

Pine Island Sound Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 06 March, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

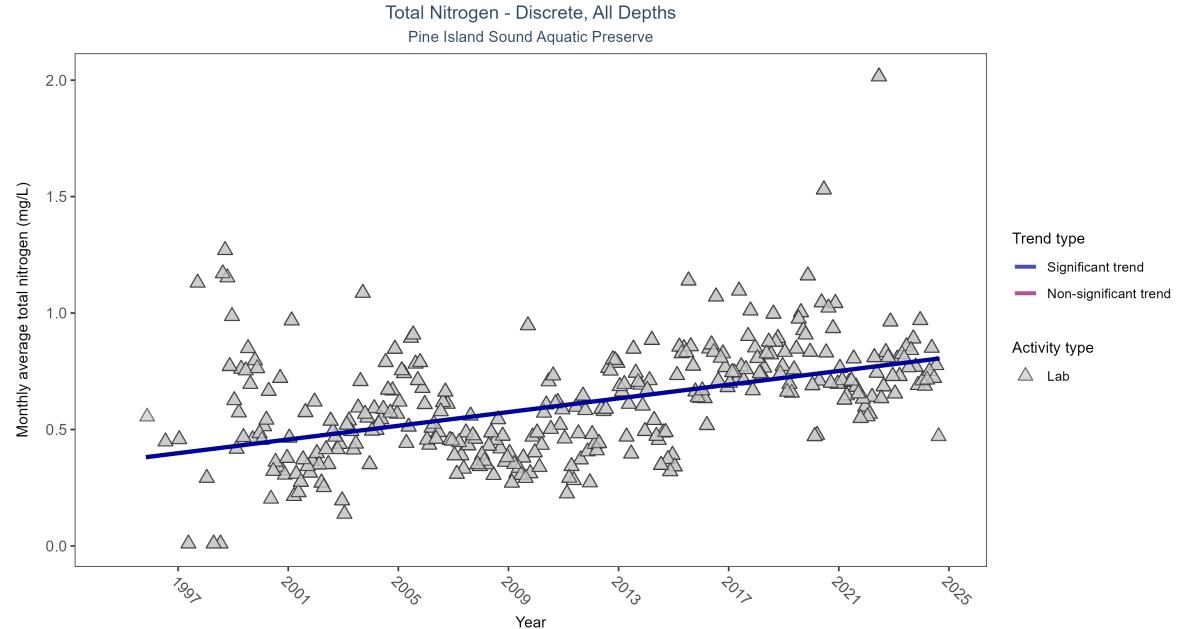
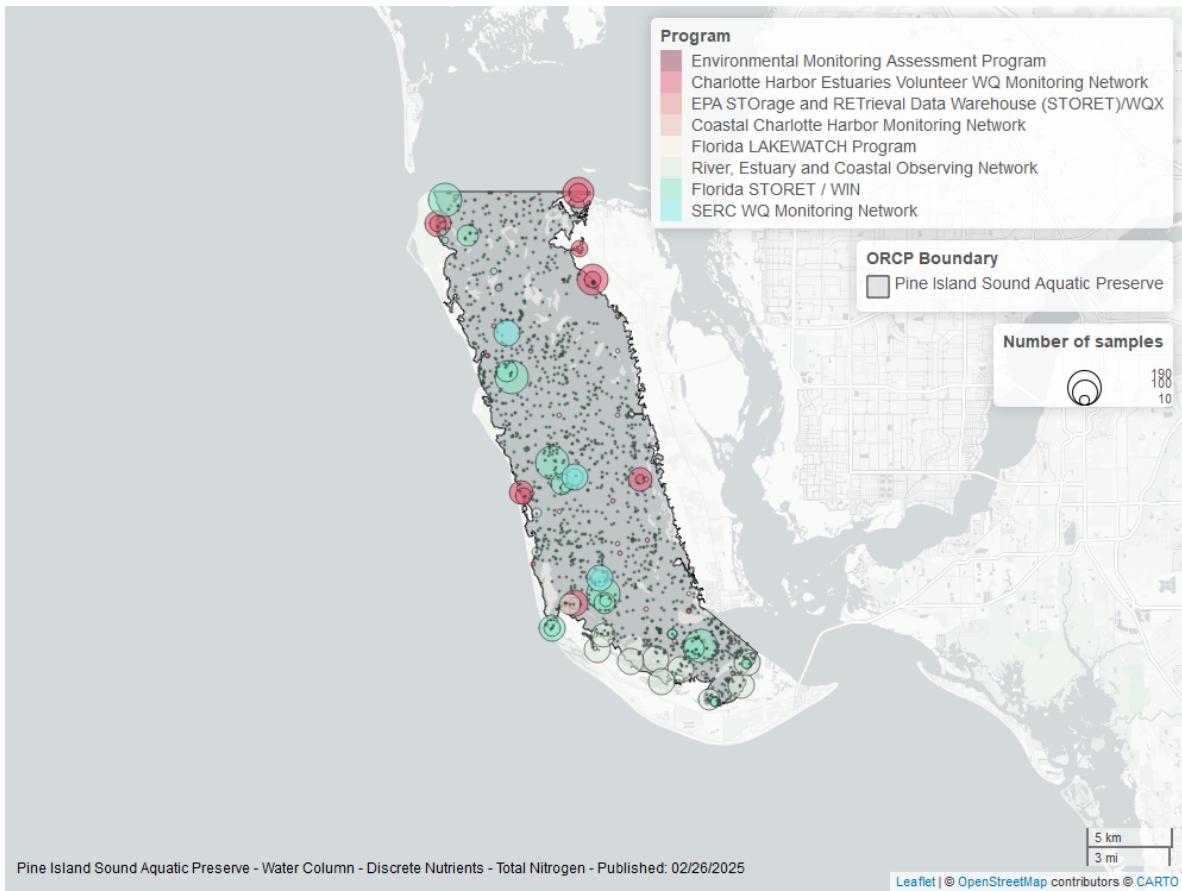


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly increasing trend	5940	30	1995 - 2024	0.604	0.3375	0.36889	0.01471	0.0000



Total Phosphorus - Discrete

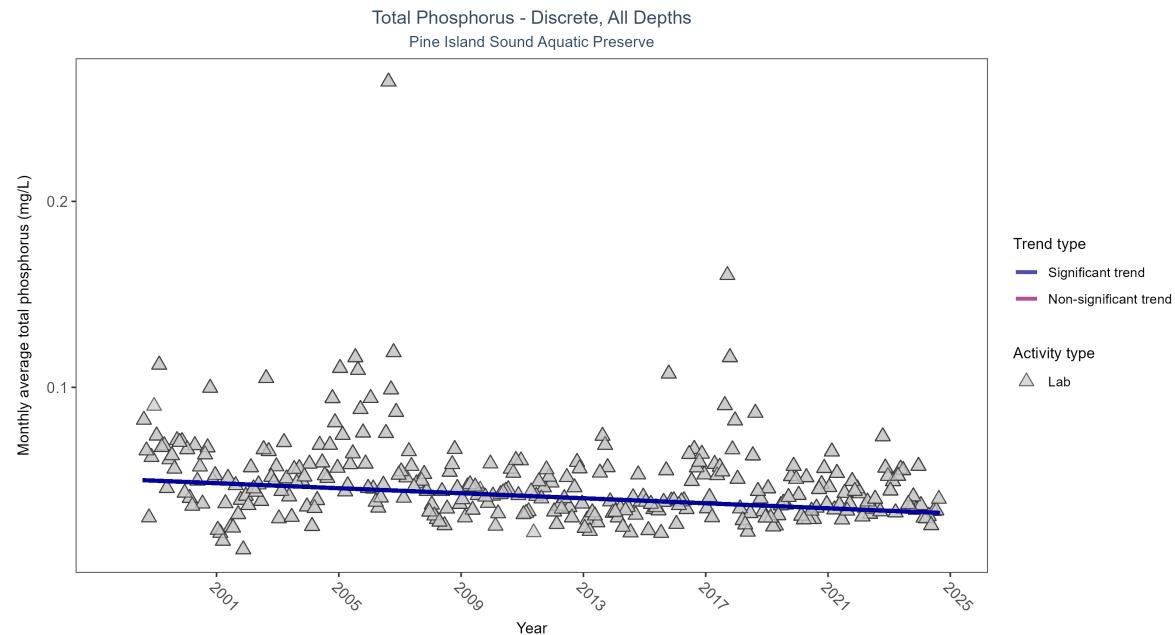
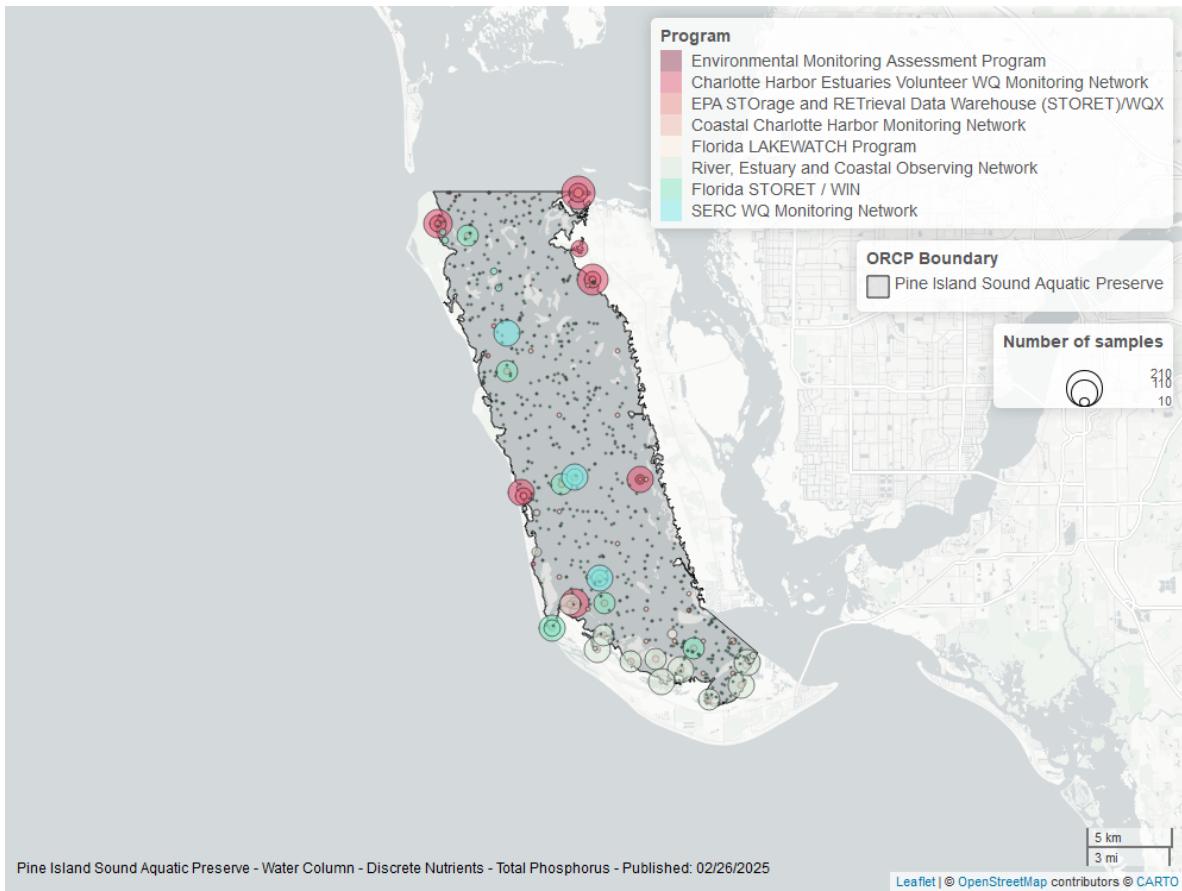


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

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	4315	27	1998 - 2024	0.038	-0.2214	0.05048	-0.00067	0.0000



Water Quality

Dissolved Oxygen - Discrete

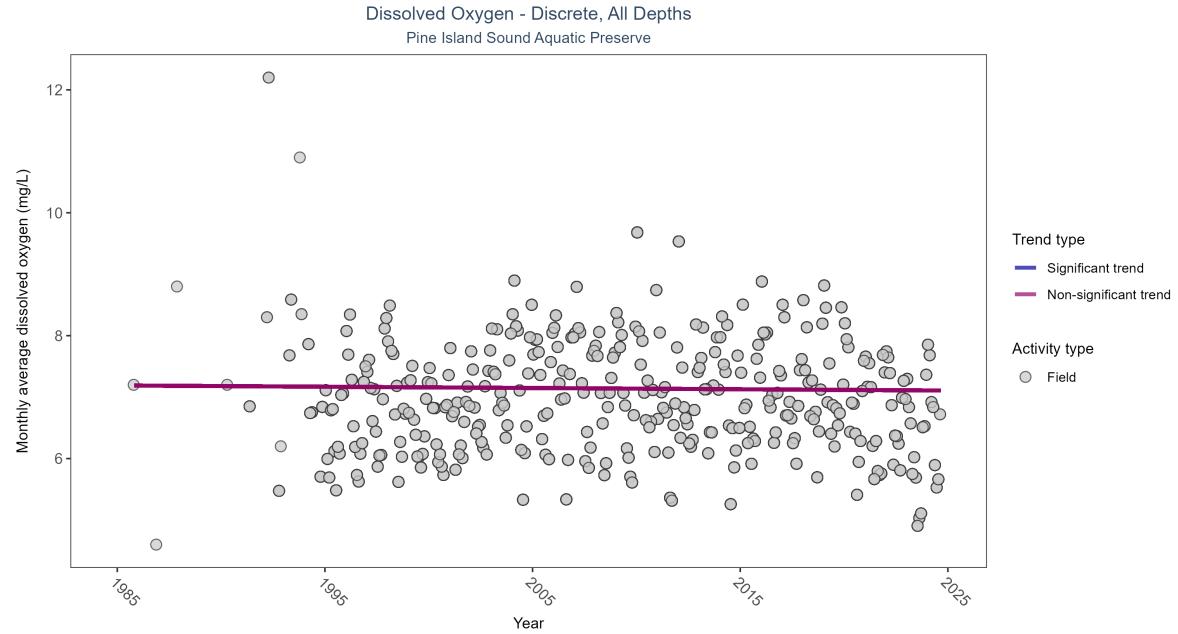
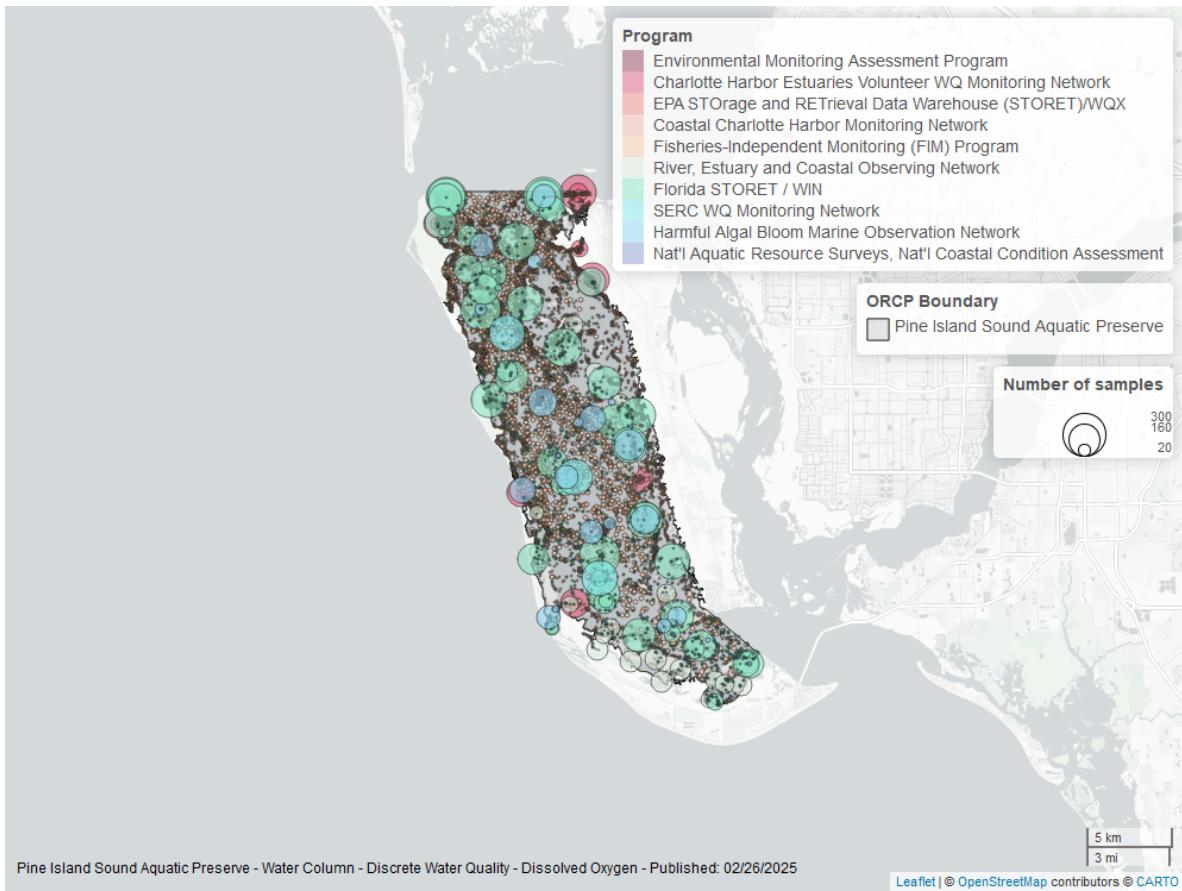


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

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	34660	38	1985 - 2024	6.9	-0.0184	7.18991	-0.00208	0.5997



Dissolved Oxygen - Continuous

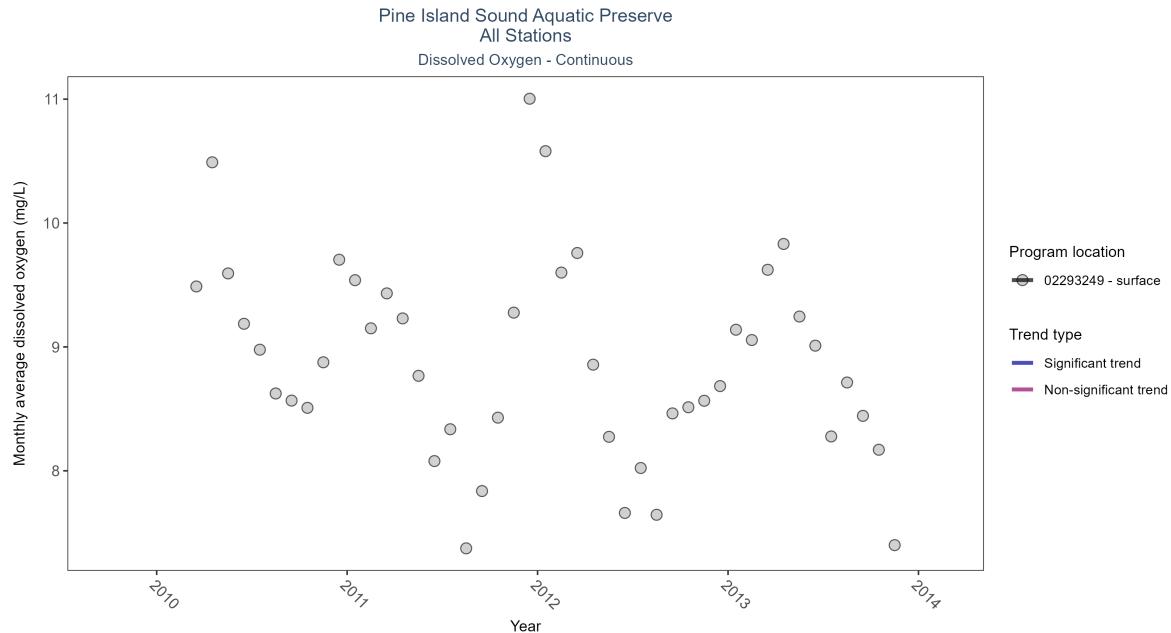
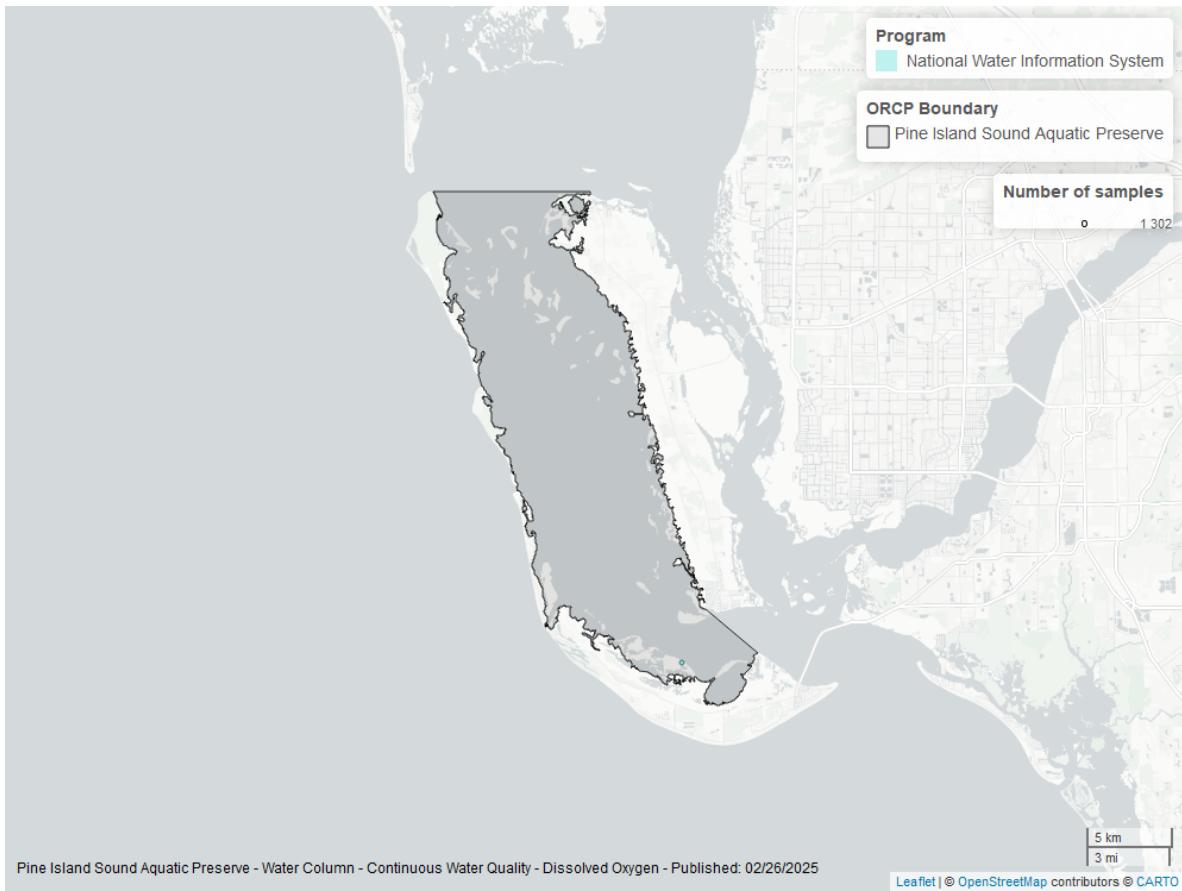


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
02293249	Insufficient data to calculate trend	1302	4	2010 - 2013	8.8	-	-	-	NA



Dissolved Oxygen Saturation - Discrete

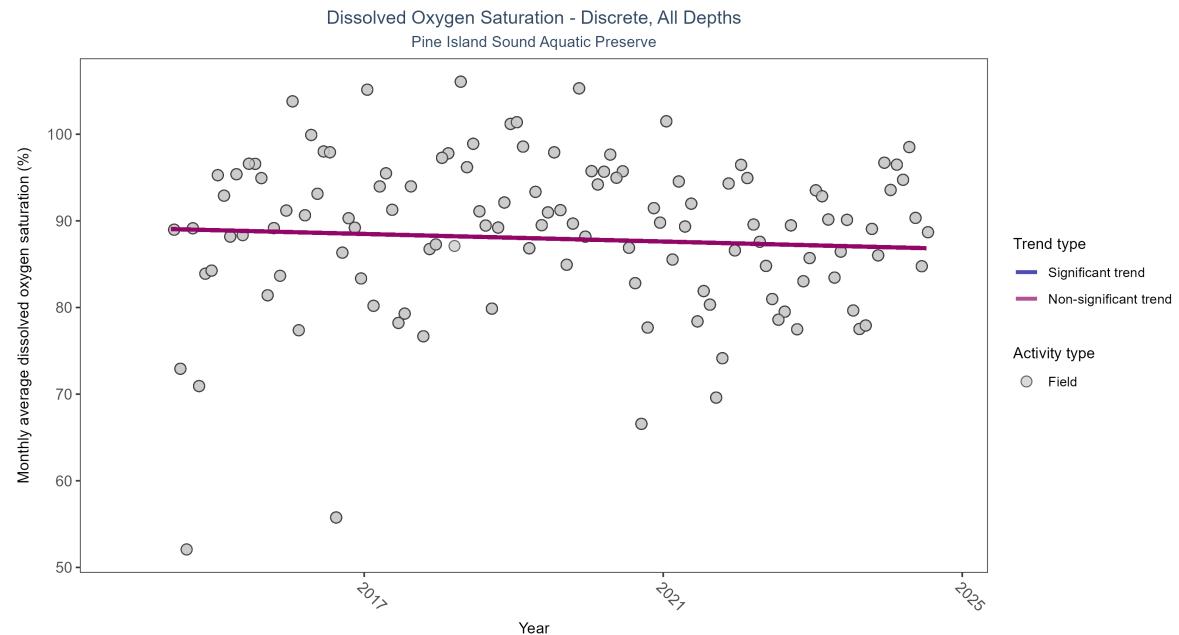
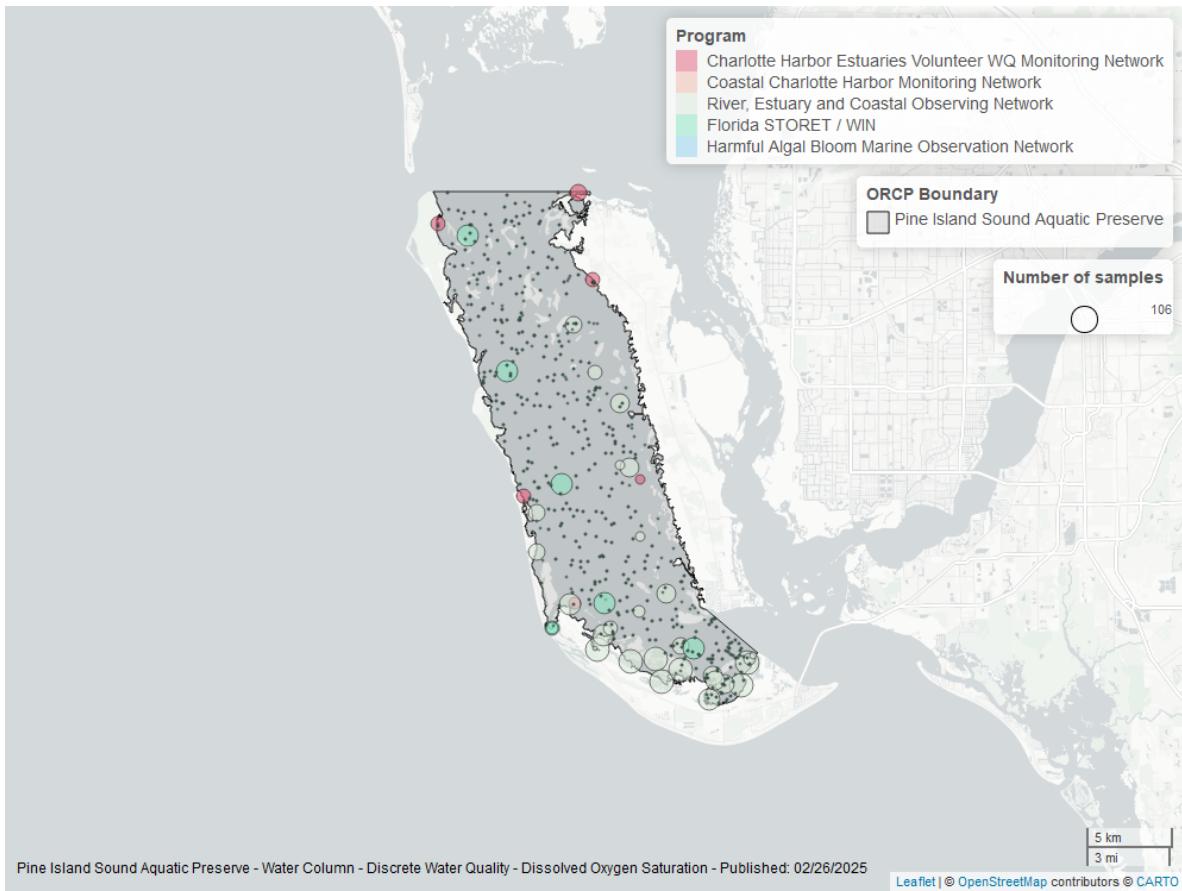


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	No significant trend	3158	11	2014 - 2024	90.8	-0.0816	89.14203	-0.21836	0.2633



Salinity - Discrete

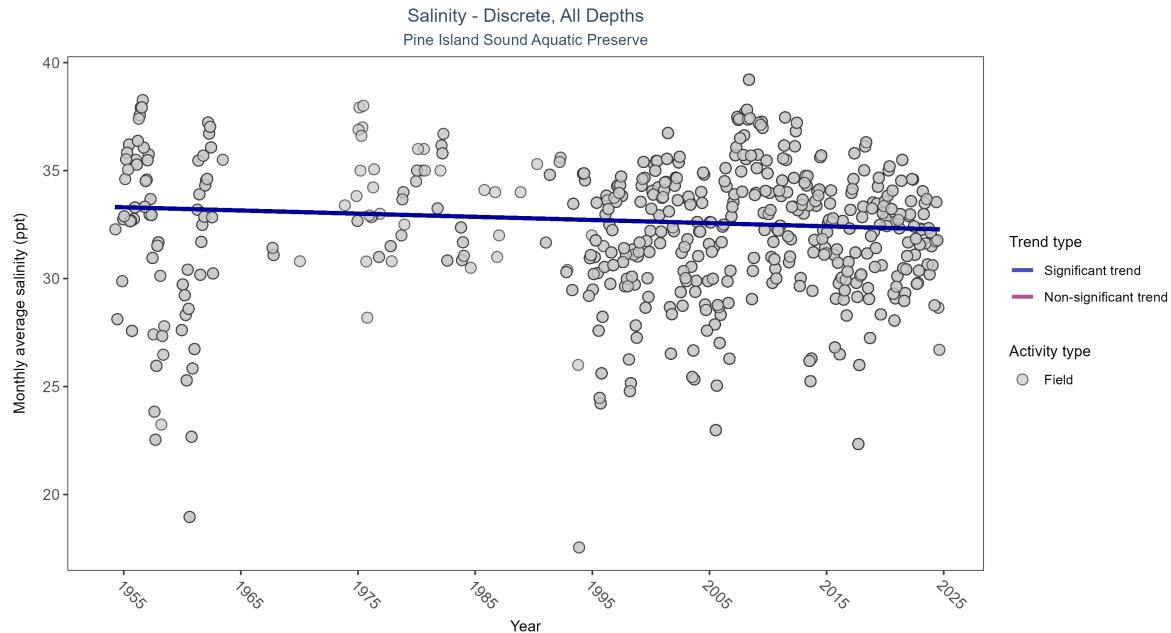
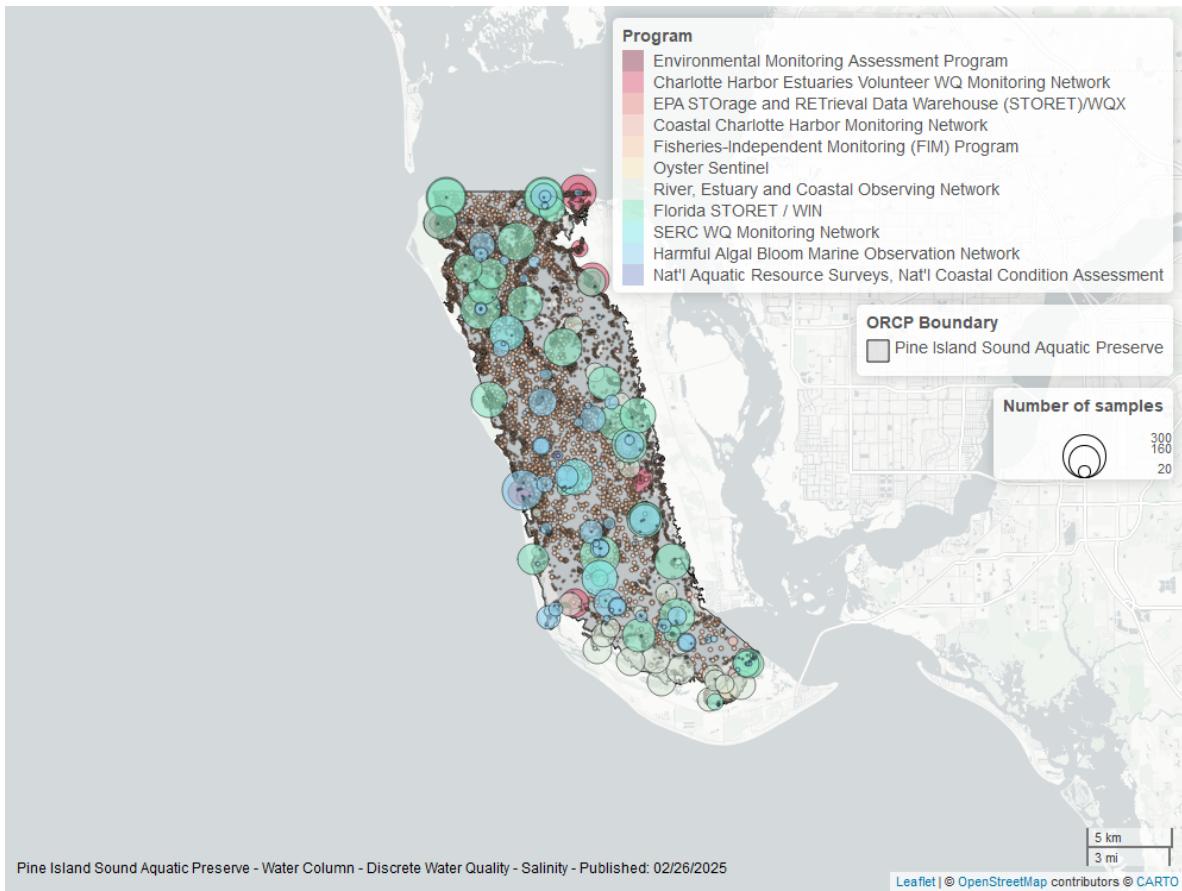


Table 6: Seasonal Kendall-Tau Results for - Salinity

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	33533	63	1954 - 2024	32.8	-0.0797	33.31392	-0.01467	0.0116



Salinity - Continuous

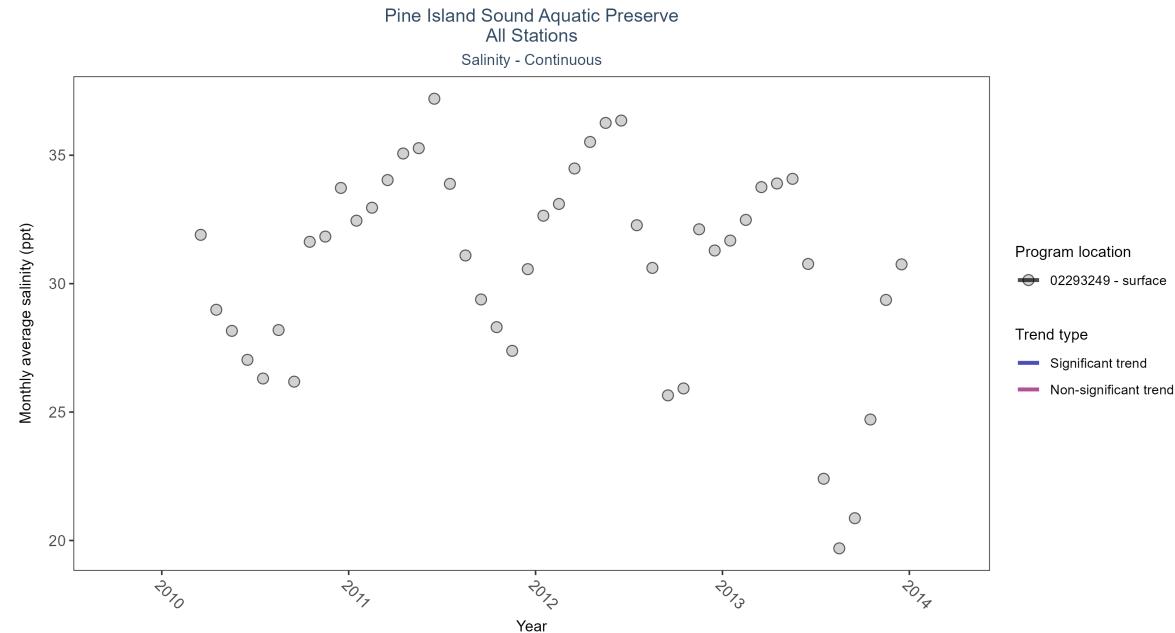
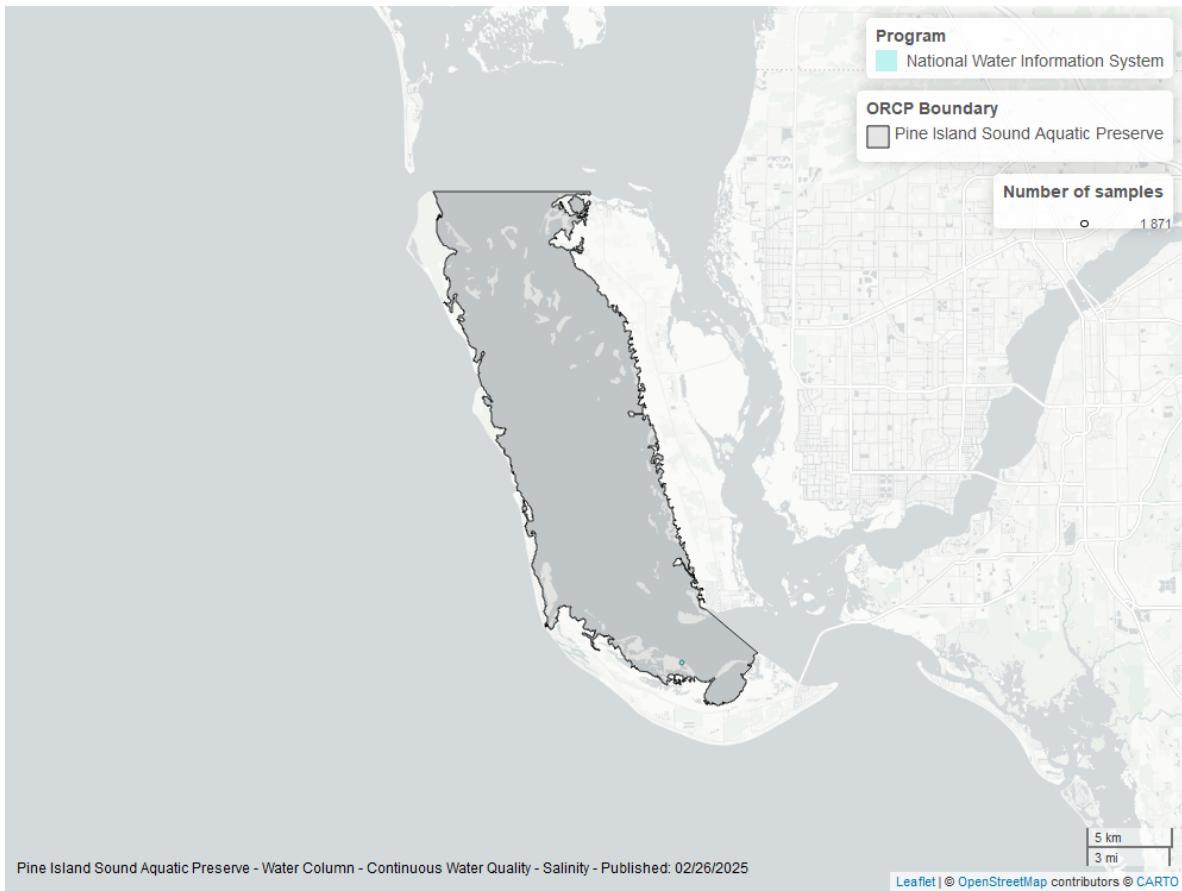


Table 7: Seasonal Kendall-Tau Results for All Stations - Salinity

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
02293249	Insufficient data to calculate trend	1871	4	2010 - 2013	32	-	-	-	NA



Water Temperature - Discrete

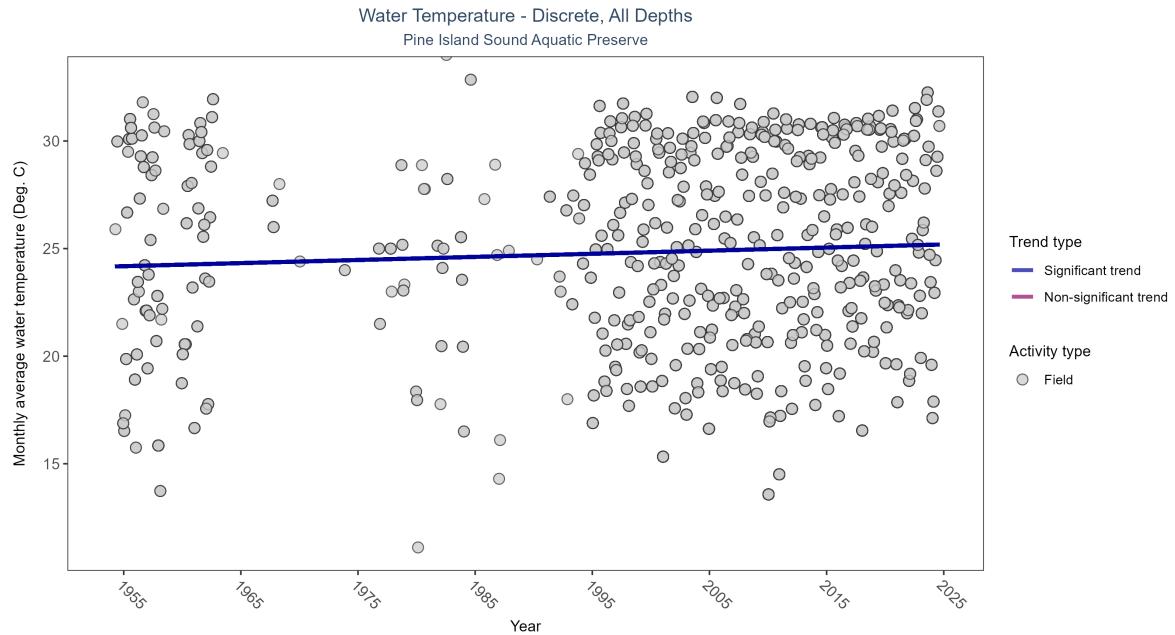
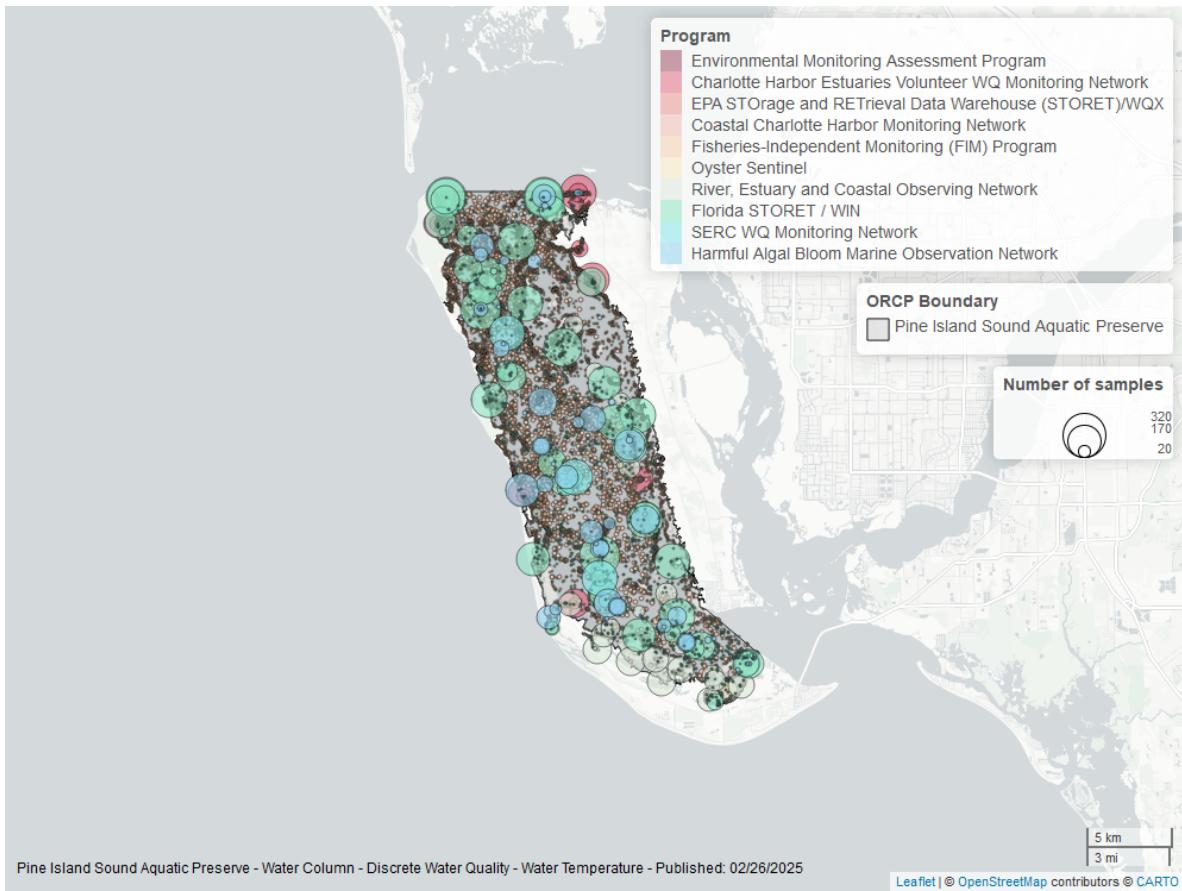


Table 8: Seasonal Kendall-Tau Results for - Water Temperature

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	36771	61	1954 - 2024	26.4	0.1453	24.16609	0.01446	0.0000



Water Temperature - Continuous

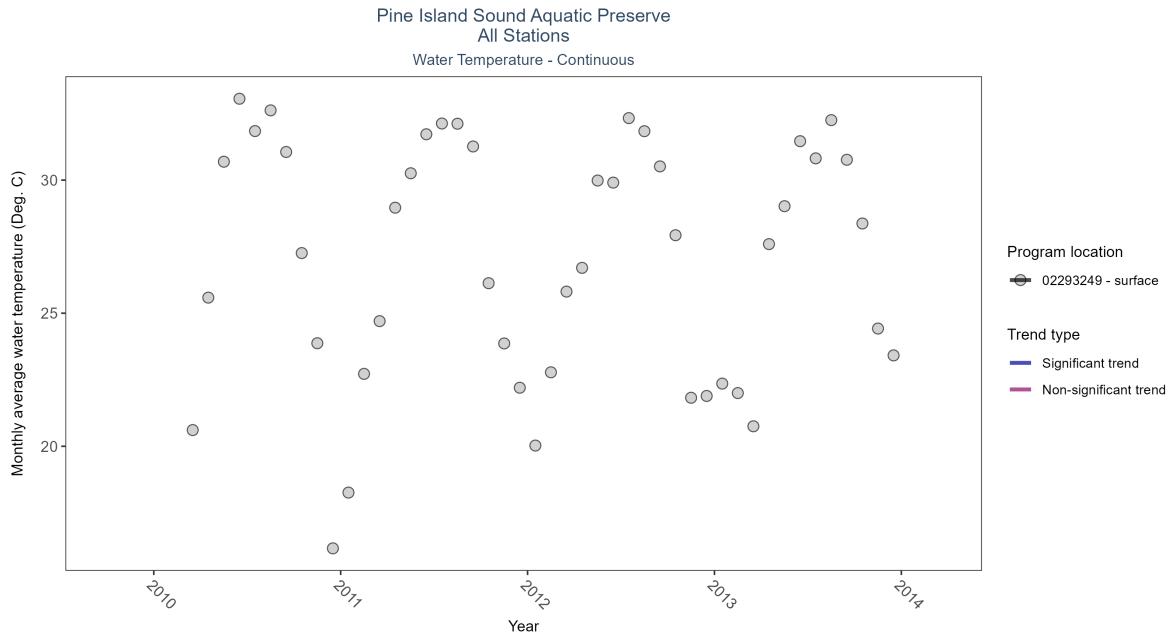
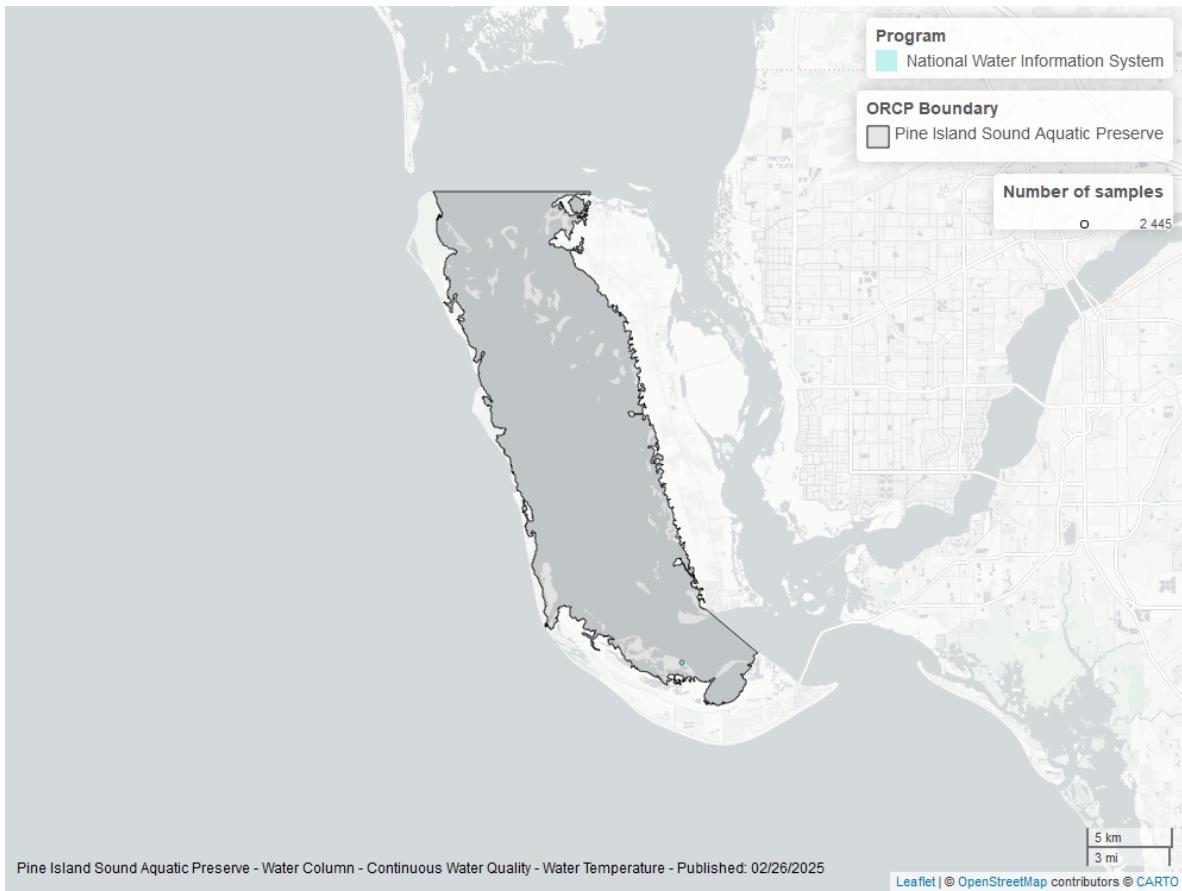


Table 9: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
02293249	Insufficient data to calculate trend	2445	4	2010 - 2013	28.1	-	-	-	NA



pH - Discrete

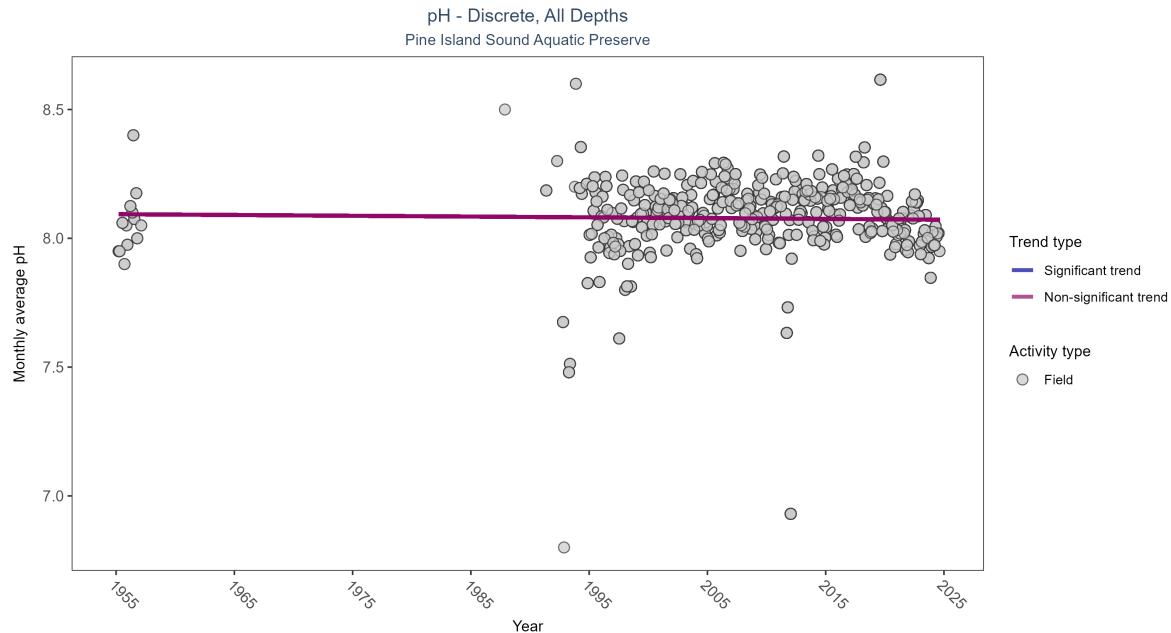
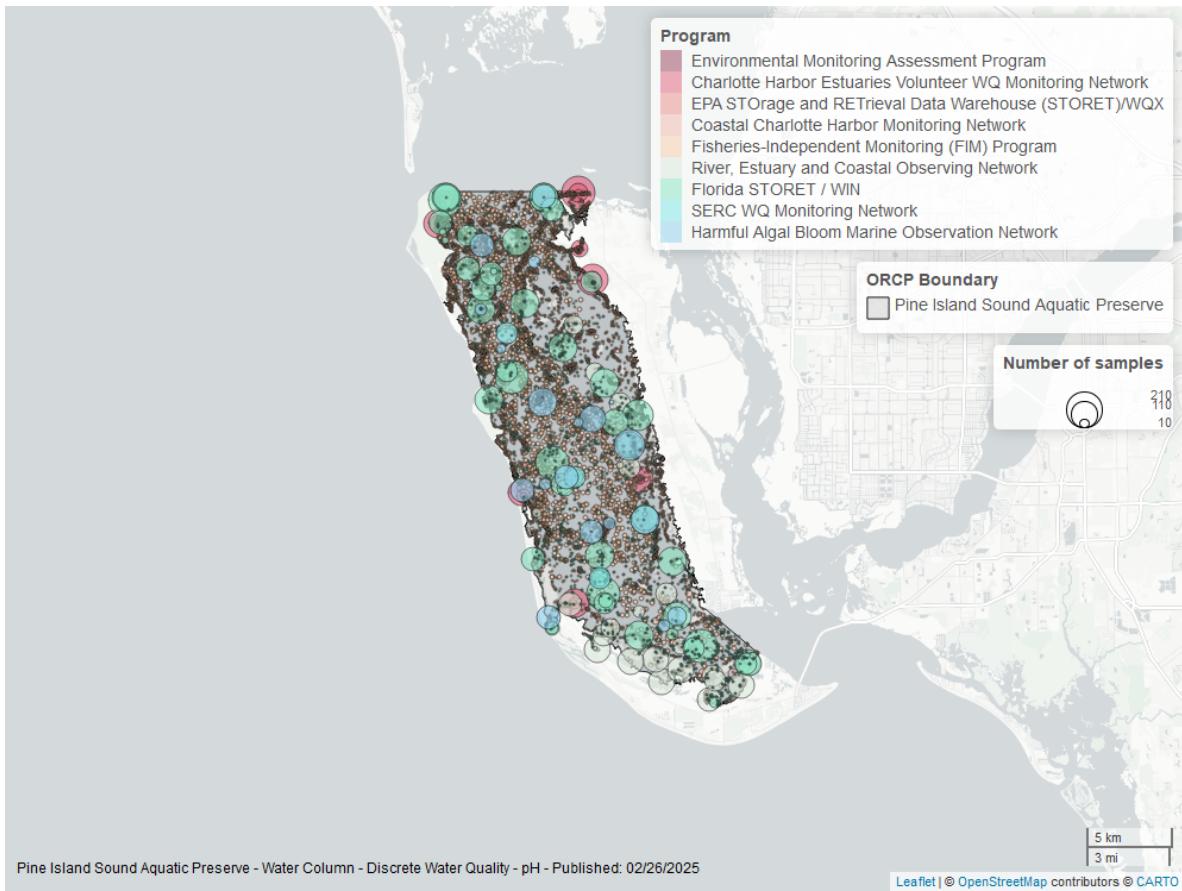


Table 10: Seasonal Kendall-Tau Results for - pH

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	32359	38	1955 - 2024	8.1	-0.0208	8.09353	-0.0003	0.5844



pH - Continuous

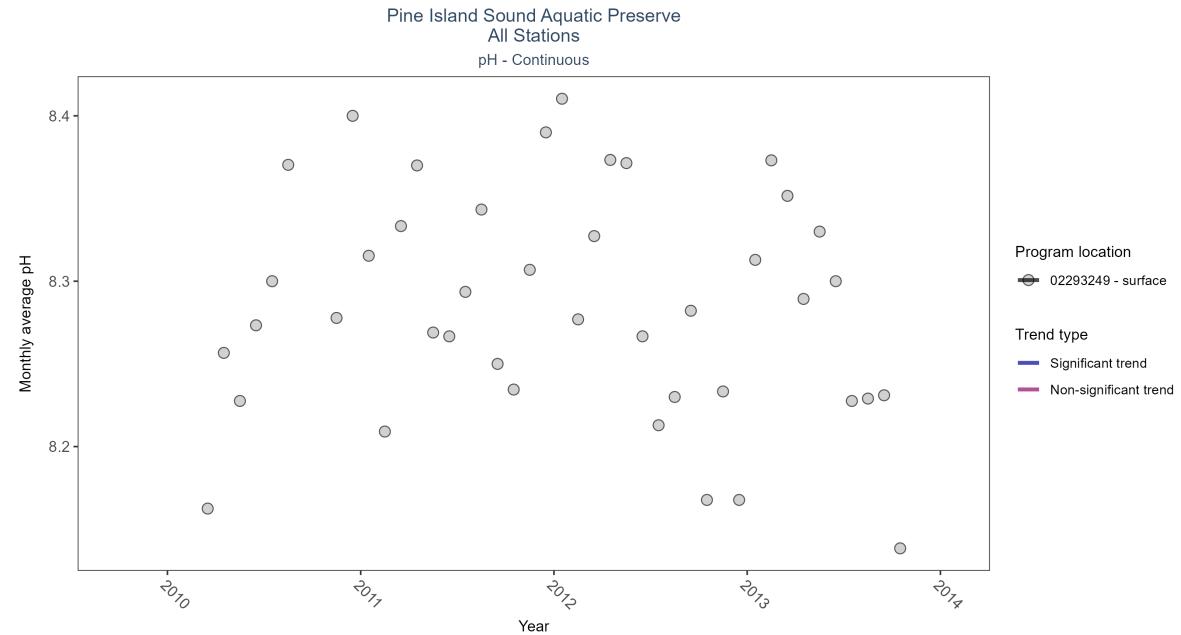
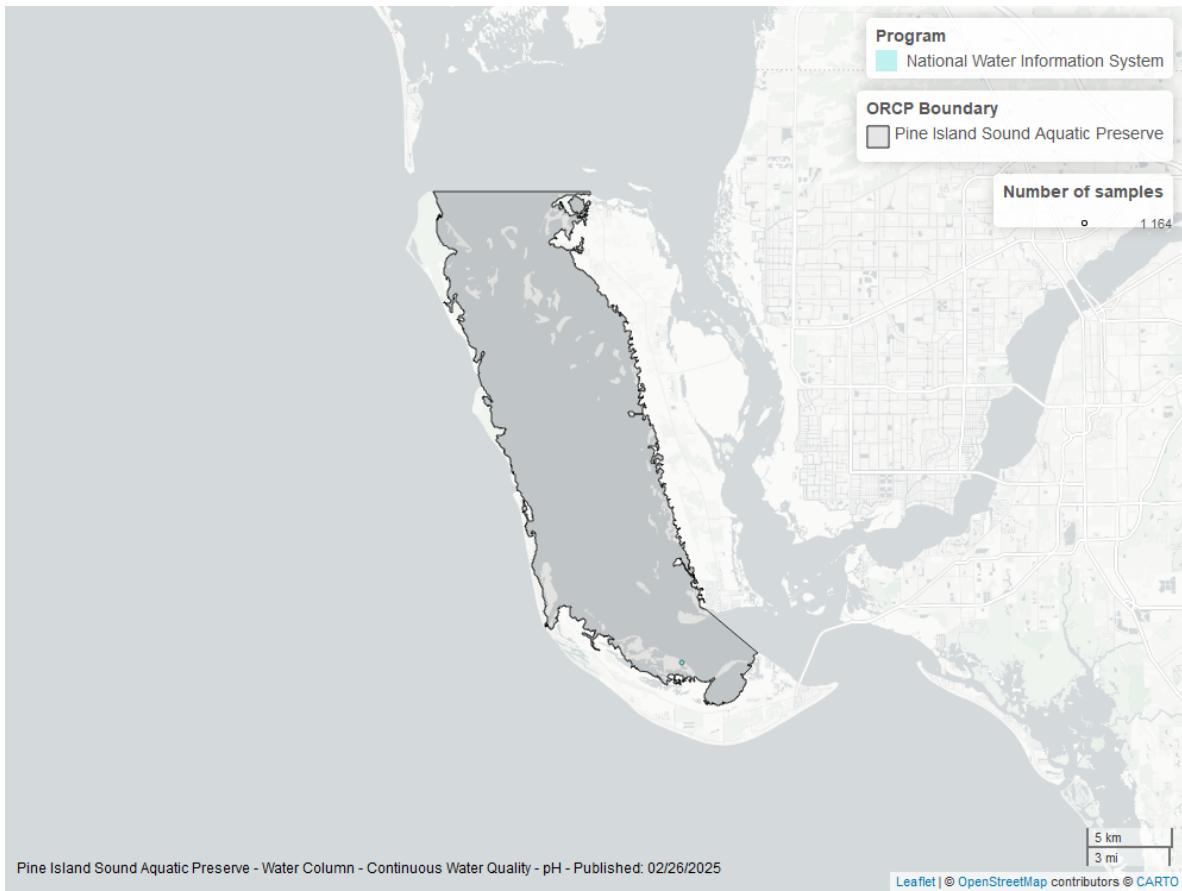


Table 11: Seasonal Kendall-Tau Results for All Stations - pH

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
02293249	Insufficient data to calculate trend	1164	4	2010 - 2013	8.3	-	-	-	NA



Water Clarity

Turbidity - Discrete

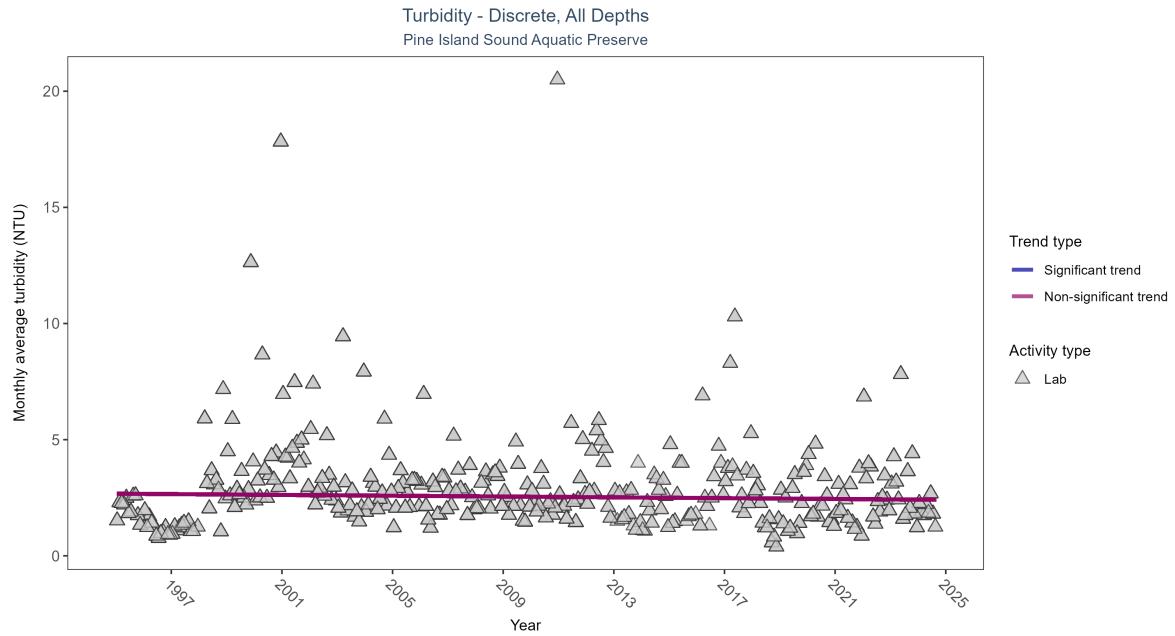
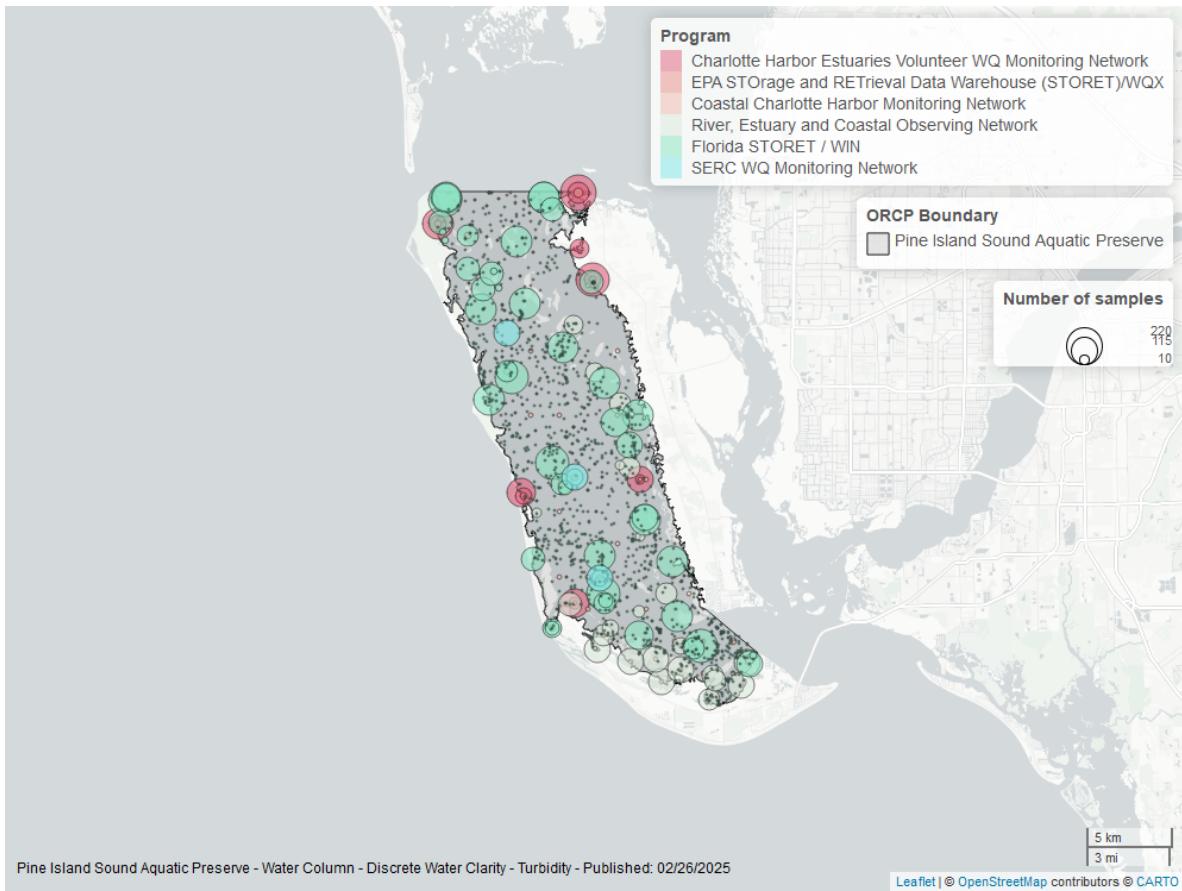


Table 12: Seasonal Kendall-Tau Results for - Turbidity

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	6596	30	1995 - 2024		2	-0.036	2.67376	-0.00873	0.3560



Turbidity - Continuous

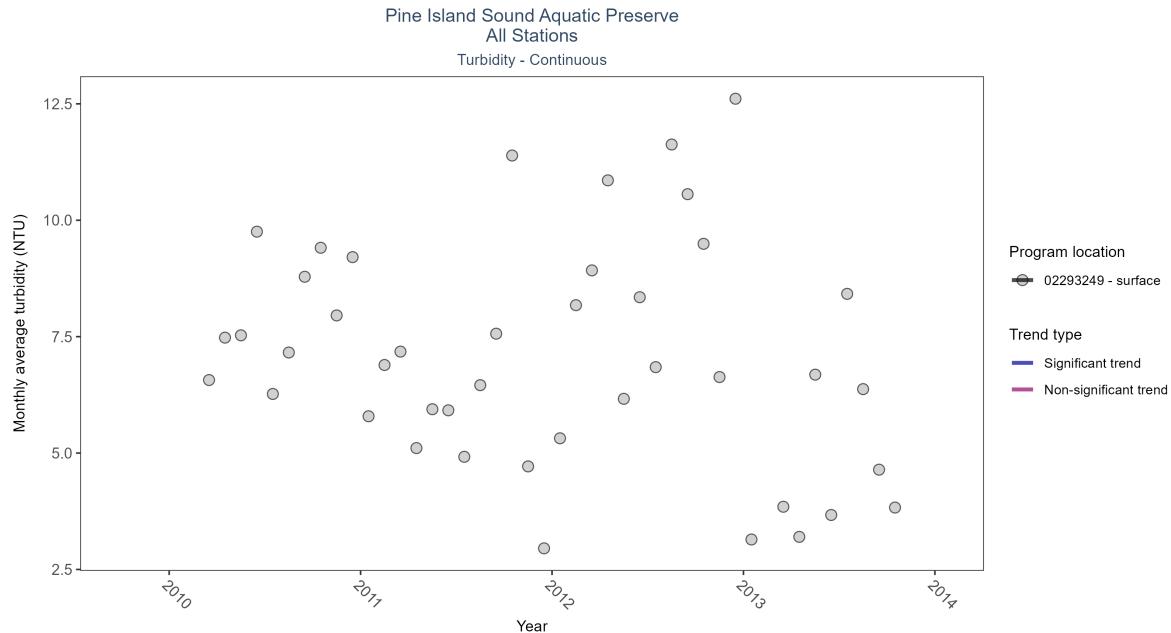
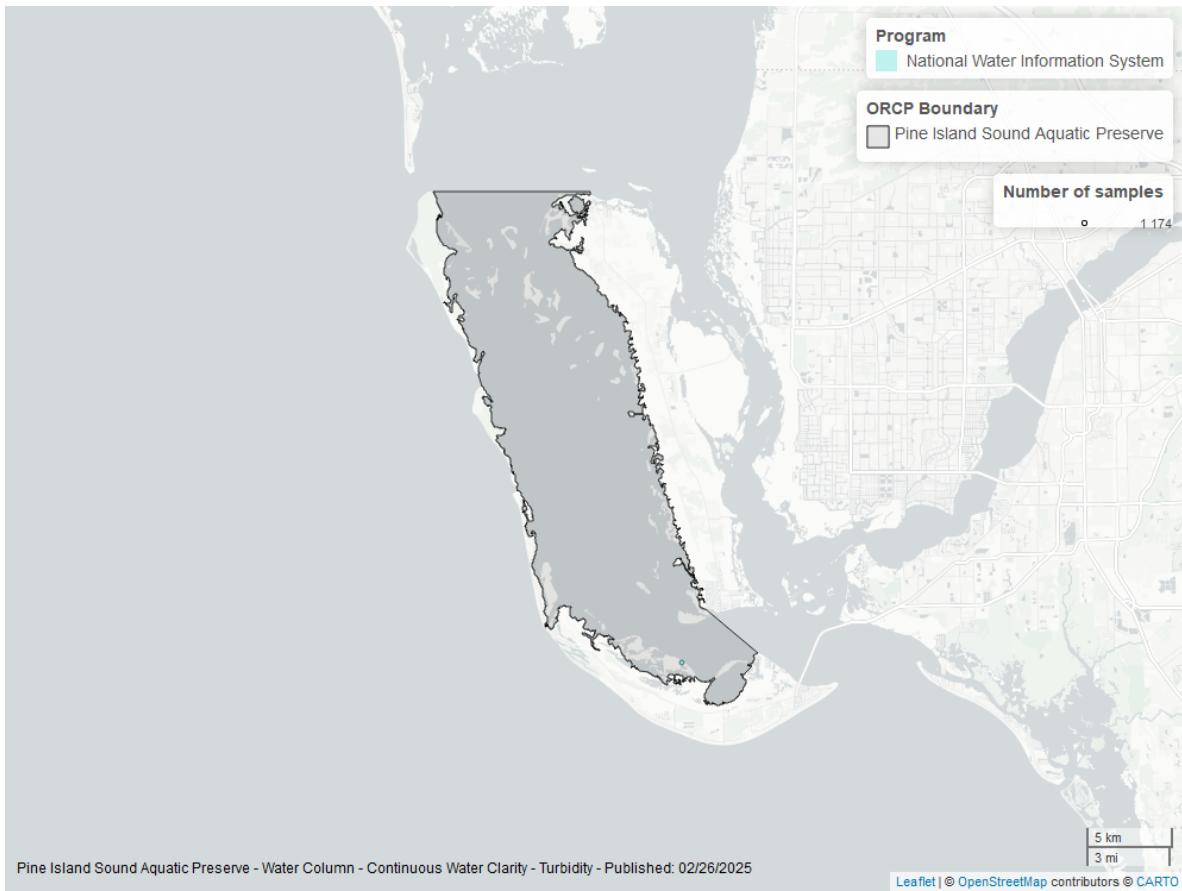


Table 13: Seasonal Kendall-Tau Results for All Stations - Turbidity

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
02293249	Insufficient data to calculate trend	1174	4	2010 - 2013	5.4	-	-	-	NA



Total Suspended Solids - Discrete

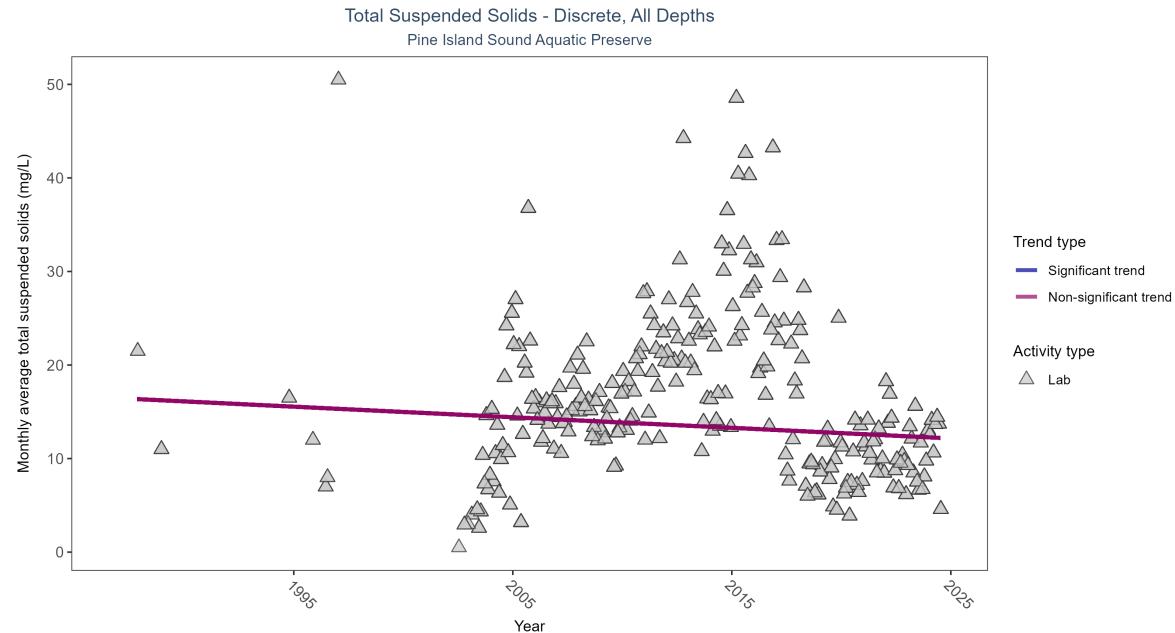
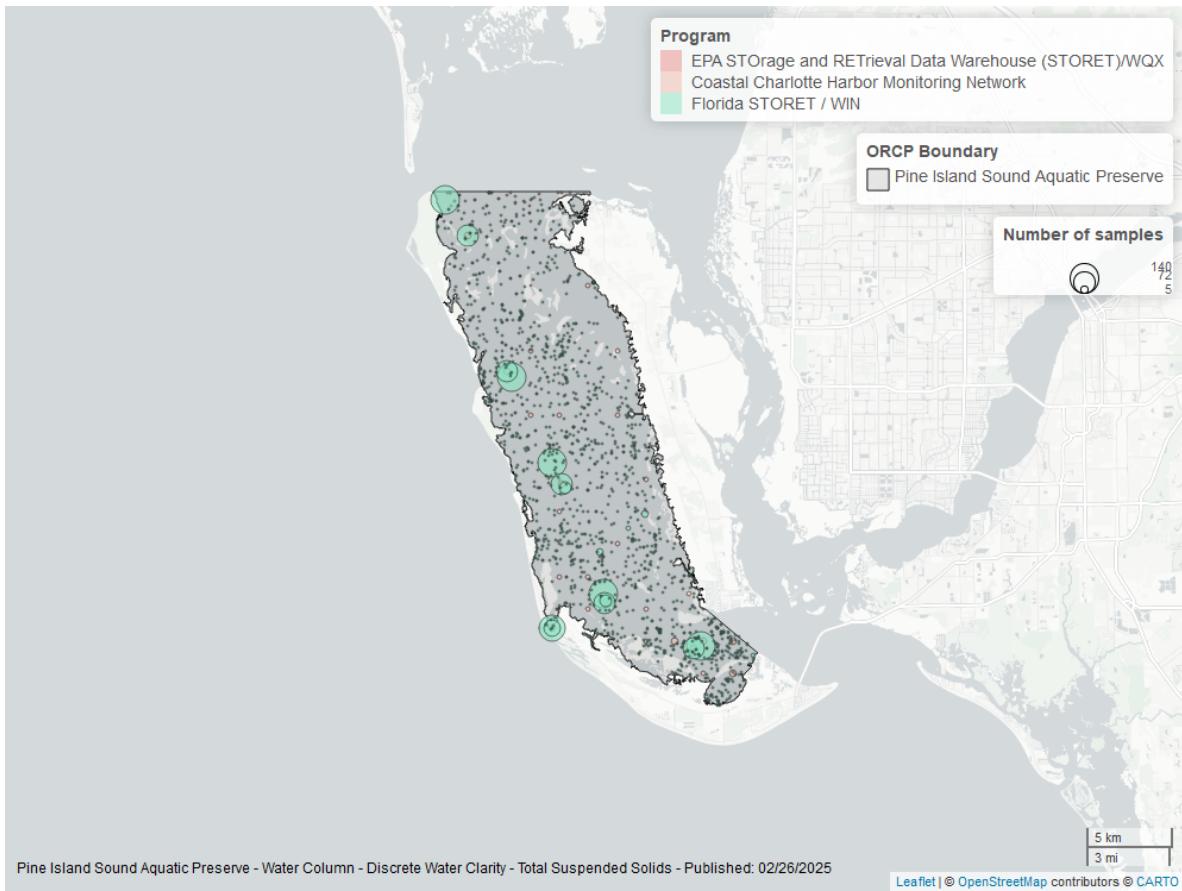


Table 14: Seasonal Kendall-Tau Results for - Total Suspended Solids

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	2781	29	1987 - 2024	12.4	-0.0562	16.45117	-0.11303	0.2224



Chlorophyll a, Uncorrected for Pheophytin - Discrete

Chlorophyll a, Uncorrected for Pheophytin - Discrete, All Depths
Pine Island Sound Aquatic Preserve

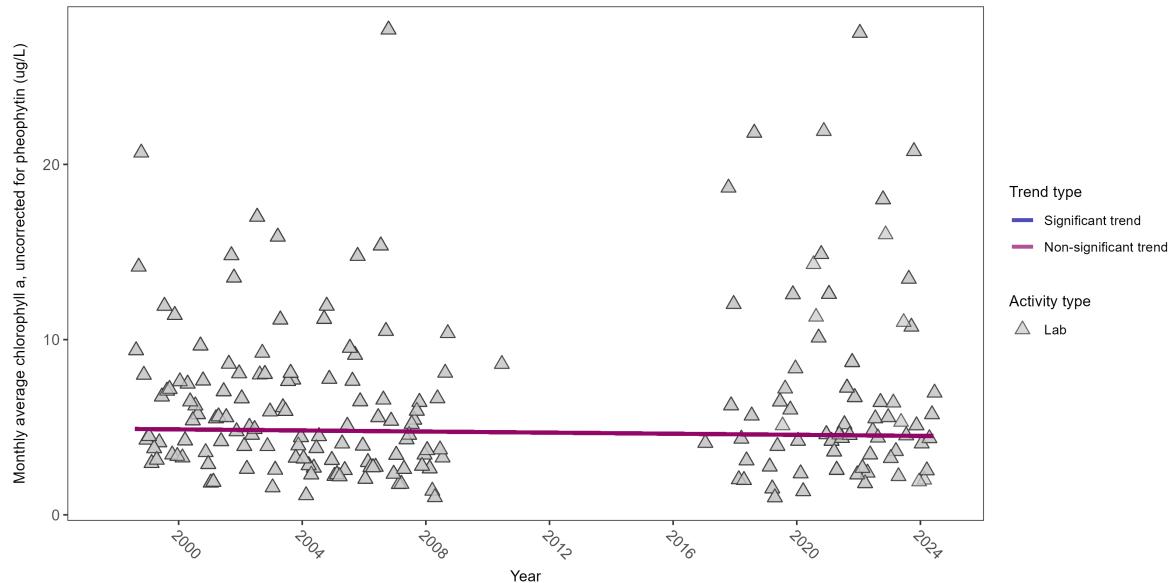
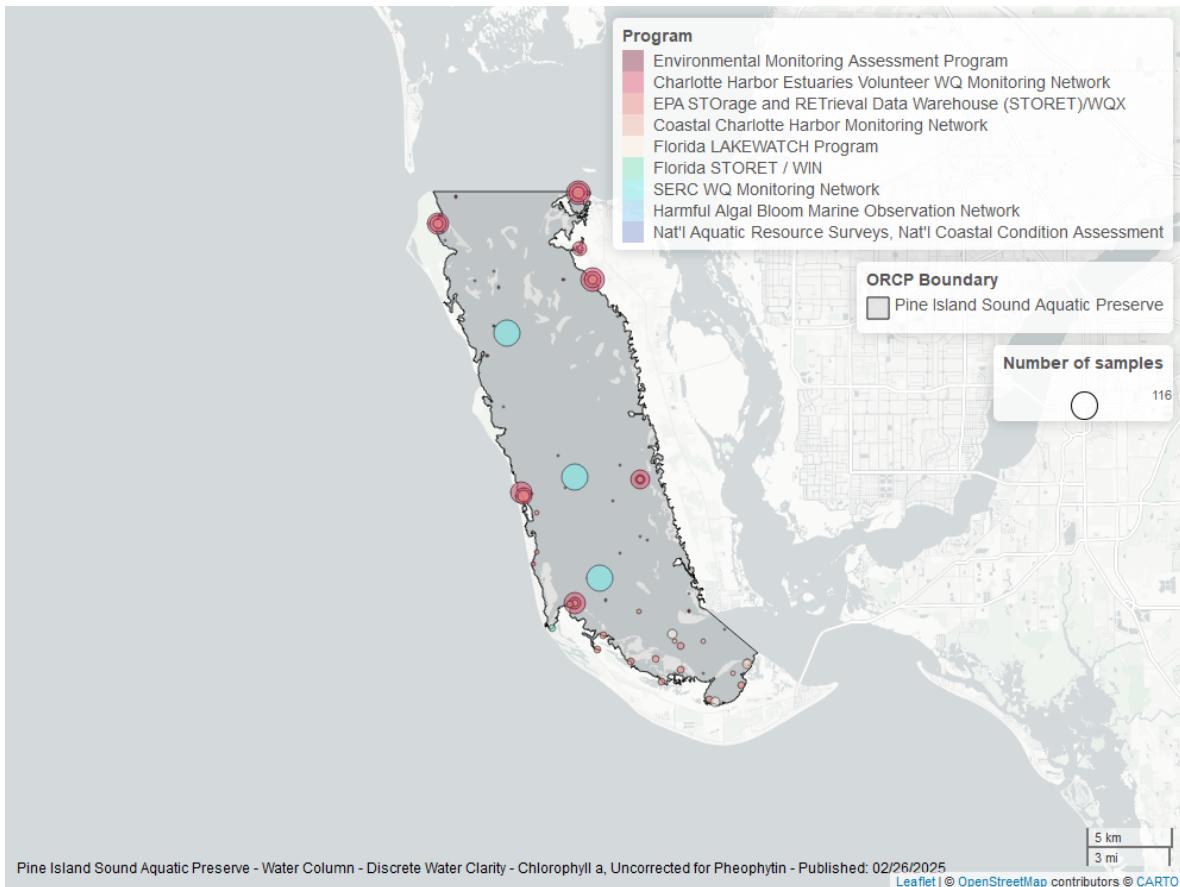


Table 15: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

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	1451	20	1998 - 2024	4.2558	-0.0389	4.90752	-0.01551	0.4707



Chlorophyll a, Corrected for Pheophytin - Discrete

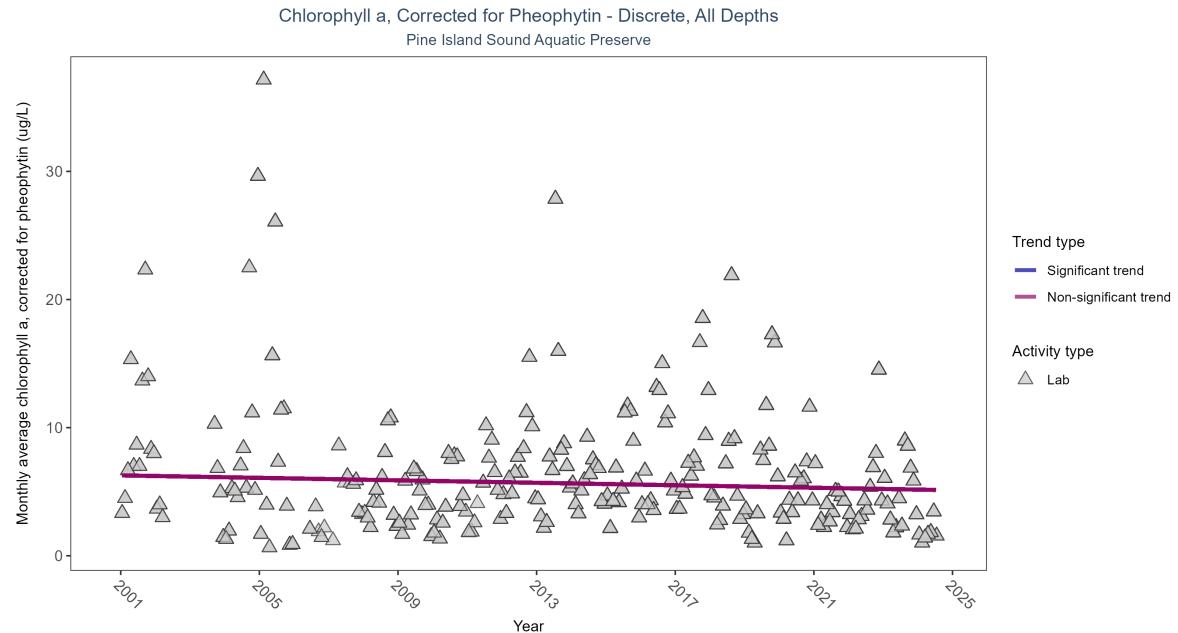
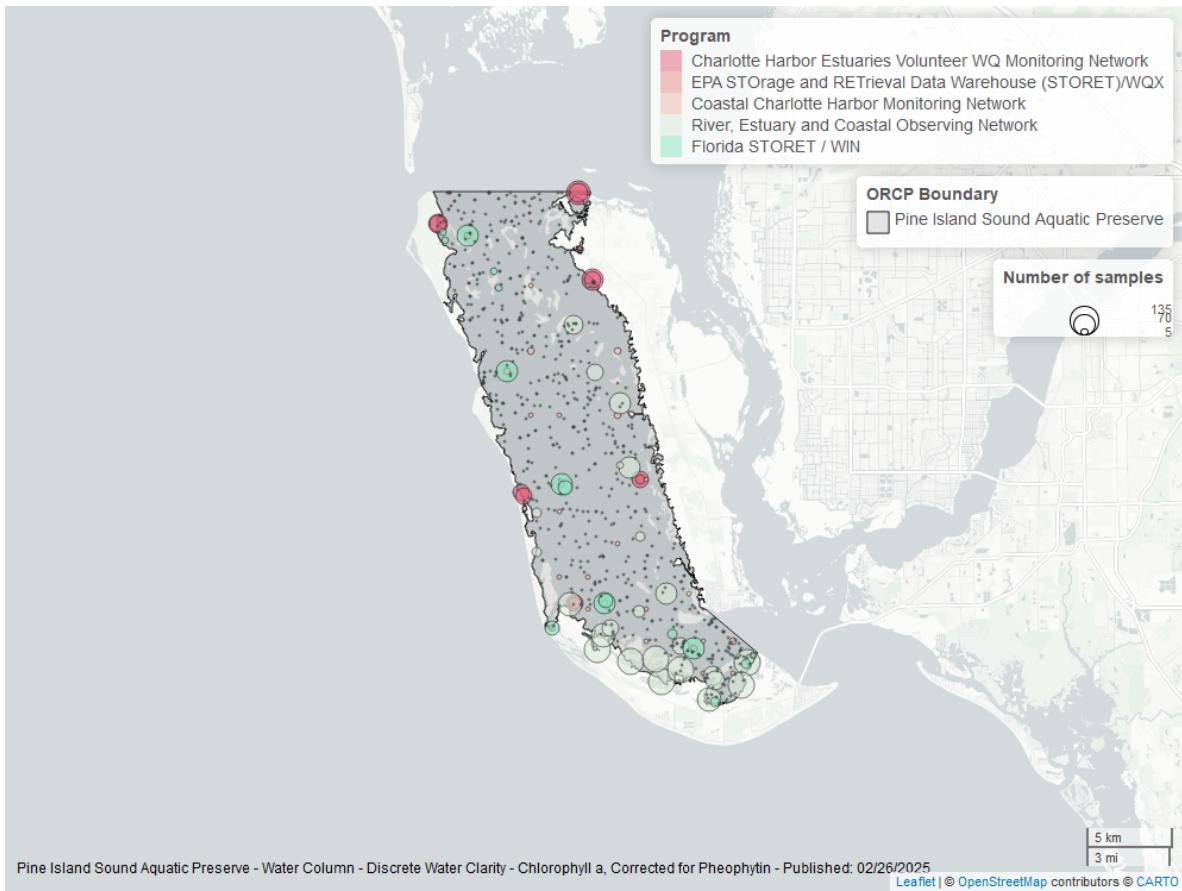


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

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	3888	24	2001 - 2024	3.925	-0.0847	6.27376	-0.04822	0.0782



Secchi Depth - Discrete

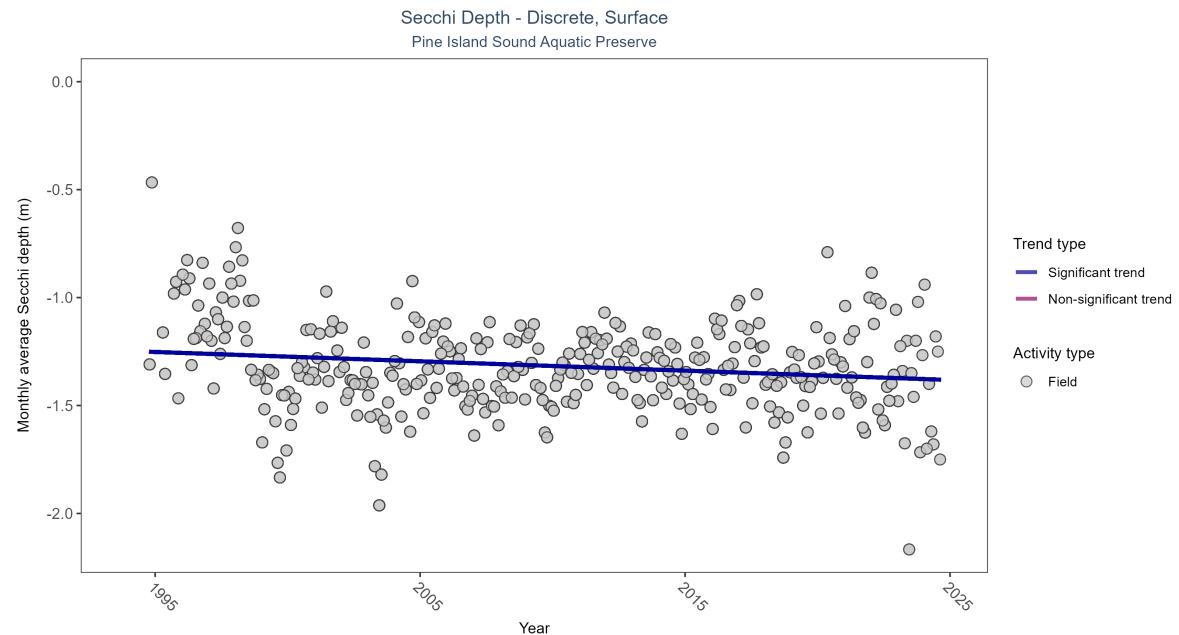
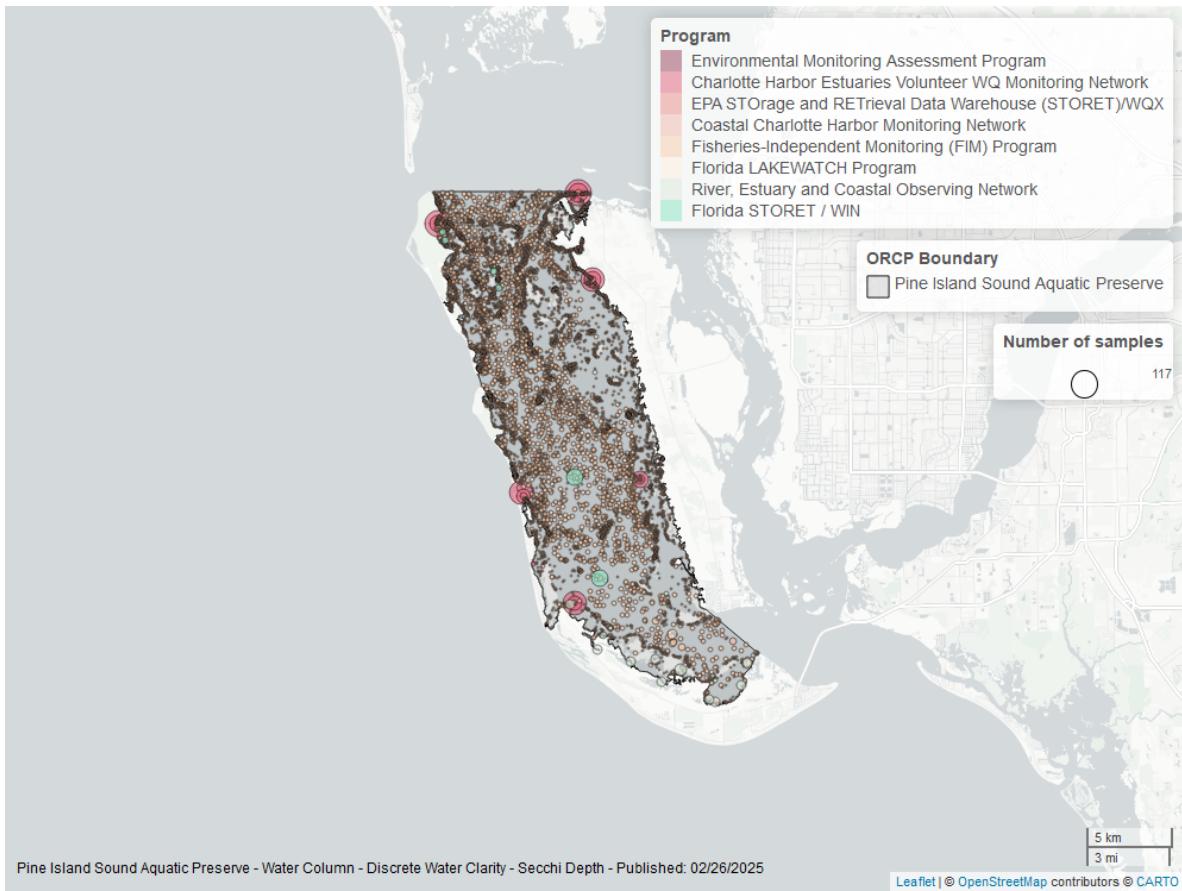


Table 17: Seasonal Kendall-Tau Results for - Secchi Depth

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	21115	31	1994 - 2024	-1.2	-0.1161	-1.24761	-0.00433	0.0020



Colored Dissolved Organic Matter - Discrete

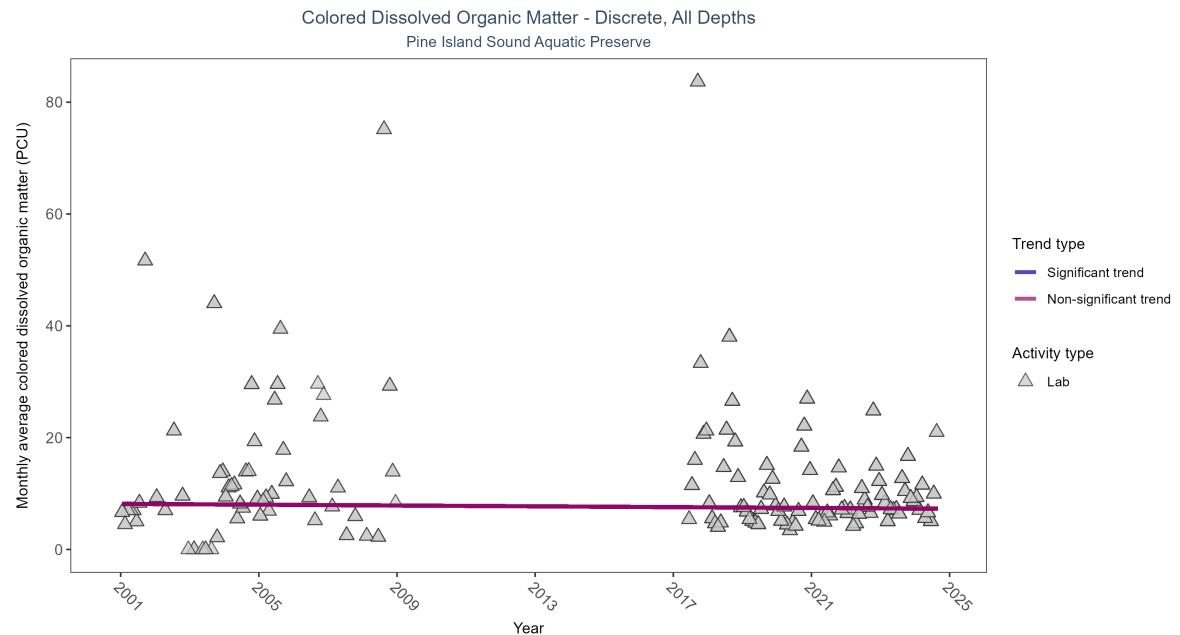


Table 18: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	1460	16	2001 - 2024	7.5	-0.0525	8.15217	-0.03654	0.4992

