

# North Fork St. Lucie Aquatic Preserve

## SEACAR Water Quality Analysis

Last compiled on 18 March, 2025

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# Indicators

## Nutrients

### Total Nitrogen - Discrete

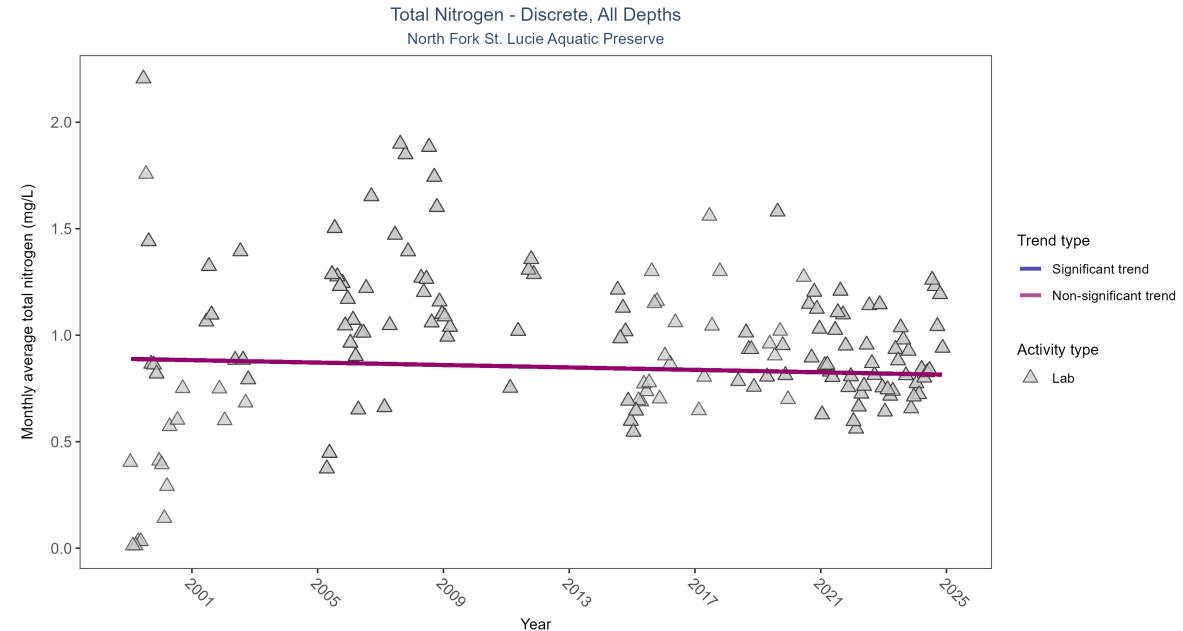
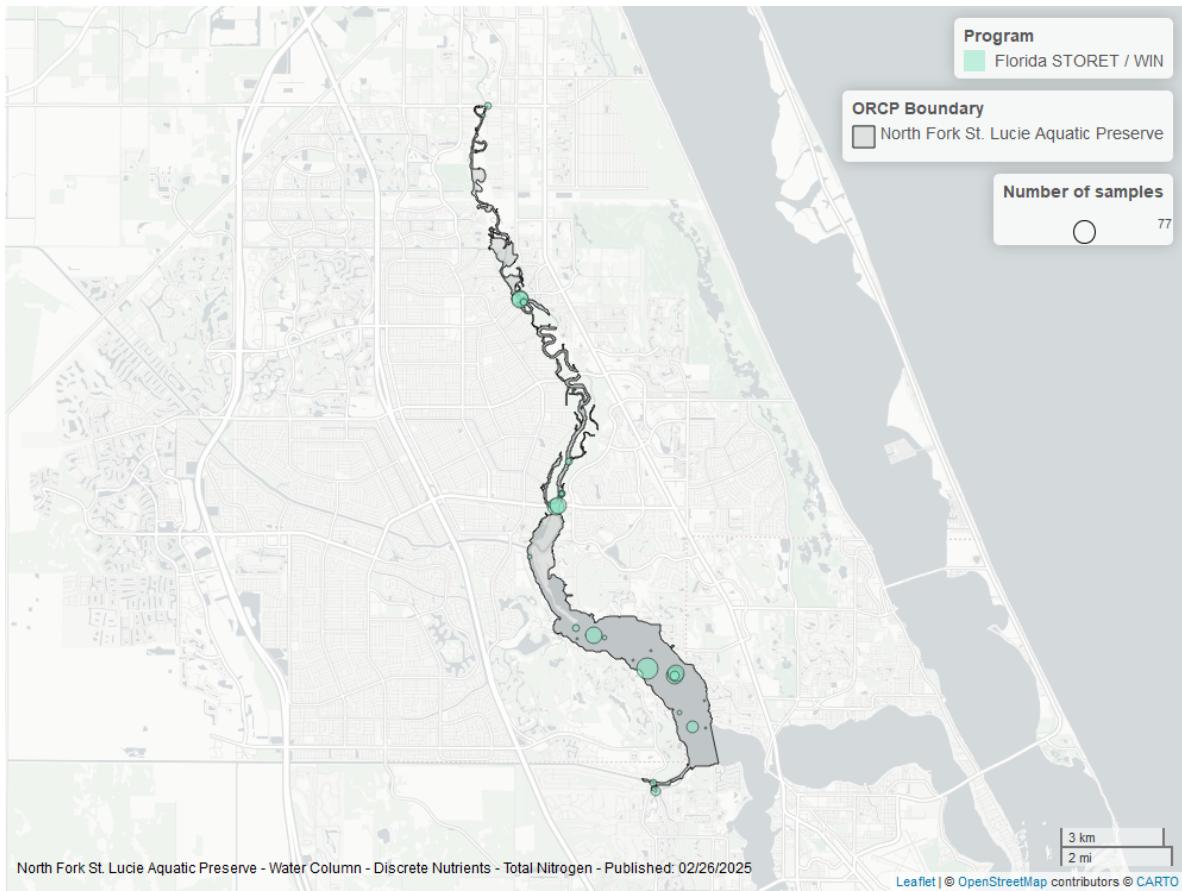


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

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	589	21	1999 - 2024	0.984	-0.04657	0.88857	-0.00286	0.31679465054606592566699418967



## Total Phosphorus - Discrete

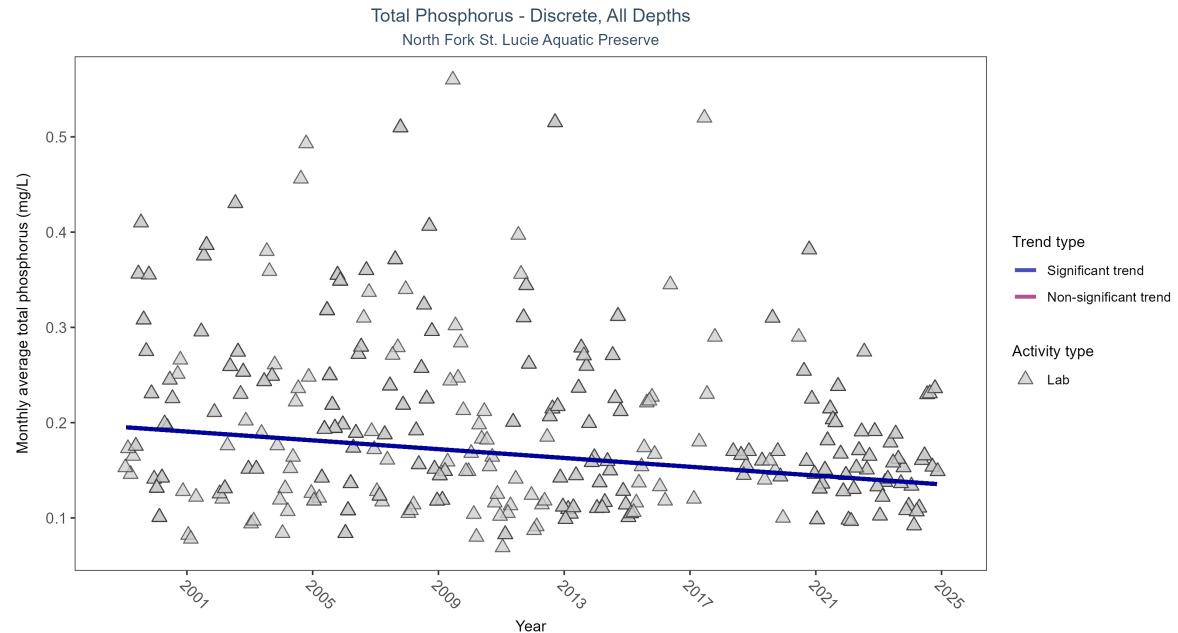
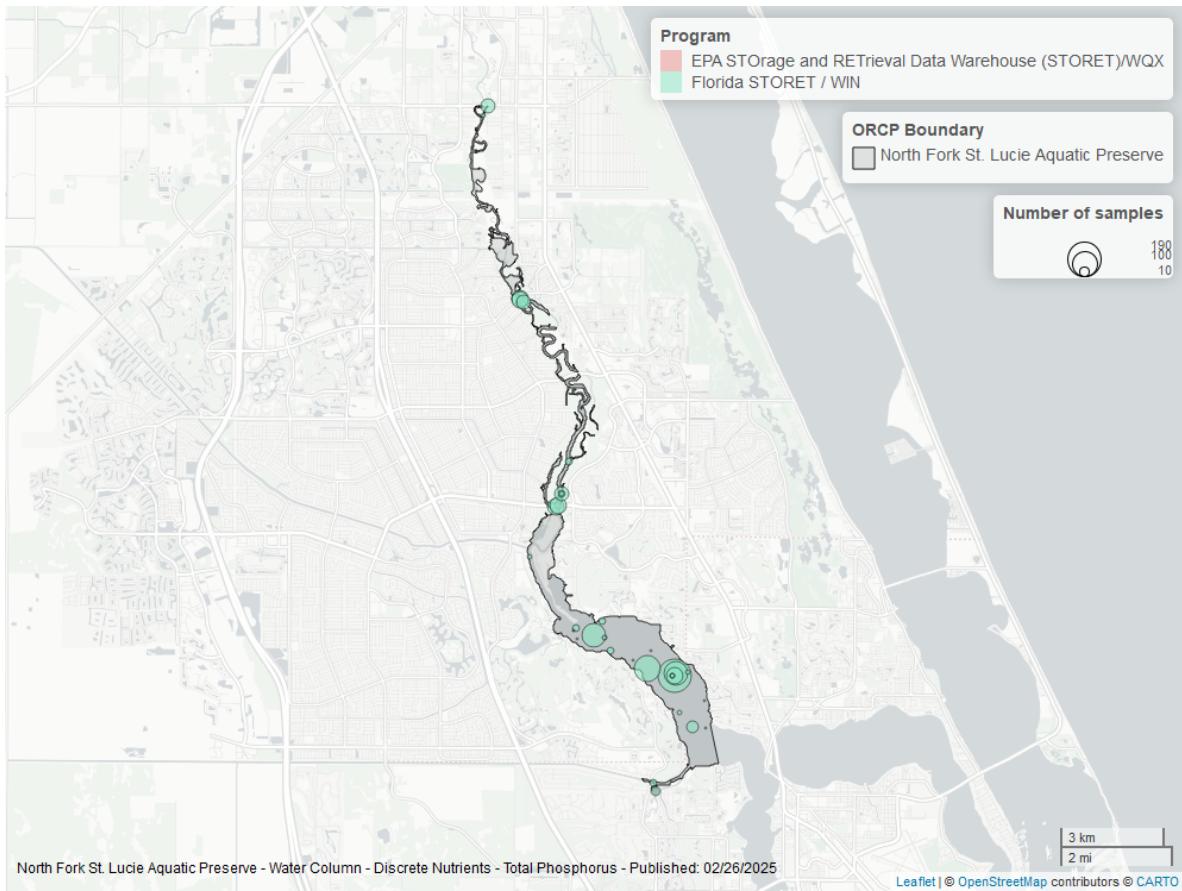


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

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	1056	26	1999 - 2024	0.177	-0.27222	0.19526	-0.00231	0.0000000051115447419506642810077545746594296360854059457778930664



## Water Quality

### Dissolved Oxygen - Discrete

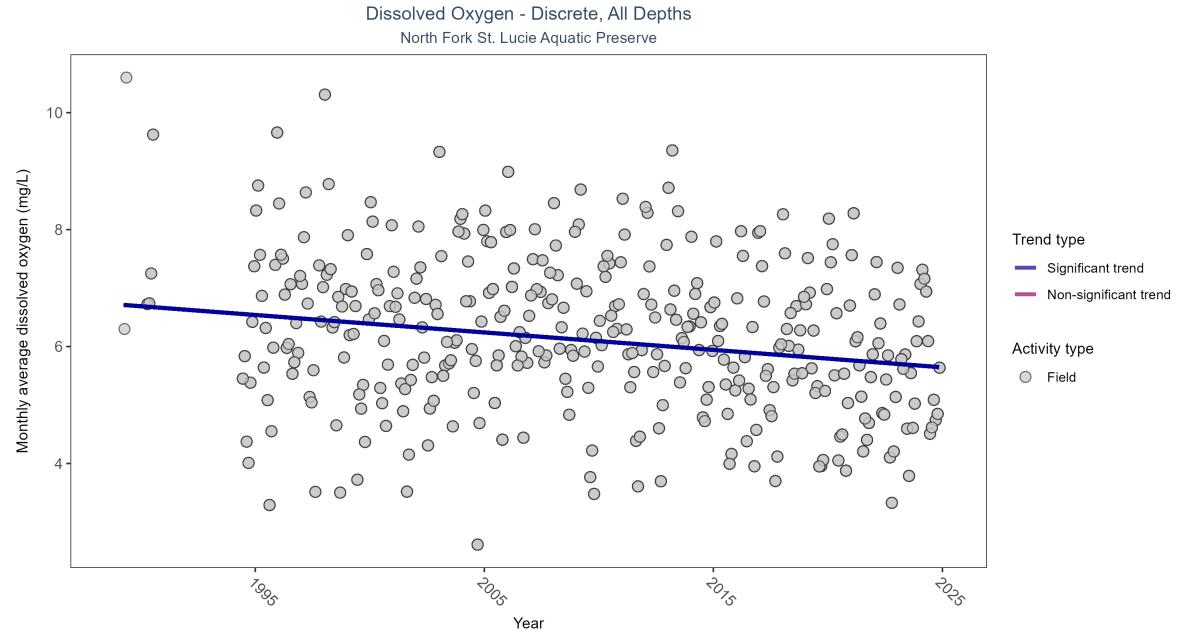
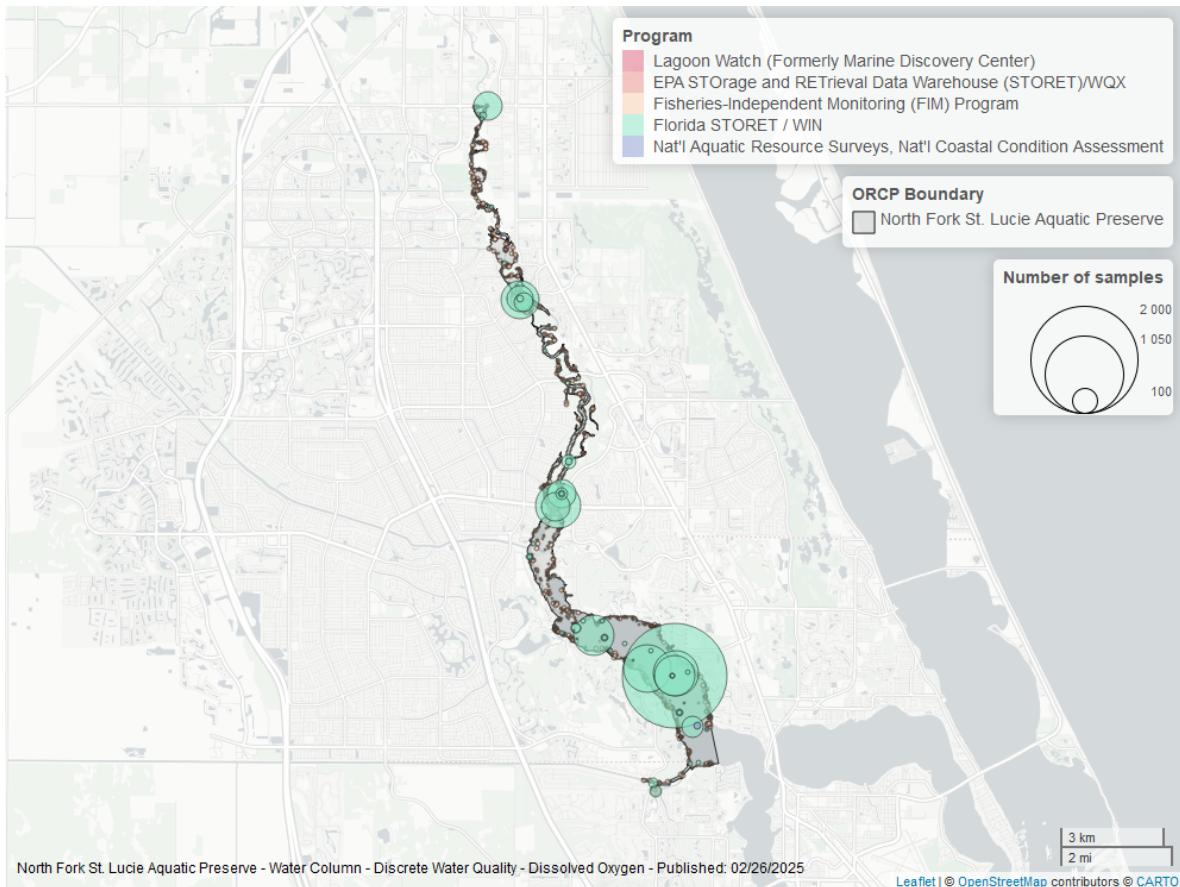


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

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	7155	33	1989 - 2024	6.17	-0.21826	6.71915	-0.02985	0.0000000254325644



## Dissolved Oxygen Saturation - Discrete

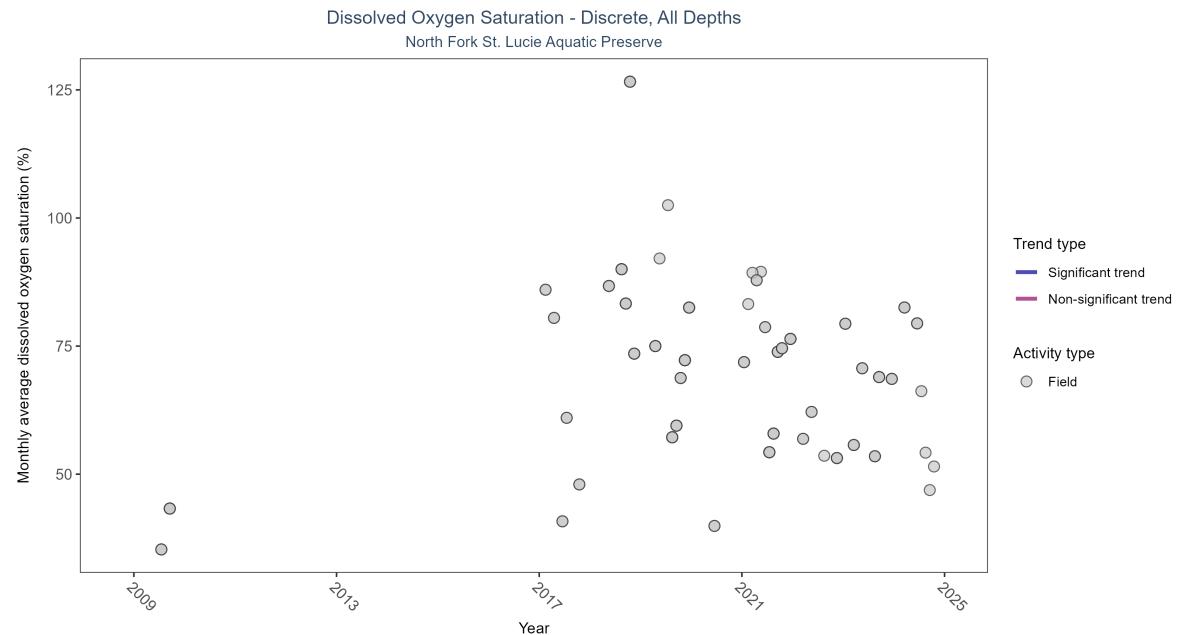
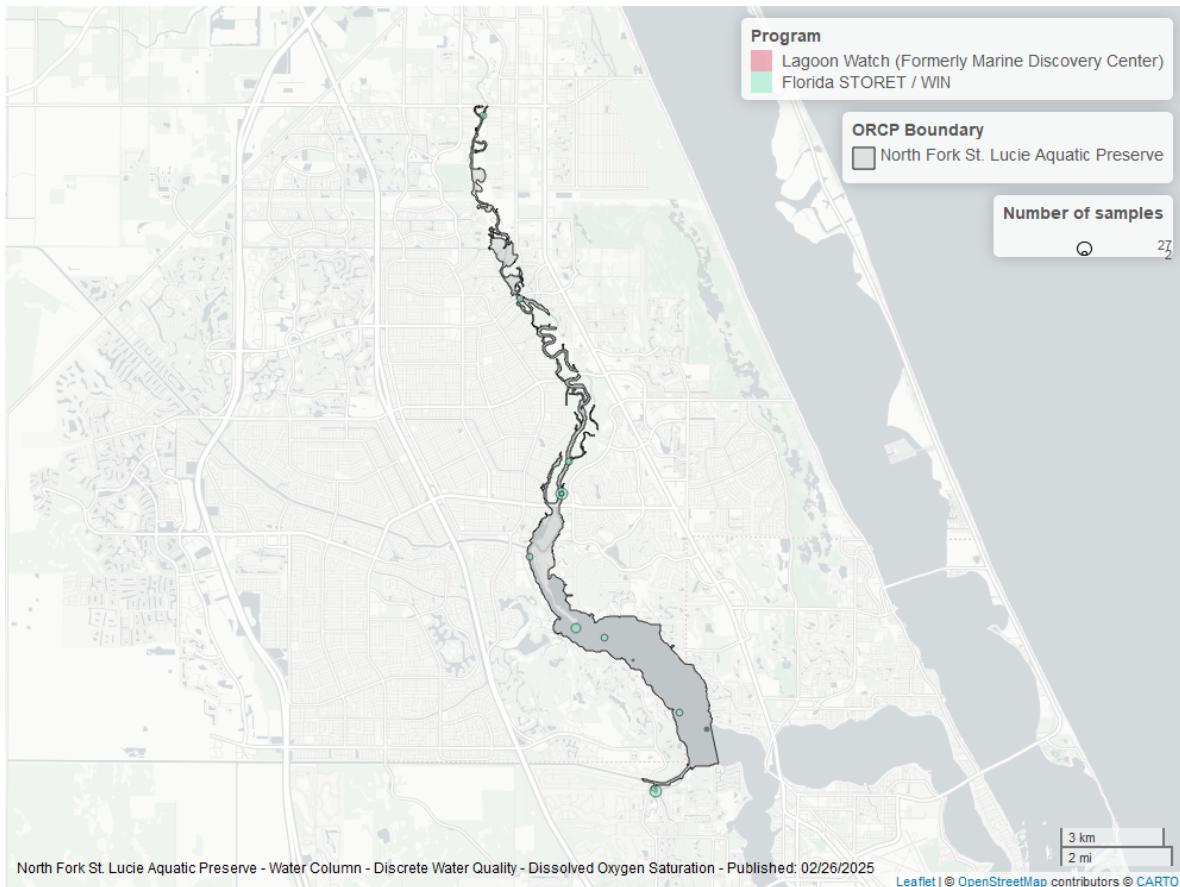


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Insufficient data to calculate trend	149	9	2009 - 2024	70.7	-	-	-	NA



## Salinity - Discrete

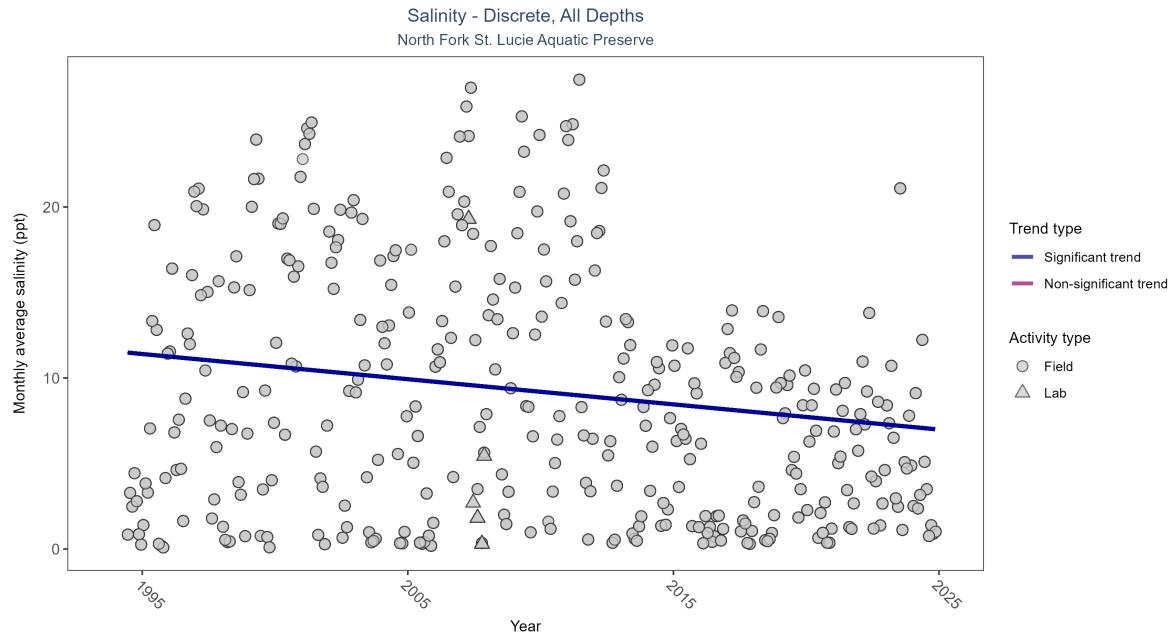
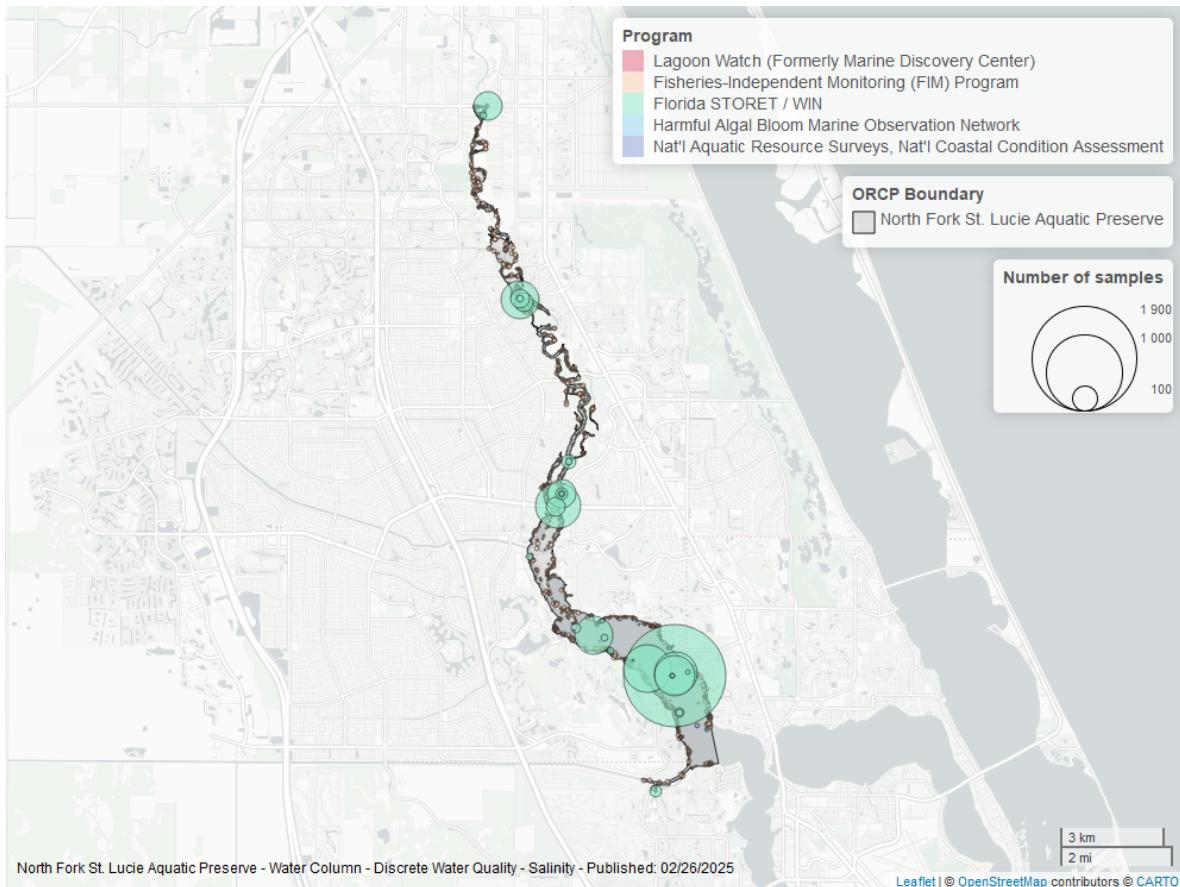


Table 5: Seasonal Kendall-Tau Results for - Salinity

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	6664	31	1994 - 2024	4.4	-0.17219	11.54996	-0.14725	0.00000353367916619995585218727551790607321891002



## Salinity - Continuous

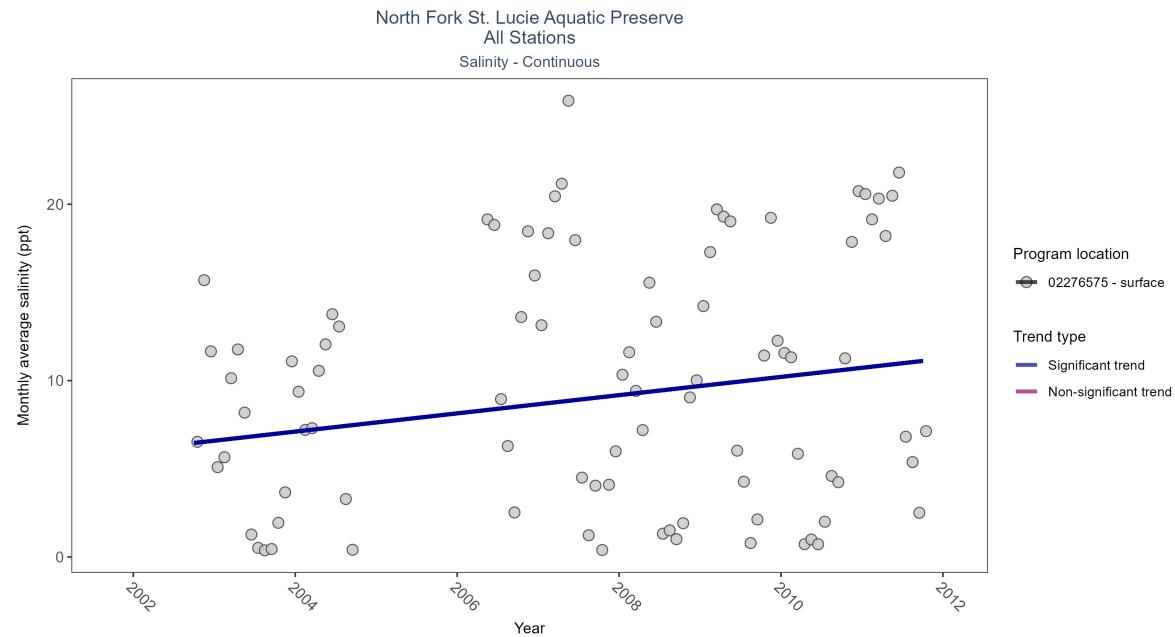
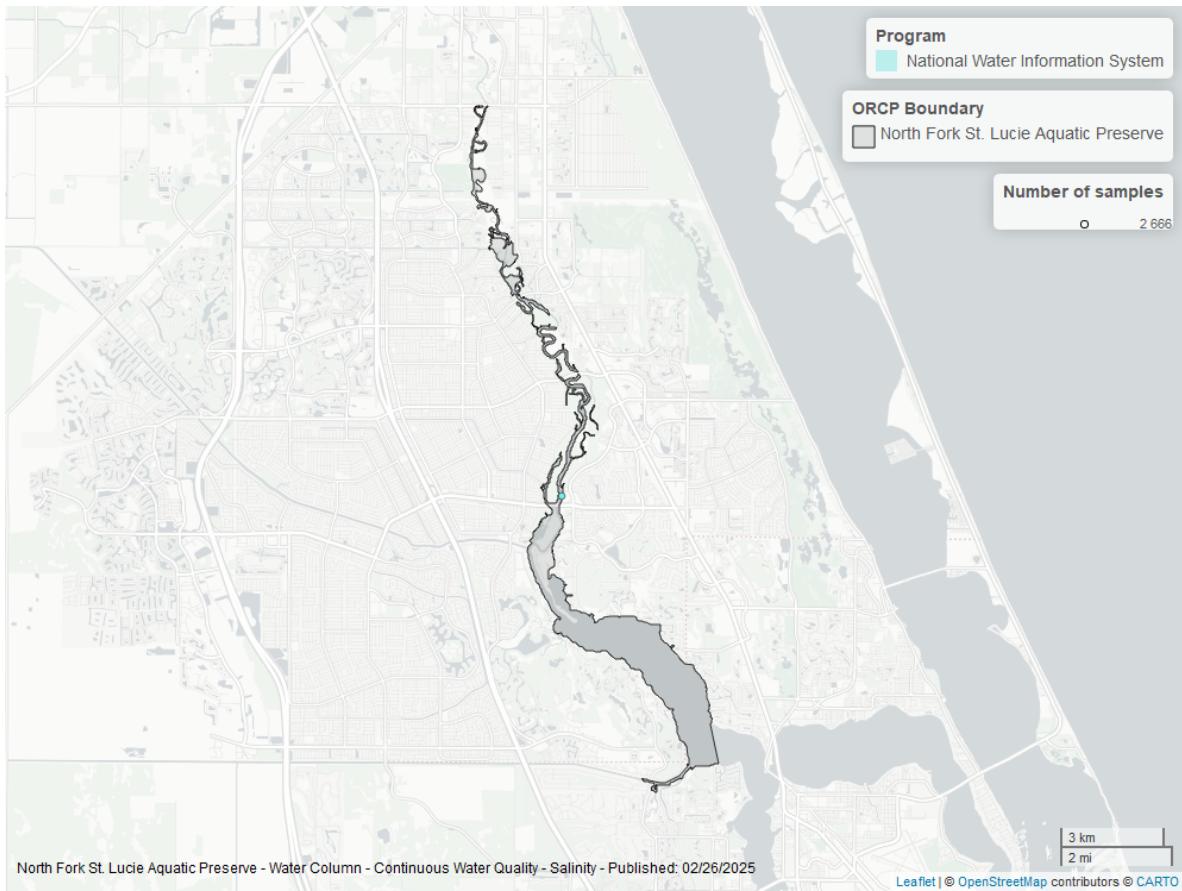


Table 6: Seasonal Kendall-Tau Results for All Stations - Salinity

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
02276575	Significantly increasing trend	2666	9	2002 - 2011	9.1	0.22	6.08	0.52	0.0174055237577491



## Water Temperature - Discrete

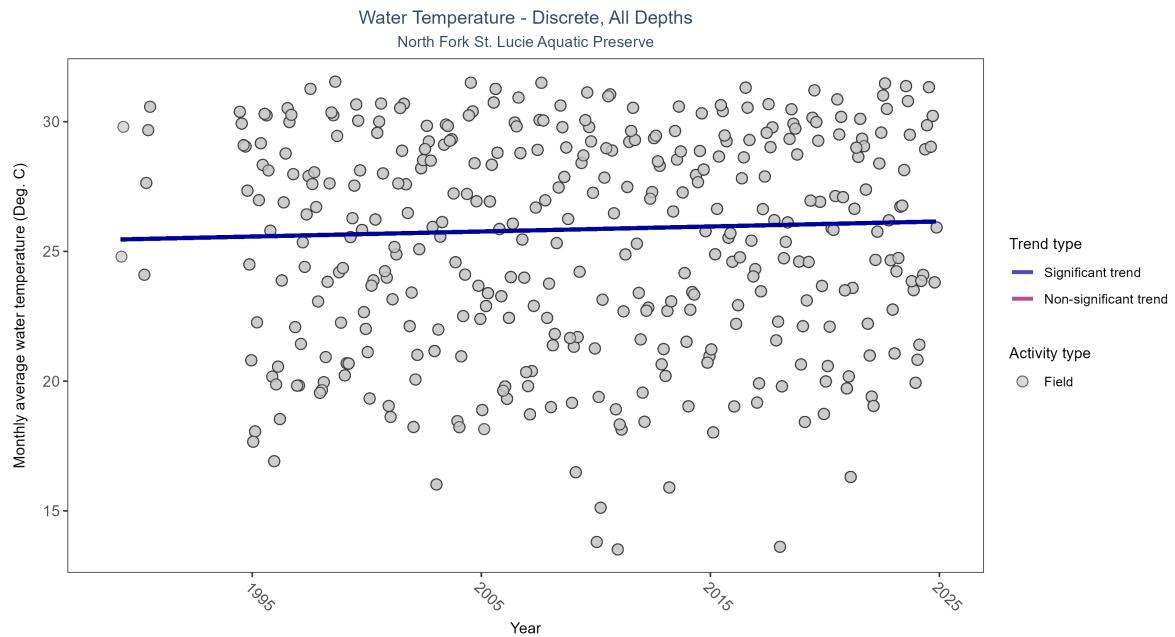
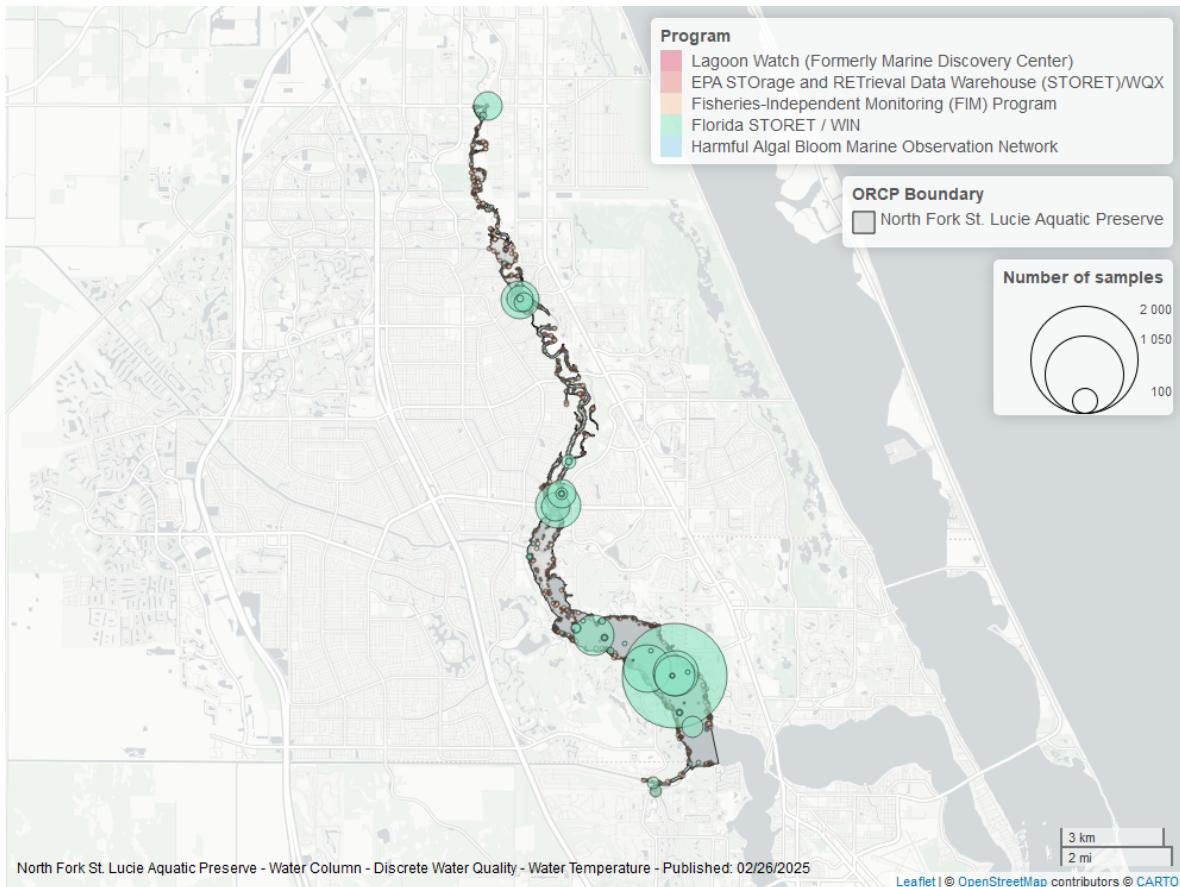


Table 7: Seasonal Kendall-Tau Results for - Water Temperature

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	7311	33	1989 - 2024	26	0.09058	25.4571	0.01939	0.014063148292576133



## Water Temperature - Continuous

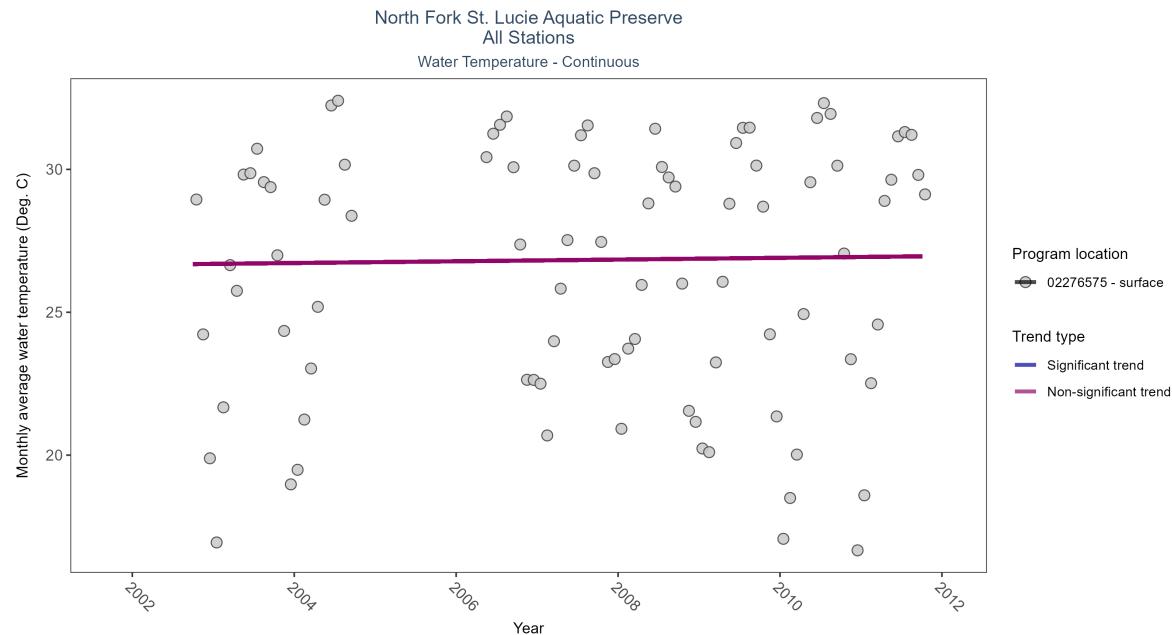
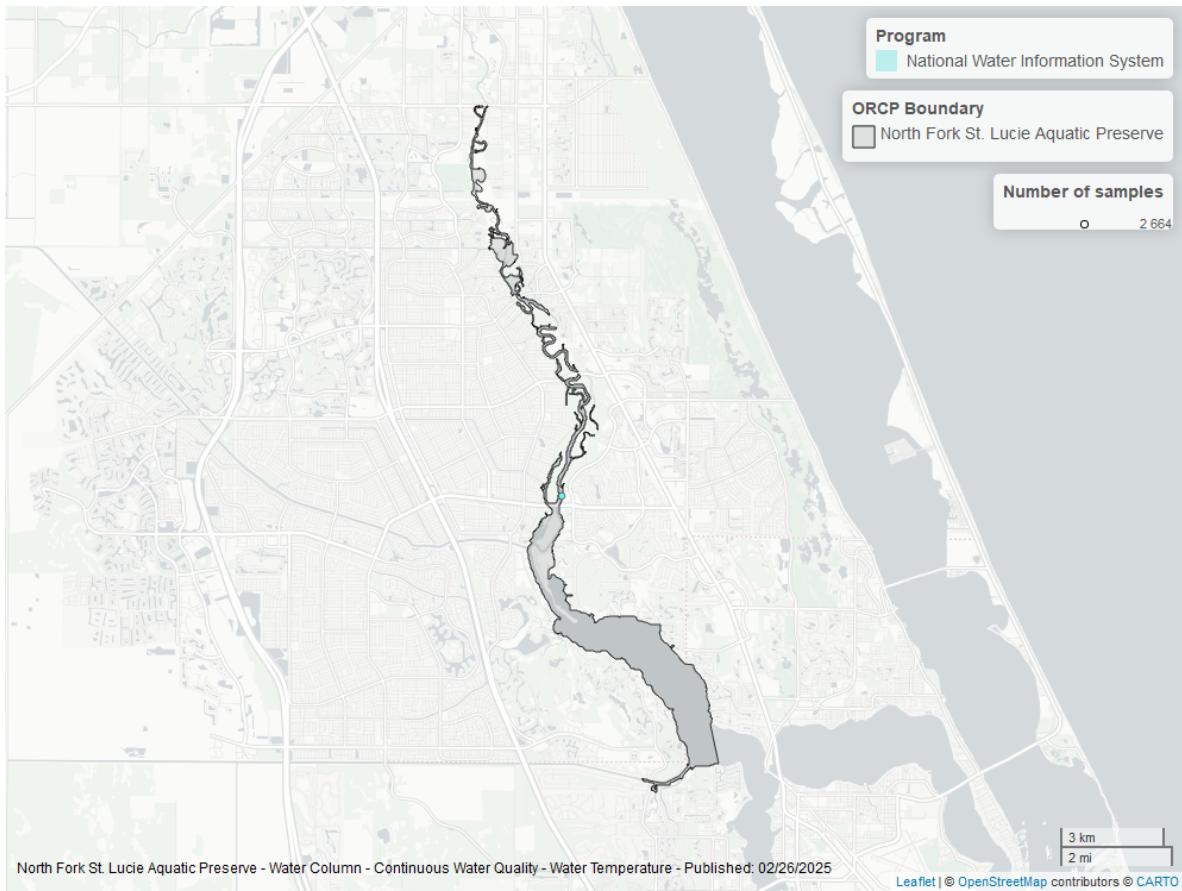


Table 8: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
02276575	No significant trend	2664	9	2002 - 2011	27.3	0.06	26.66	0.03	0.458877107912629



## pH - Discrete

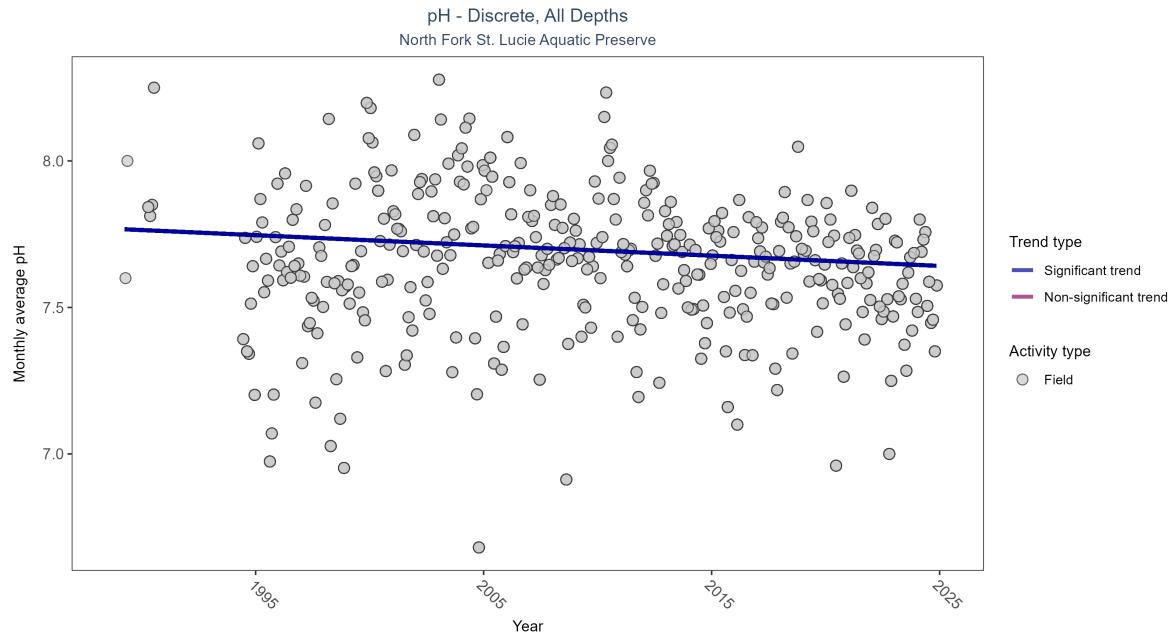
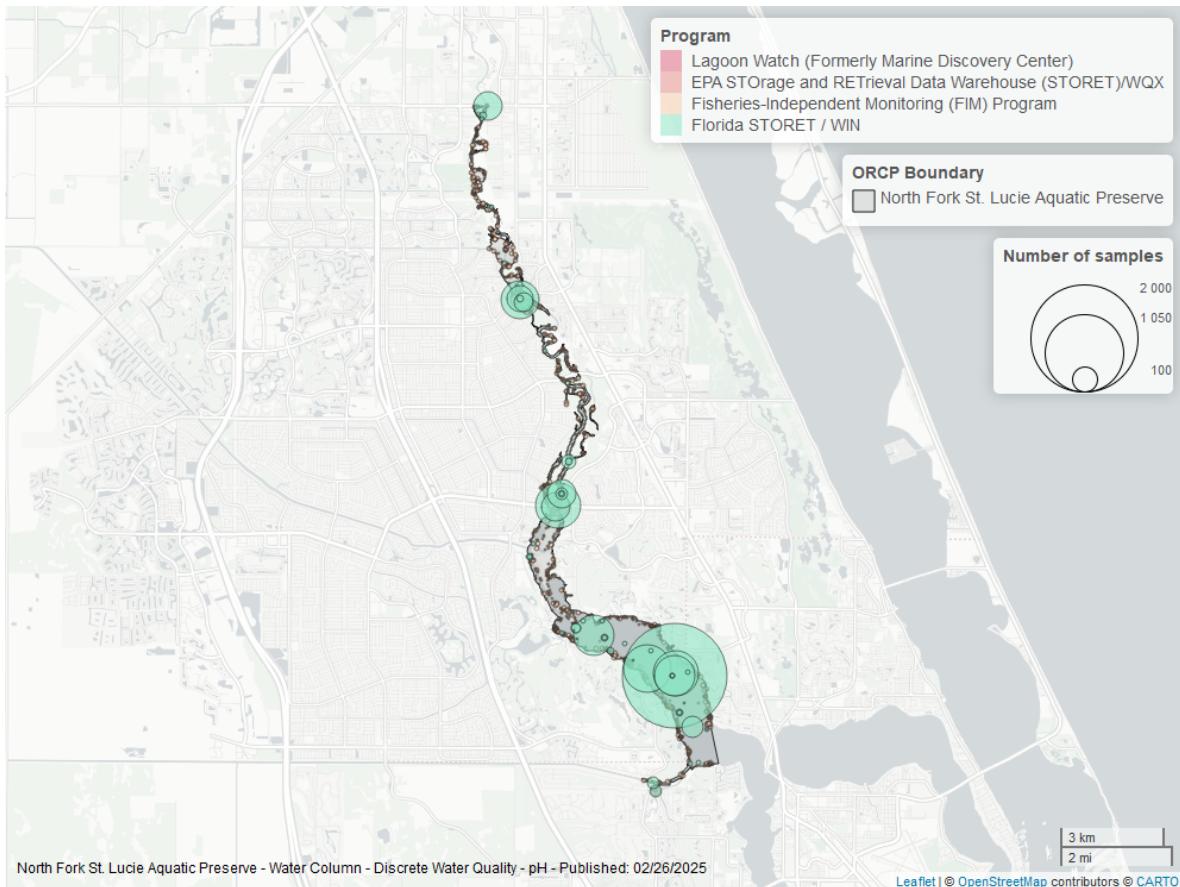


Table 9: Seasonal Kendall-Tau Results for - pH

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly decreasing trend	7210	33	1989 - 2024	7.63	-0.11349	7.76761	-0.0035	0.00198201361702565531305864077182832261315



## Water Clarity

### Turbidity - Discrete

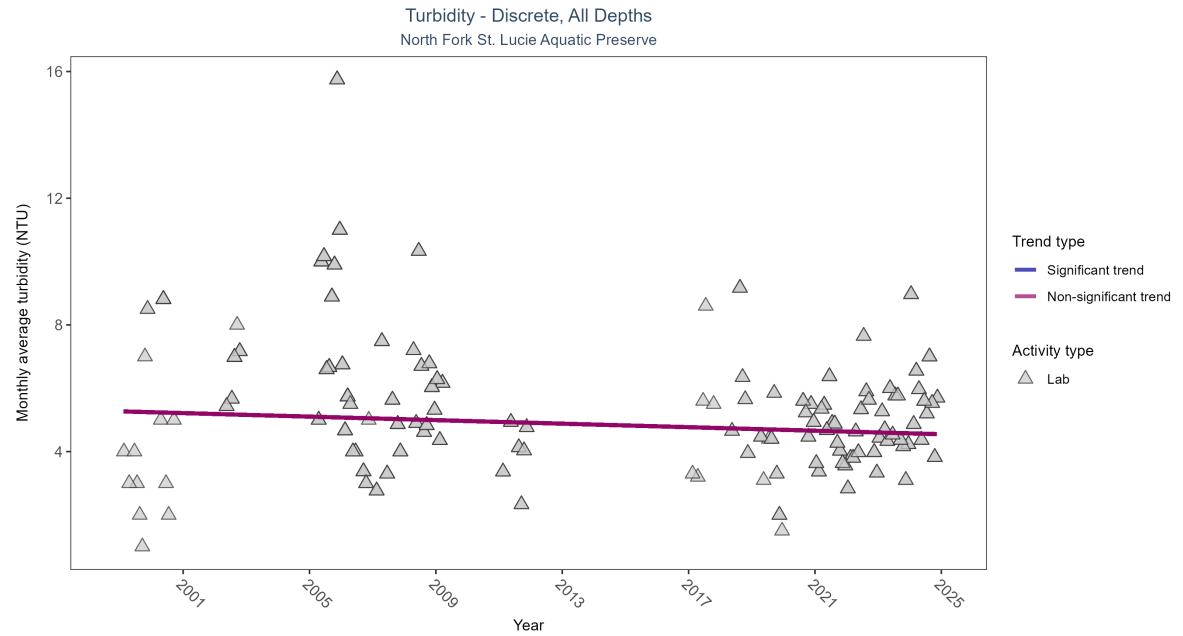
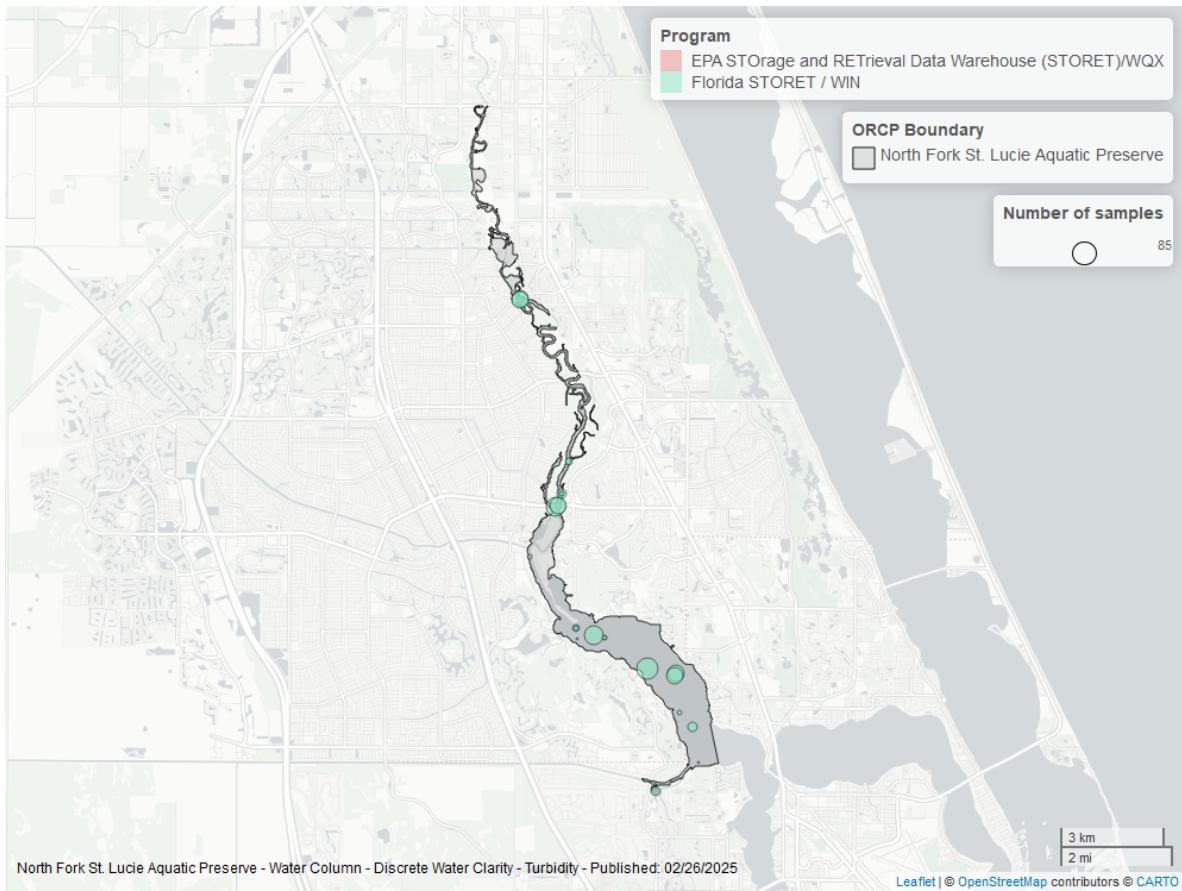


Table 10: Seasonal Kendall-Tau Results for - Turbidity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	553	17	1999 - 2024	5	-0.06489	5.27085	-0.0278	0.31433478055345098756



## Total Suspended Solids - Discrete

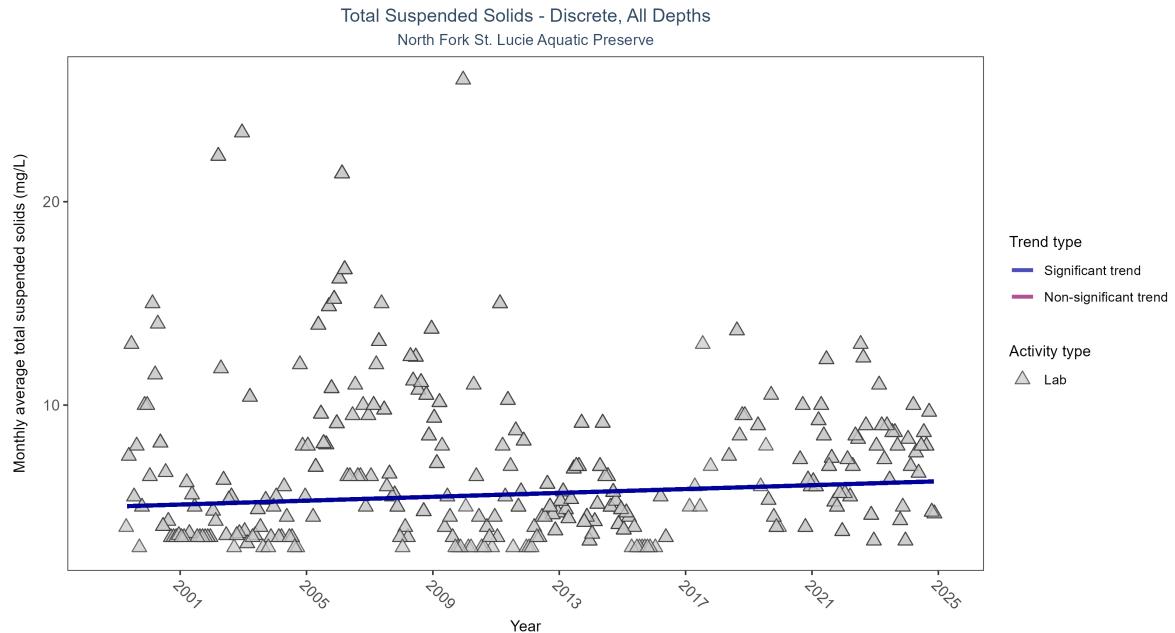
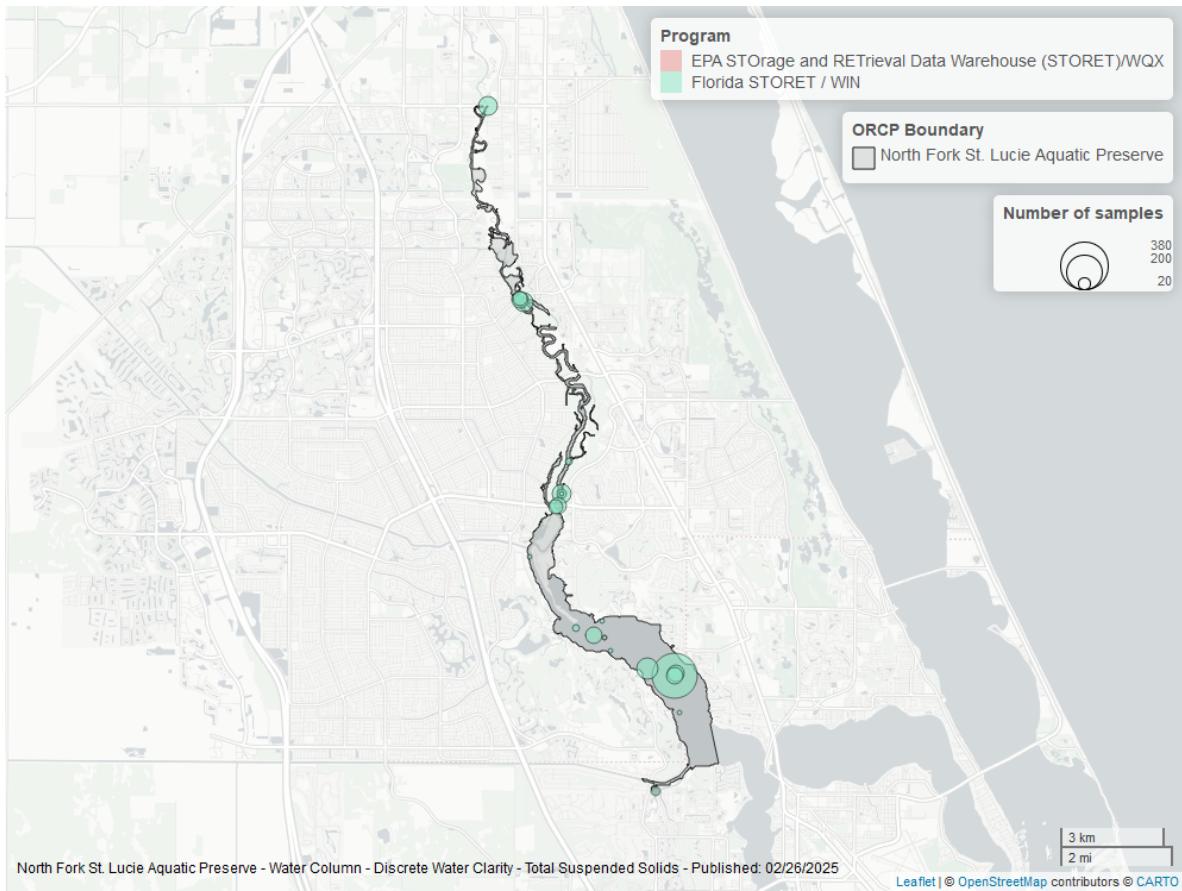


Table 11: Seasonal Kendall-Tau Results for - Total Suspended Solids

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	1043	26	1999 - 2024	6	0.08346	5.01404	0.04762	0.043987310570406883136751474694393



## Chlorophyll a, Uncorrected for Pheophytin - Discrete

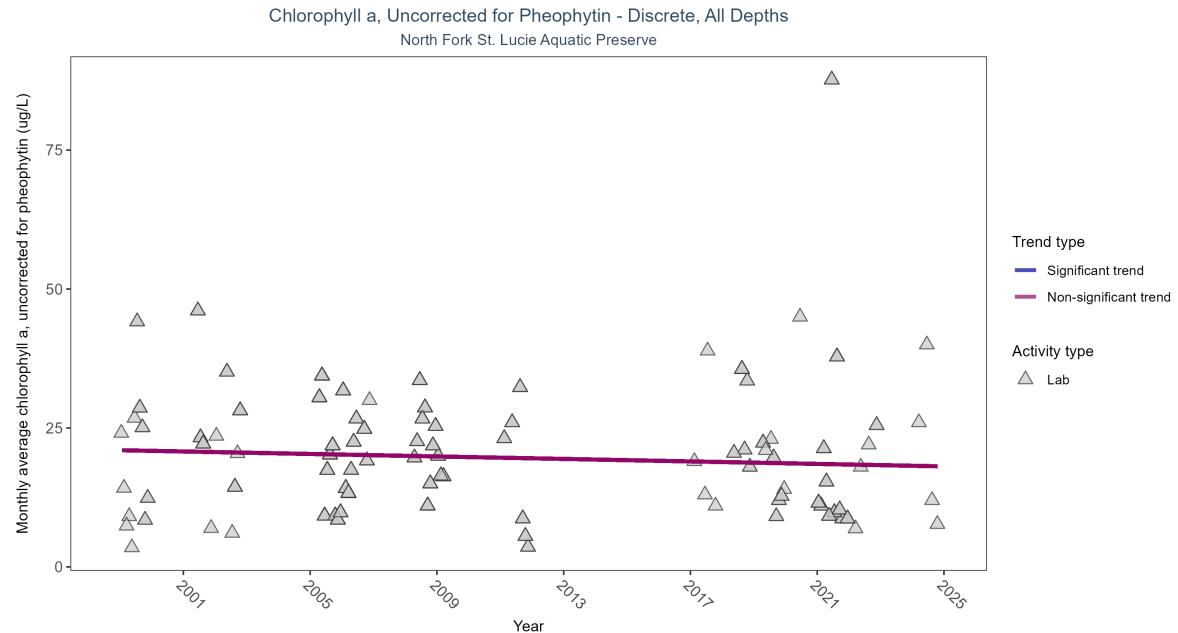
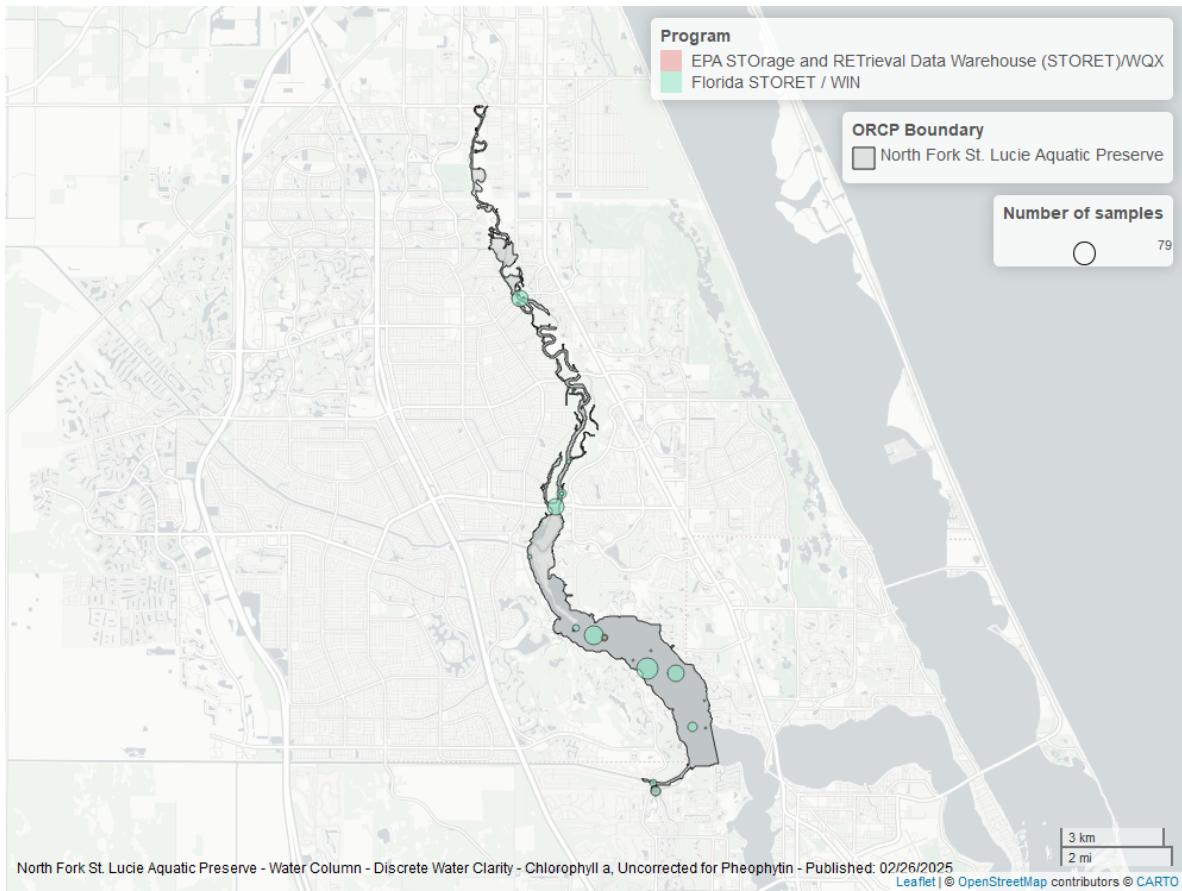


Table 12: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

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	406	15	1999 - 2024		15	-0.08325	20.99218	-0.11187	0.33549423669681810444842540



## Chlorophyll a, Corrected for Pheophytin - Discrete

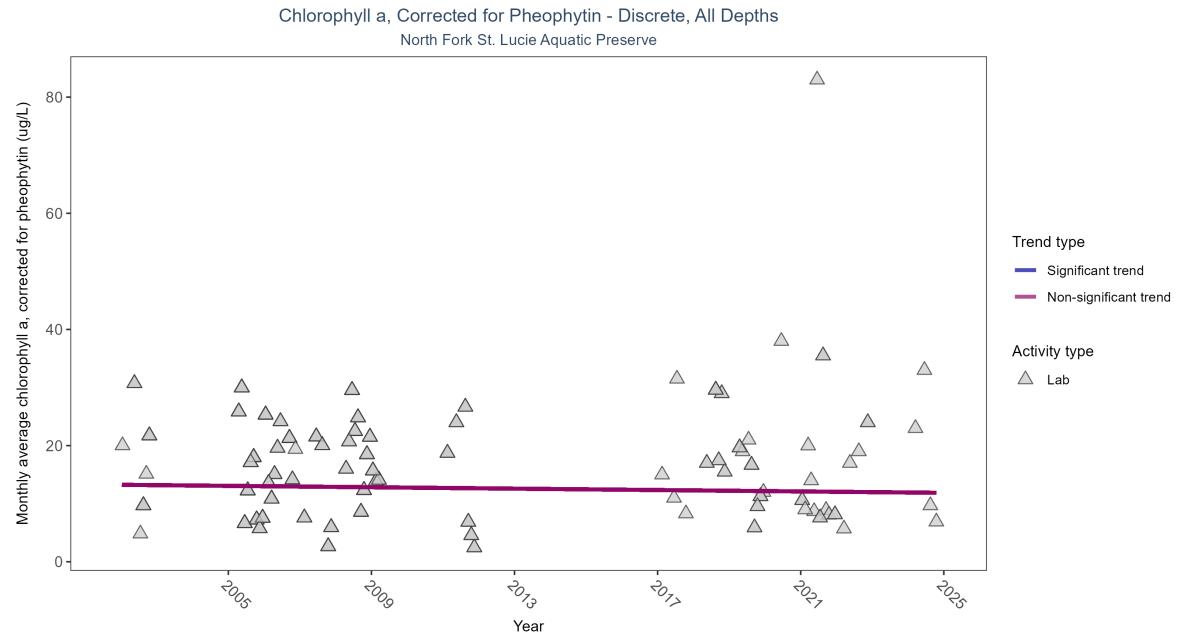
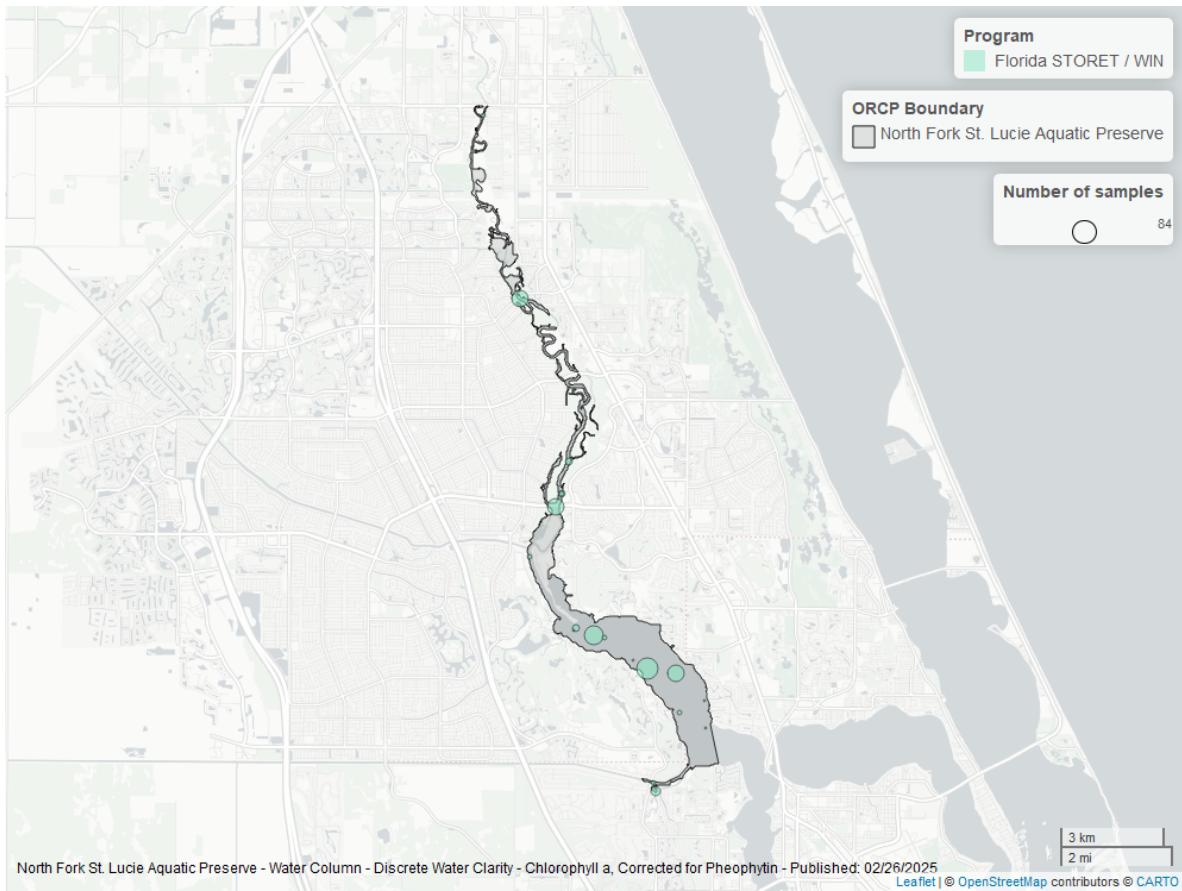


Table 13: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

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	372	14	2002 - 2024	12	-0.03967	13.24892	-0.06	0.6464354599706725323926548299



## Secchi Depth - Discrete

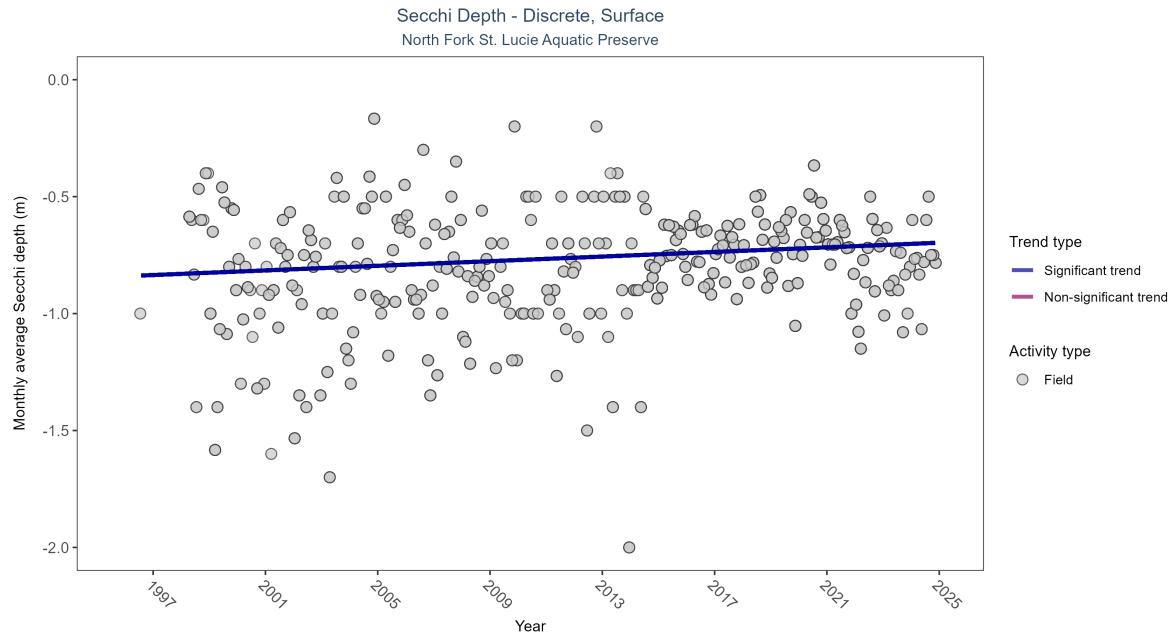
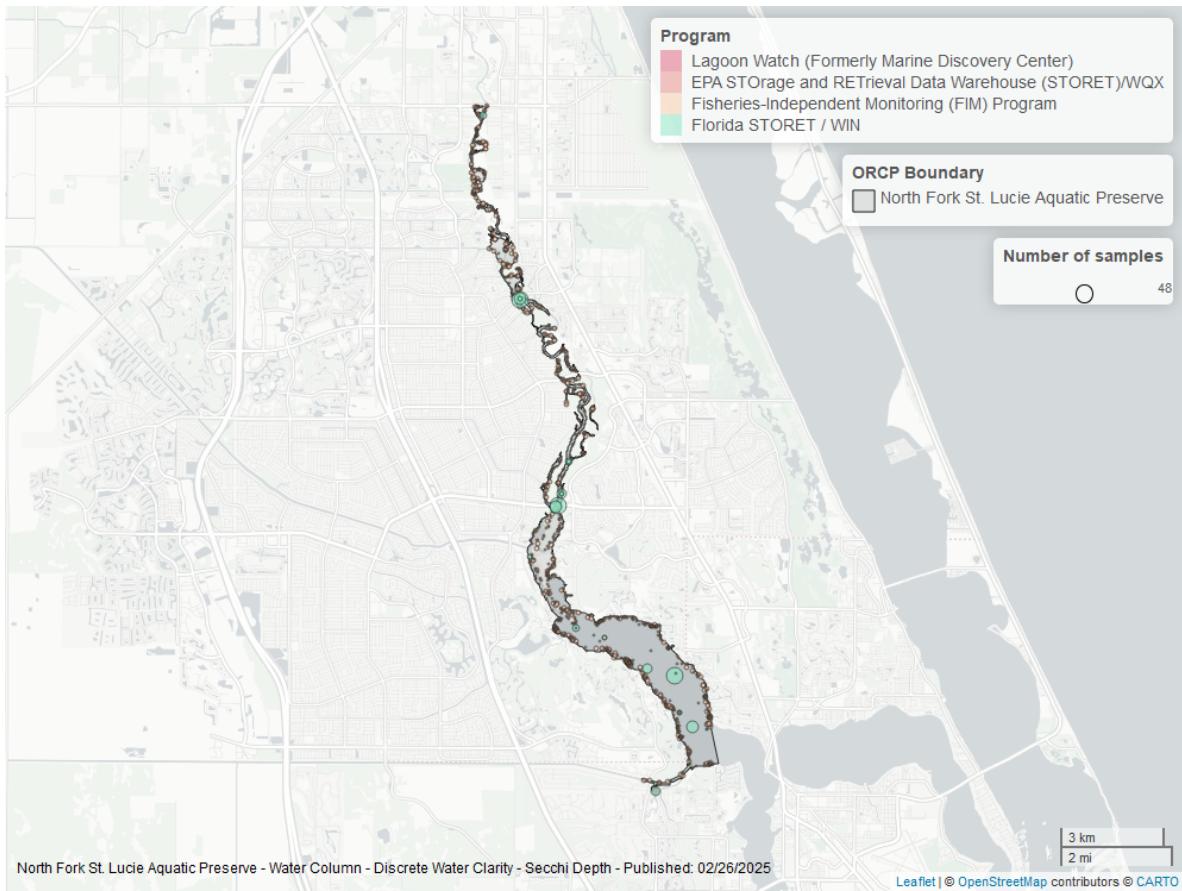


Table 14: Seasonal Kendall-Tau Results for - Secchi Depth

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly increasing trend	2557	28	1996 - 2024	-0.7	0.12518	-0.84017	0.00493	0.0019187436186245043680947963693



## Colored Dissolved Organic Matter - Discrete

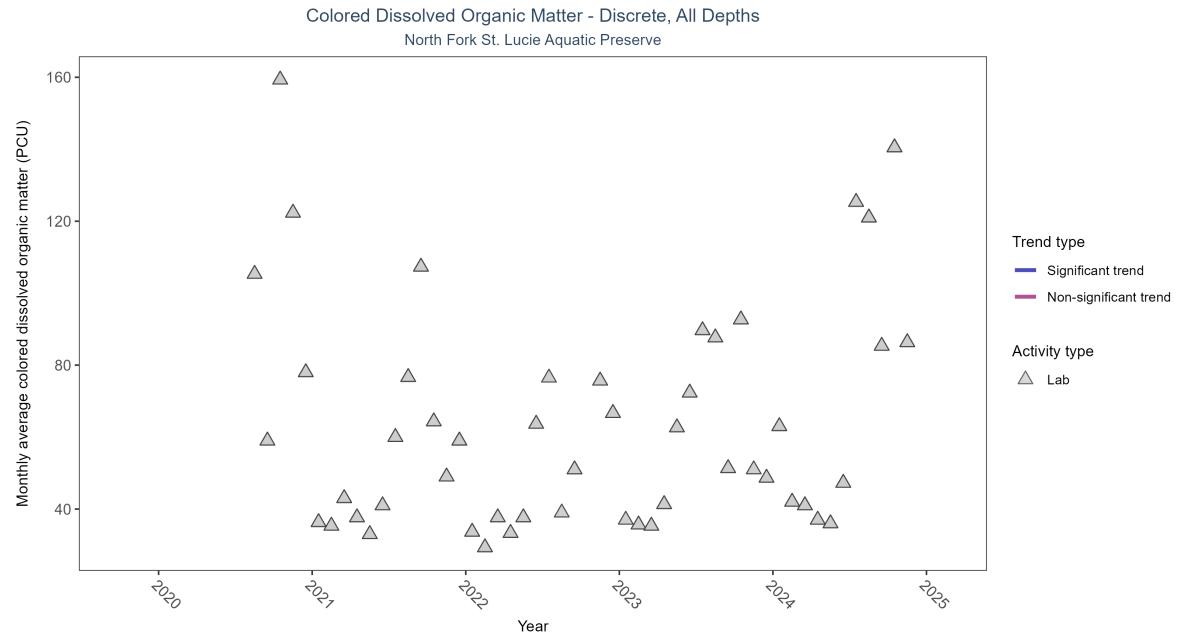


Table 15: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Insufficient data to calculate trend	154	5	2020 - 2024	50	-	-	-	NA

