

# Banana River Aquatic Preserve

## SEACAR Water Quality Analysis

Last compiled on 18 March, 2025

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# Indicators

## Nutrients

### Total Nitrogen - Discrete

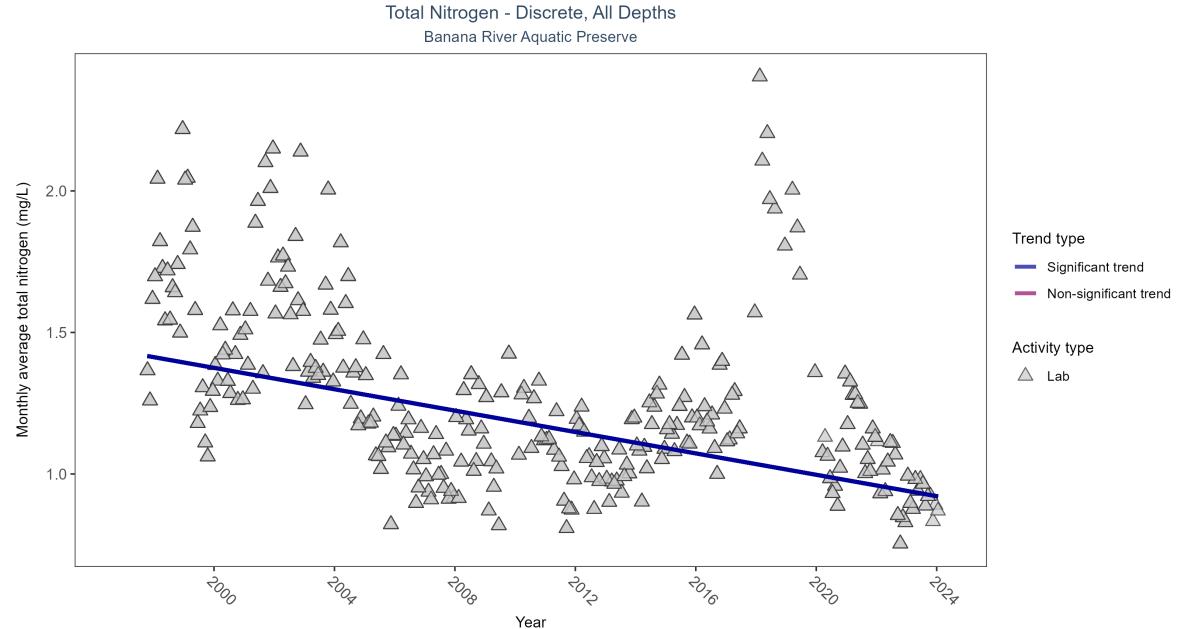
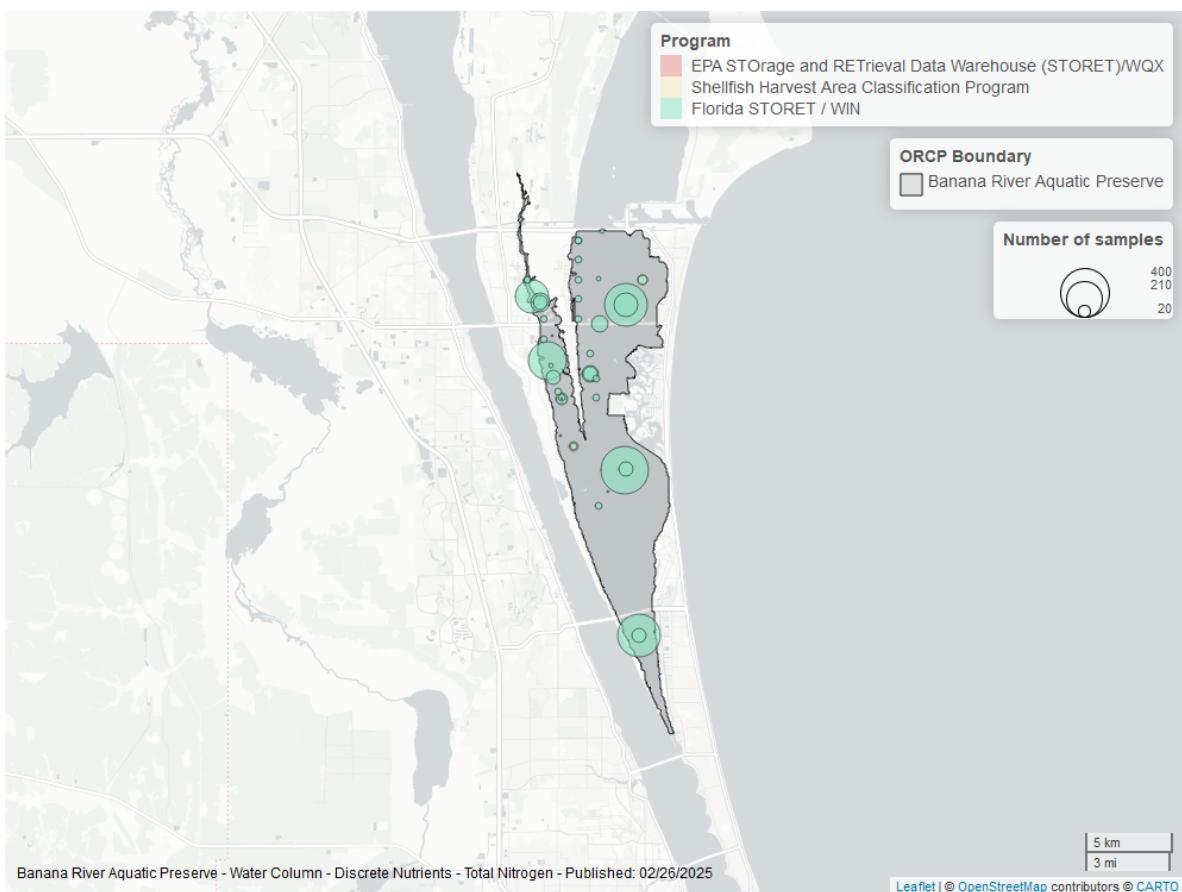


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	2186	28	1997 - 2024	1.23541	-0.39289	1.43161	-0.01889	0.0000000000000006787378601



## Total Phosphorus - Discrete

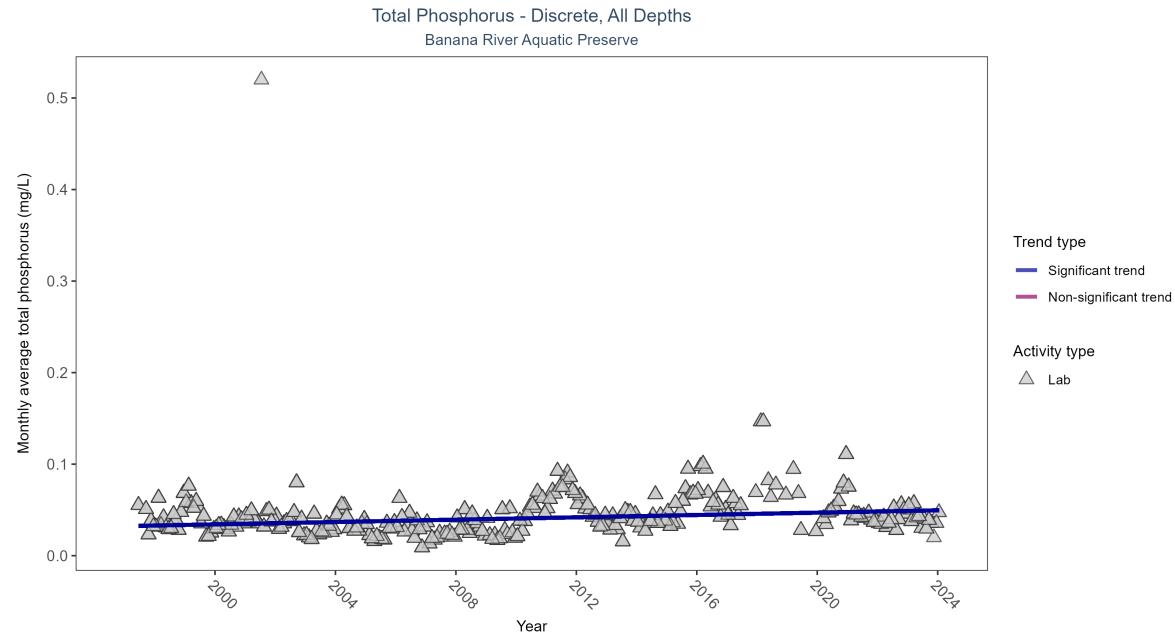
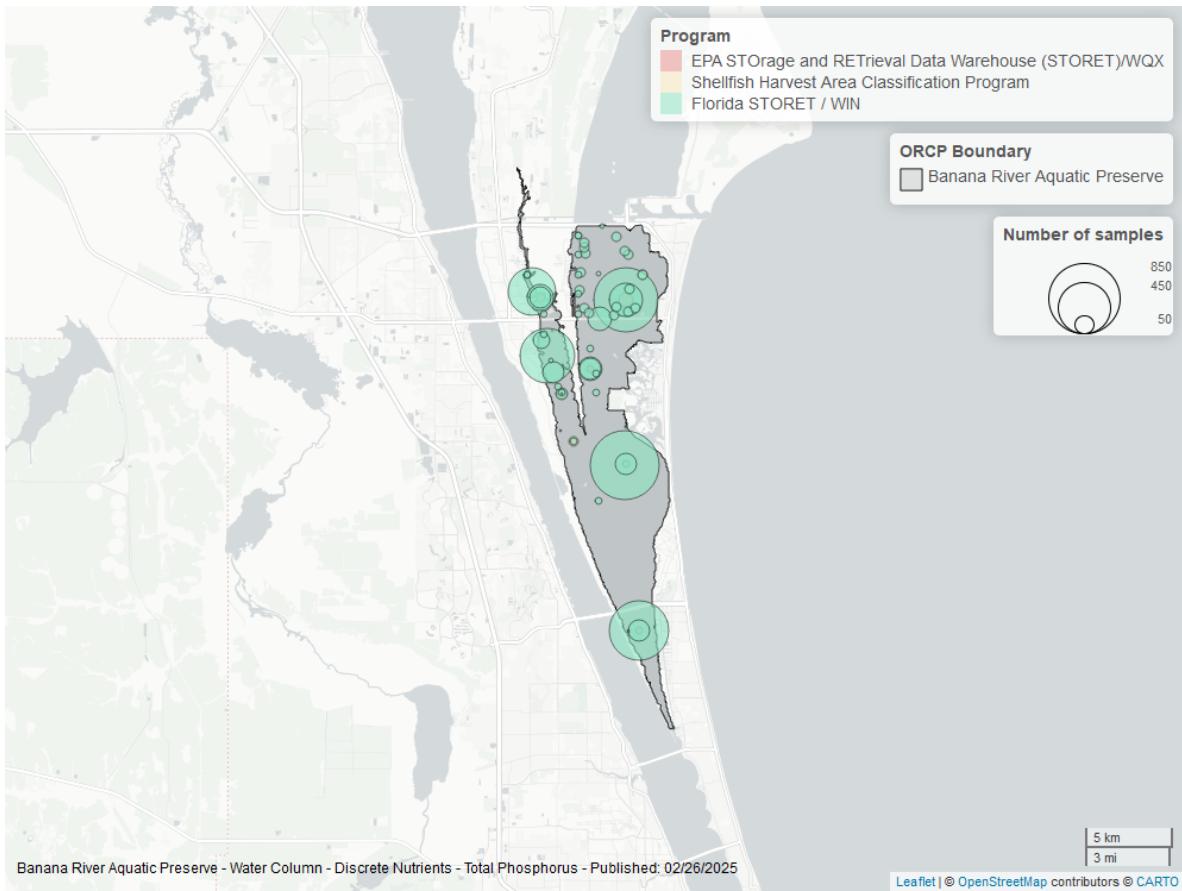


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly increasing trend	4657	28	1997 - 2024	0.0355	0.21619	0.0323	0.00064	0.0000019912647500877542843487899570931176640442572534084320068359



## Water Quality

### Dissolved Oxygen - Discrete

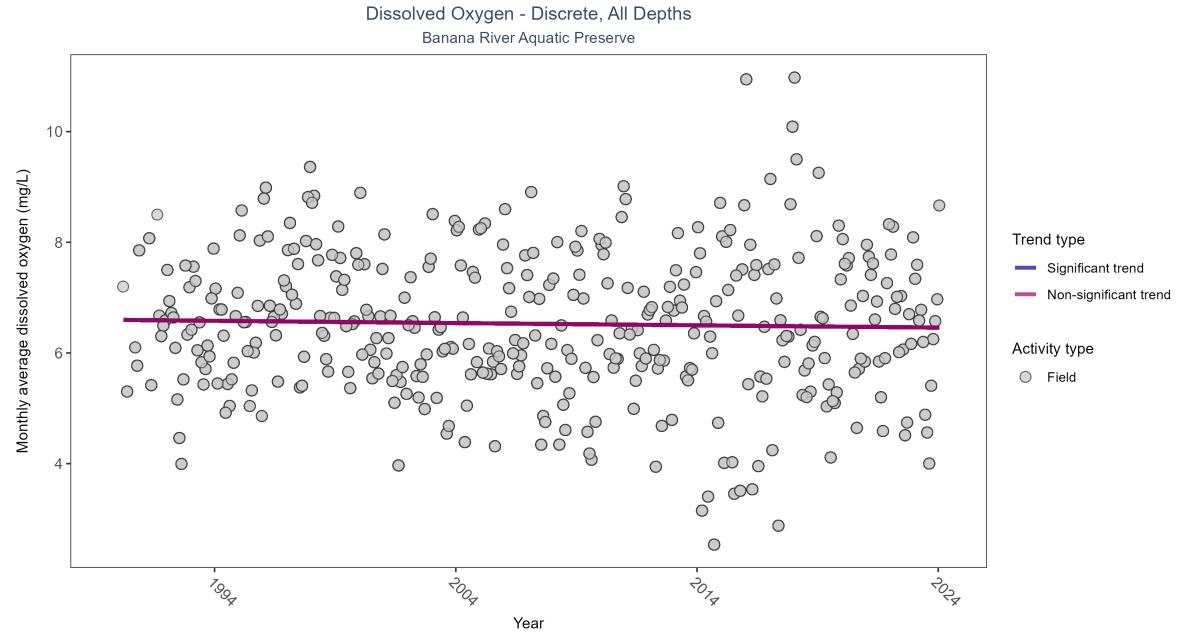
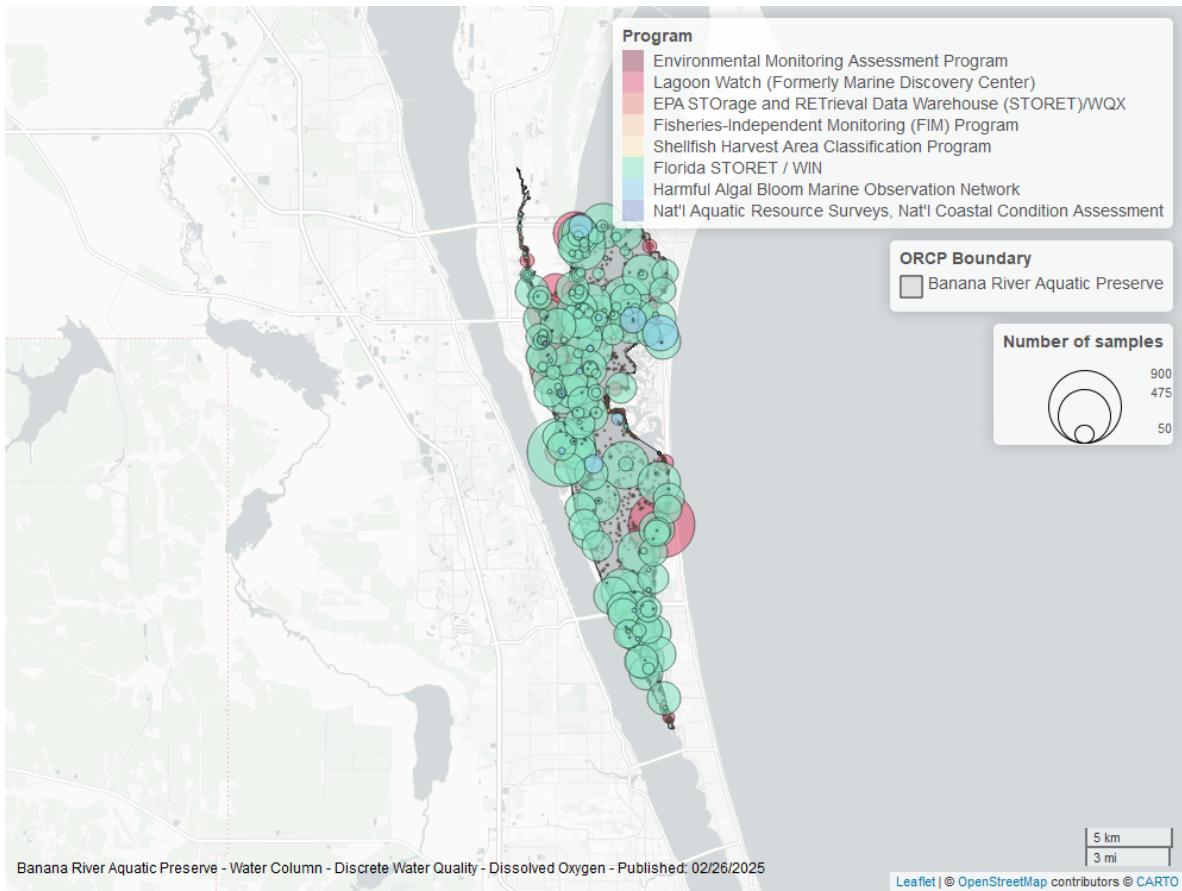


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

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	29828	35	1990 - 2024	6.48	-0.03081	6.59734	-0.00409	0.36604254248076601



## Dissolved Oxygen - Continuous

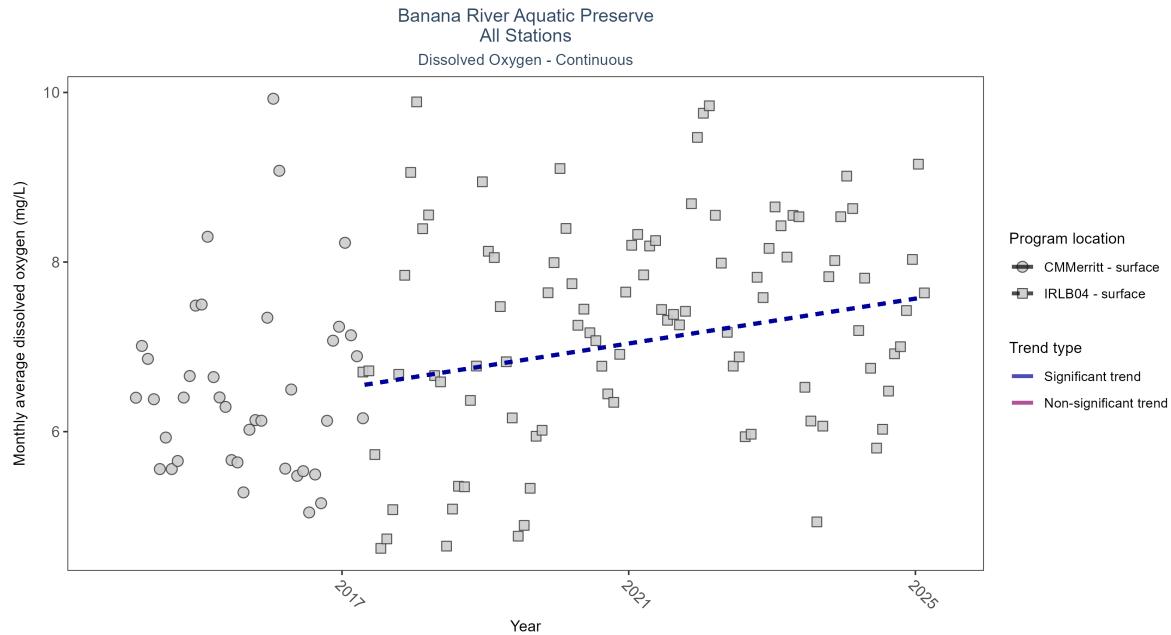
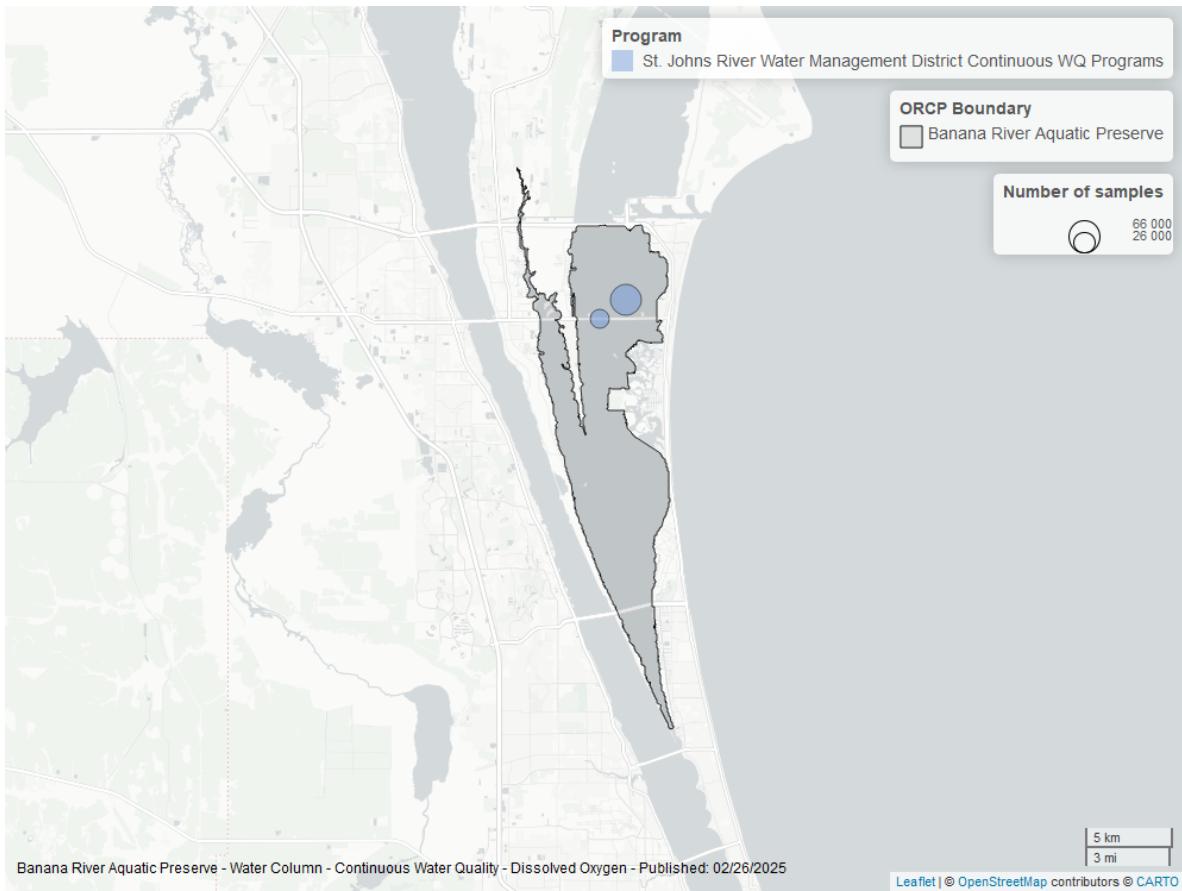


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
IRLB04	Significantly increasing trend	67621	9	2017 - 2025	7.33	0.24	6.51	0.13	0.004745953
CMMerritt	Insufficient data to calculate trend	27378	4	2014 - 2017	6.51	-	-	-	NA



## Dissolved Oxygen Saturation - Discrete

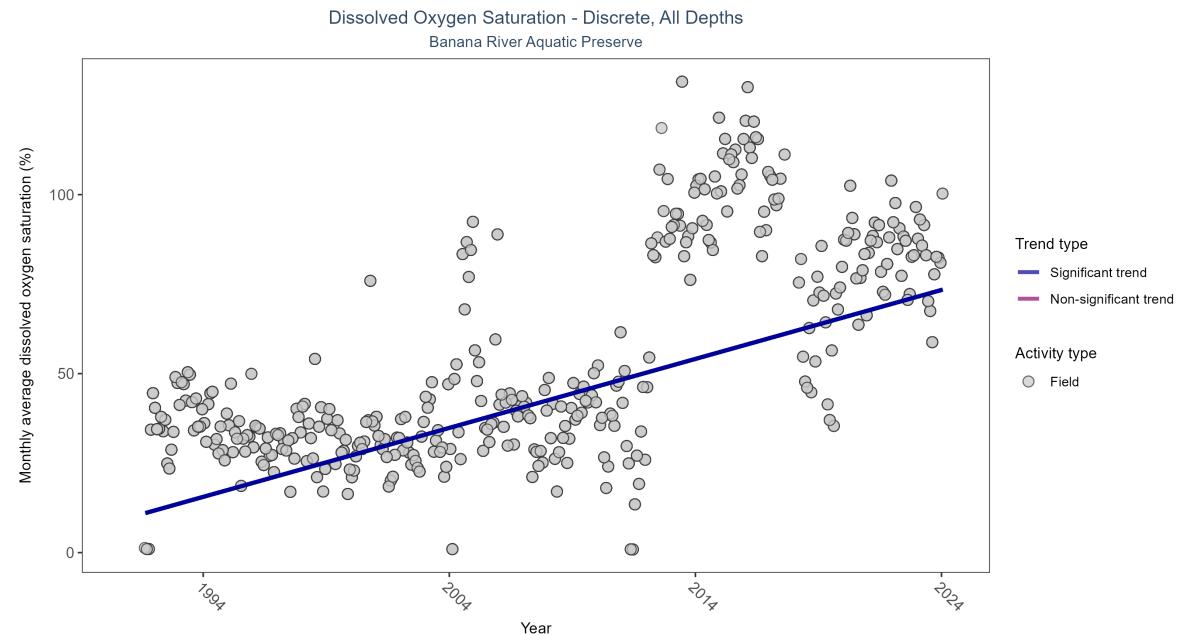
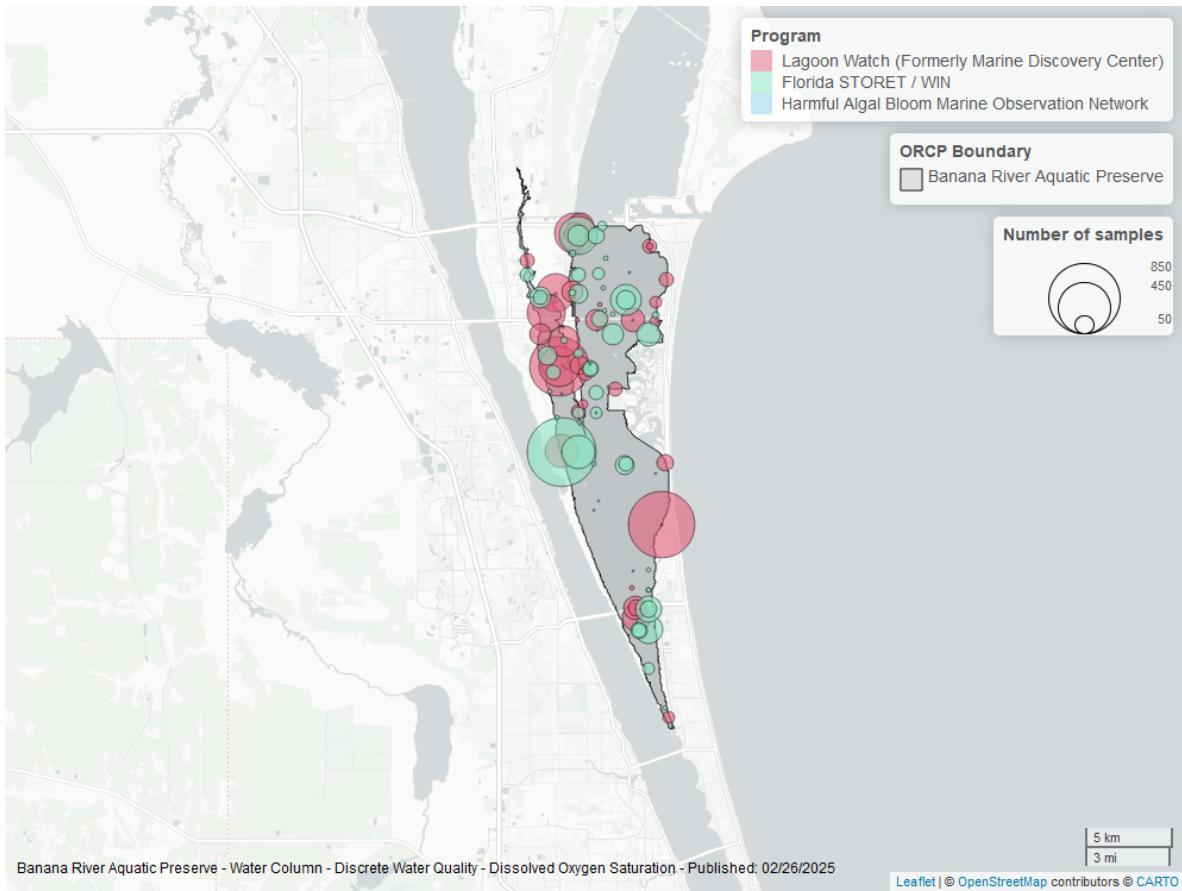


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation



## Dissolved Oxygen Saturation - Continuous

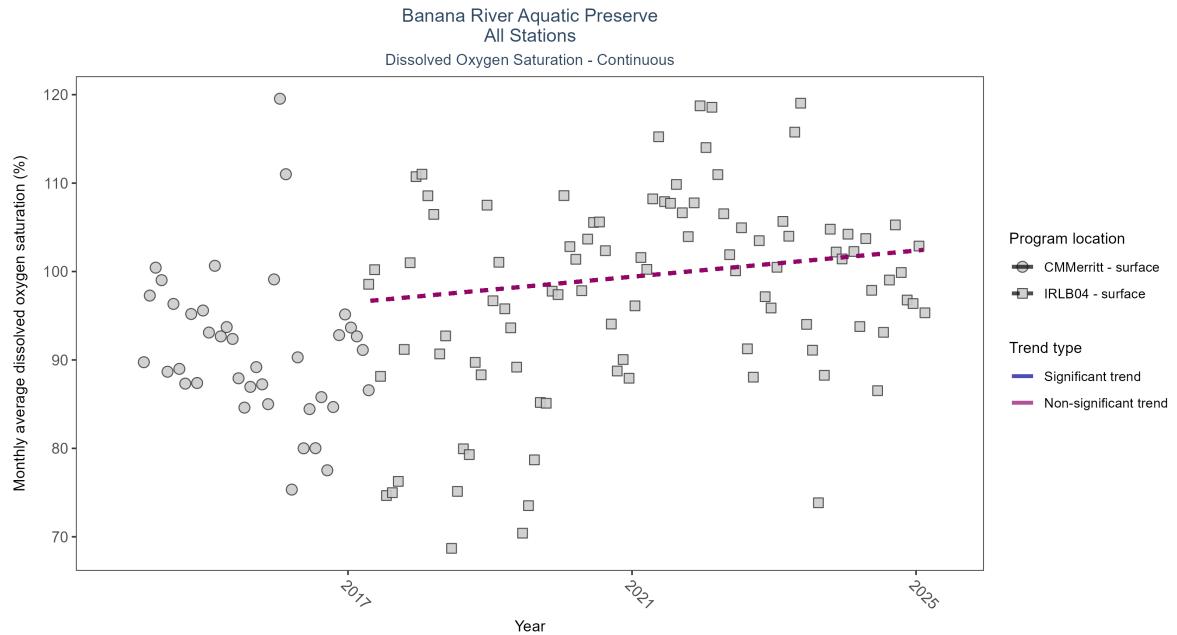
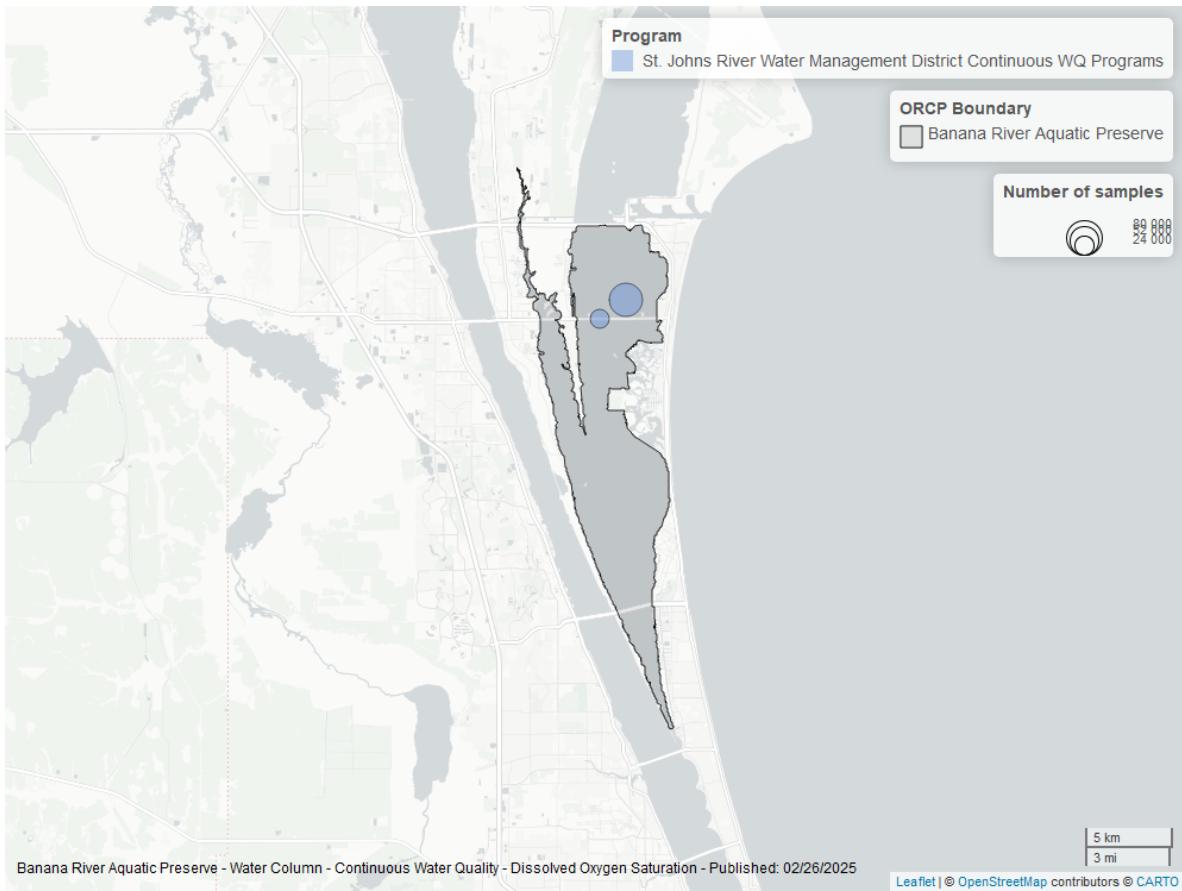


Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
IRLB04	No significant trend	80223	9	2017 - 2025	101.42	0.11	96.46	0.74	0.19247662506
CMMerritt	Insufficient data to calculate trend	25864	4	2014 - 2017	91.03	-	-	-	NA



## Salinity - Discrete

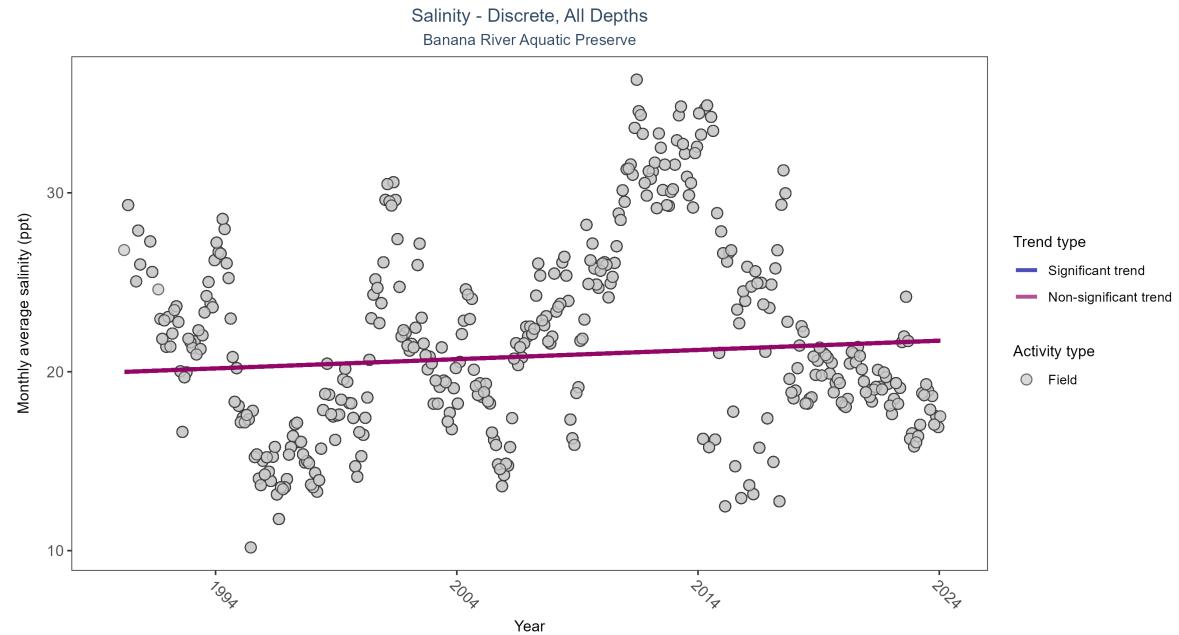
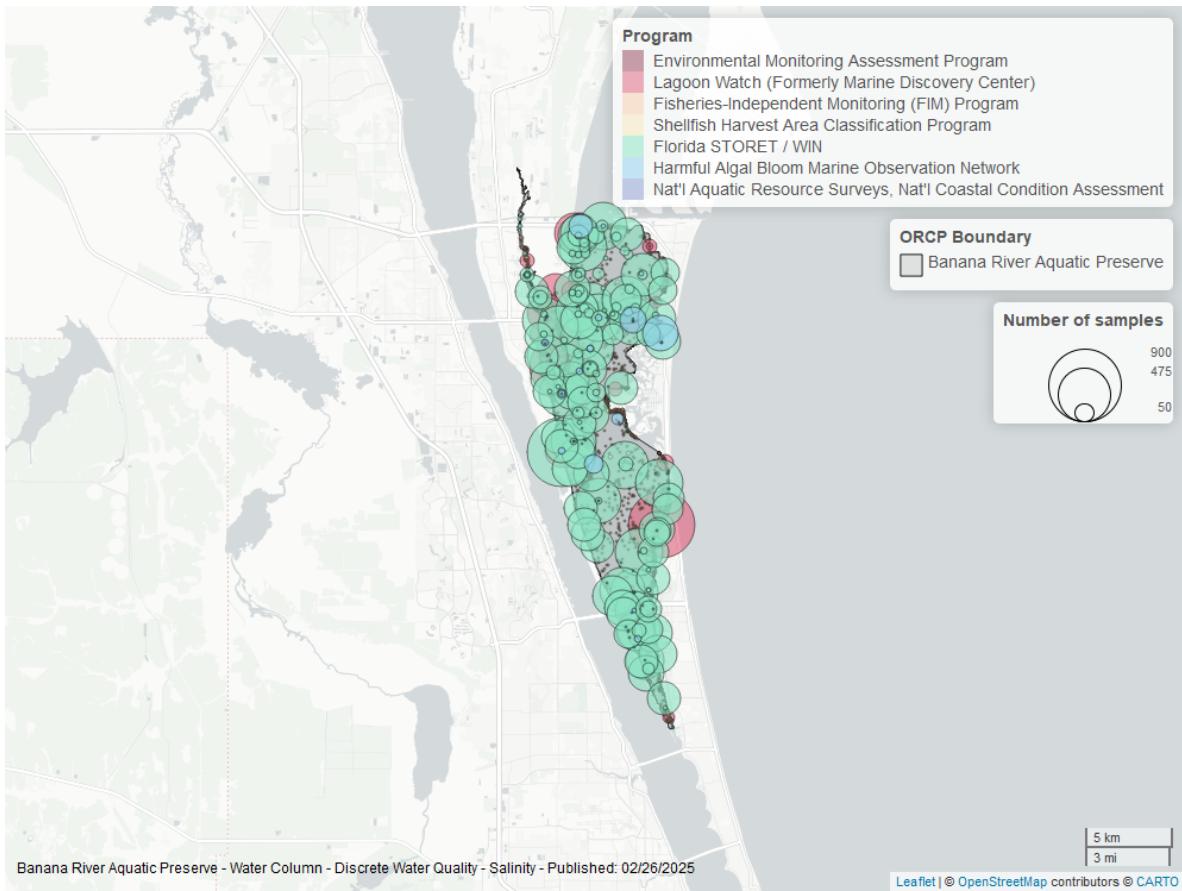


Table 7: Seasonal Kendall-Tau Results for - Salinity

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	31351	35	1990 - 2024	19.8	0.06522	19.97985	0.05162	0.06723707682126144058454286778214736841619014740



## Salinity - Continuous

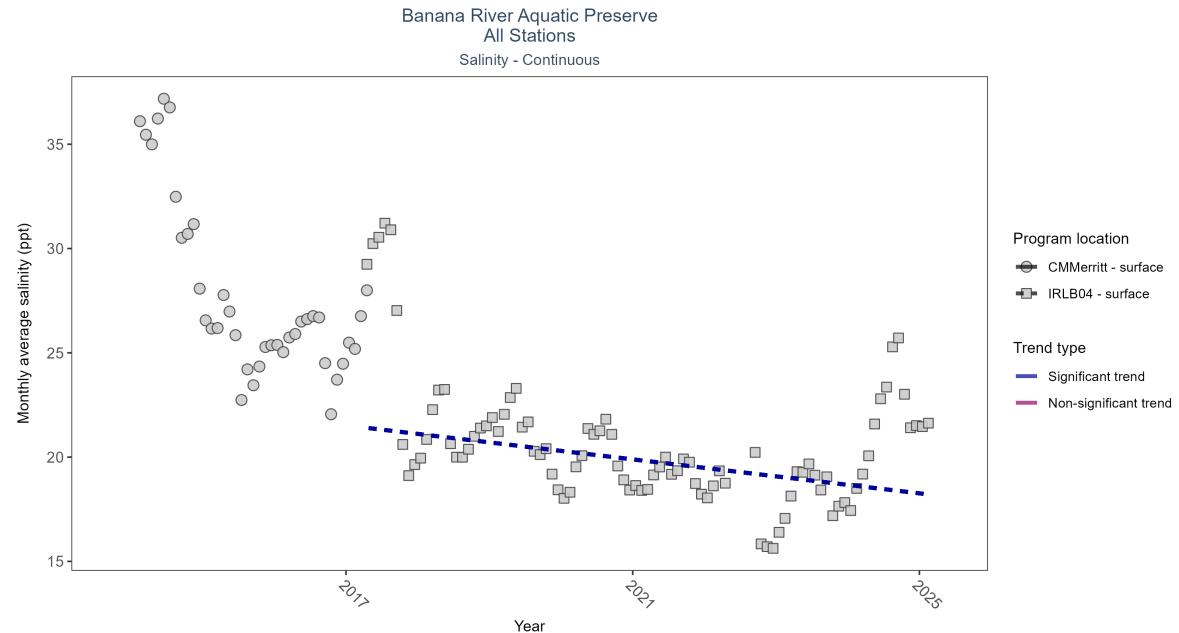
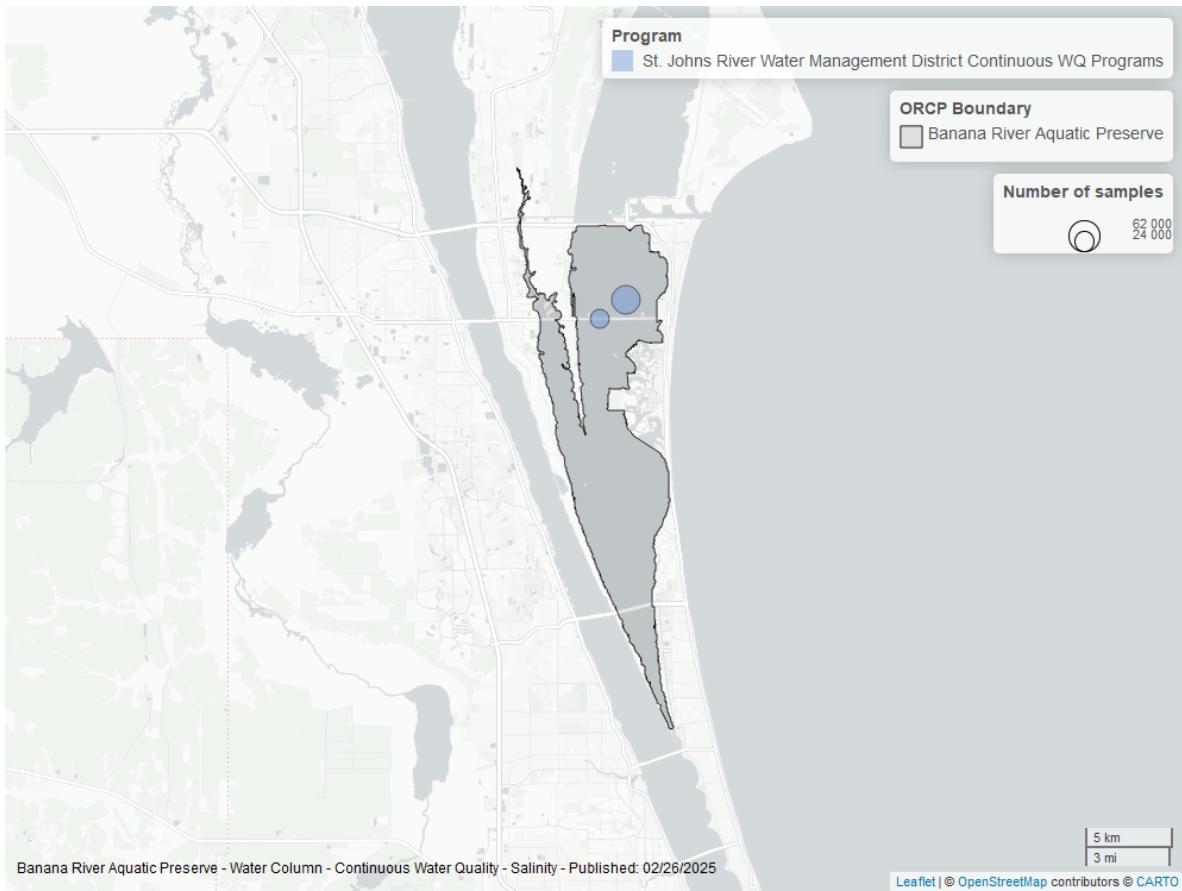


Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
IRLB04	Significantly decreasing trend	63758	9	2017 - 2025	19.89	-0.36	21.52	-0.41	0.0000474373769602
CMMerritt	Insufficient data to calculate trend	25902	4	2014 - 2017	26.40	-	-	-	NA



## Water Temperature - Discrete

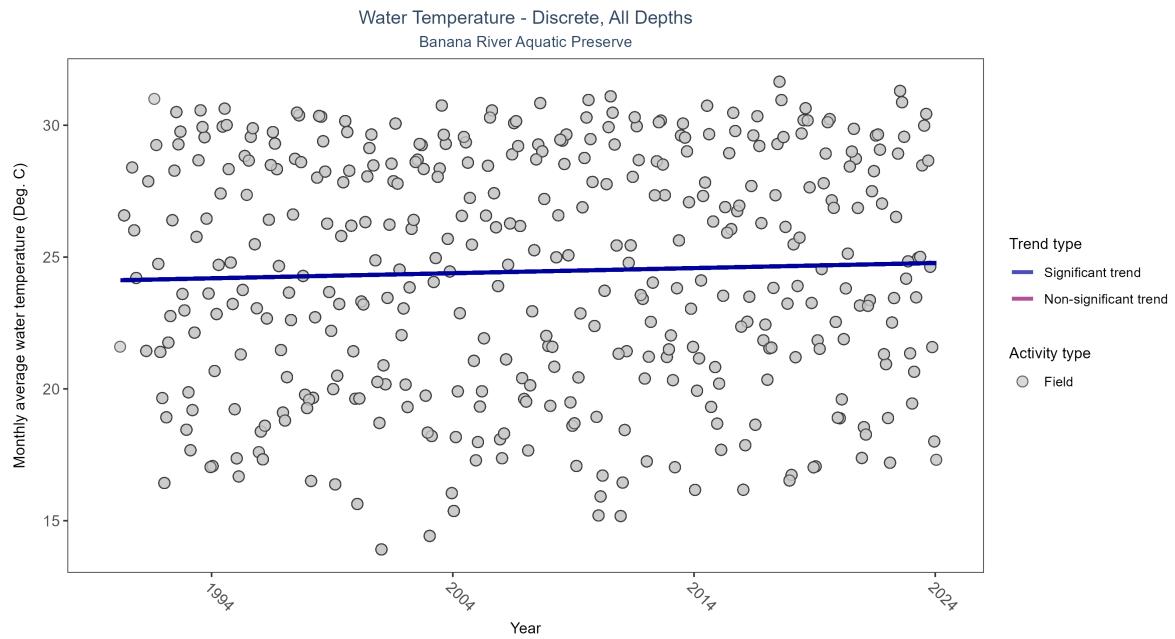
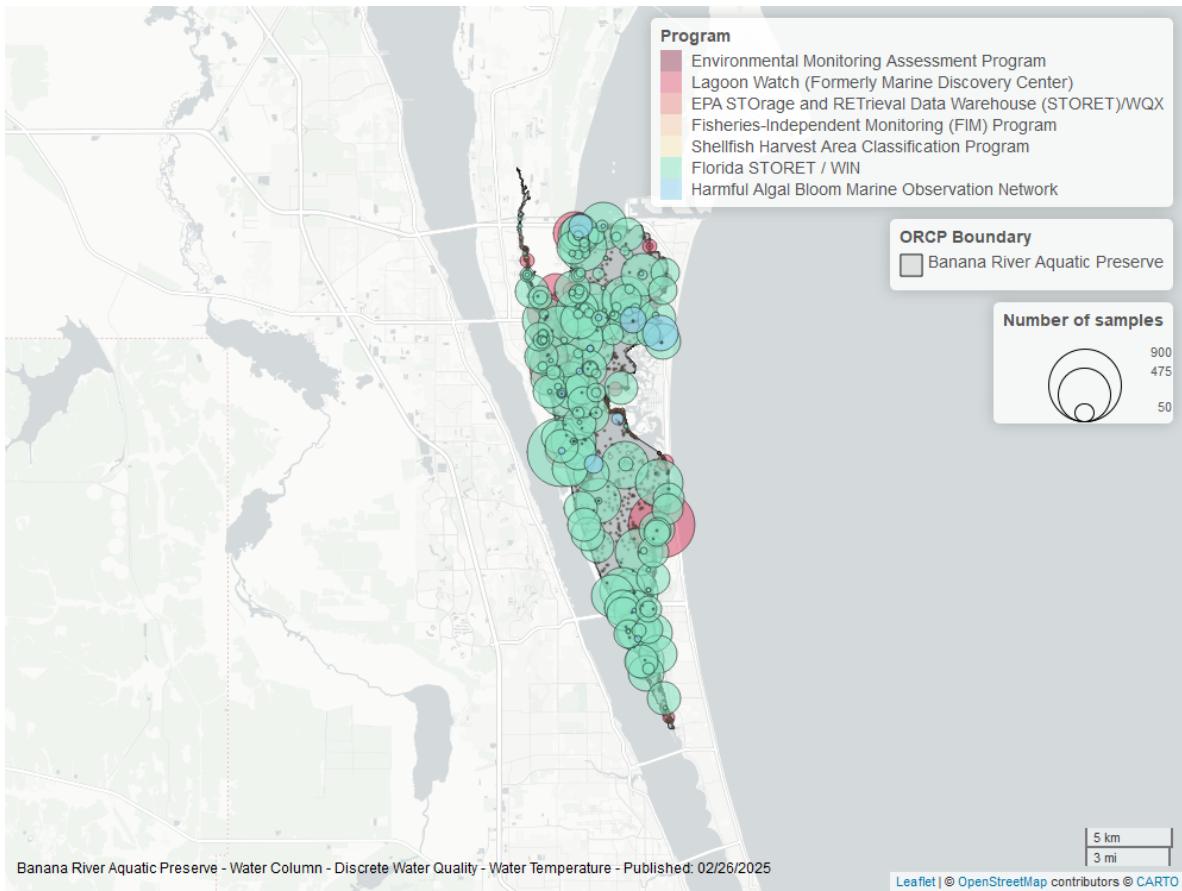


Table 9: Seasonal Kendall-Tau Results for - Water Temperature

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	31300	35	1990 - 2024	25.5	0.10804	24.11772	0.01936	0.002287321494465692



## Water Temperature - Continuous

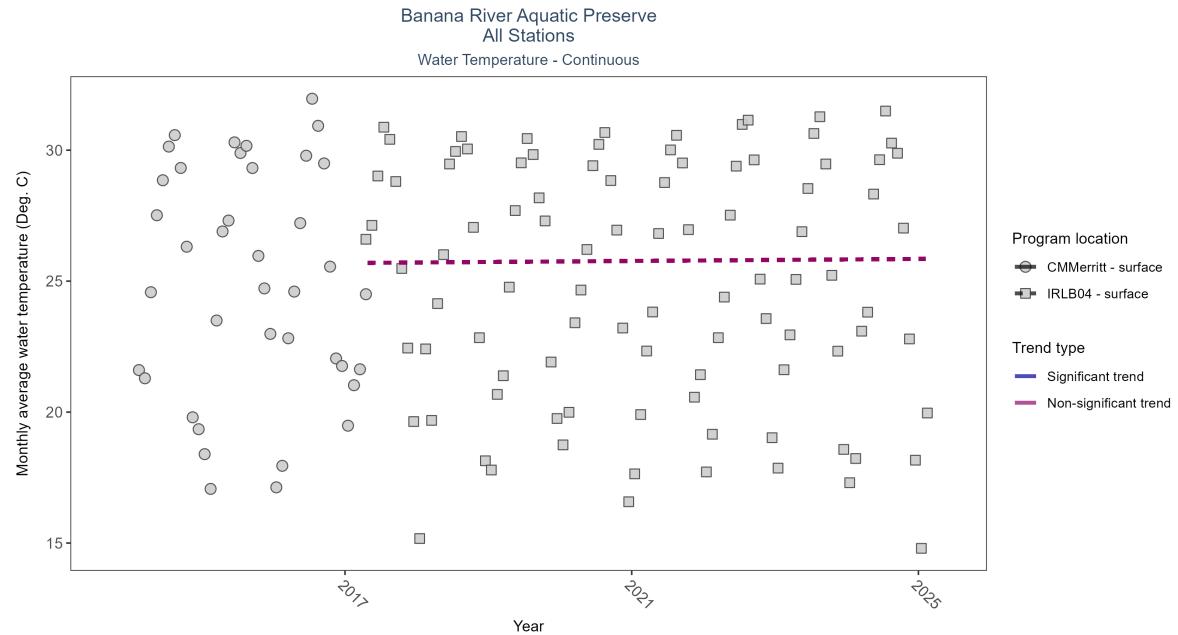
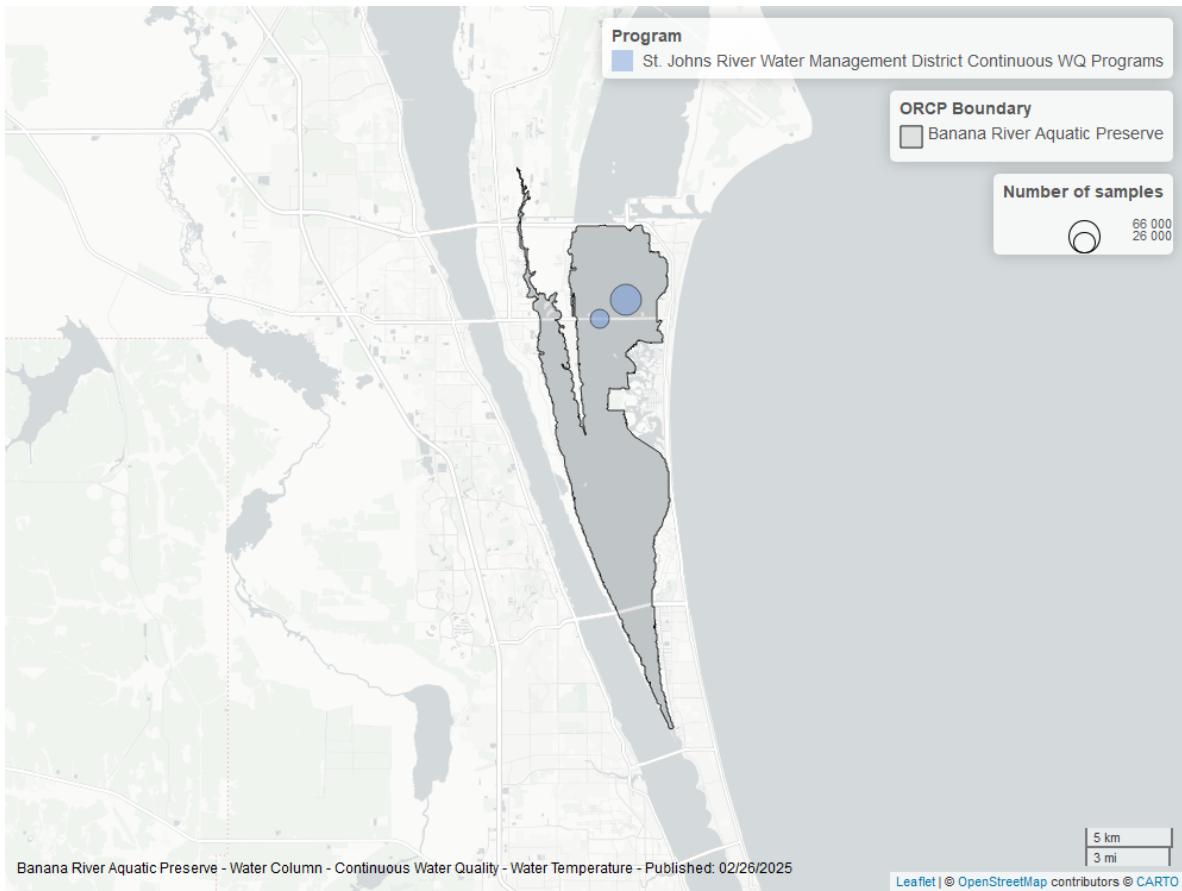


Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
IRLB04	No significant trend	67625	9	2017 - 2025	25.69	0.05	25.69	0.02	0.612271276884568
CMMerritt	Insufficient data to calculate trend	27484	4	2014 - 2017	25.43	-	-	-	NA



## pH - Discrete

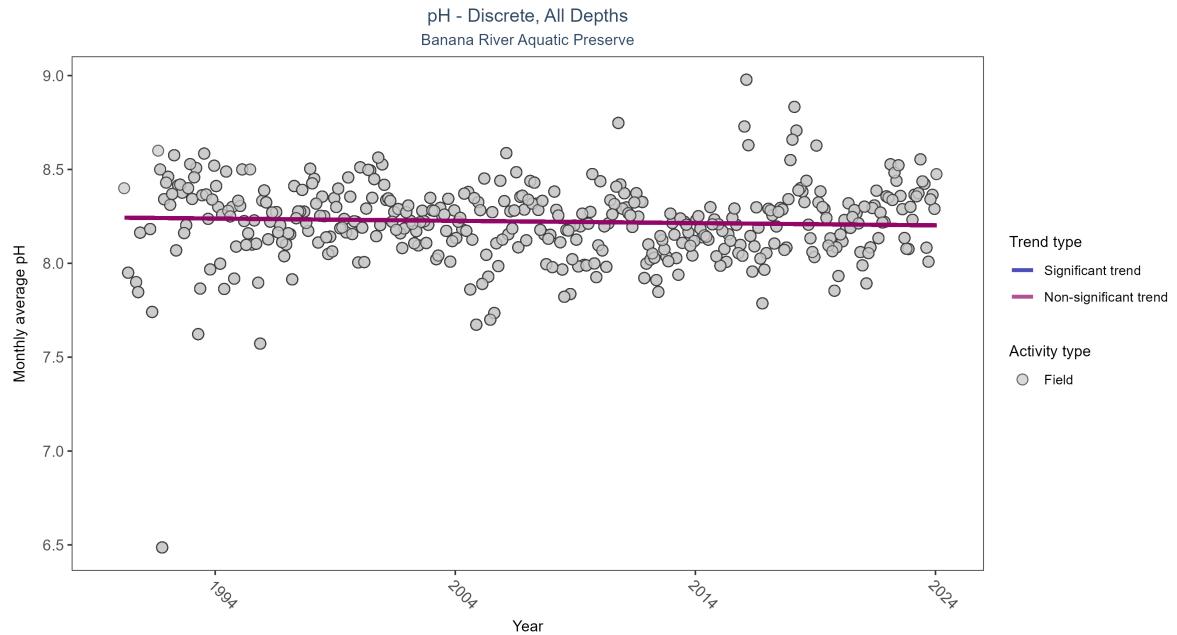
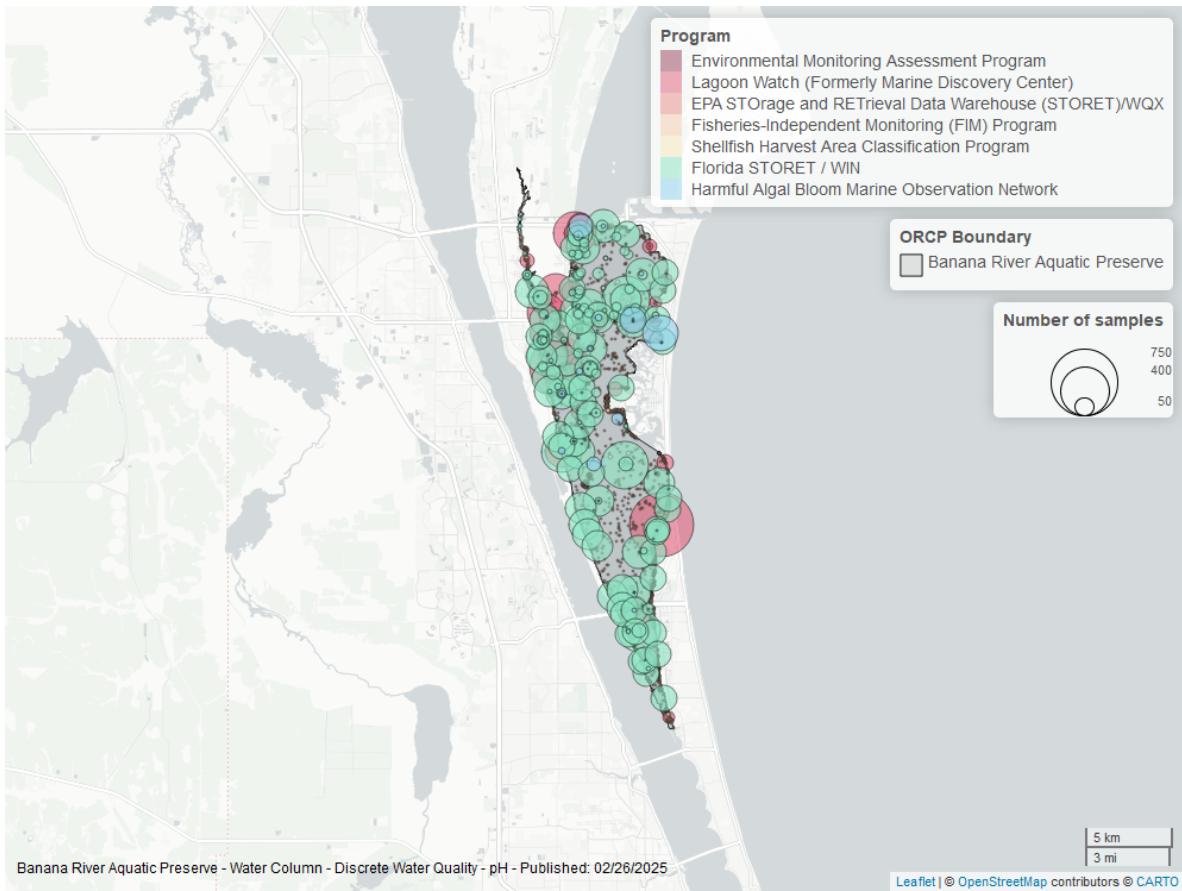


Table 11: Seasonal Kendall-Tau Results for - pH

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	22717	35	1990 - 2024	8.2	-0.04137	8.24329	-0.00121	0.2599330841700552859000166135956533253193



## pH - Continuous

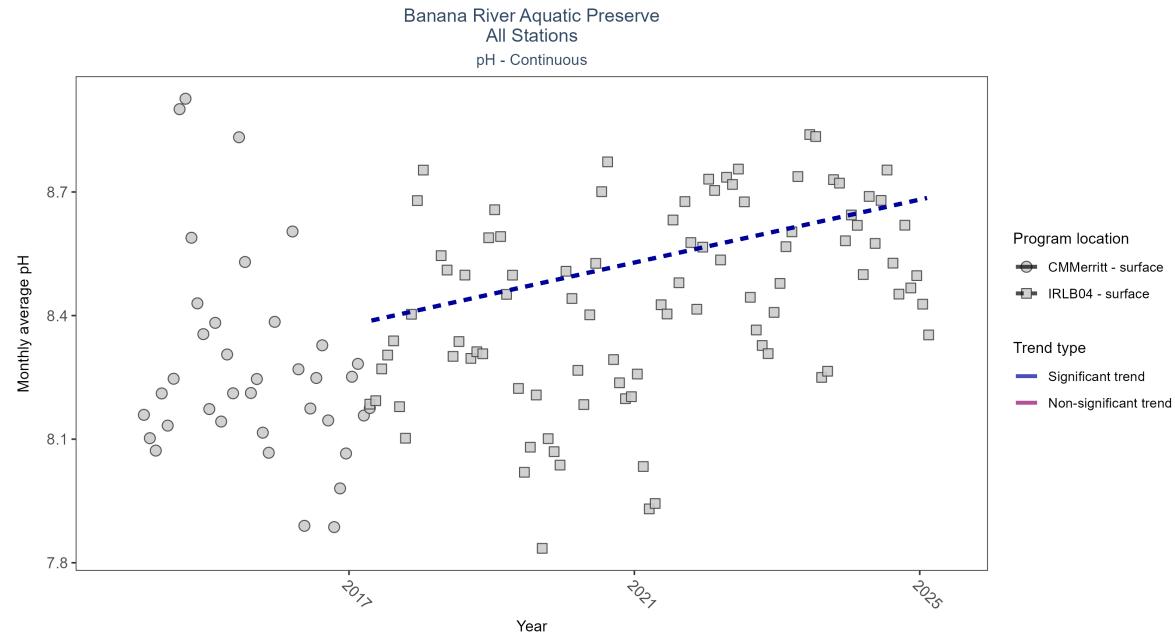
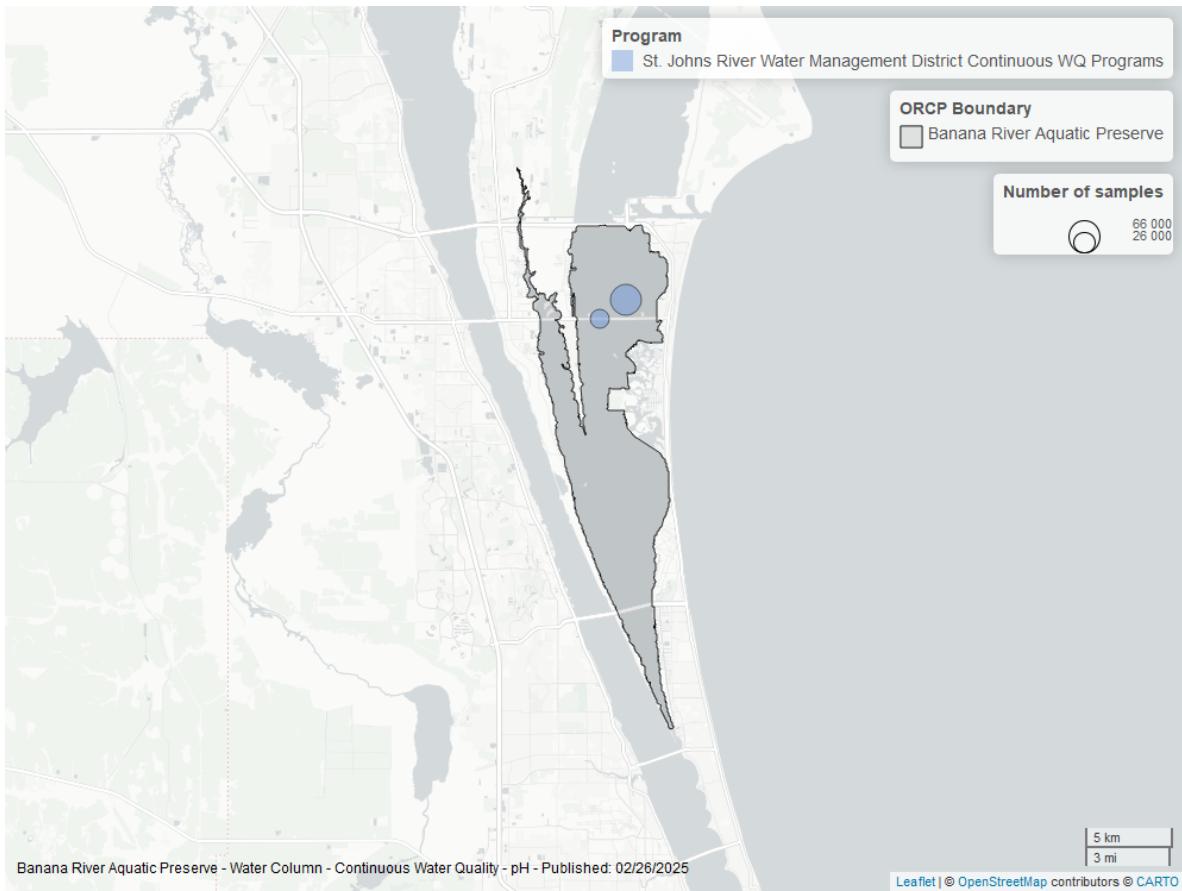


Table 12: Seasonal Kendall-Tau Results for All Stations - pH

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
IRLB04	Significantly increasing trend	67537	9	2017 - 2025	8.47	0.24	8.38	0.04	0.0047459529
CMMerritt	Insufficient data to calculate trend	27417	4	2014 - 2017	8.22	-	-	-	NA



## Water Clarity

### Turbidity - Discrete

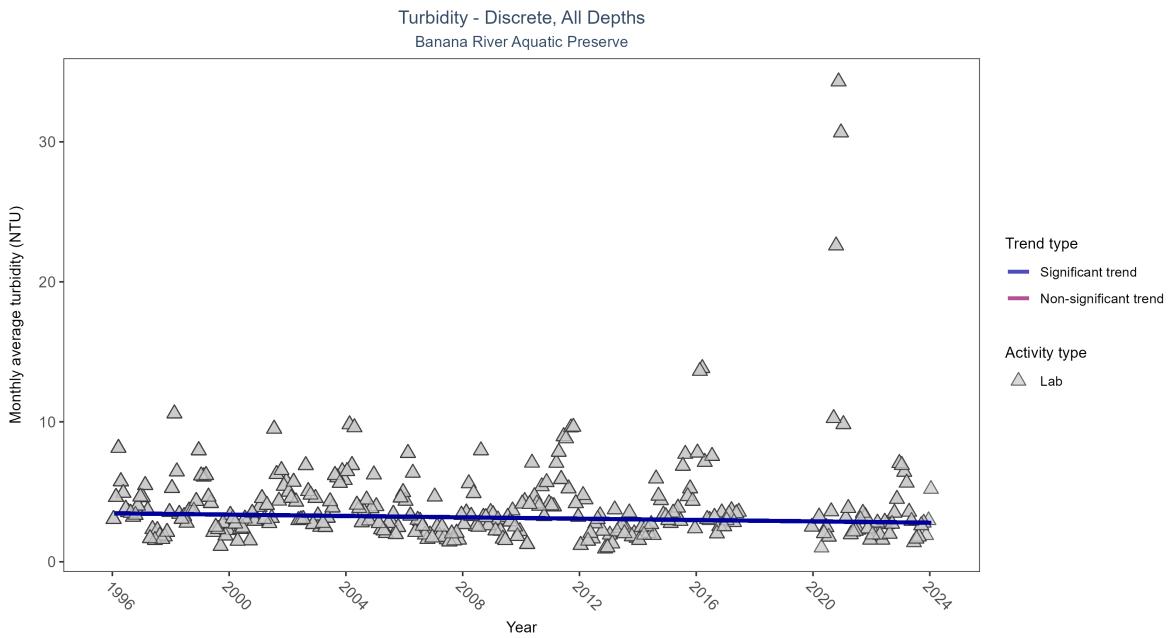
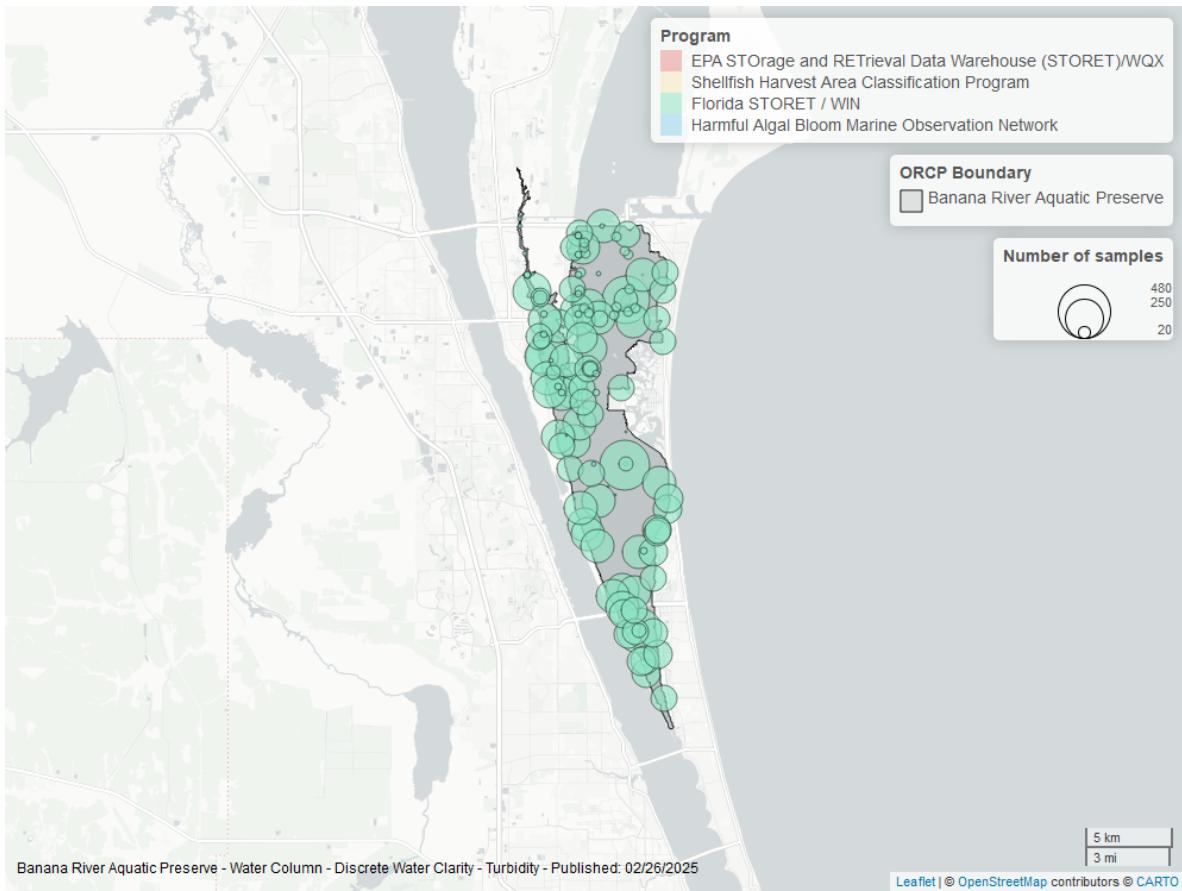


Table 13: Seasonal Kendall-Tau Results for - Turbidity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	13427	28	1996 - 2024	3.2	-0.09024	3.46631	-0.02409	0.02564325274150202130



## Turbidity - Continuous

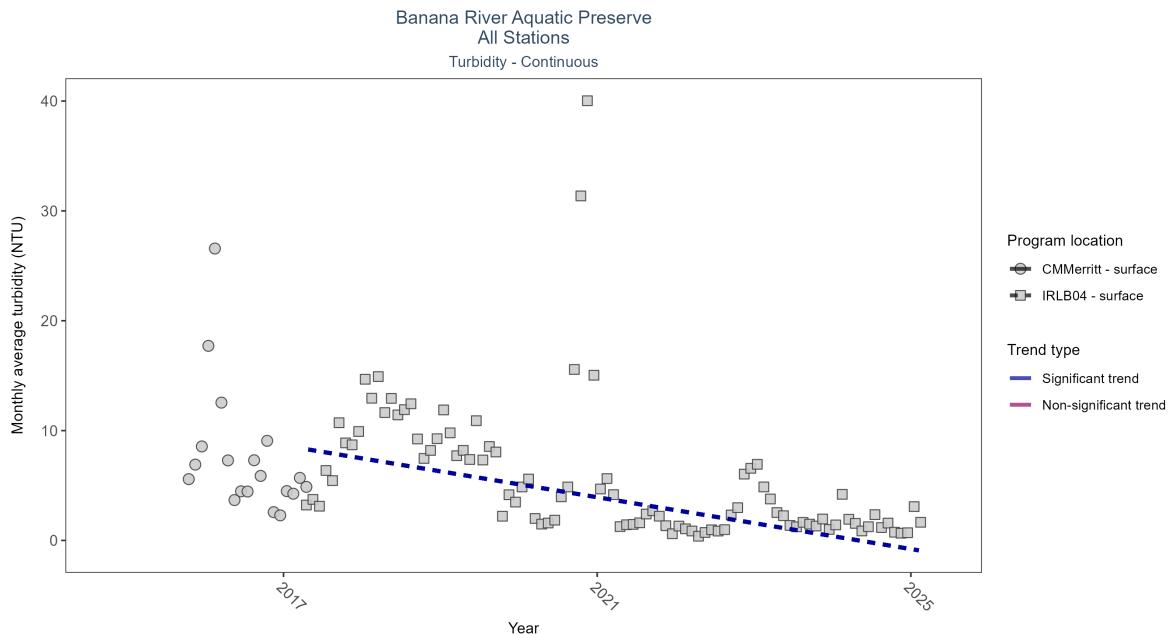
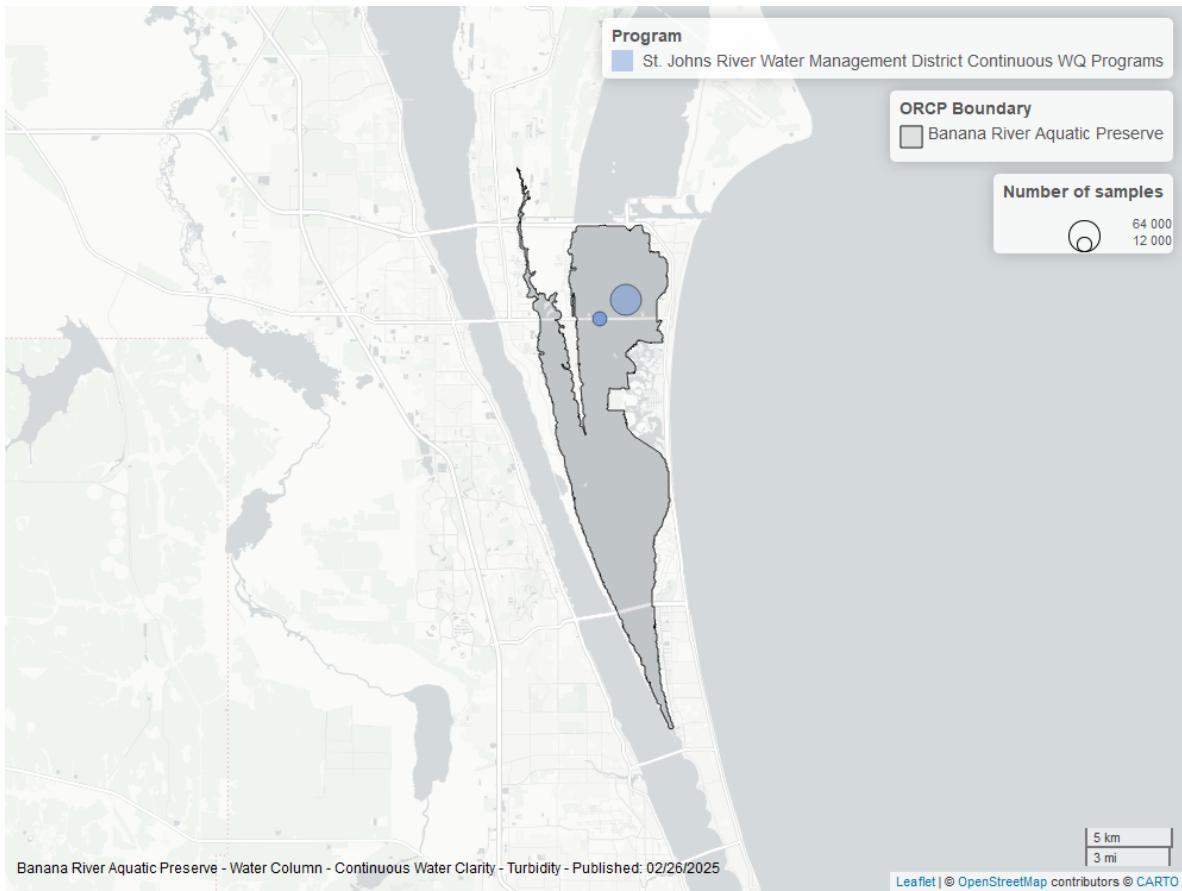


Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
IRLB04	Significantly decreasing trend	64778	9	2017 - 2025	3.04	-0.61	8.65	-1.18	0.0000000000007605615
CMMerritt	Insufficient data to calculate trend	12912	3	2015 - 2017	5.29	-	-	-	NA



## Total Suspended Solids - Discrete

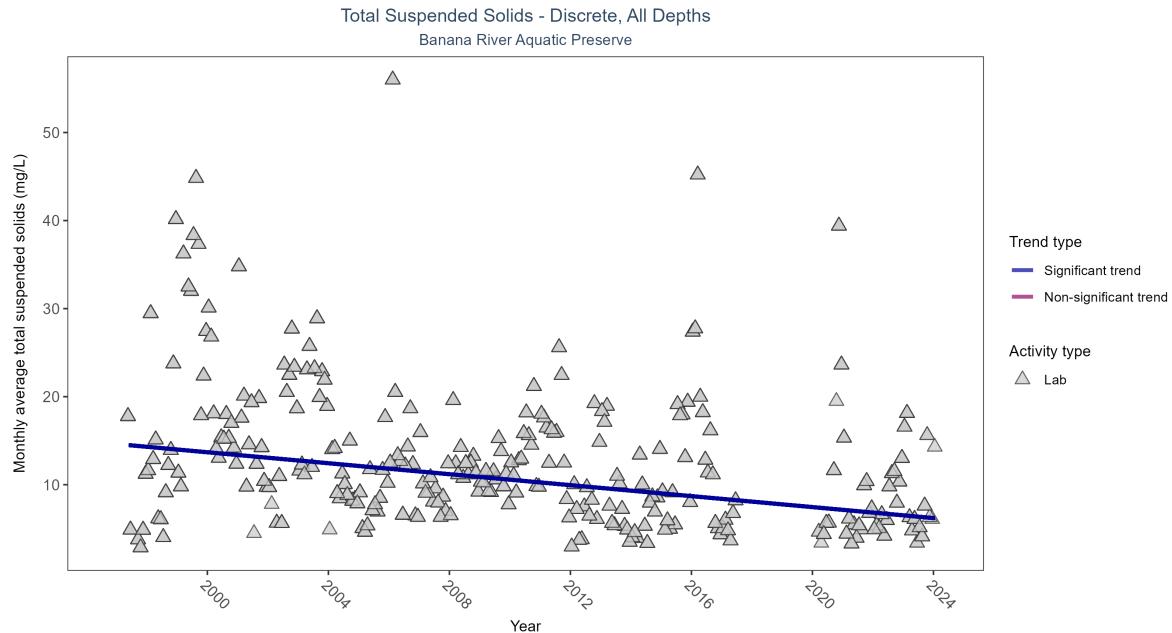
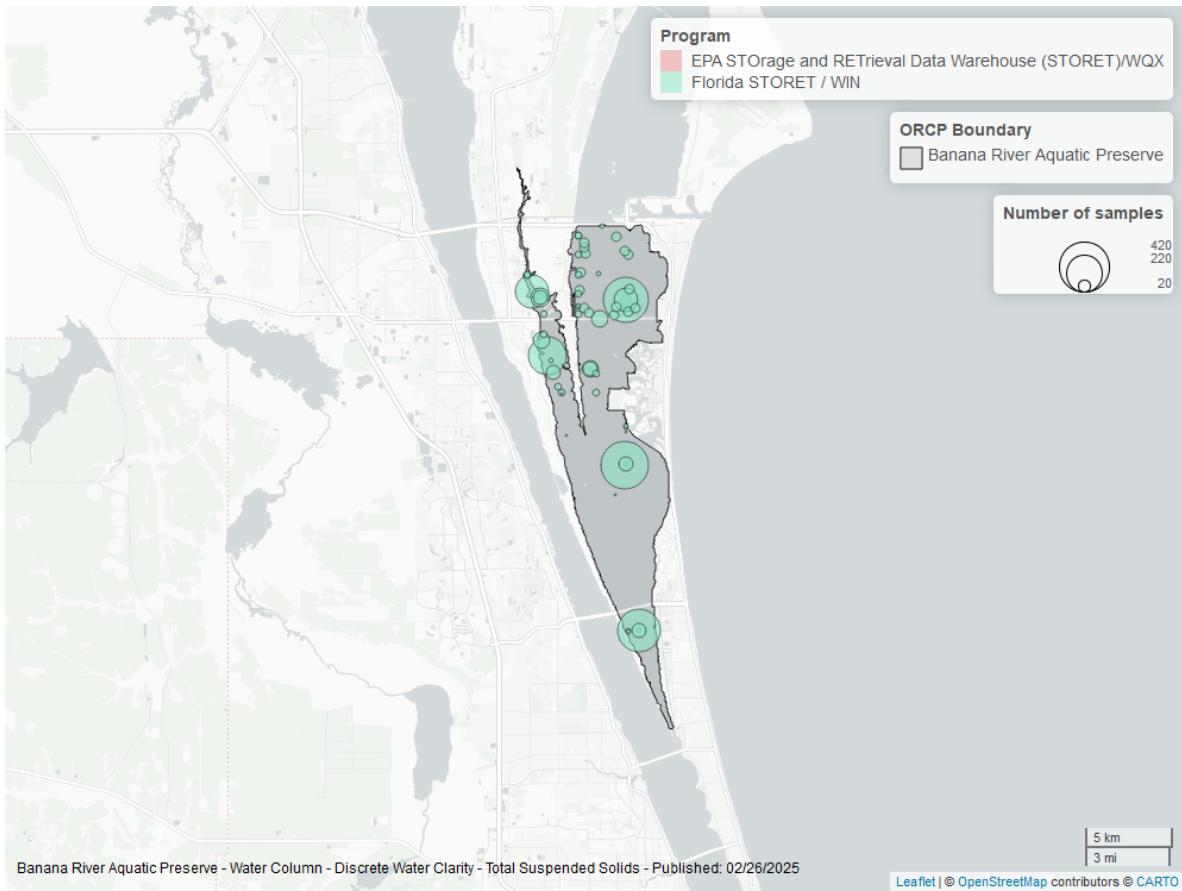


Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

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	2416	26	1997 - 2024	10	-0.26392	14.61993	-0.3114	0.00000000558825098081694035794670



### **Chlorophyll a, Uncorrected for Pheophytin - Discrete**

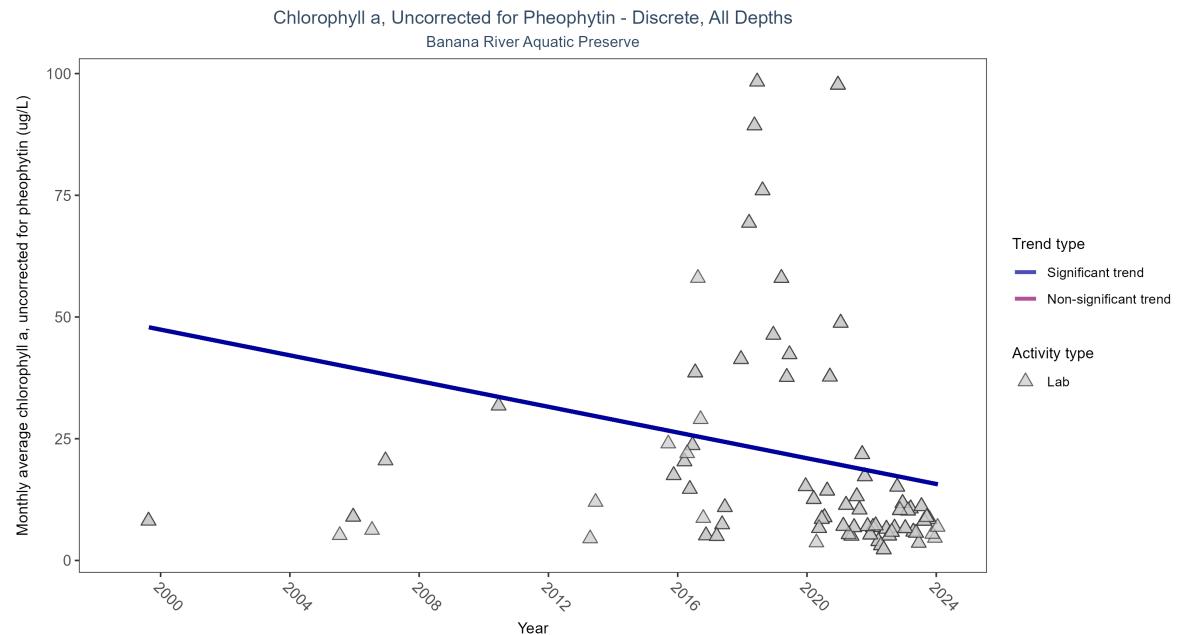
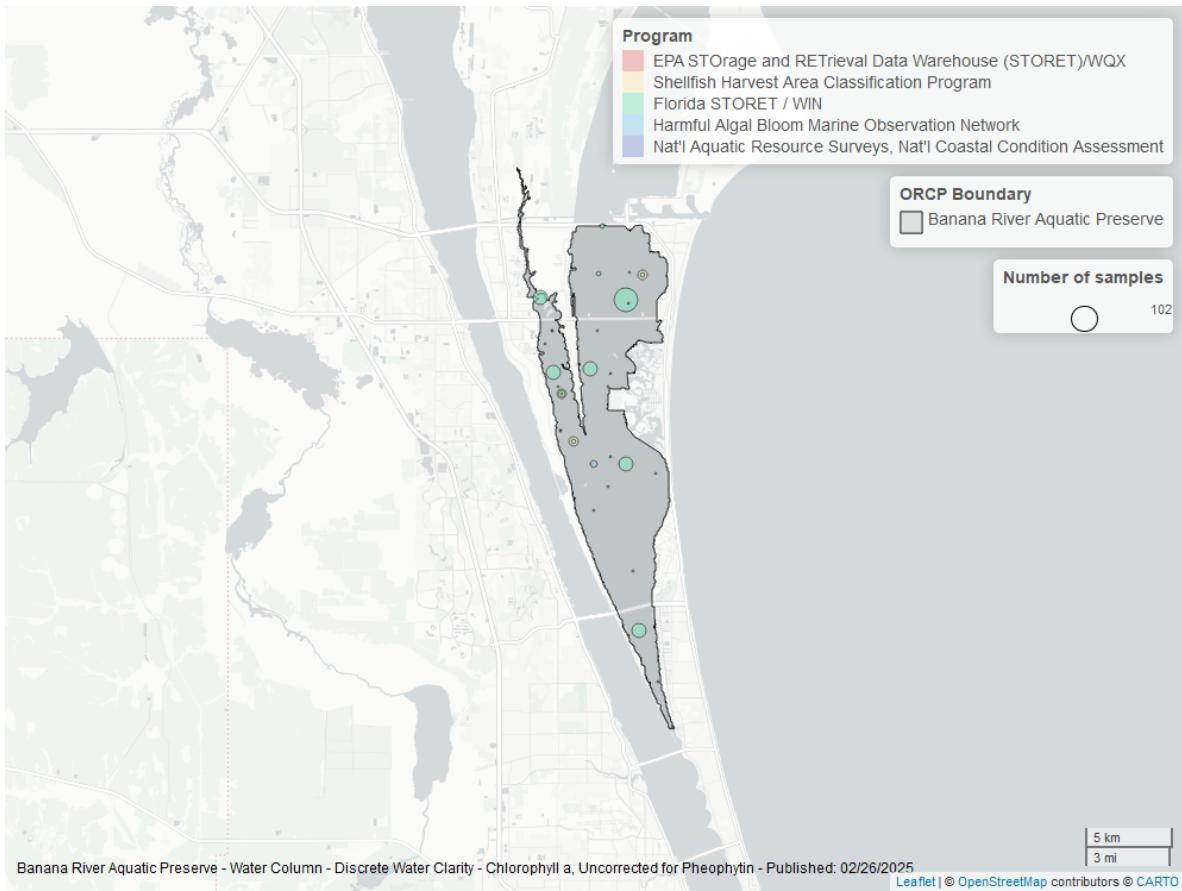


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

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	386	15	1999 - 2024	8.47787	-0.32167	48.73476	-1.32103	0.00030979817683326690575668



### Chlorophyll a, Corrected for Pheophytin - Discrete

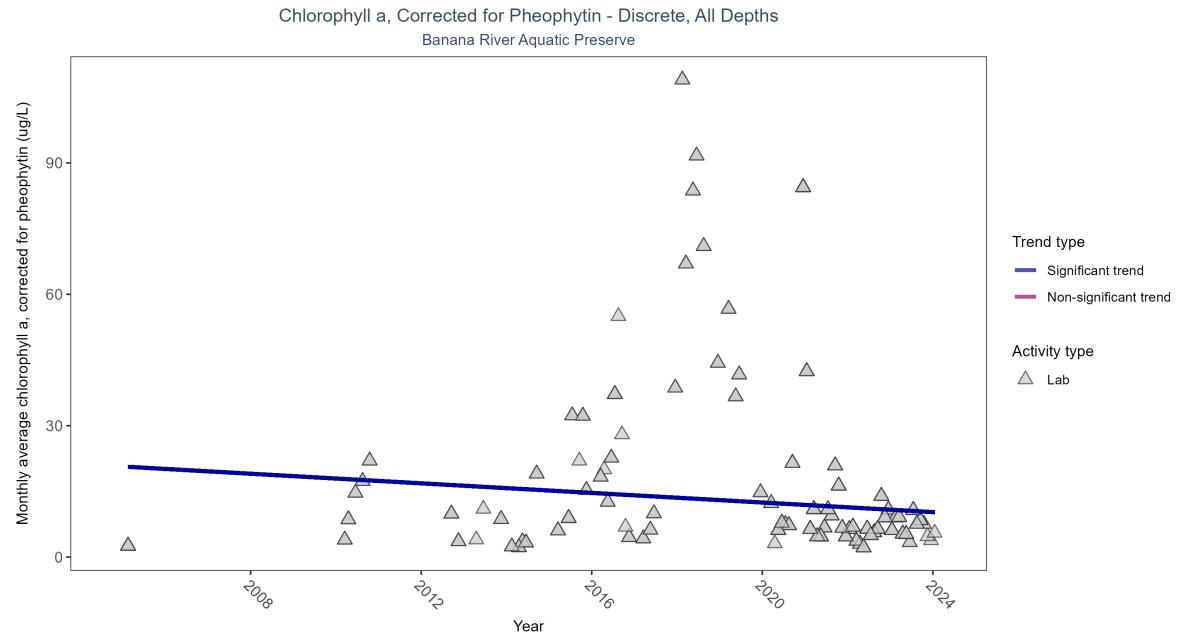
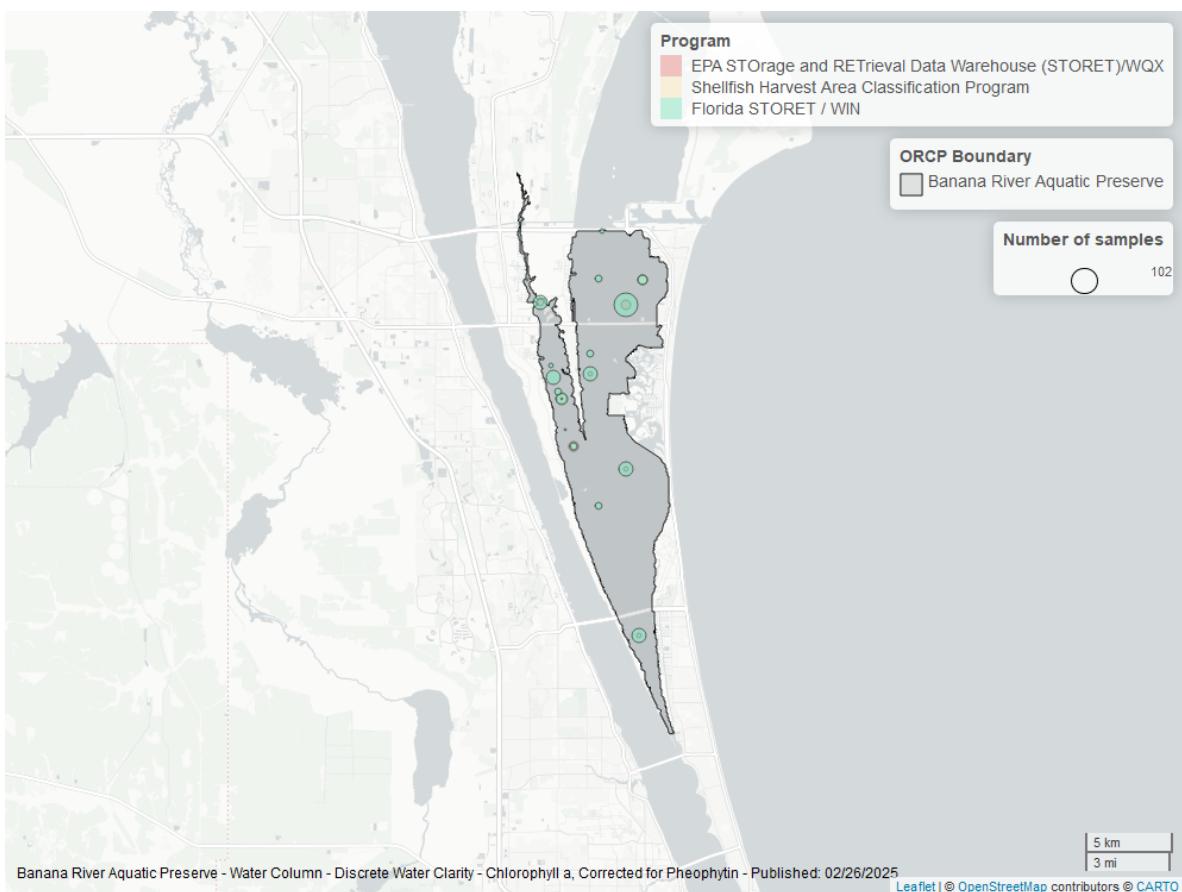


Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

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	475	15	2005 - 2024	7.0221	-0.23457	20.67029	-0.54761	0.0153532171302120015038417122



## Secchi Depth - Discrete

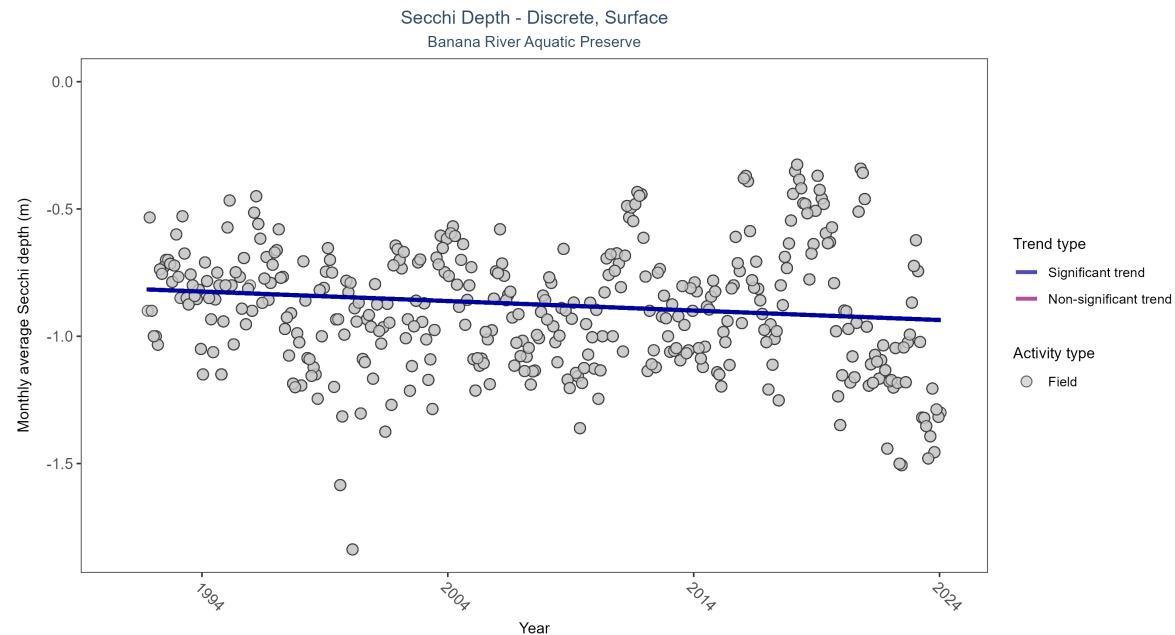
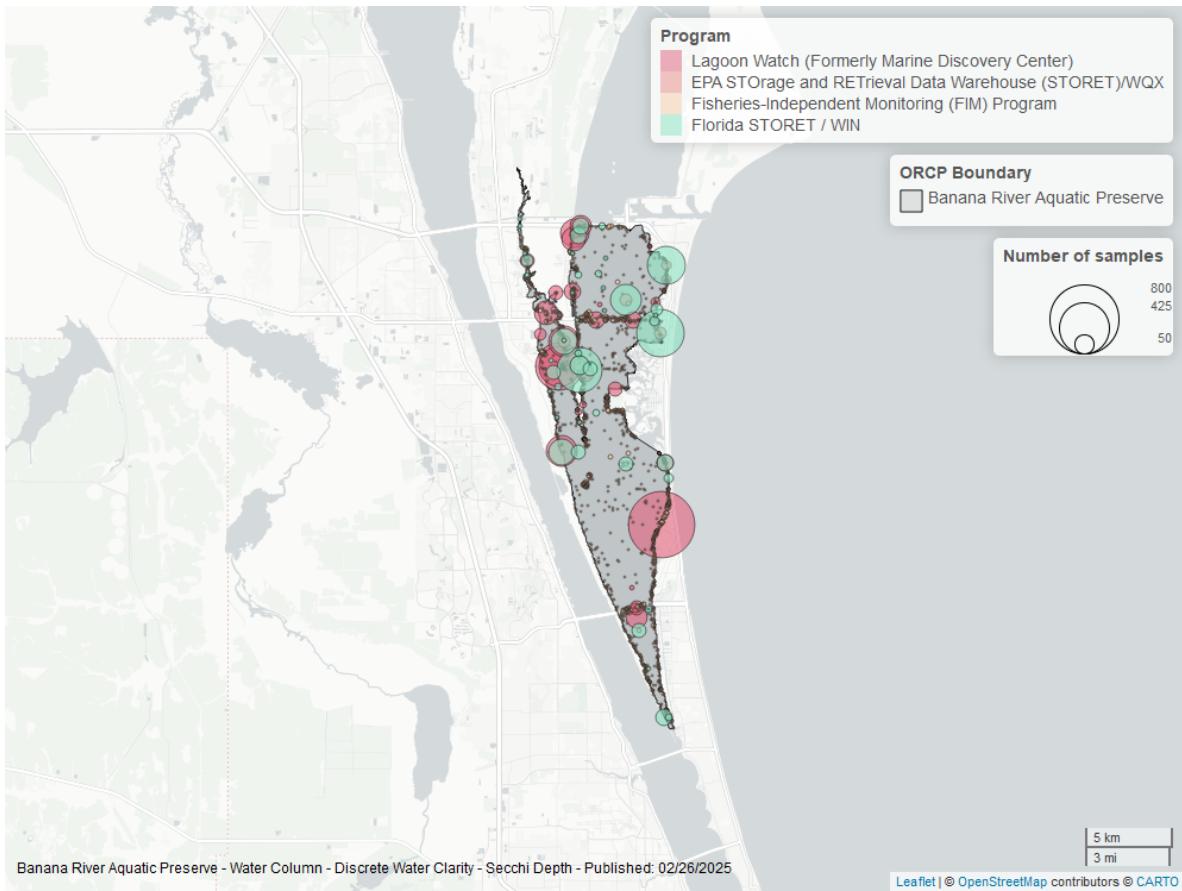


Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

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	8795	34	1991 - 2024		-0.85	-0.09097	-0.81327	-0.00373 0.0112487852299652593690559854167



## Colored Dissolved Organic Matter - Discrete

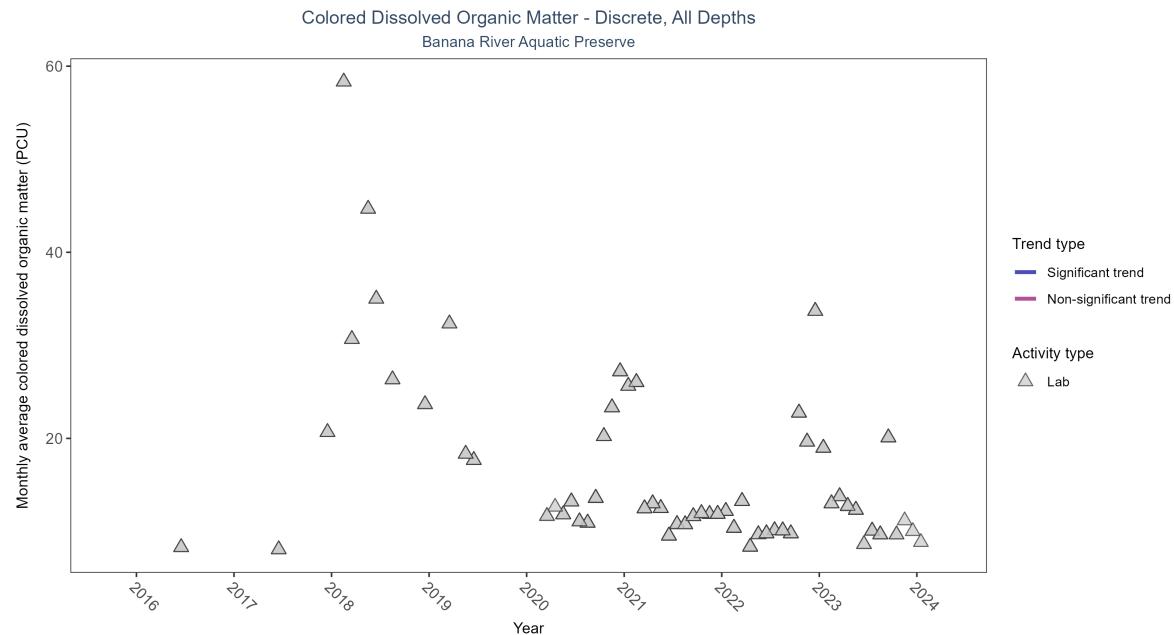


Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

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	332	9	2016 - 2024	11.8761	-	-	-	NA

