

Boca Ciega Bay Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 18 March, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

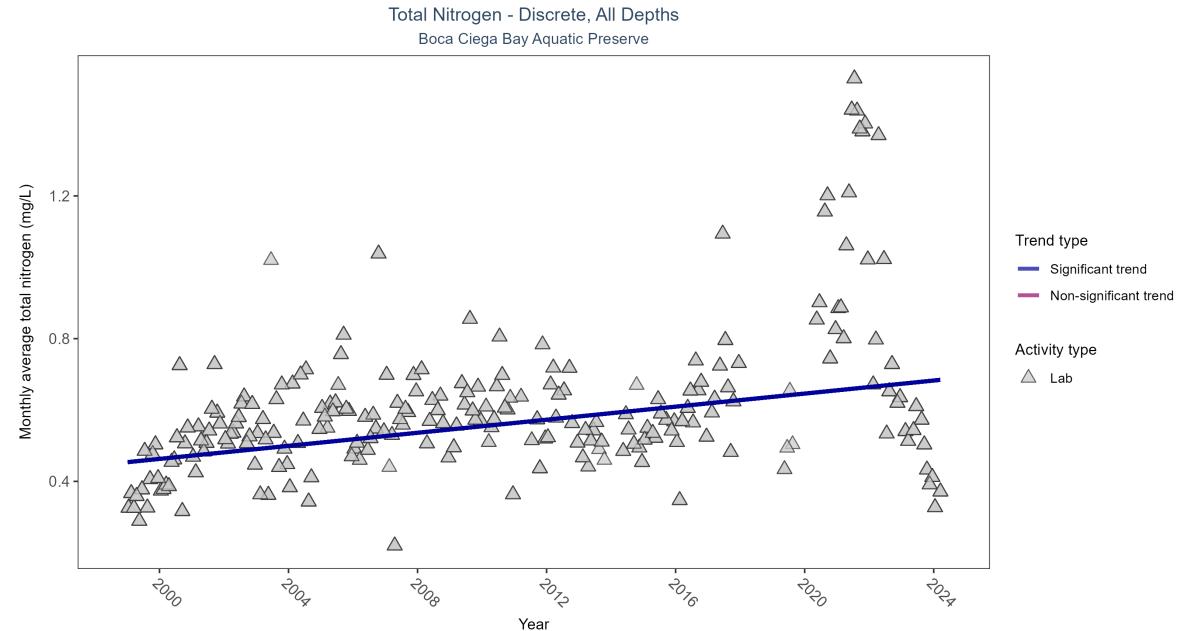
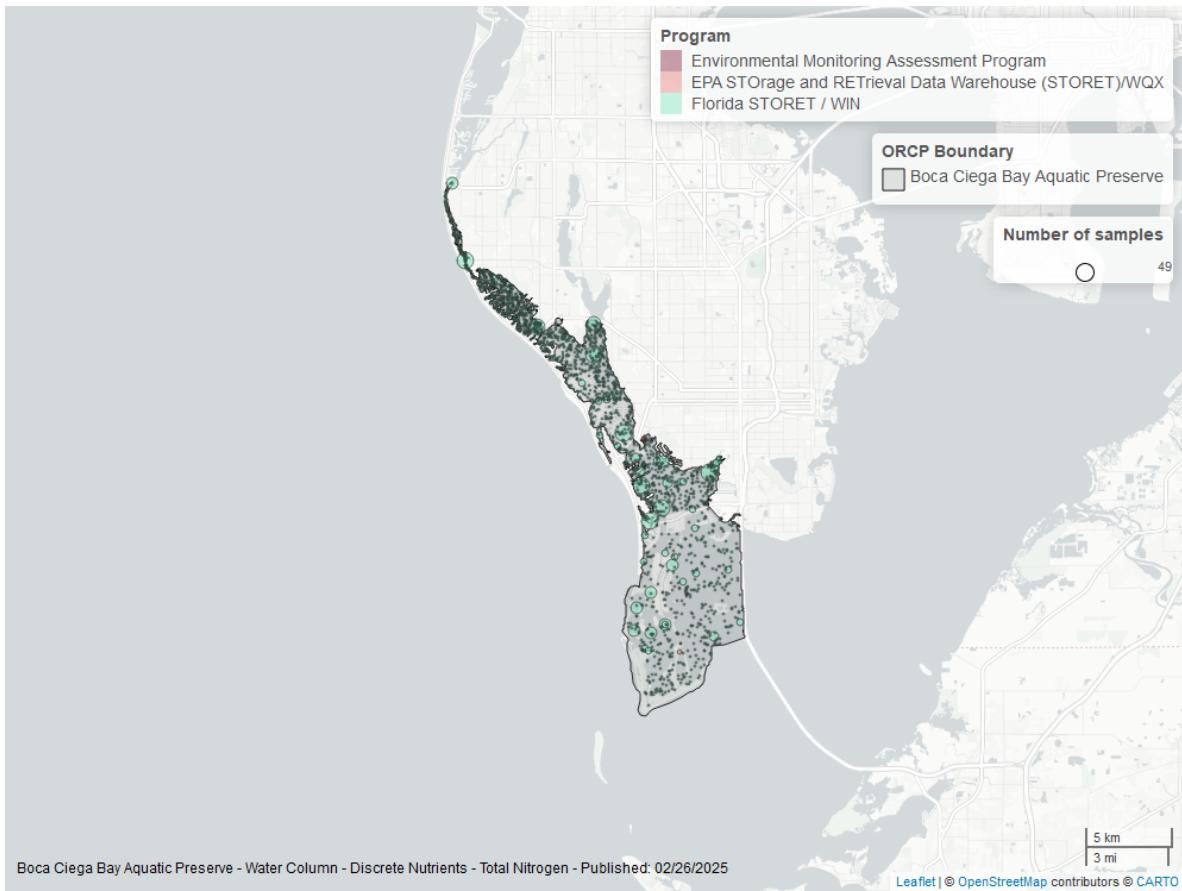


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly increasing trend	2877	25	1999 - 2024	0.55	0.2986	0.45382	0.00915	0.00000000055544787997655681875



Total Phosphorus - Discrete

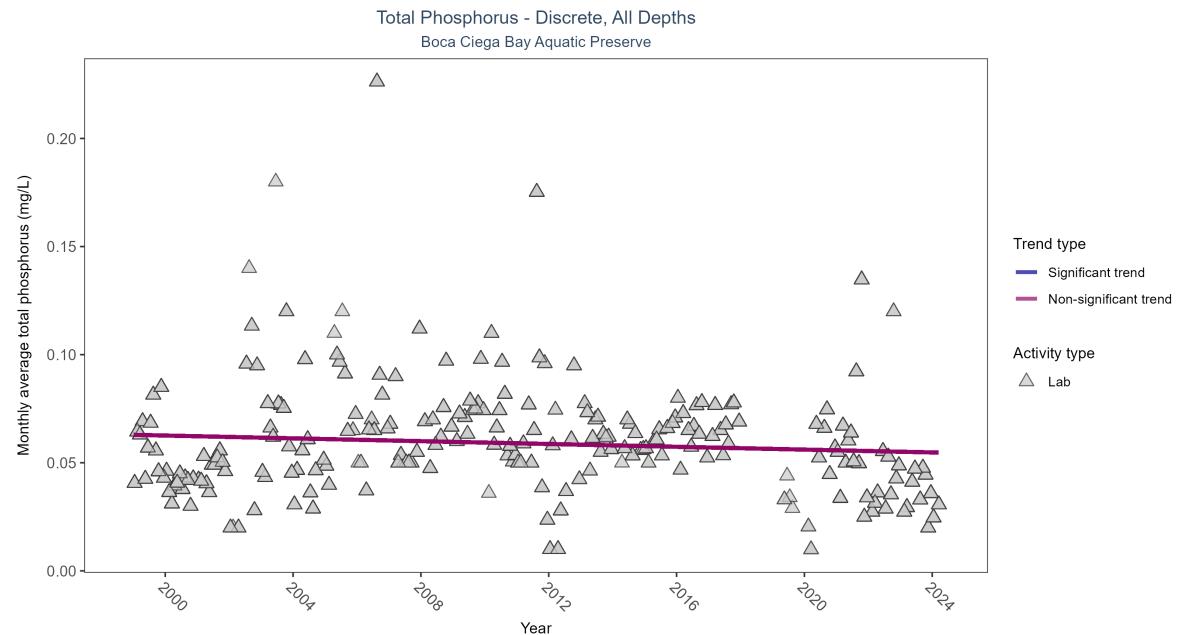
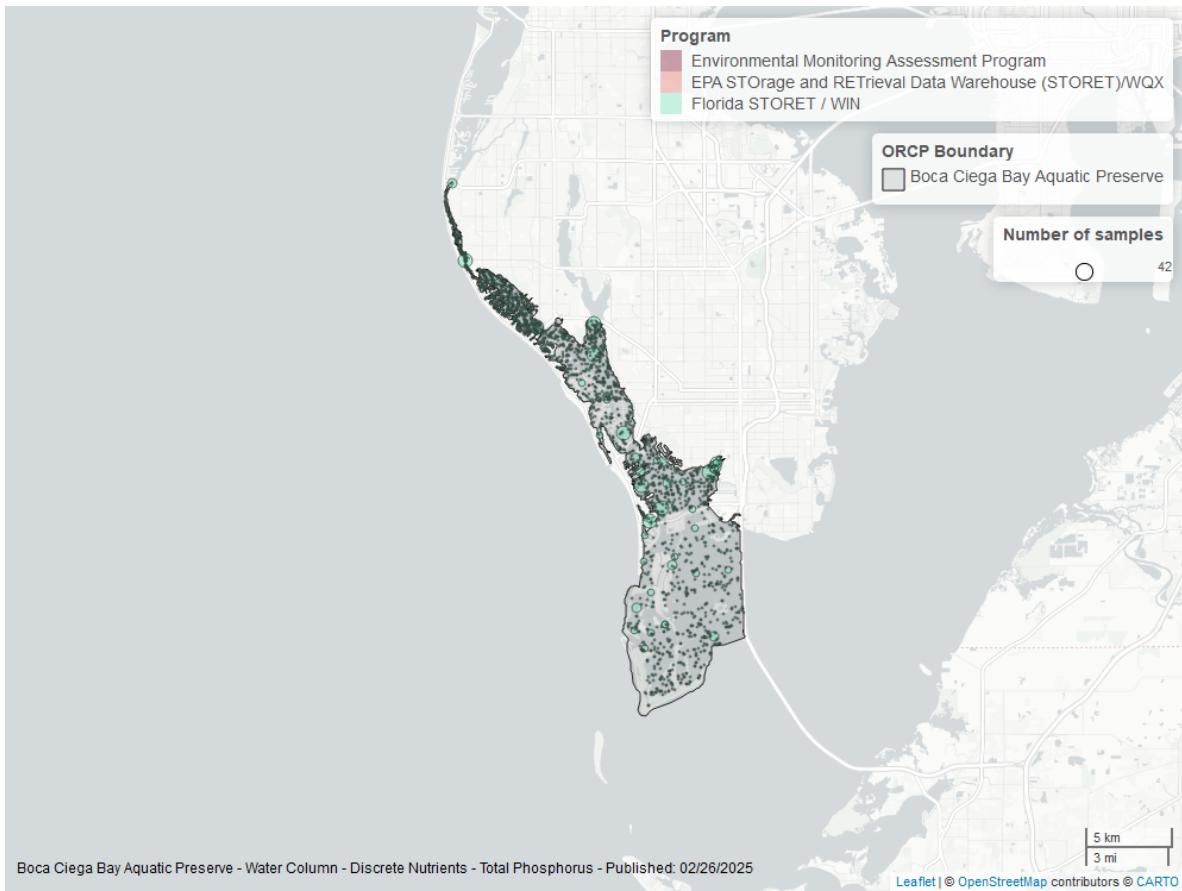


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

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	2762	25	1999 - 2024	0.05	-0.0775	0.06291	-0.00033	0.0825509145094049795465807051186857279390096664428710937500000000



Water Quality

Dissolved Oxygen - Discrete

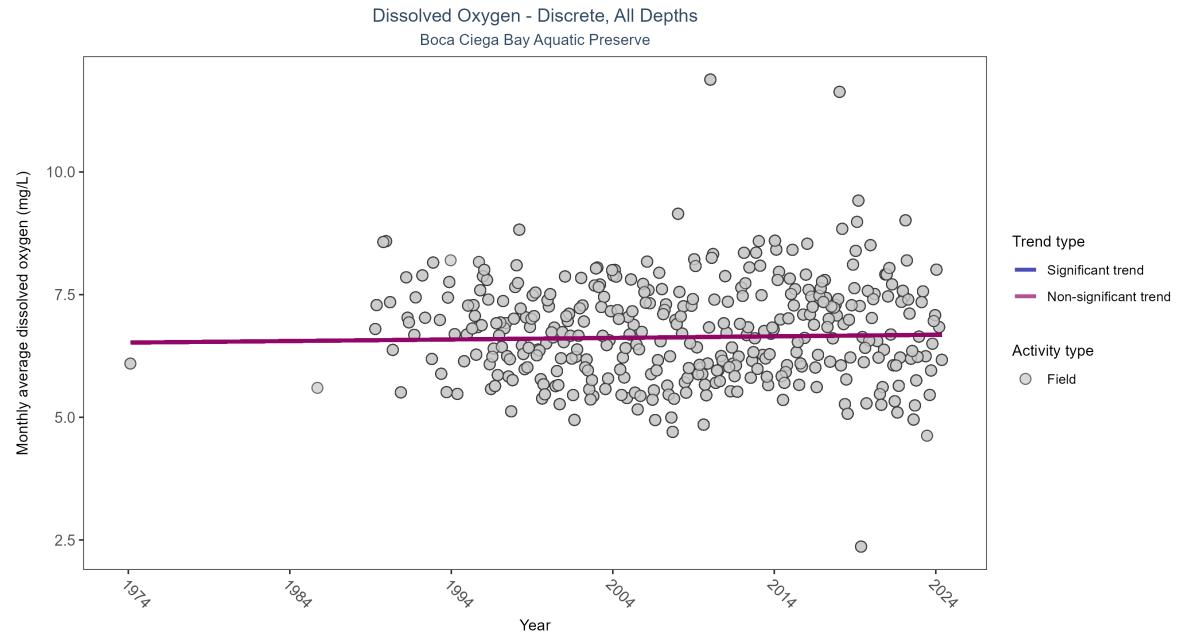
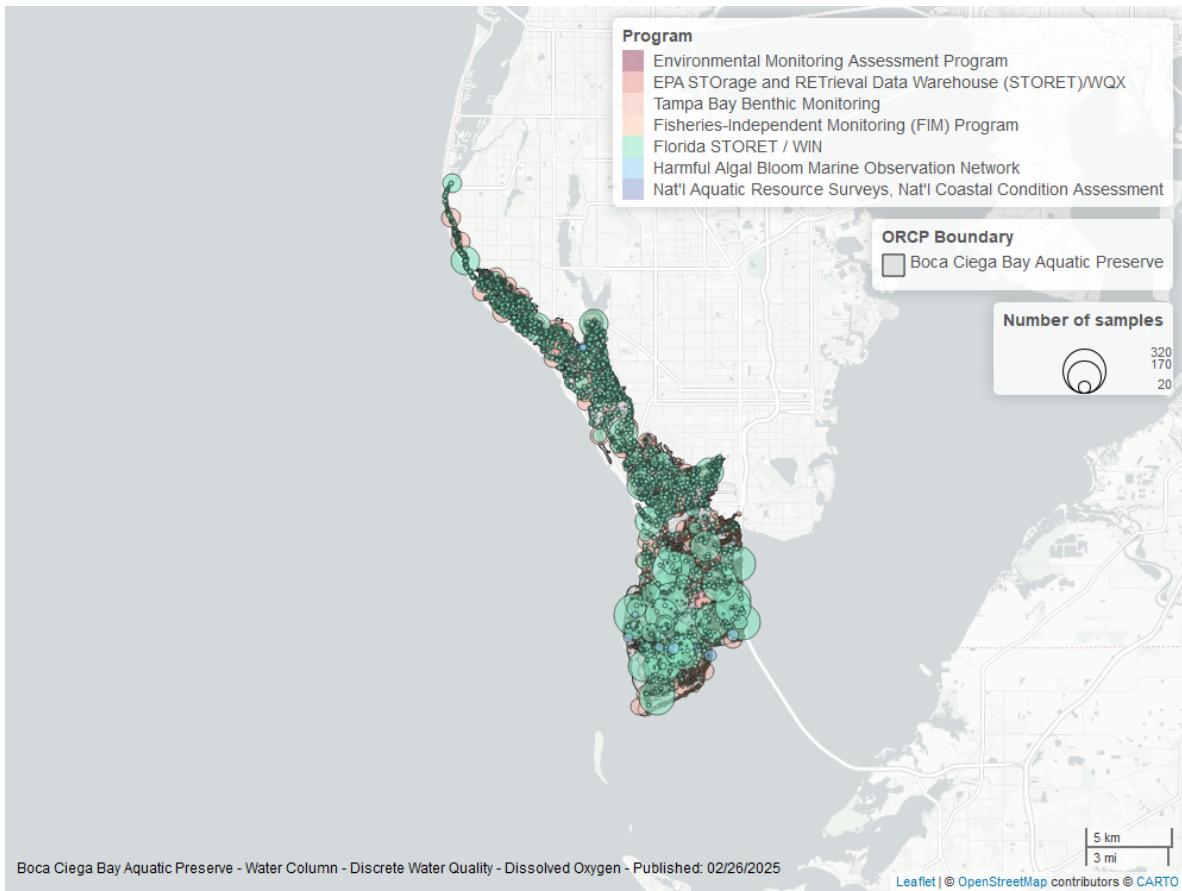


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

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	30113	38	1974 - 2024	6.44	0.03445	6.52229	0.0032	0.40124930528669922



Dissolved Oxygen Saturation - Discrete

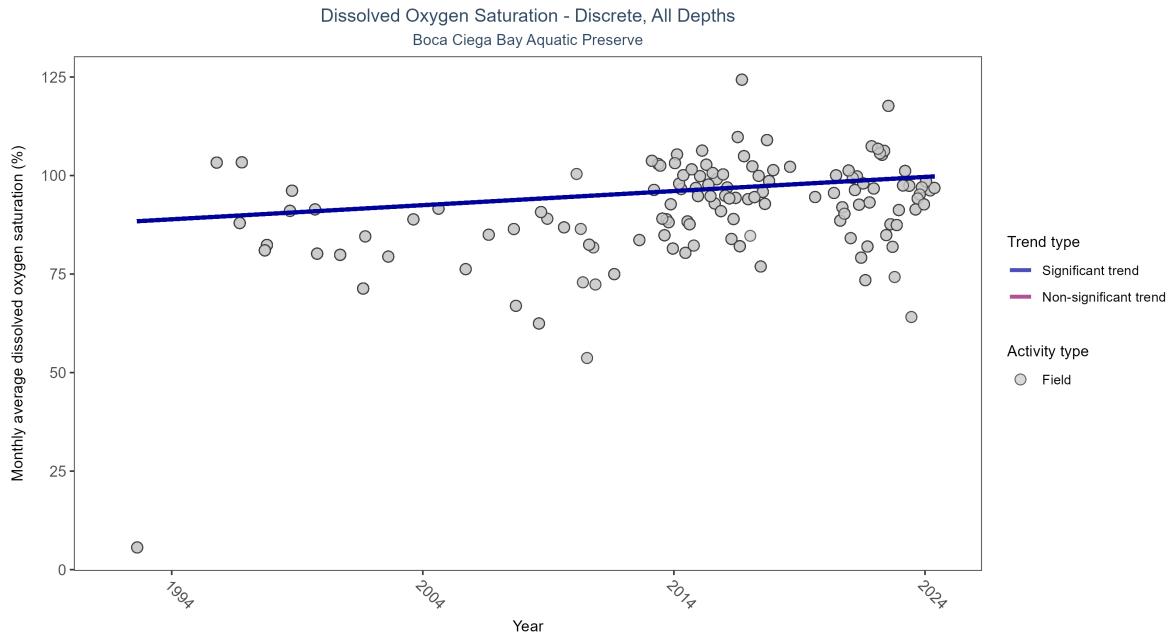
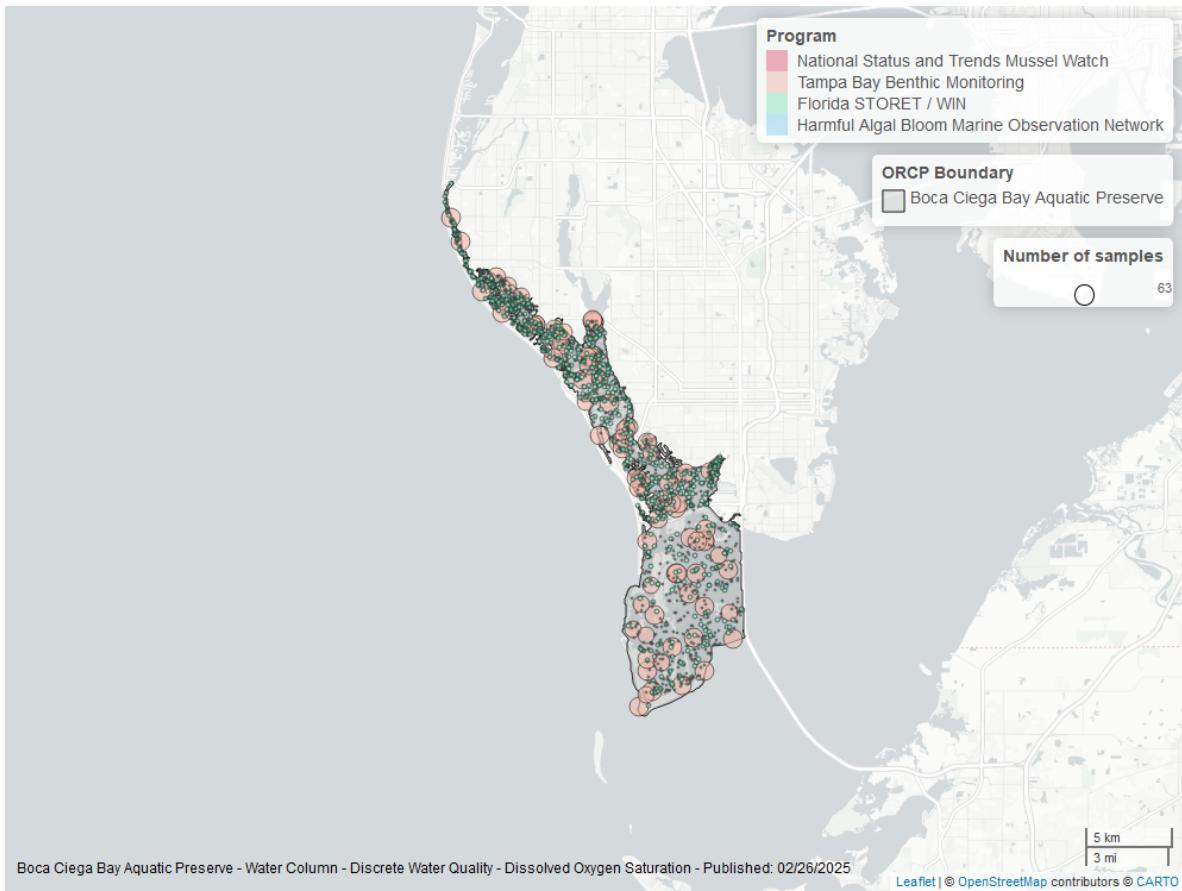


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tar	Sen Intercept	Sen Slope	P
Field	Significantly increasing trend	7890		31	1992 - 2024	91.1	0.11732	88.17926	0.3583



Salinity - Discrete

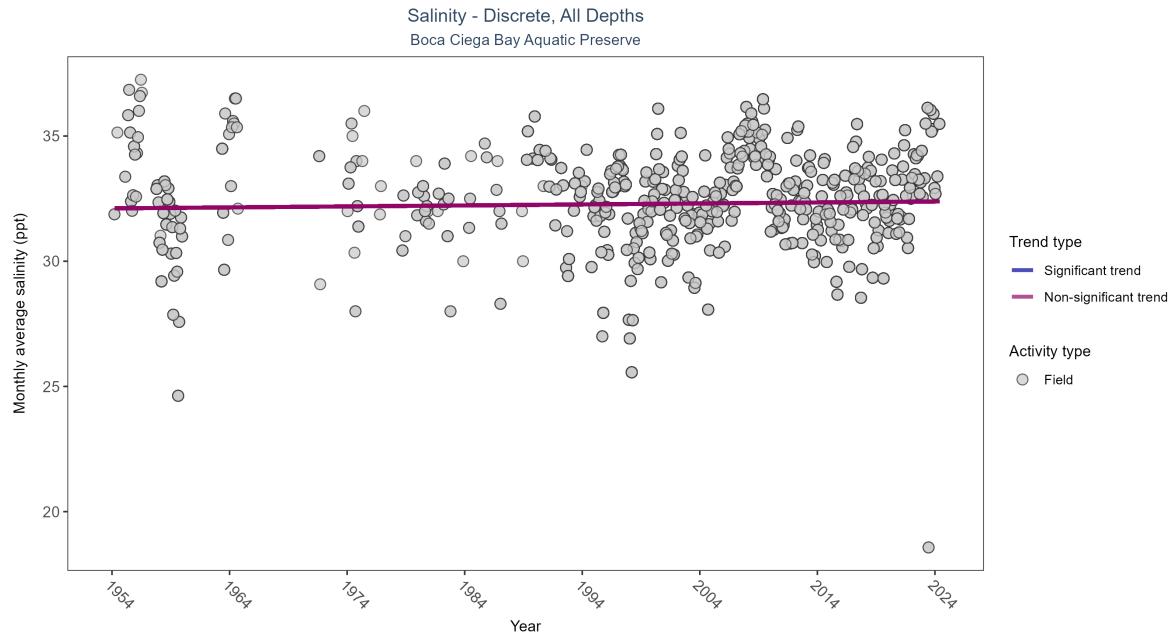
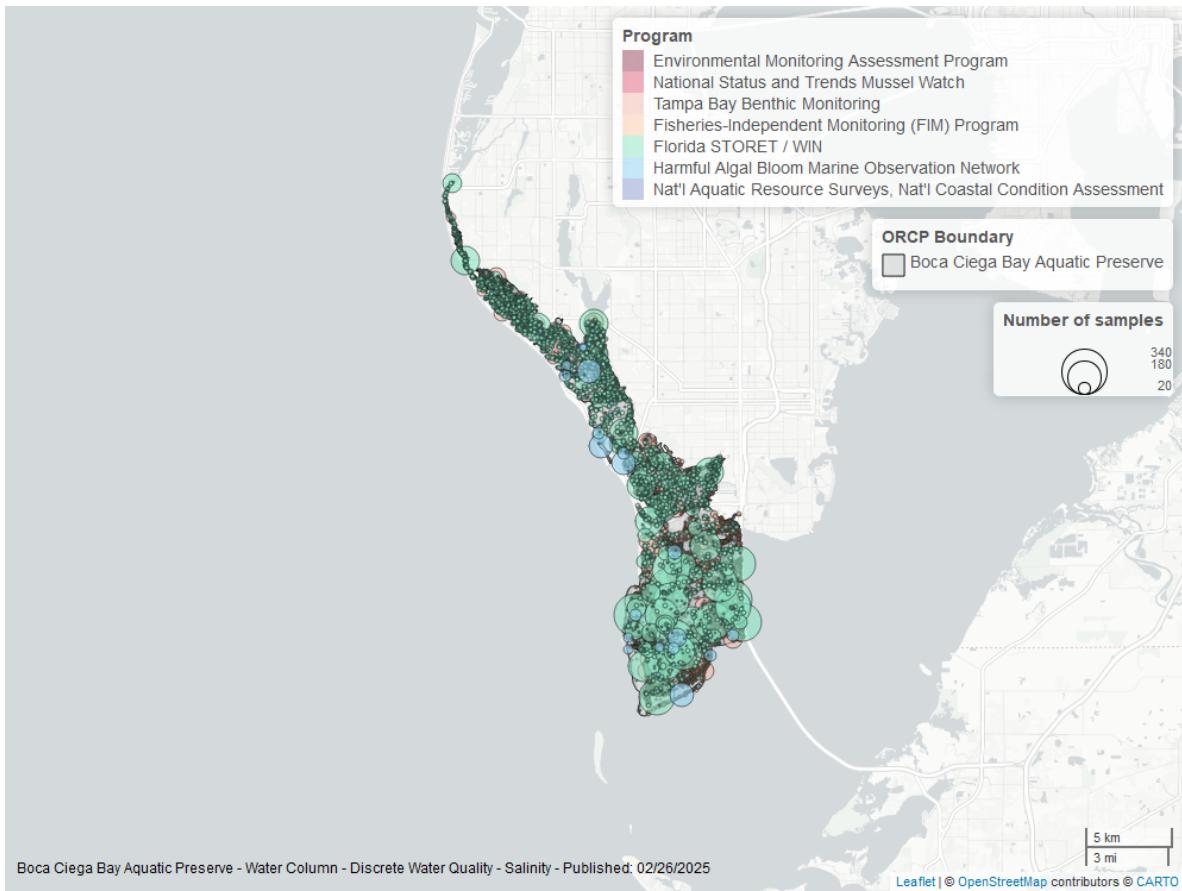


Table 5: Seasonal Kendall-Tau Results for - Salinity

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	27464	59	1954 - 2024	32.6	0.03198	32.11028	0.00394	0.33538569312450416948223619328928180038928985596



Water Temperature - Discrete

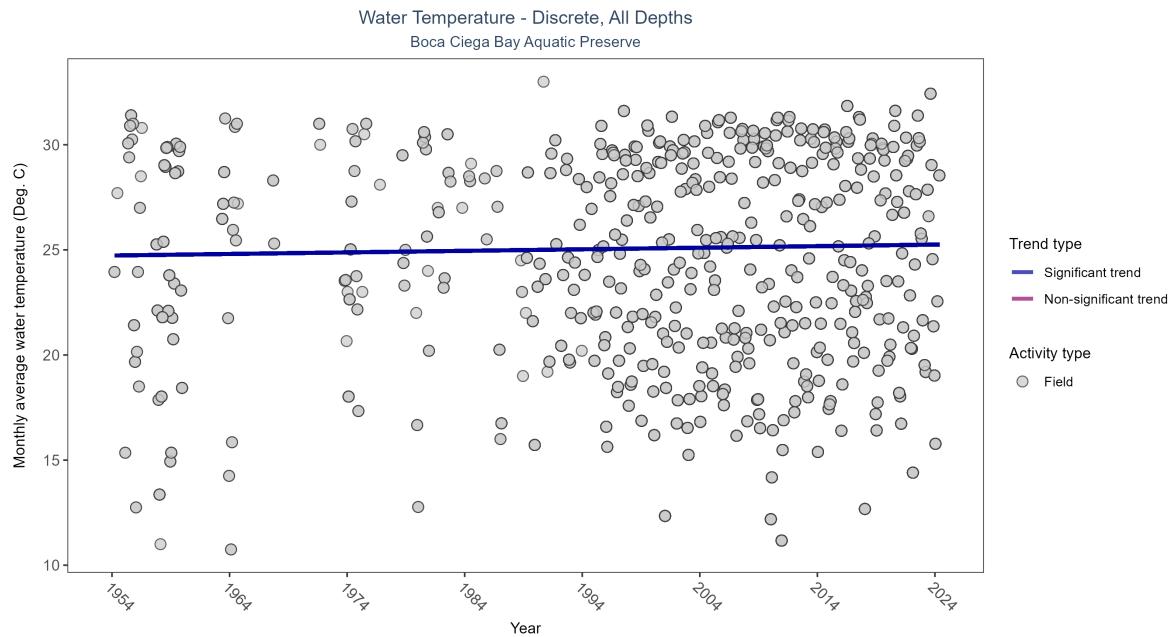
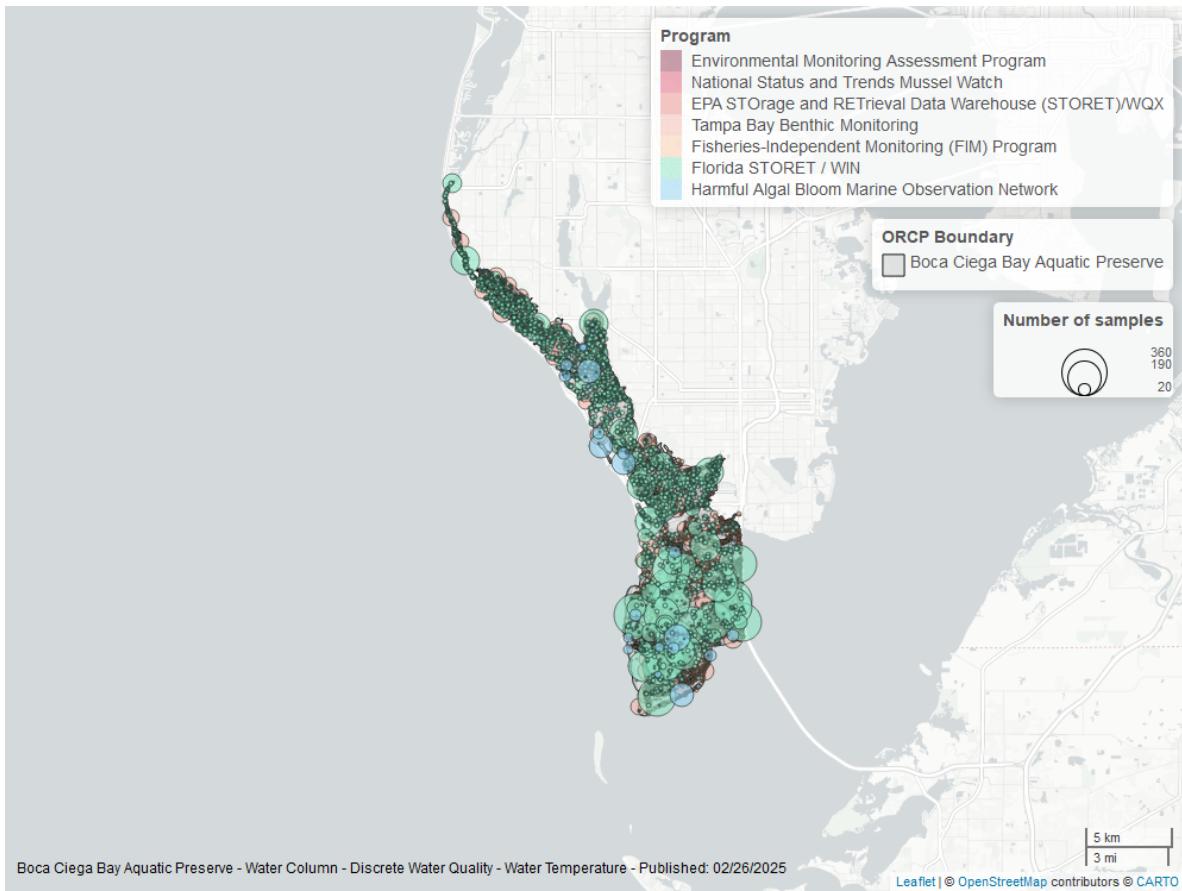


Table 6: Seasonal Kendall-Tau Results for - Water Temperature

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	30690	61	1954 - 2024	27.1	0.06278	24.73093	0.00742	0.046780276216618899



pH - Discrete

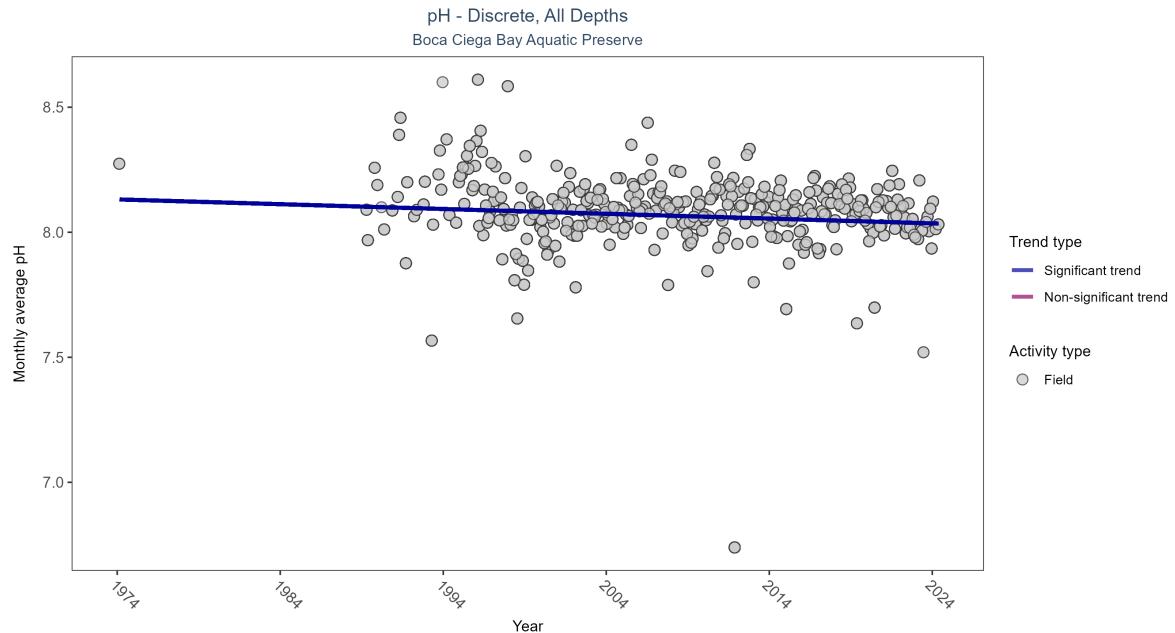
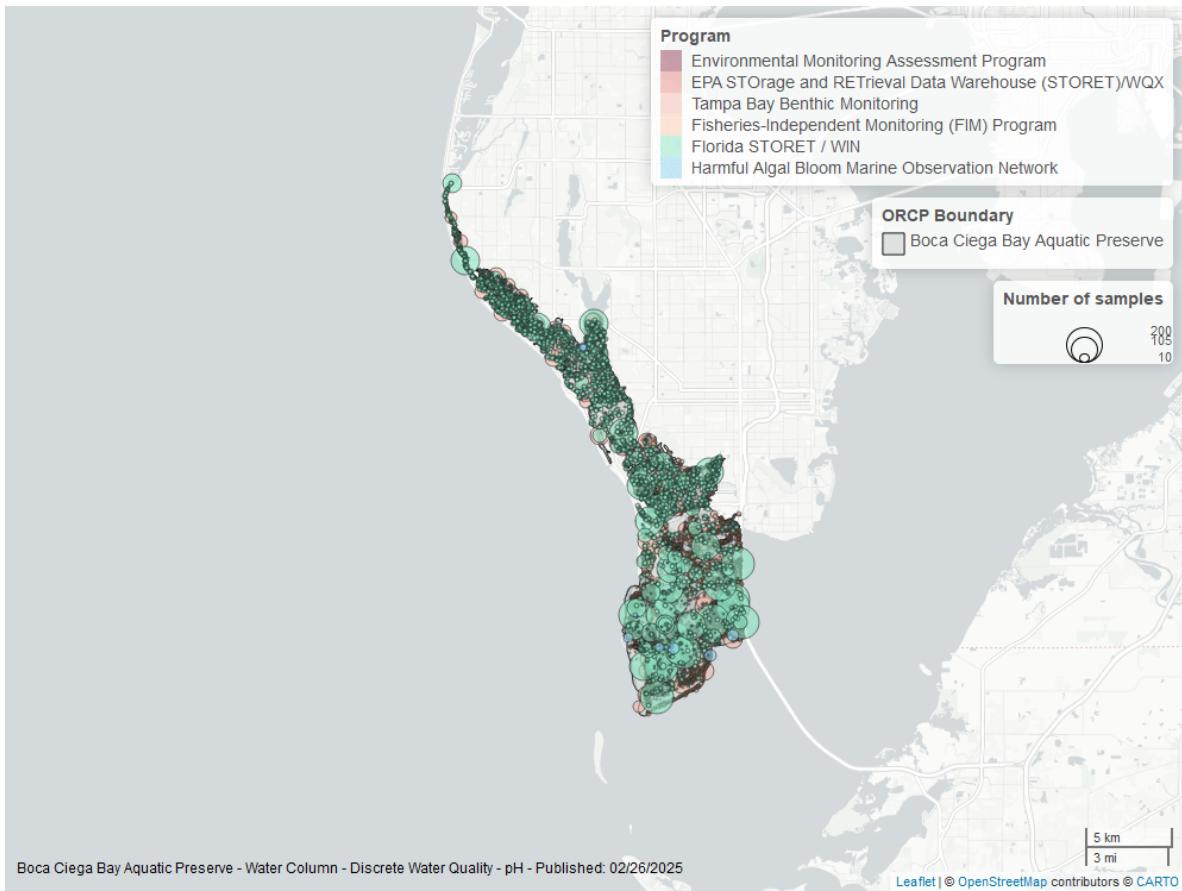


Table 7: Seasonal Kendall-Tau Results for - pH

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	27397	37	1974 - 2024	8.1	-0.11716	8.13134	-0.00192	0.00117113784752080987185129945515882354812



Water Clarity

Turbidity - Discrete

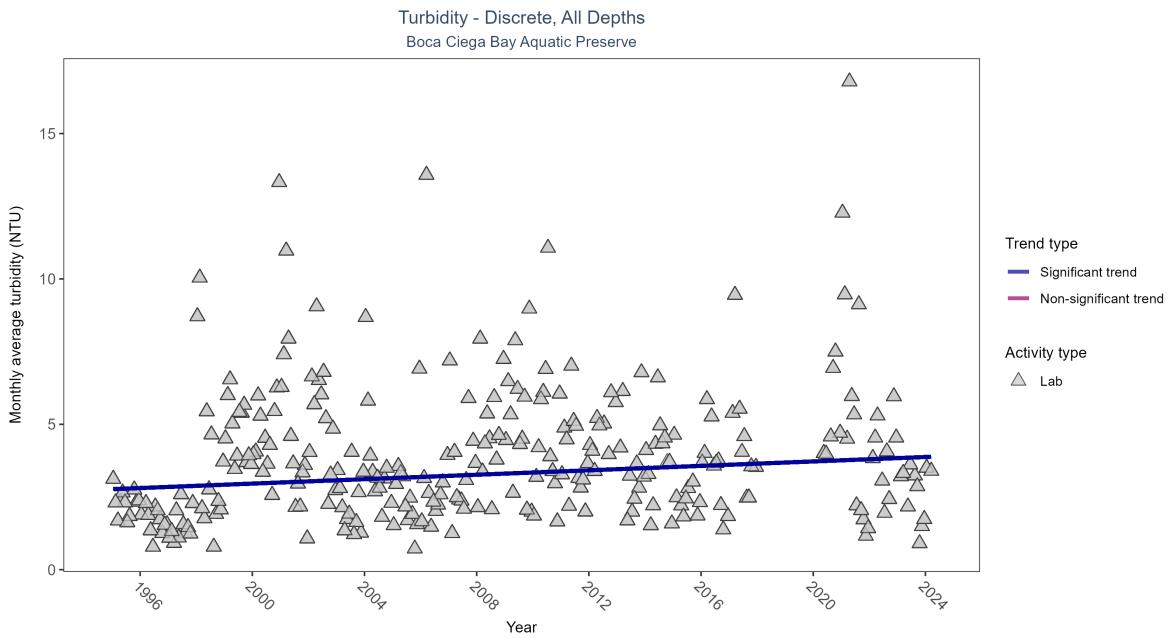
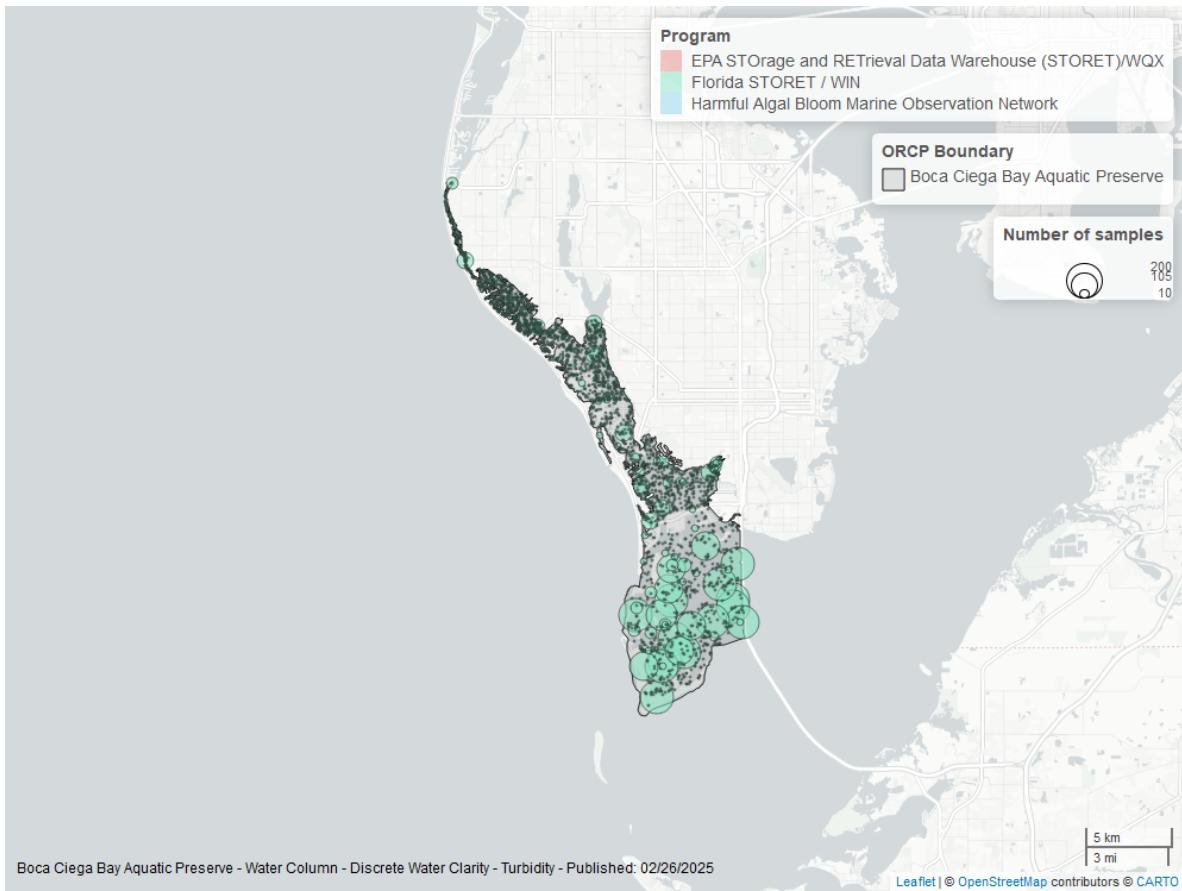


Table 8: Seasonal Kendall-Tau Results for - Turbidity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly increasing trend	6946	28	1995 - 2024	2.6	0.12386	2.76978	0.03813	0.00254198824401914627



Total Suspended Solids - Discrete

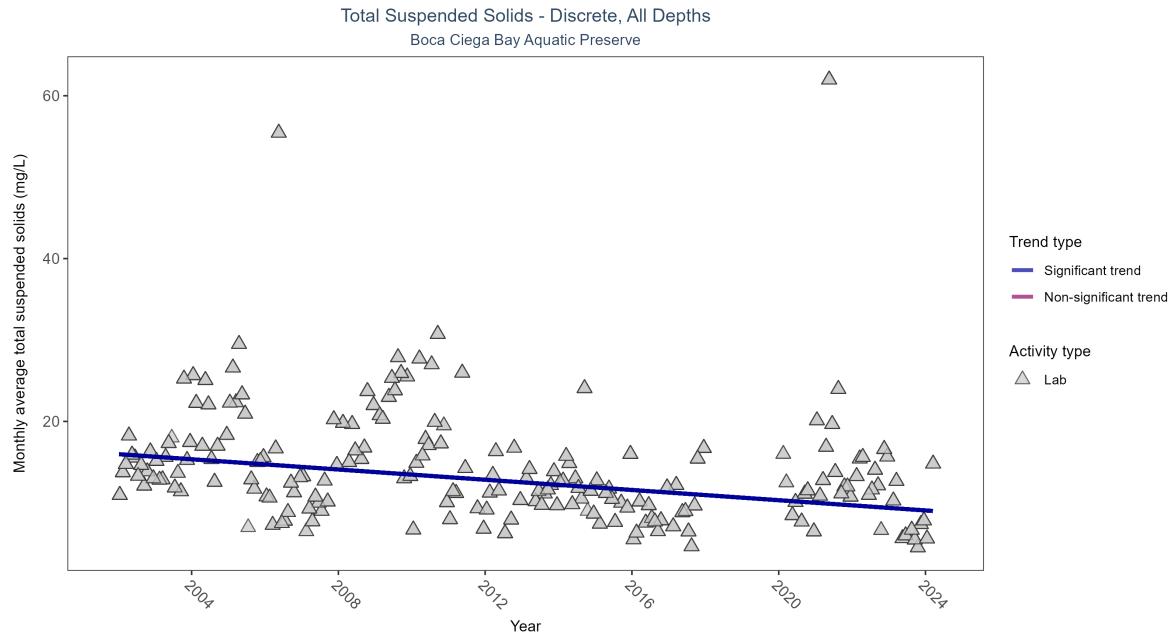
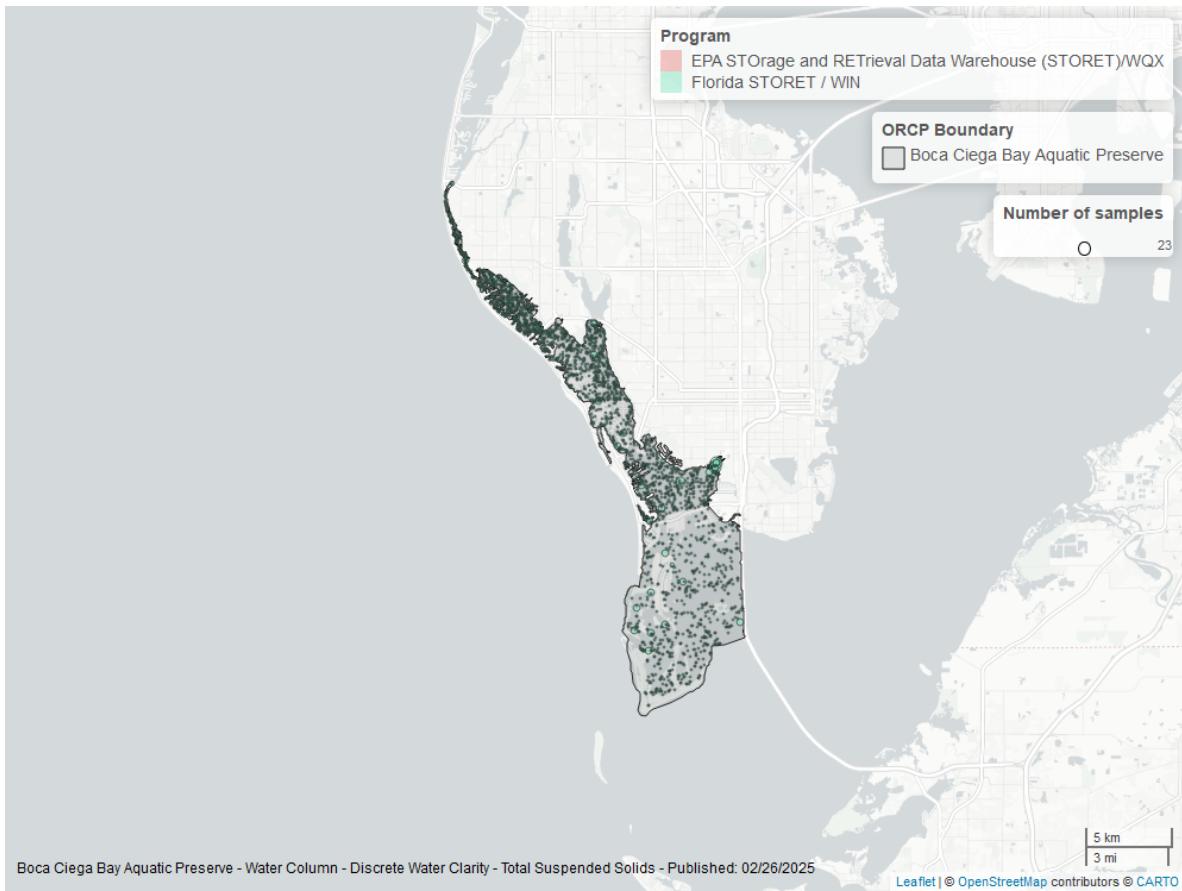


Table 9: Seasonal Kendall-Tau Results for - Total Suspended Solids

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	2663	21	2002 - 2024	12	-0.29164	15.98036	-0.31429	0.000000023016743423625609557114230



Chlorophyll a, Uncorrected for Pheophytin - Discrete

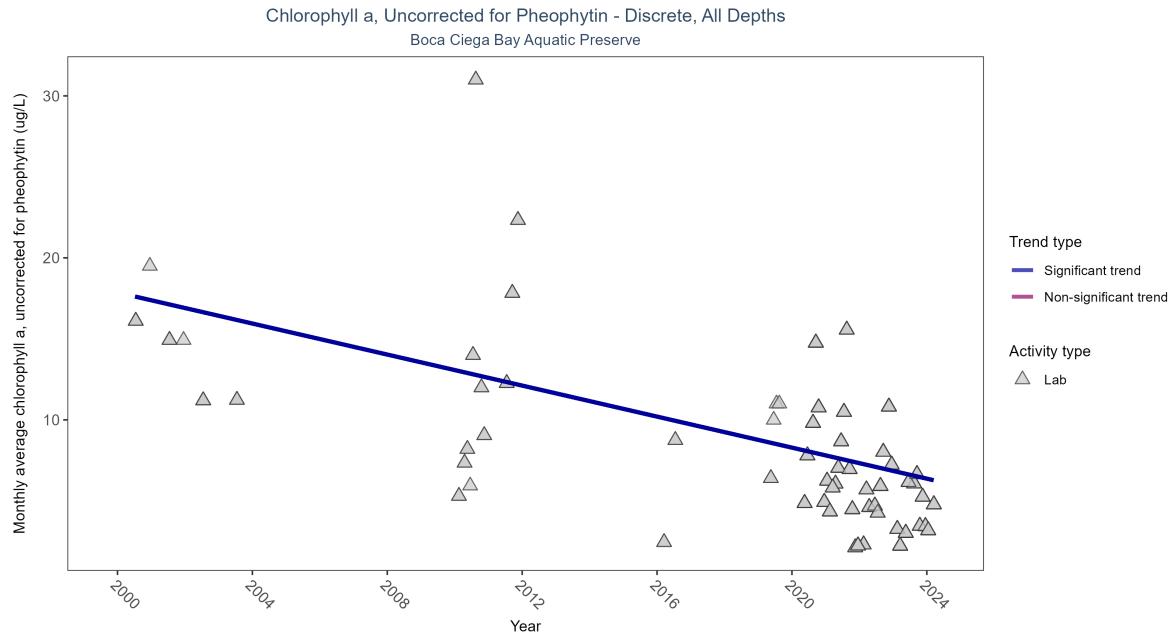
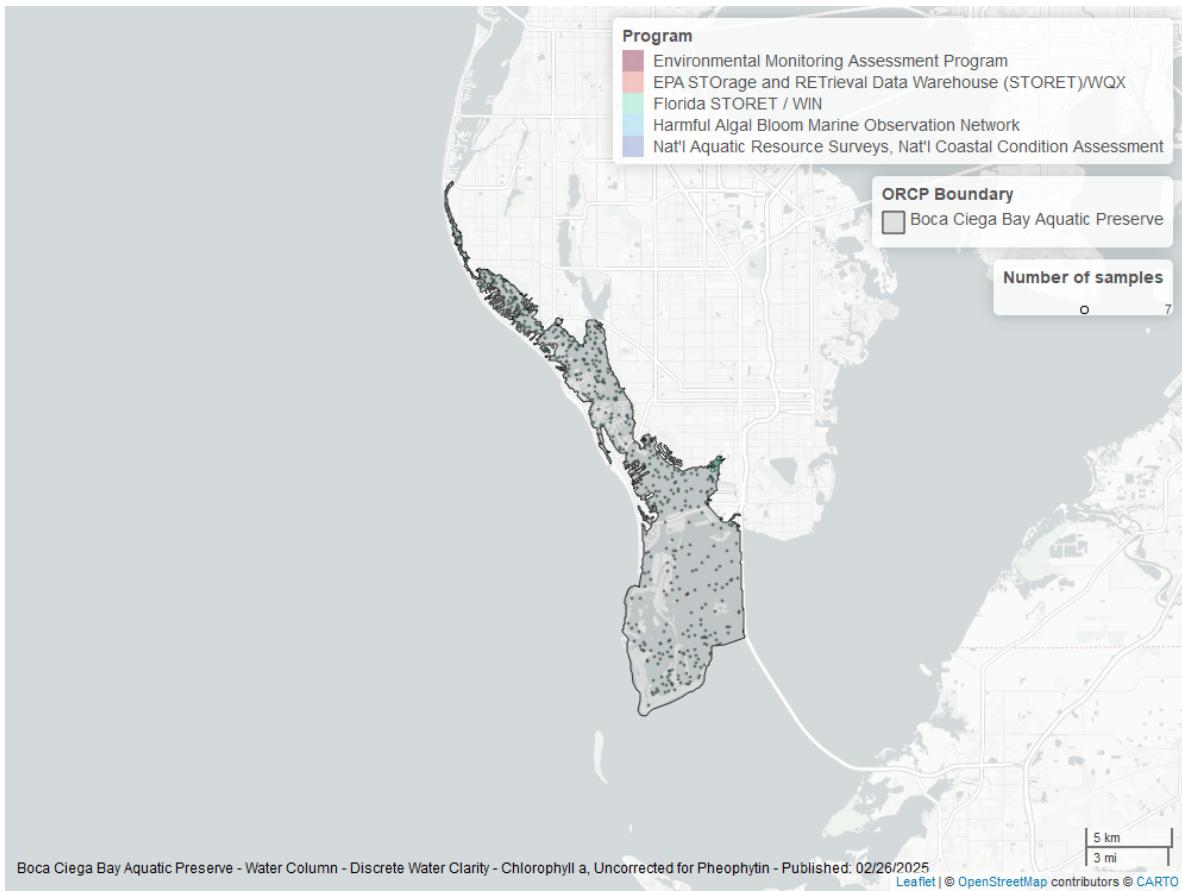


Table 10: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	576	13	2000 - 2024	5.1	-0.58944	17.8627	-0.47883	0.00000156546771494562405604



Chlorophyll a, Corrected for Pheophytin - Discrete

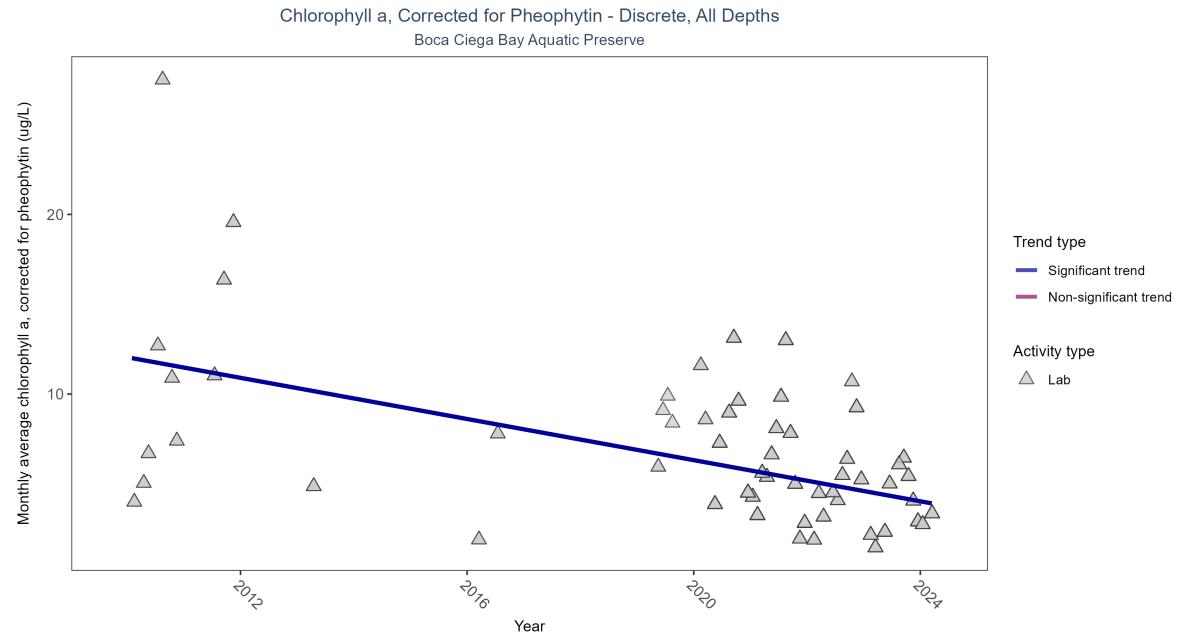
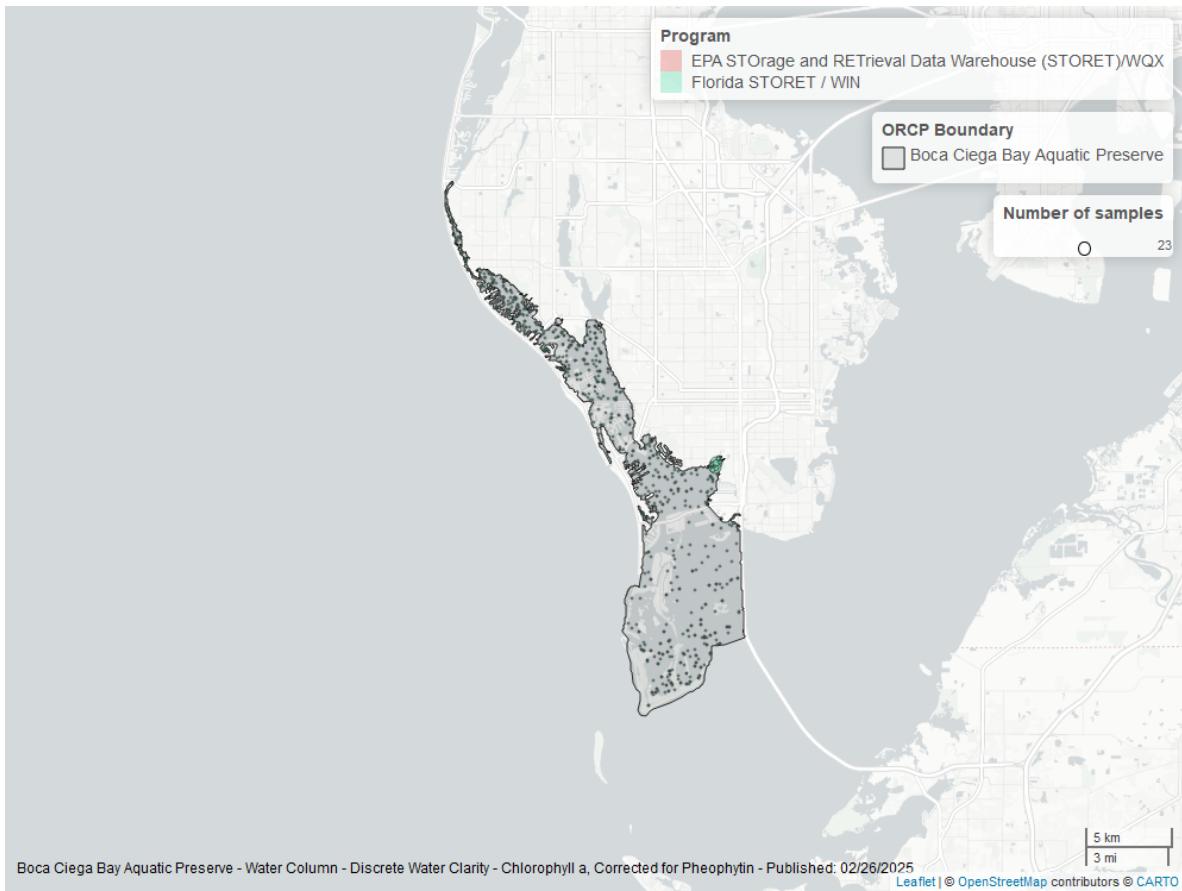


Table 11: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

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	744	10	2010 - 2024	4.4	-0.49195	12.04944	-0.57273	0.0000640595653029282113312404



Secchi Depth - Discrete

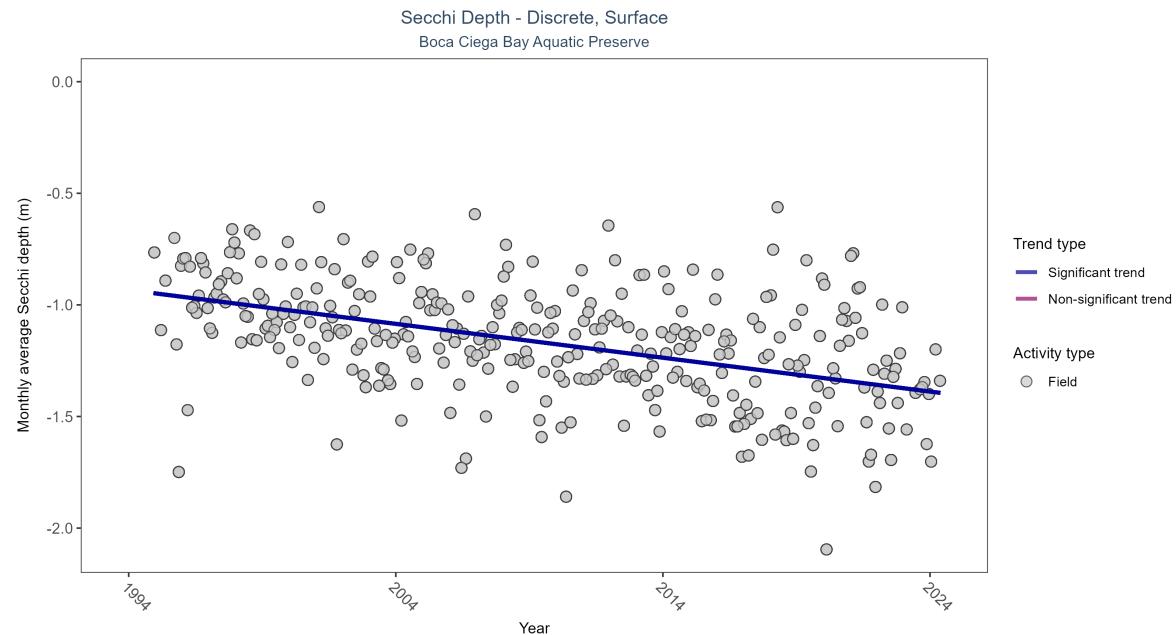


Table 12: Seasonal Kendall-Tau Results for - Secchi Depth

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	9727	31	1994 - 2024	-1.1	-0.33848	-0.93333	-0.01517	0.000000000000000016787373245488

