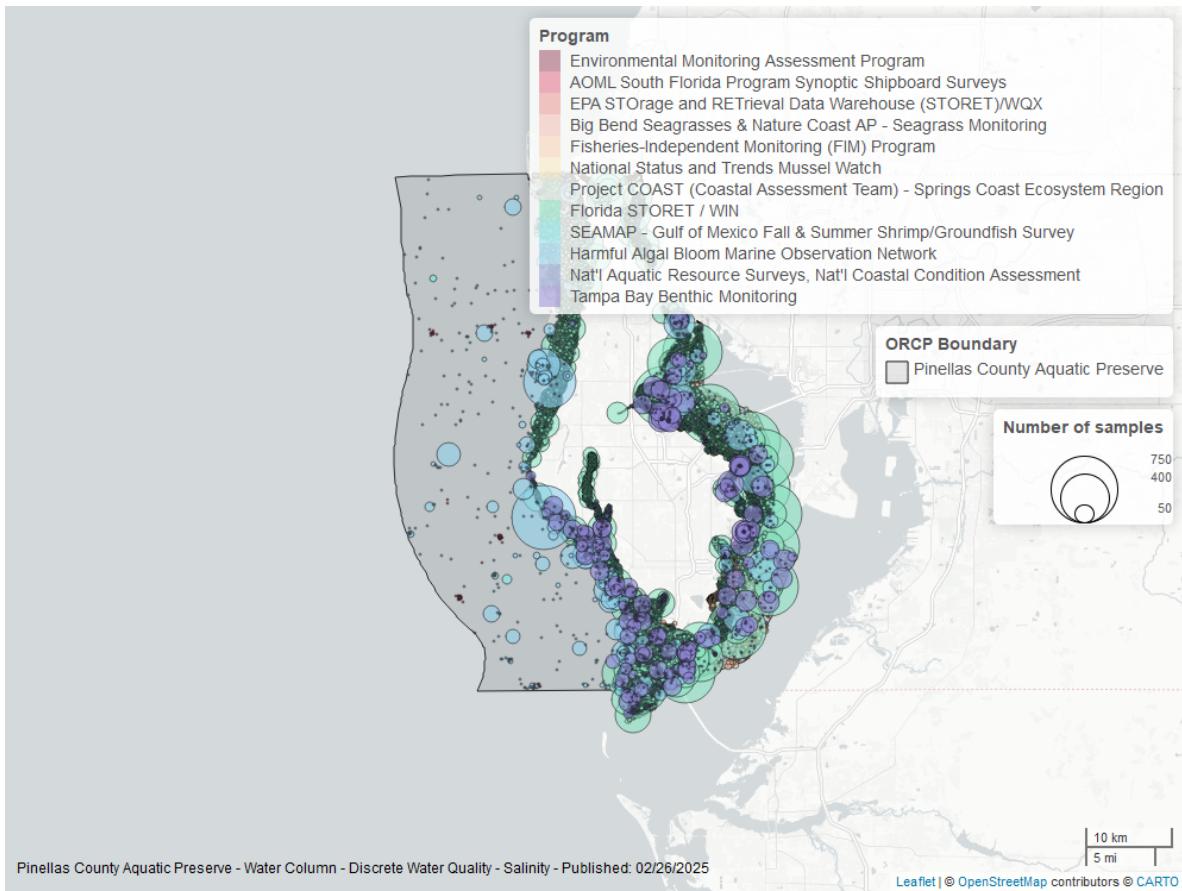


Table 5: Seasonal Kendall-Tau Results for - Salinity

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	93362	64	1954 - 2024	28.93	-0.3821	32.7897	-0.10107	0.0000



Water Temperature - Discrete

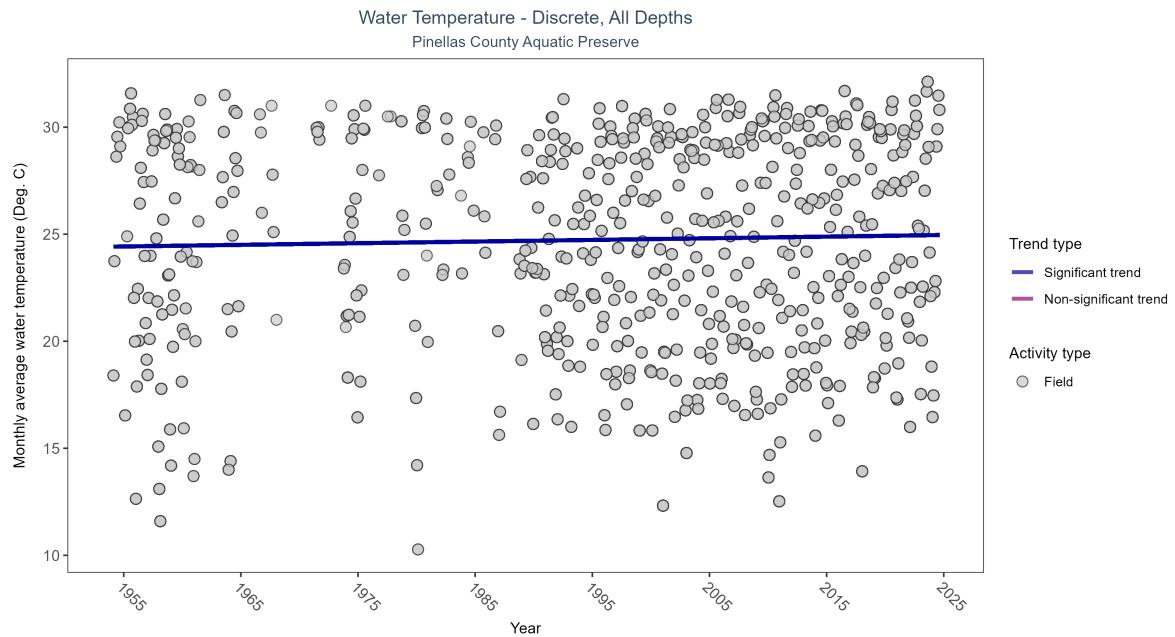
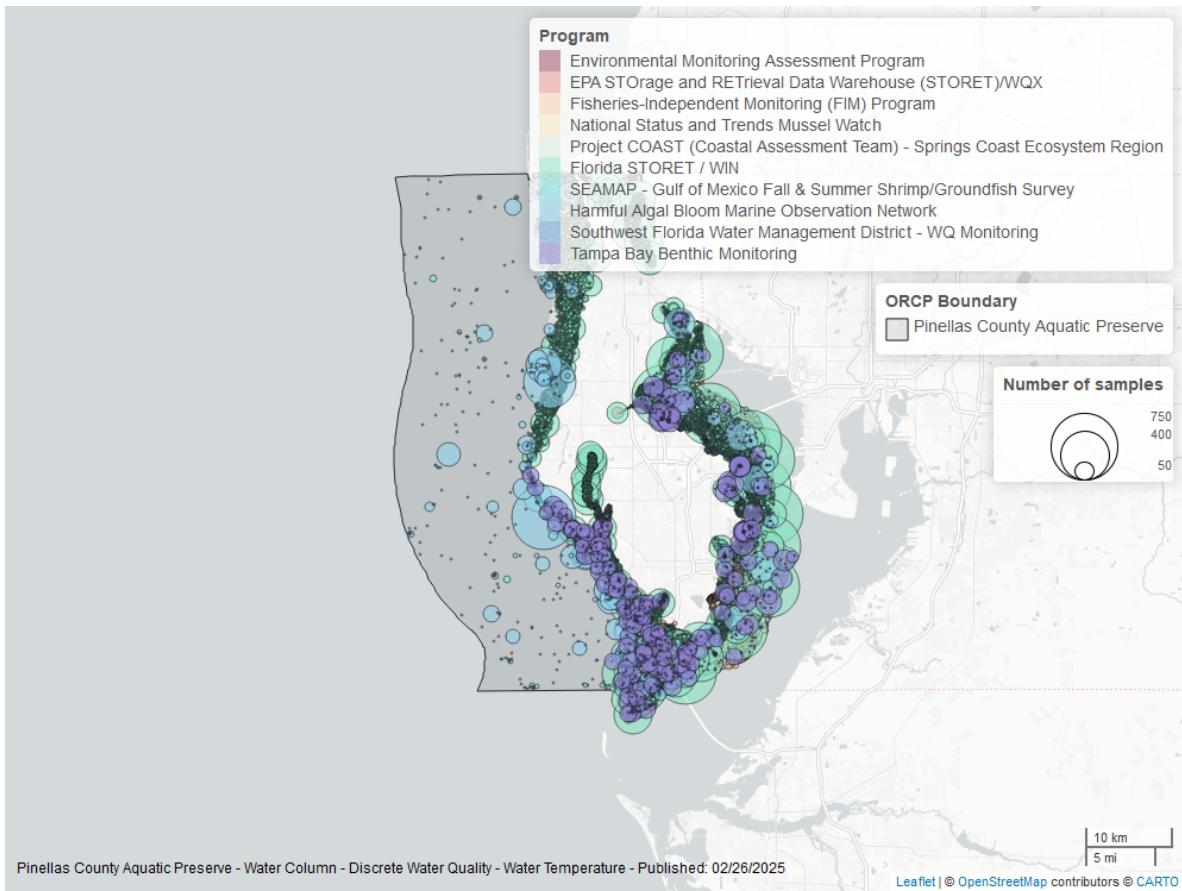


Table 6: Seasonal Kendall-Tau Results for - Water Temperature

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	101236	67	1954 - 2024	26.58	0.0841	24.41842	0.00766	0.0037



Water Temperature - Continuous

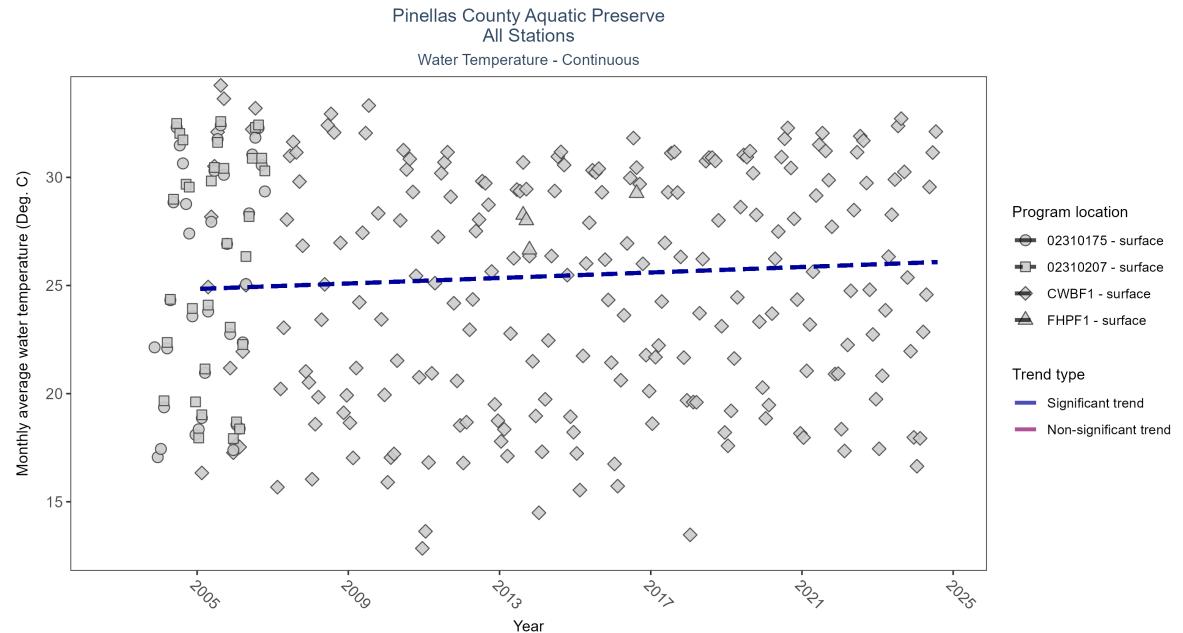
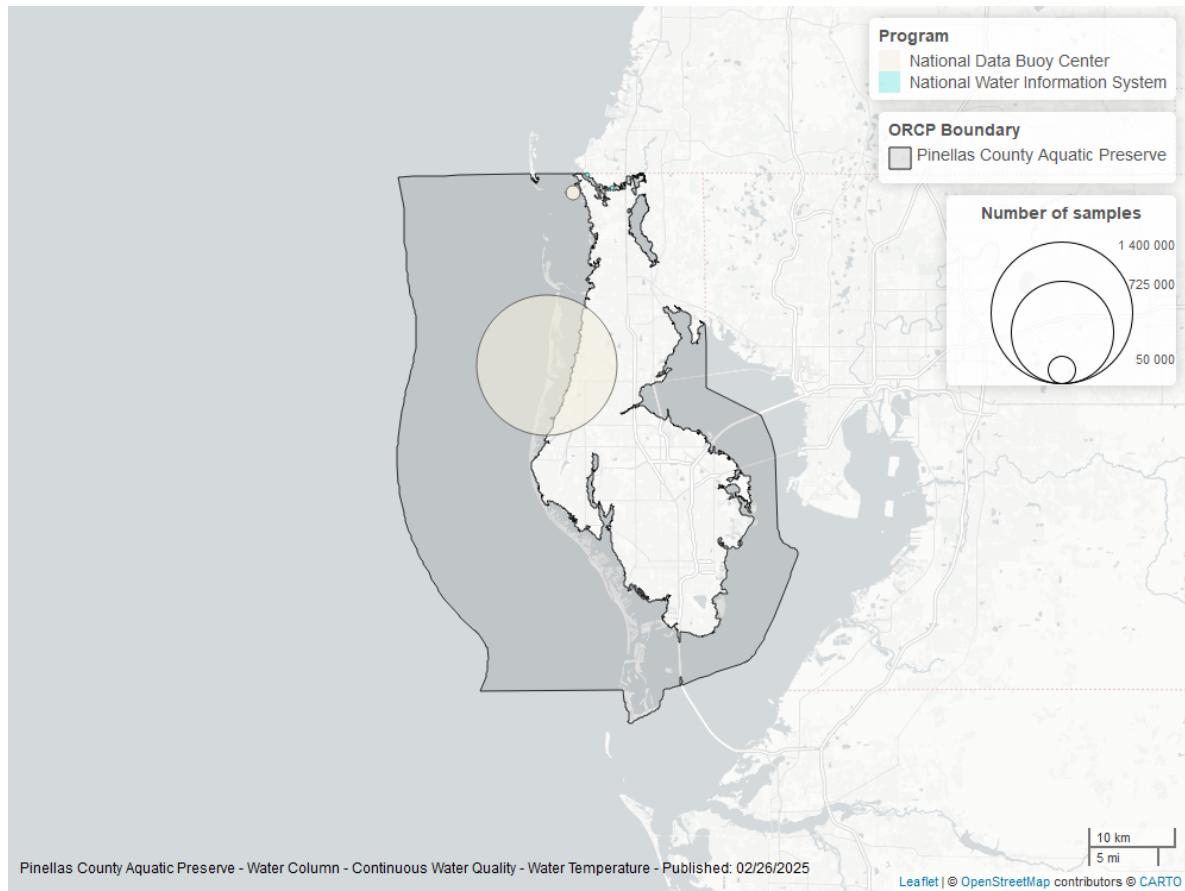


Table 7: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
CWBF1	Significantly increasing trend	1383446	20	2005 - 2024	25.30	0.18	24.84	0.06	0.0003
FHPF1	Insufficient data to calculate trend	12636	2	2013 - 2016	27.90	-	-	-	NA
02310175	Insufficient data to calculate trend	1421	4	2003 - 2006	26.50	-	-	-	NA
02310207	Insufficient data to calculate trend	1424	3	2004 - 2006	27.55	-	-	-	NA



pH - Discrete

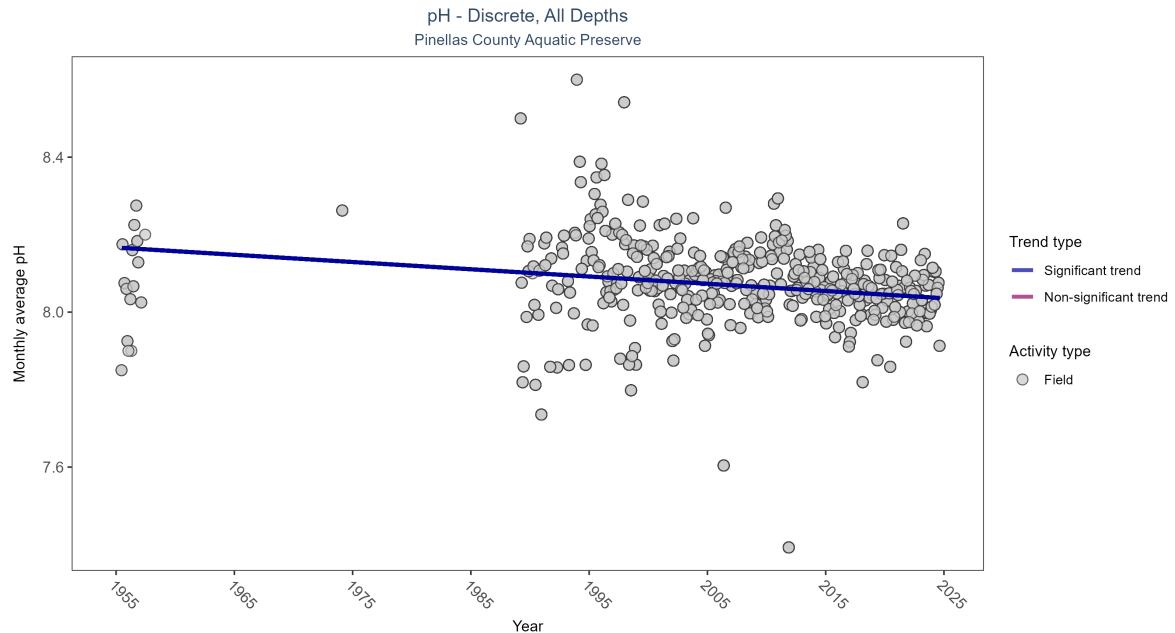
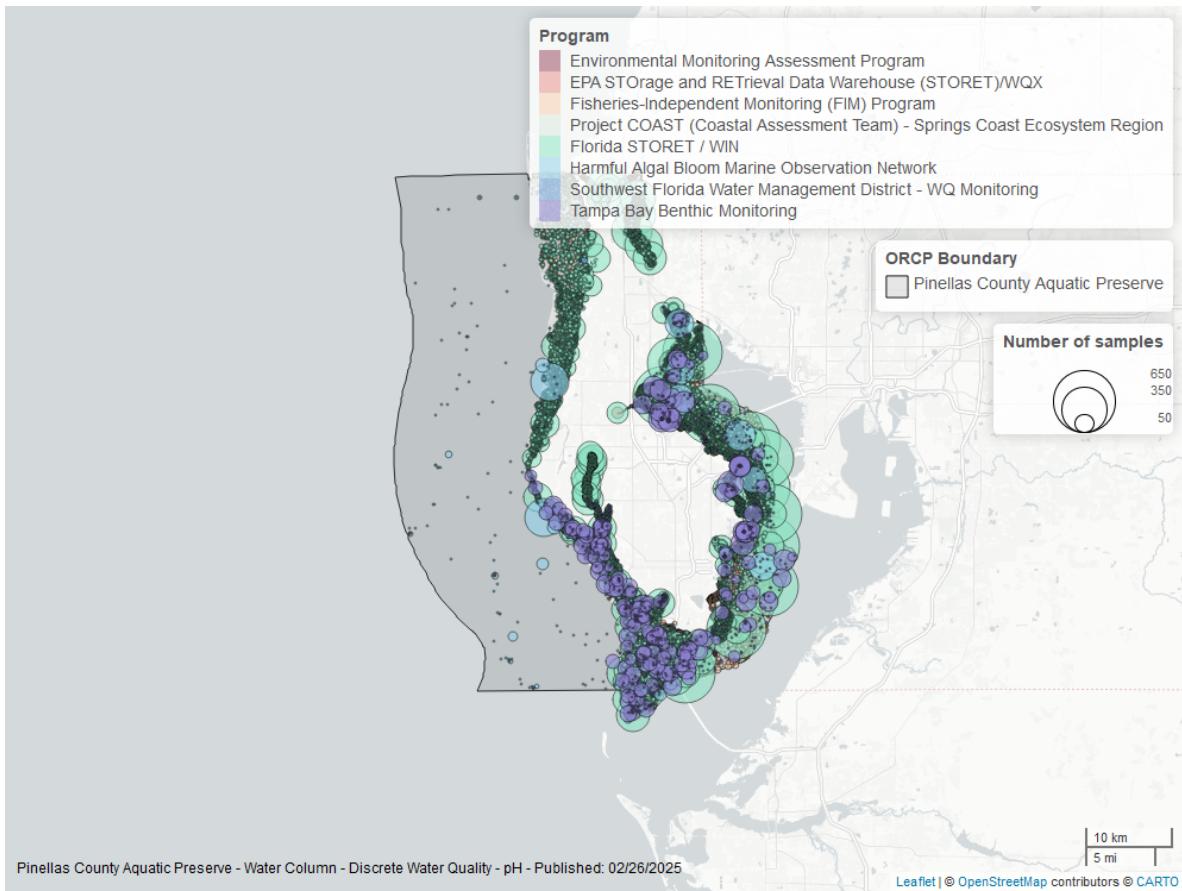


Table 8: Seasonal Kendall-Tau Results for - pH

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	90795	40	1955 - 2024	8.1	-0.1793	8.16677	-0.00187	0.0000



Water Clarity

Turbidity - Discrete

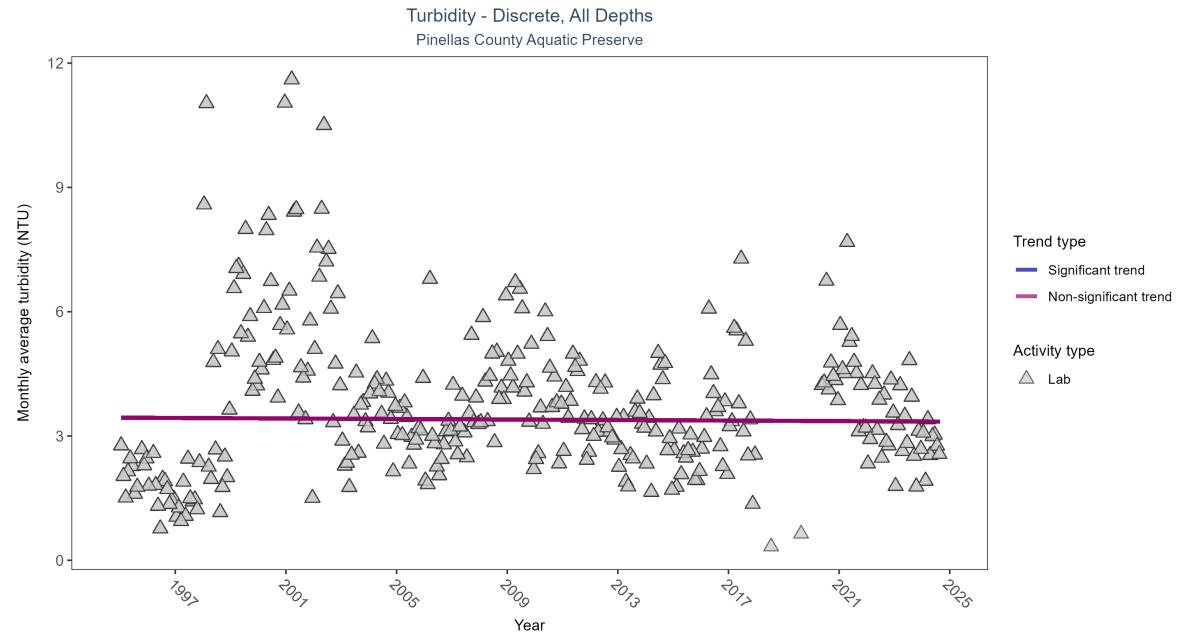
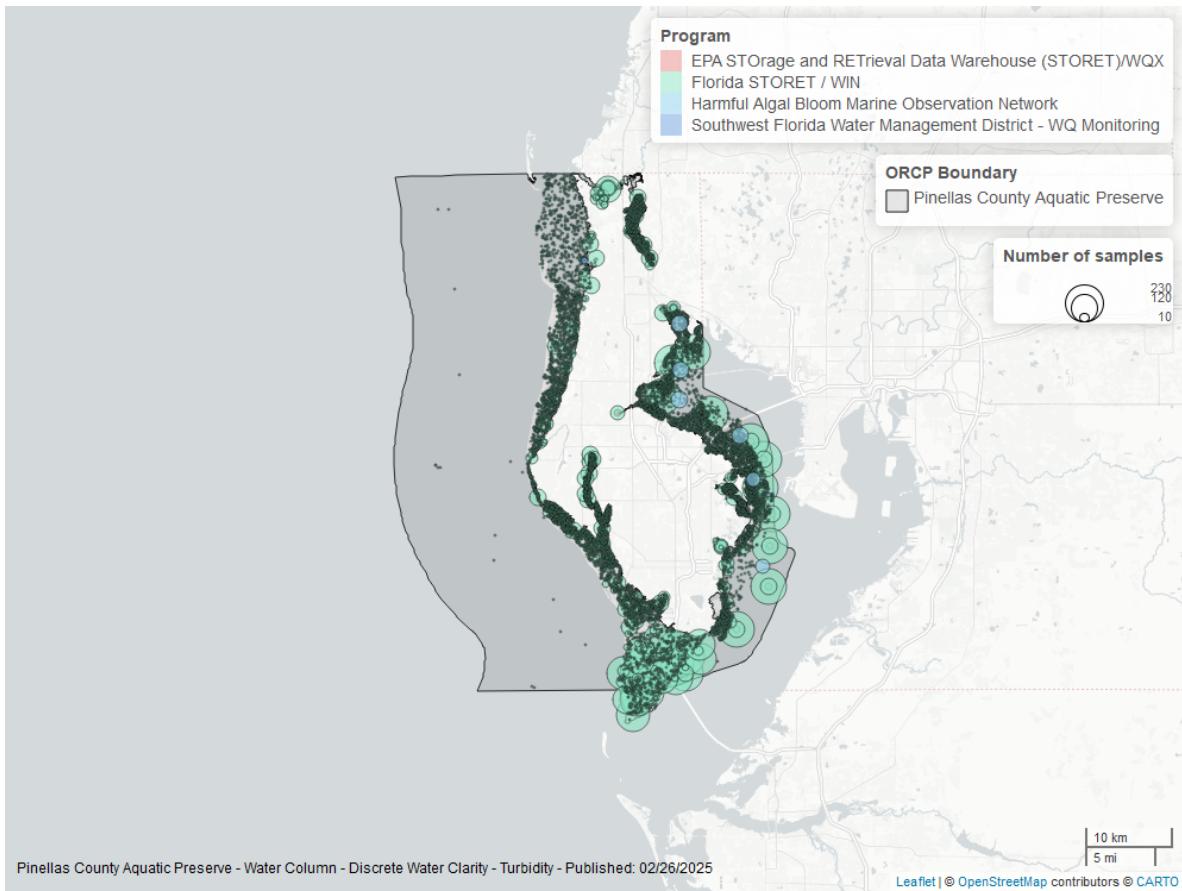


Table 9: Seasonal Kendall-Tau Results for - Turbidity

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	21091	30	1995 - 2024		2.5	-0.0146	3.44229	-0.00318	0.7535



Total Suspended Solids - Discrete

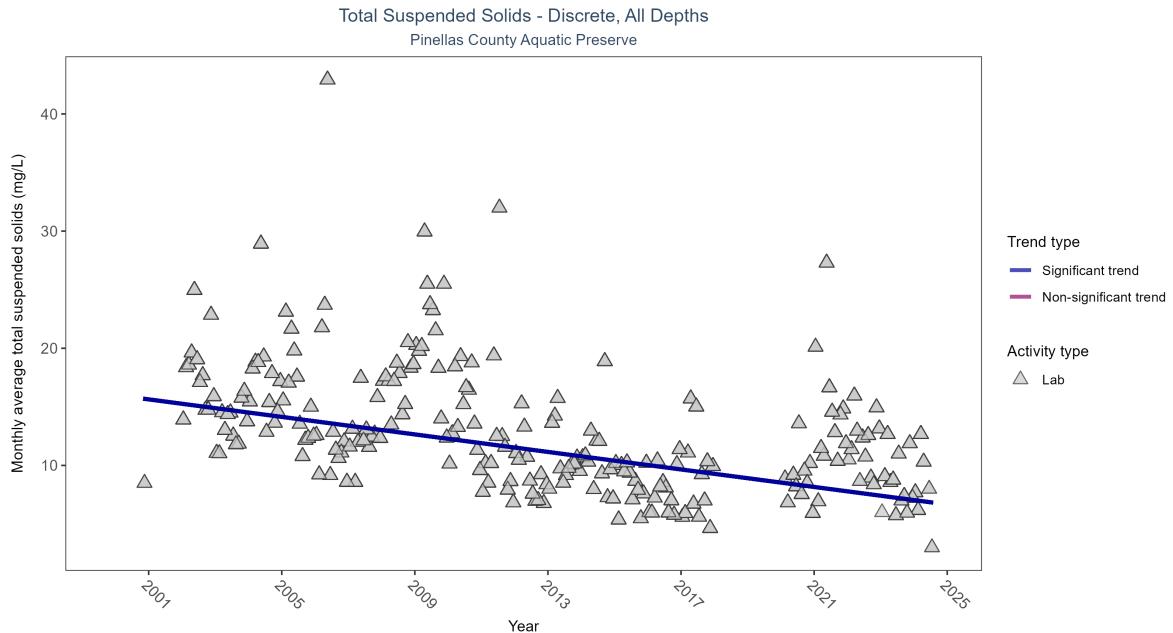
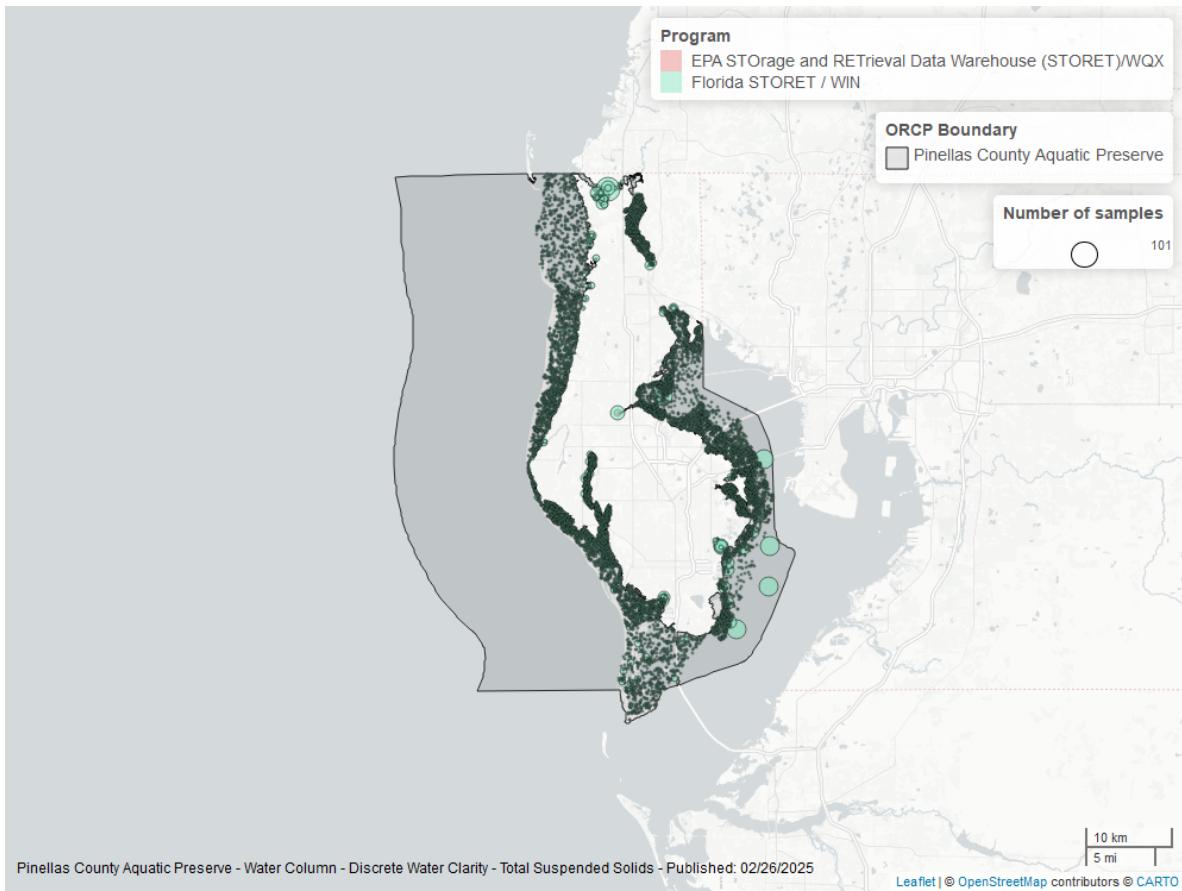


Table 10: Seasonal Kendall-Tau Results for - Total Suspended Solids

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P	
Lab	Significantly decreasing trend	12084	22	2000 - 2024		10	-0.3936	16.01068	-0.37372	0.0000



Chlorophyll a, Uncorrected for Pheophytin - Discrete

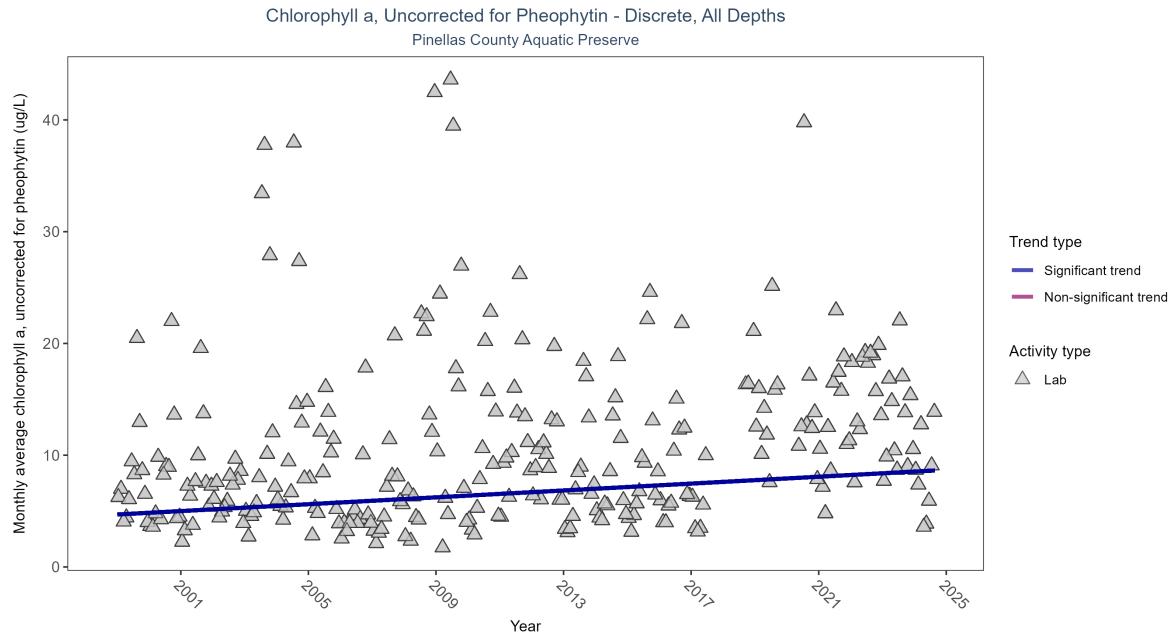
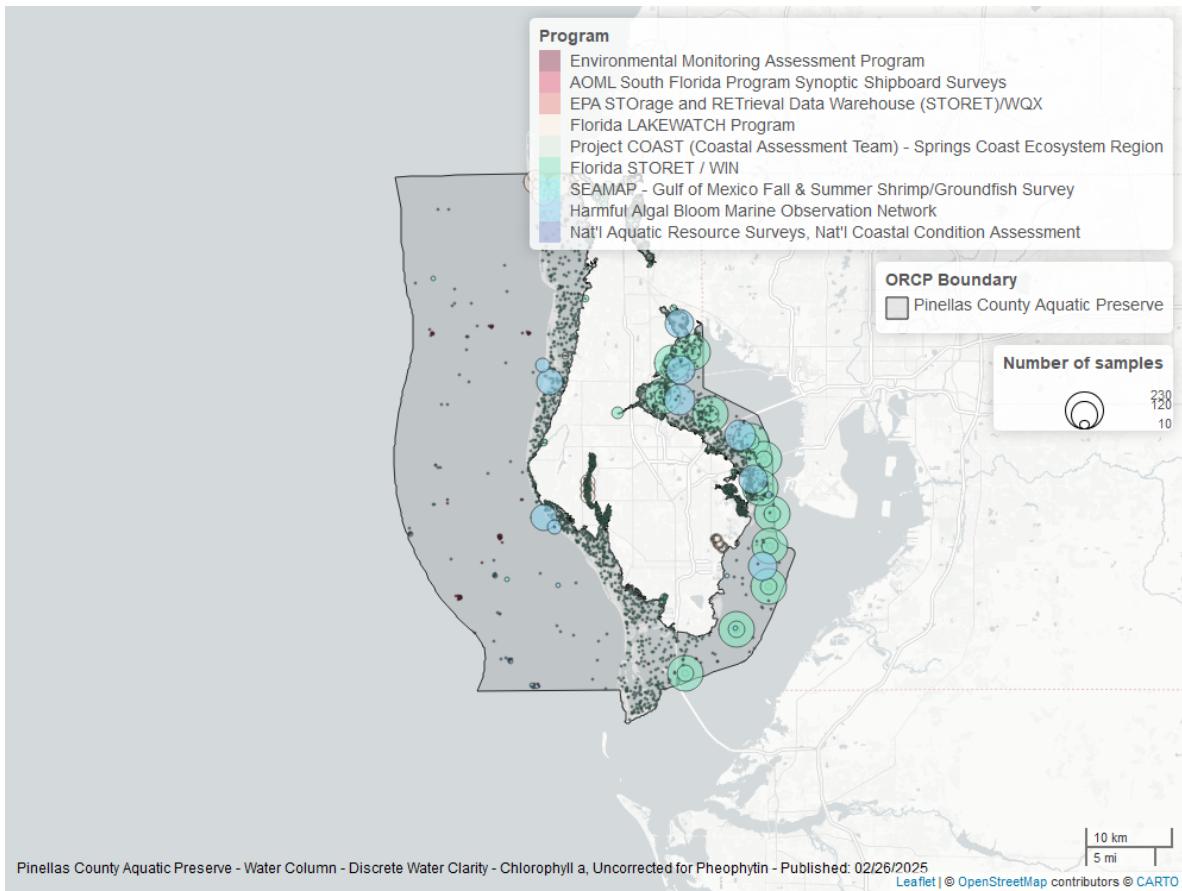


Table 11: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly increasing trend	6694	26	1999 - 2024	6.2	0.2256	4.69286	0.15365	0.0000



Chlorophyll a, Corrected for Pheophytin - Discrete

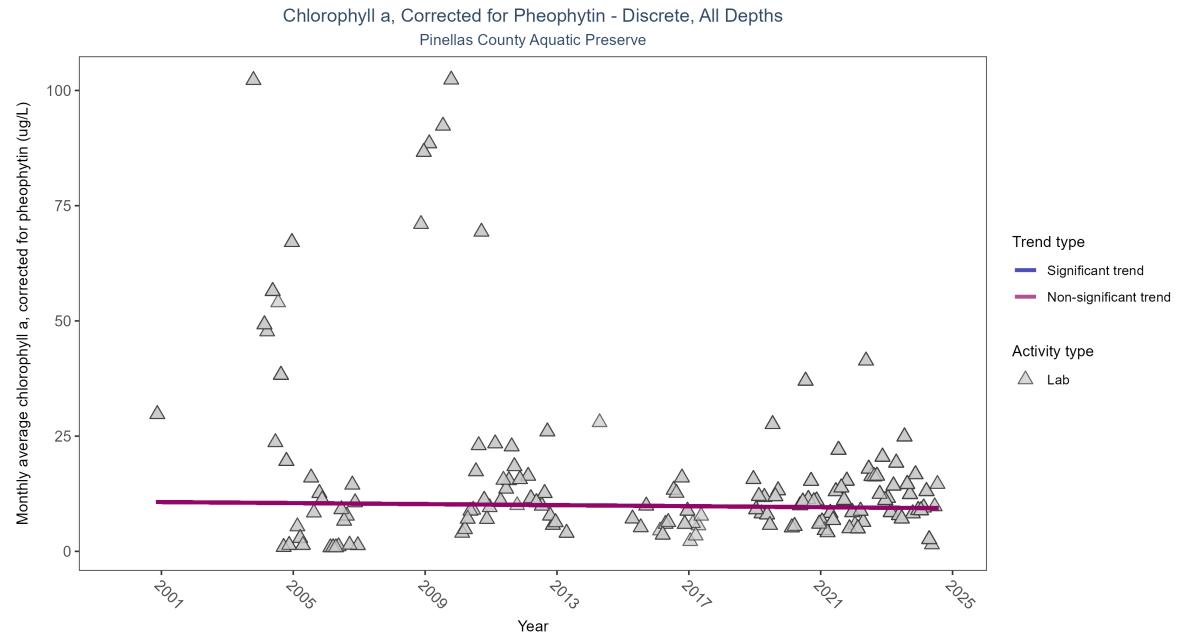
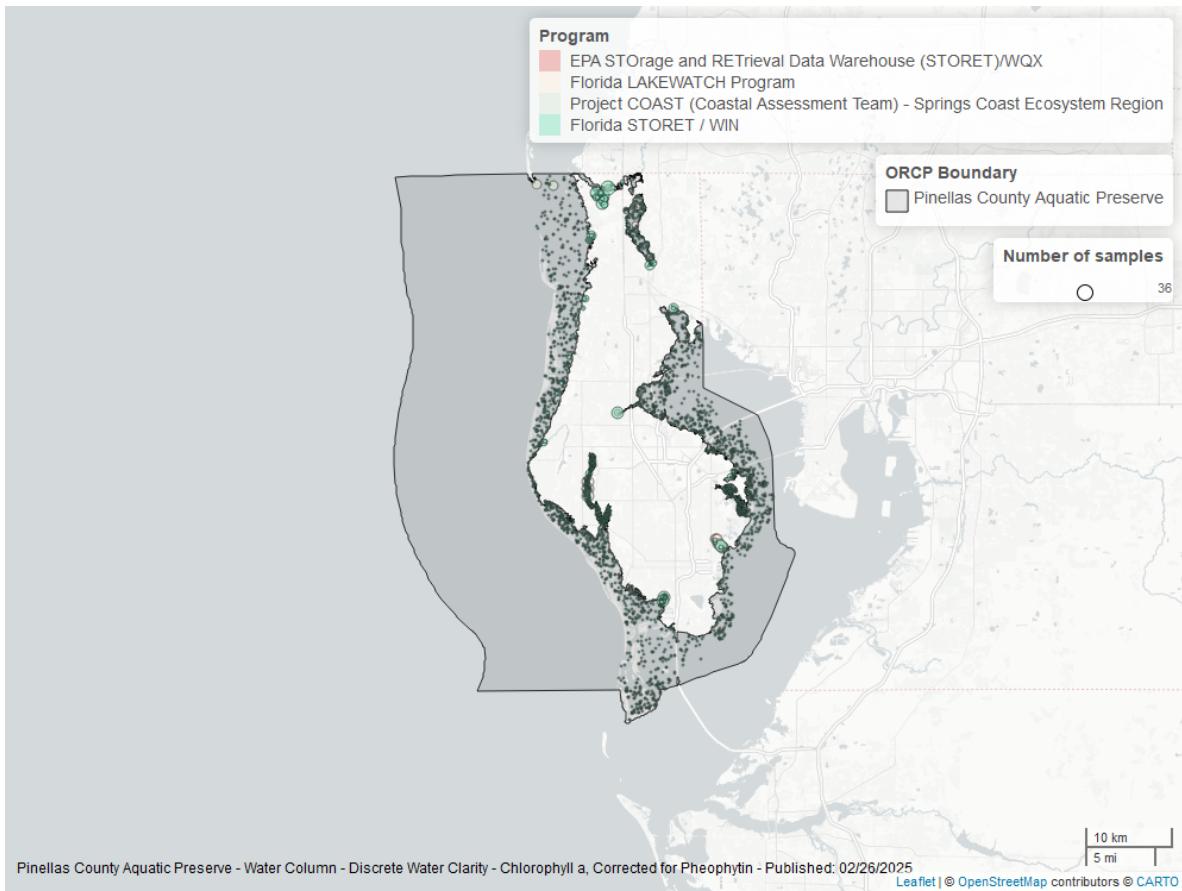


Table 12: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

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	3530	22	2000 - 2024	5.5	-0.0201	10.75439	-0.05603	0.6750



Secchi Depth - Discrete

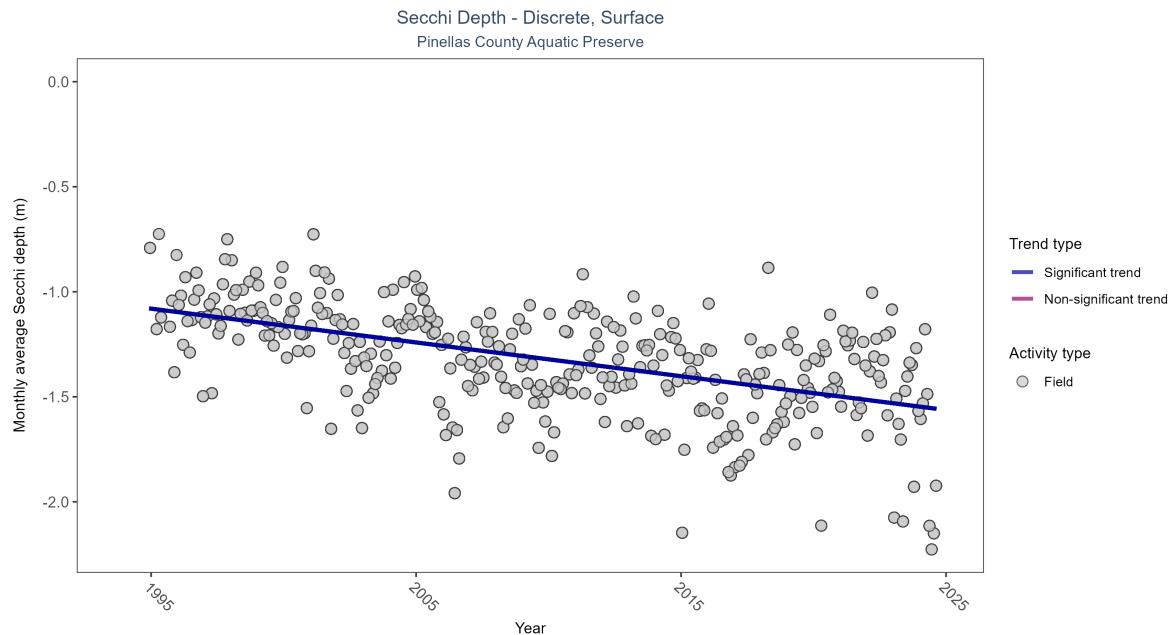
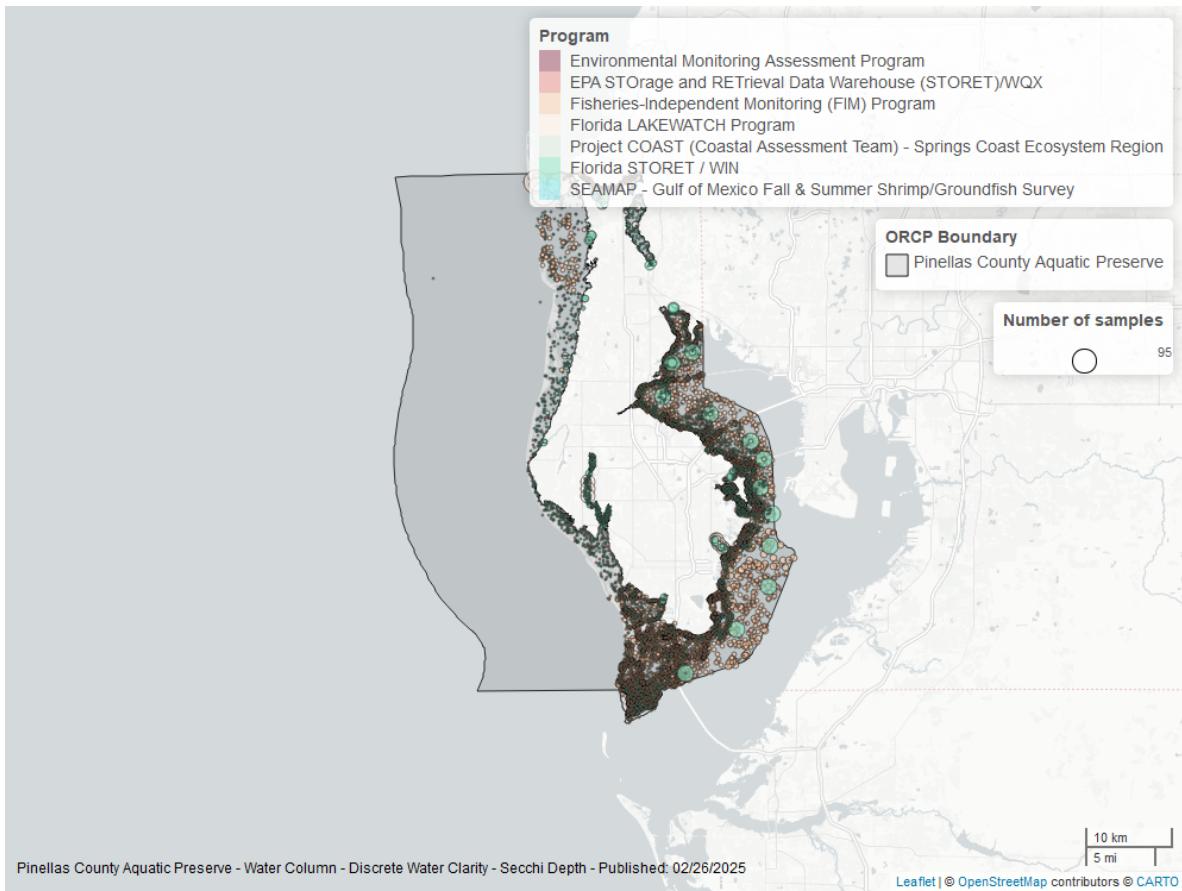


Table 13: Seasonal Kendall-Tau Results for - Secchi Depth

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	30855	31	1994 - 2024	-1.2	-0.3994	-1.0644	-0.01608	0.0000



Colored Dissolved Organic Matter - Discrete

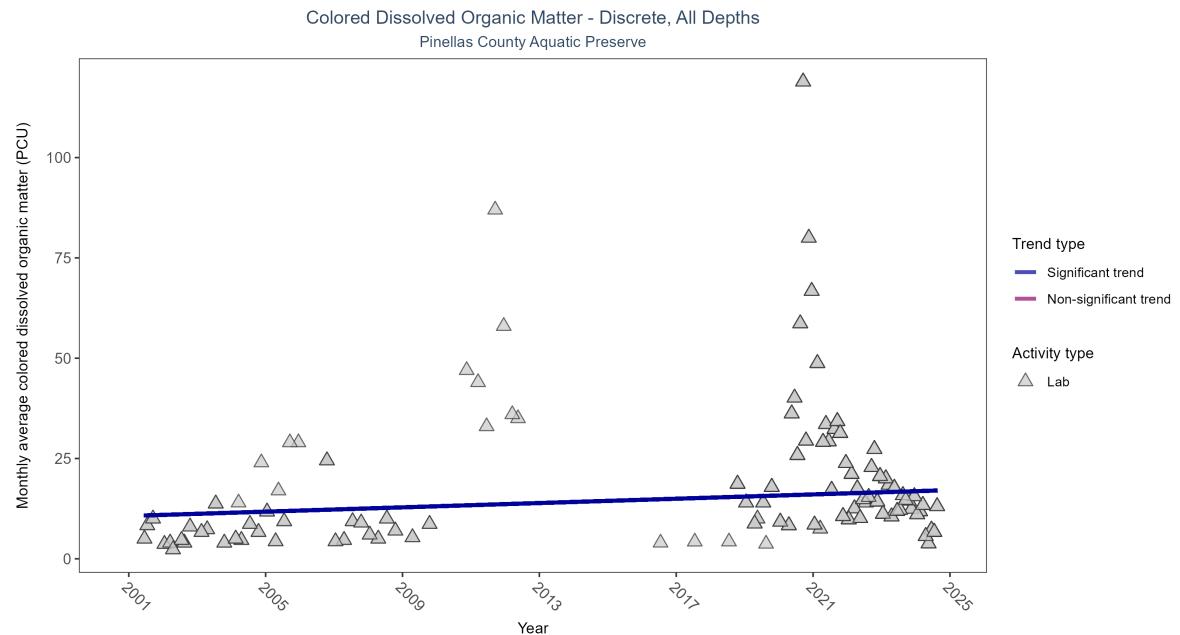


Table 14: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

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	1060	21	2001 - 2024	9.5	0.1149	10.67559	0.26852	0.0085

