

Yellow River Marsh Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 18 March, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

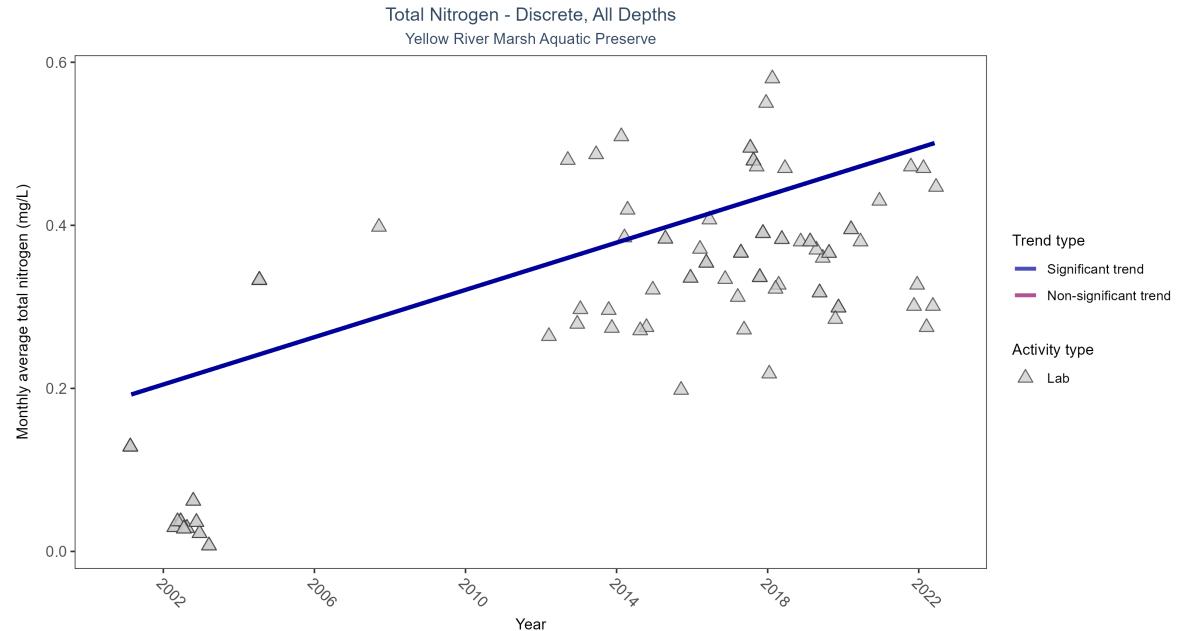
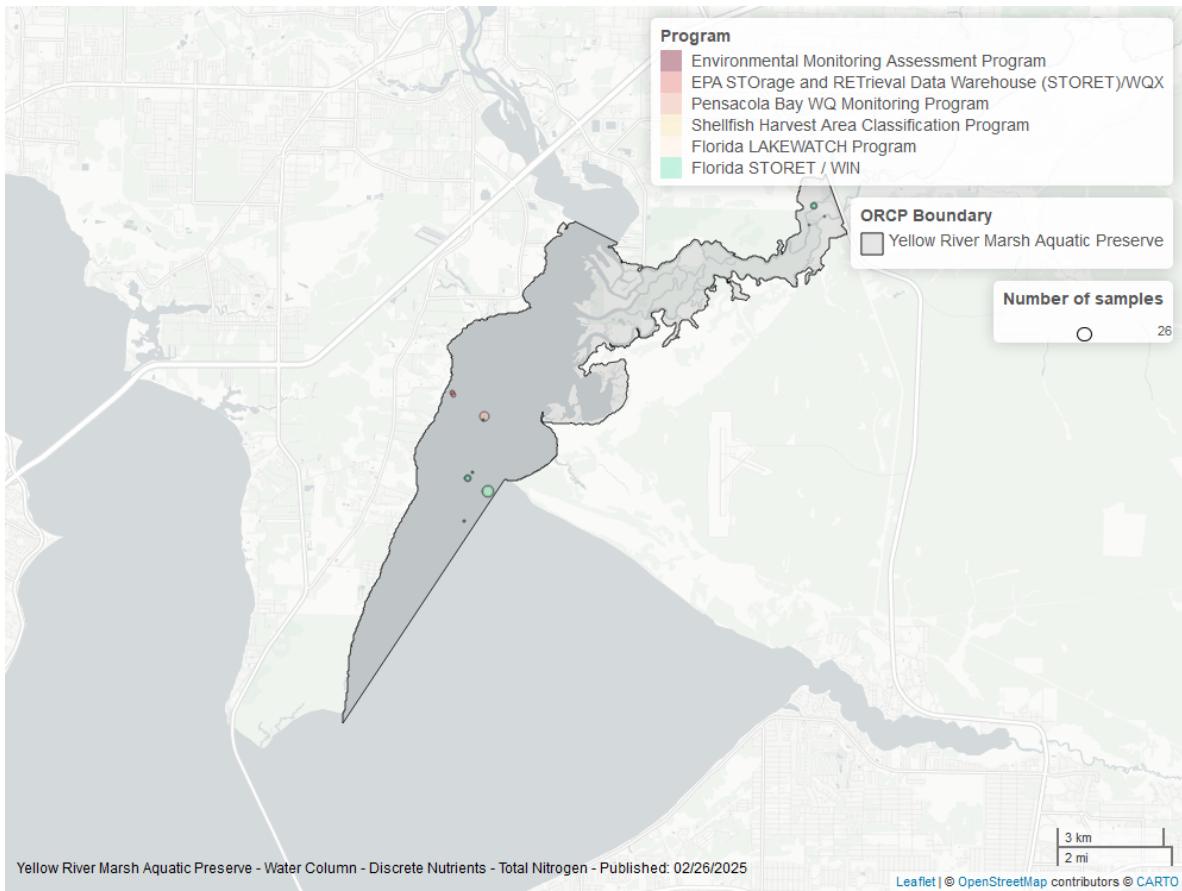


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

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	109	16	2001 - 2022	0.322	0.28234	0.19033	0.0145	0.00881342938212345376747247627



Total Phosphorus - Discrete

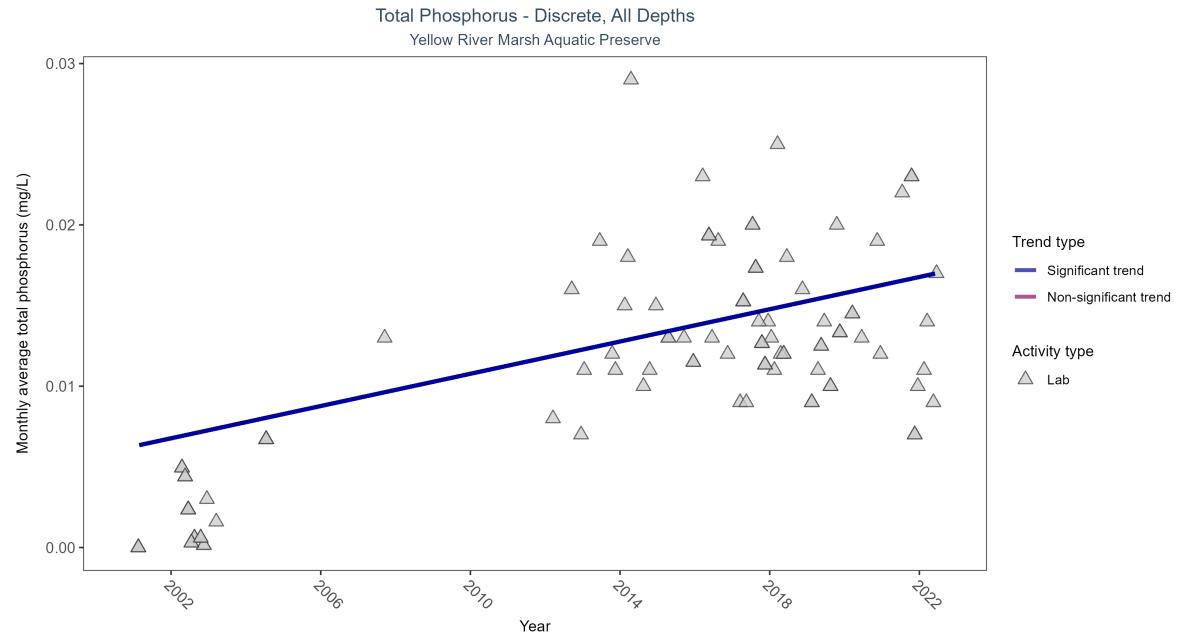
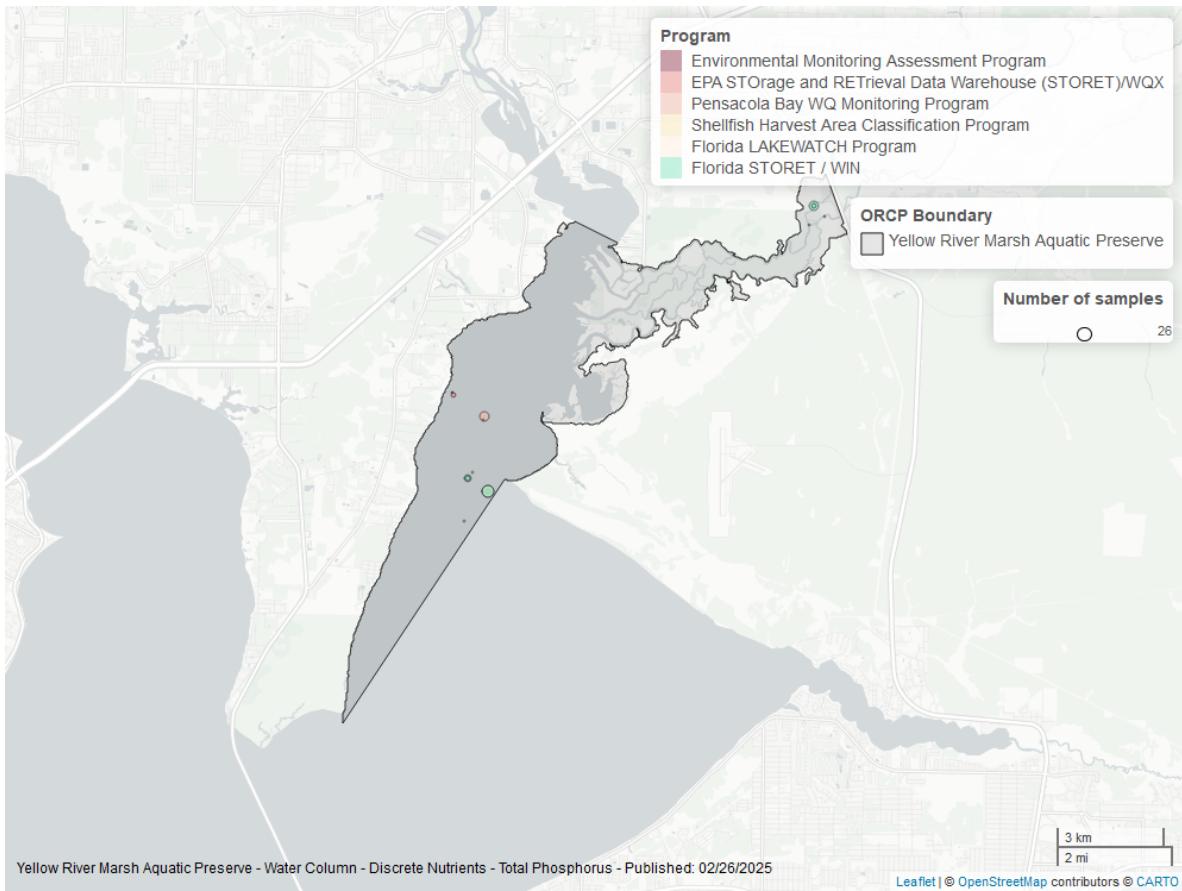


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

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	105	16	2001 - 2022	0.0117	0.31744	0.00627	0.0005	0.00656165010312273044162933999245979066472500562667846679687500000



Water Quality

Dissolved Oxygen - Discrete

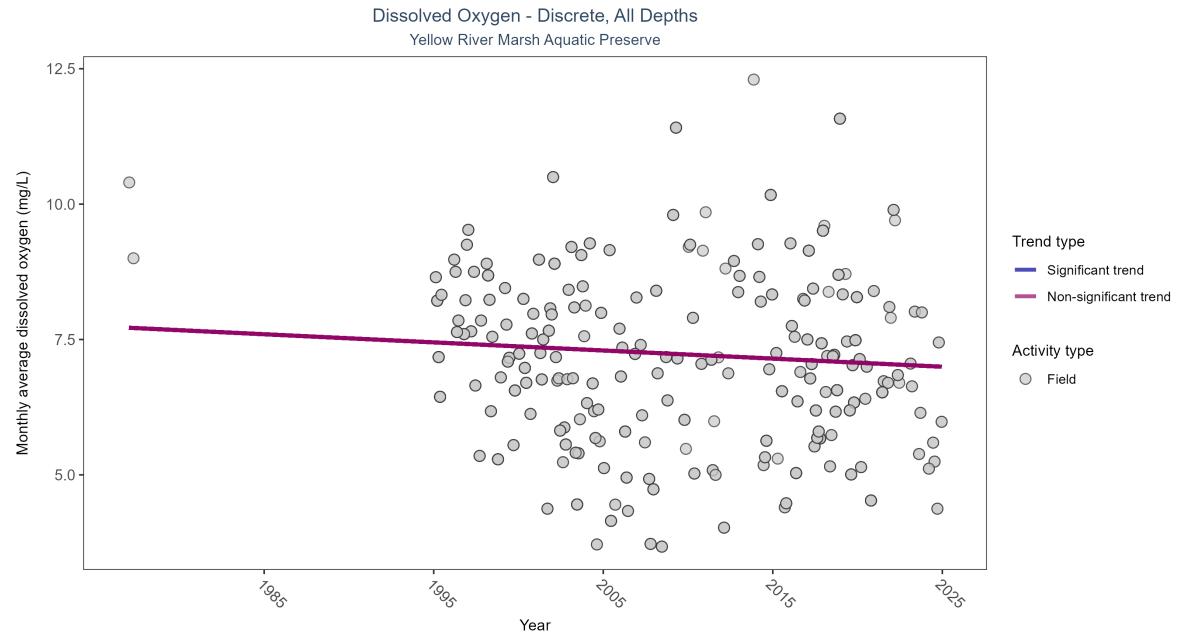
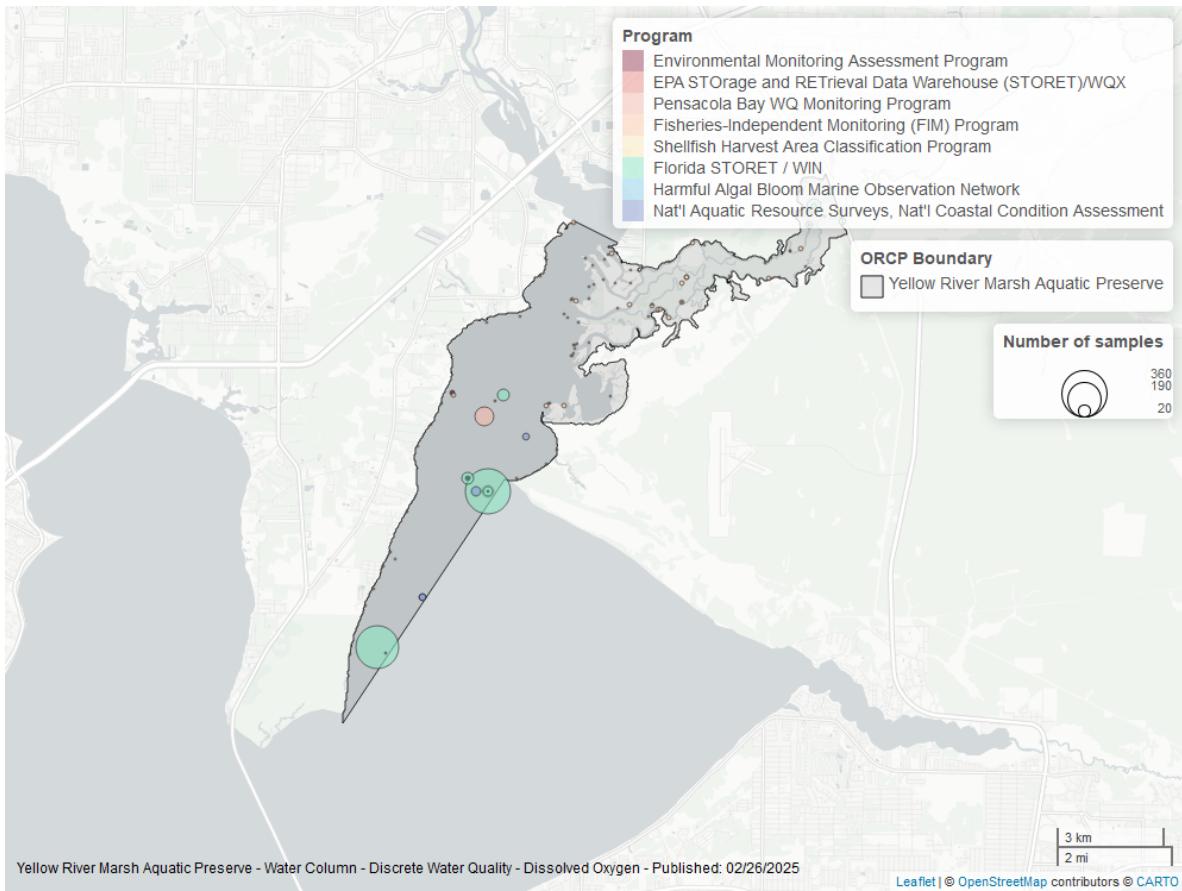


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

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	1109	31	1977 - 2024	7.2	-0.04835	7.71684	-0.015	0.16589473217381540



Dissolved Oxygen - Continuous

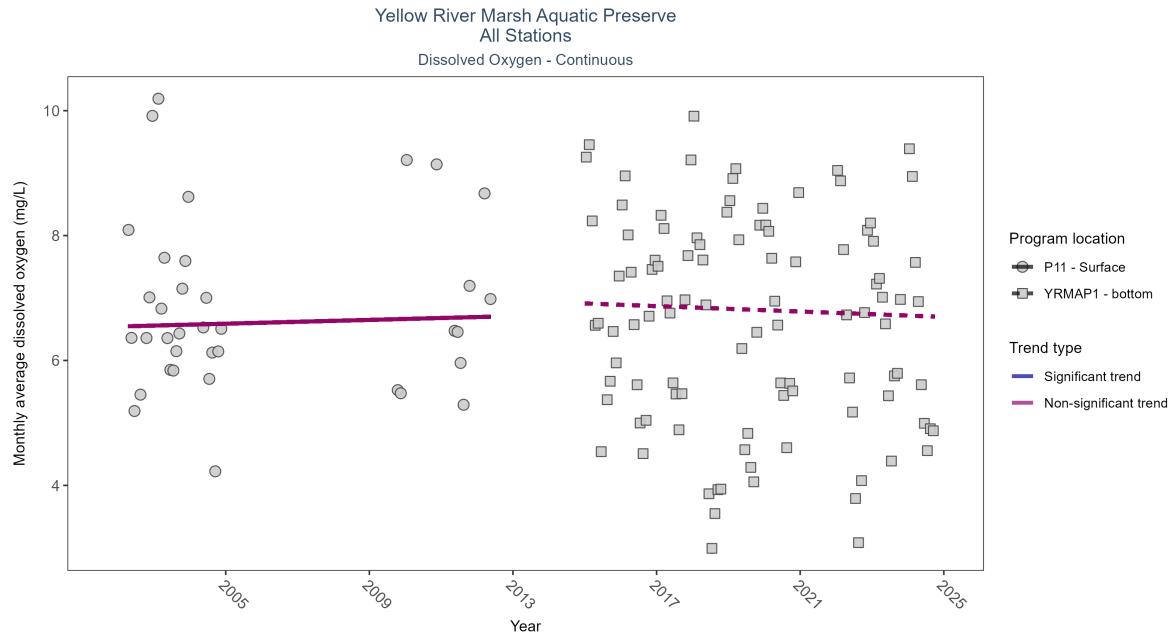
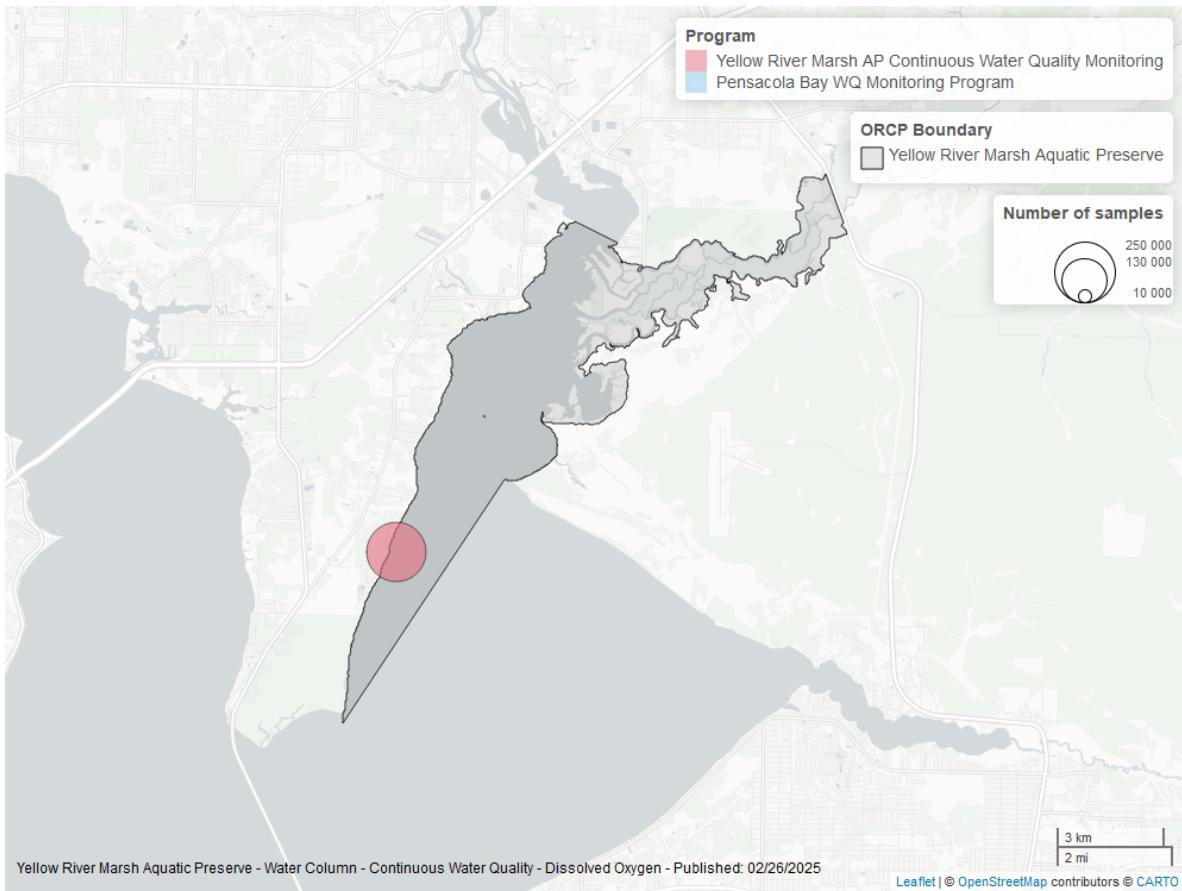


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
YRMAP1	No significant trend	250145	9	2015 - 2024	6.90	-0.07	6.91	-0.02	0.2816039423246565754
P11	No significant trend	131	7	2002 - 2012	6.37	0.04	6.54	0.02	0.4884223166225936108



Dissolved Oxygen Saturation - Discrete

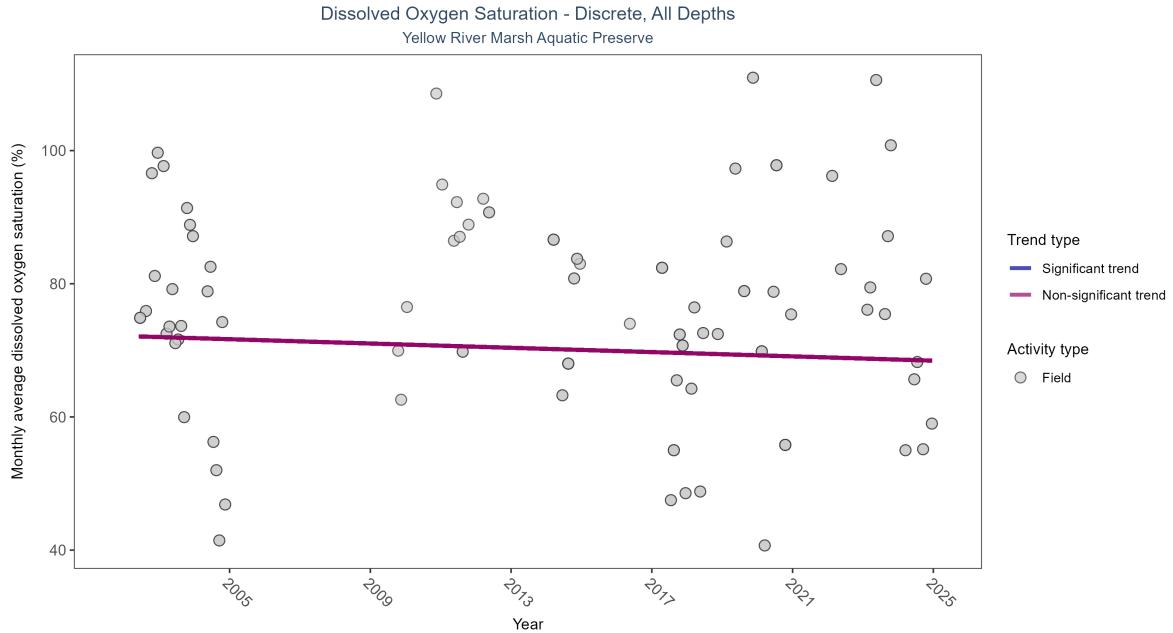
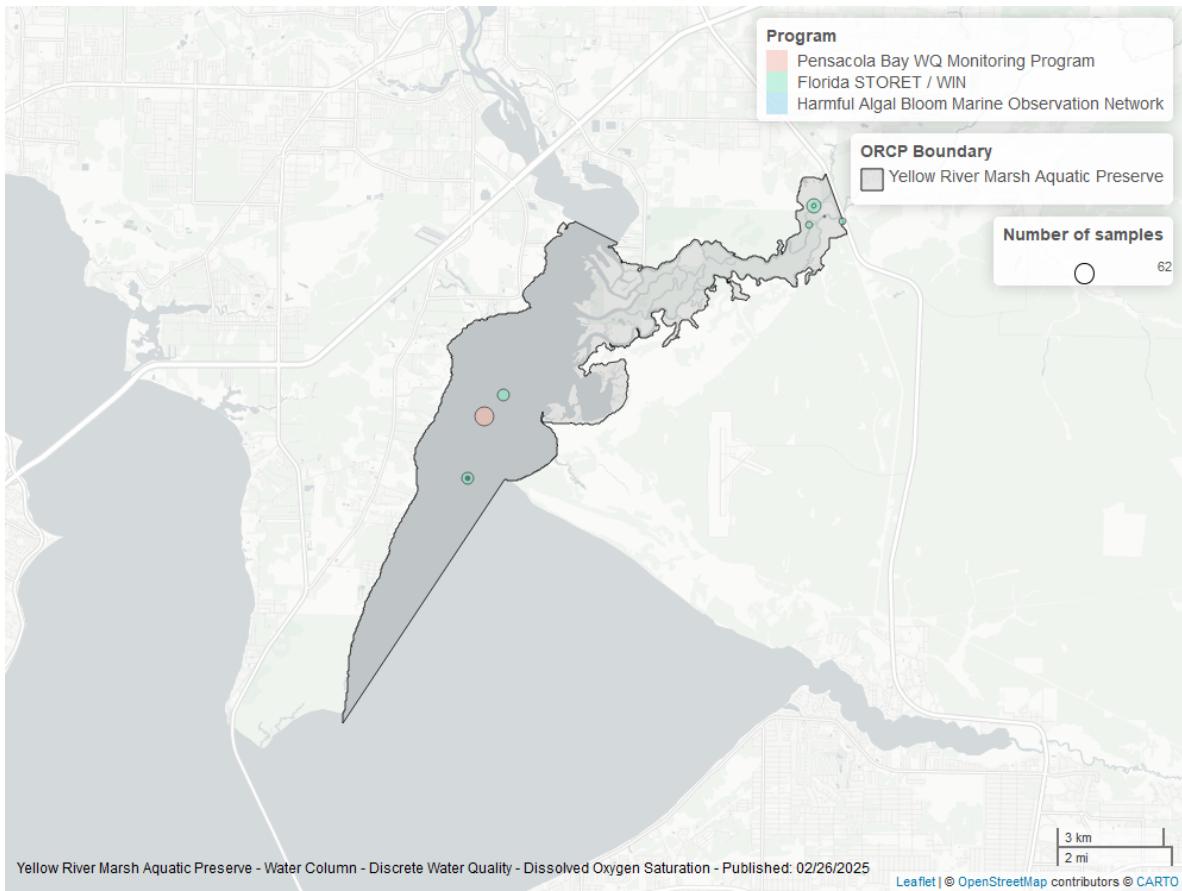


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation



Dissolved Oxygen Saturation - Continuous

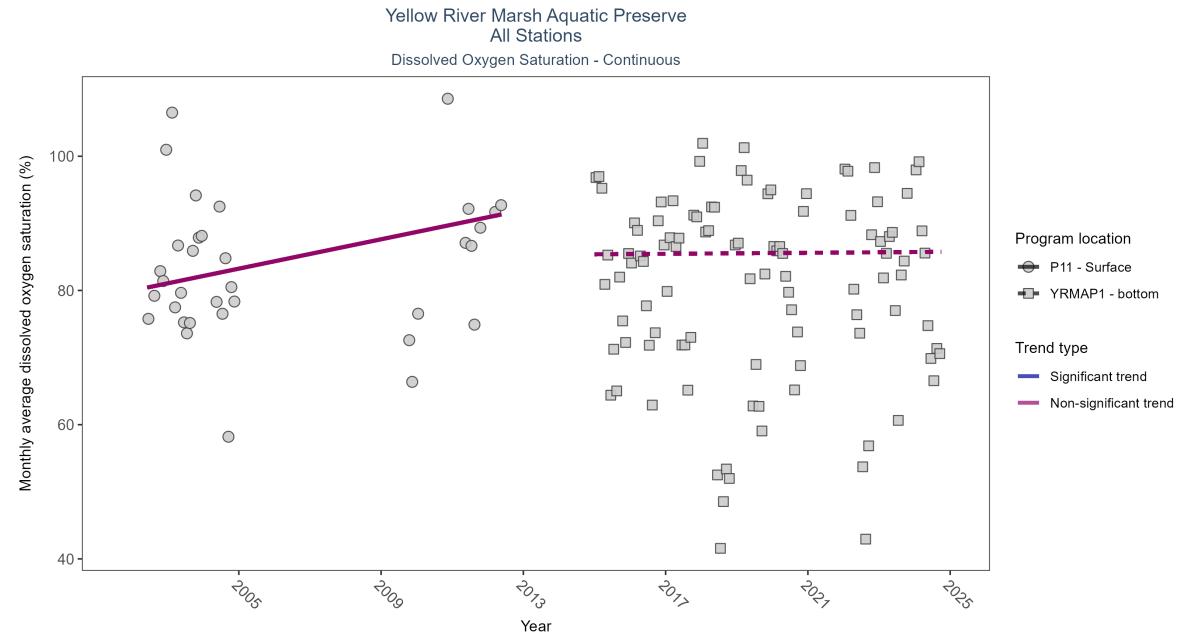
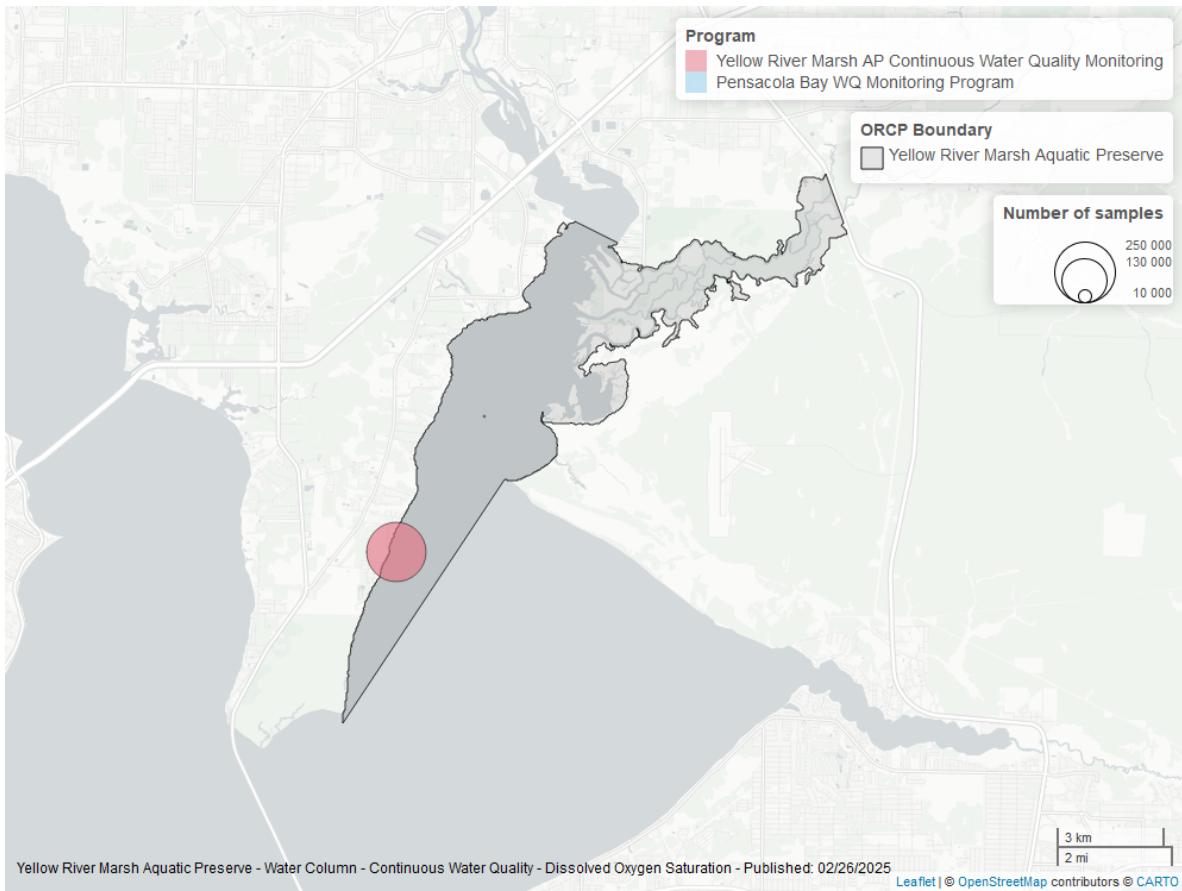


Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
YRMAP1	No significant trend	256413	9	2015 - 2024	86.70	0.04	85.39	0.04	0.82180711367648551
P11	No significant trend	126	7	2002 - 2012	79.93	0.09	79.97	1.09	0.71192315069219003



Salinity - Discrete

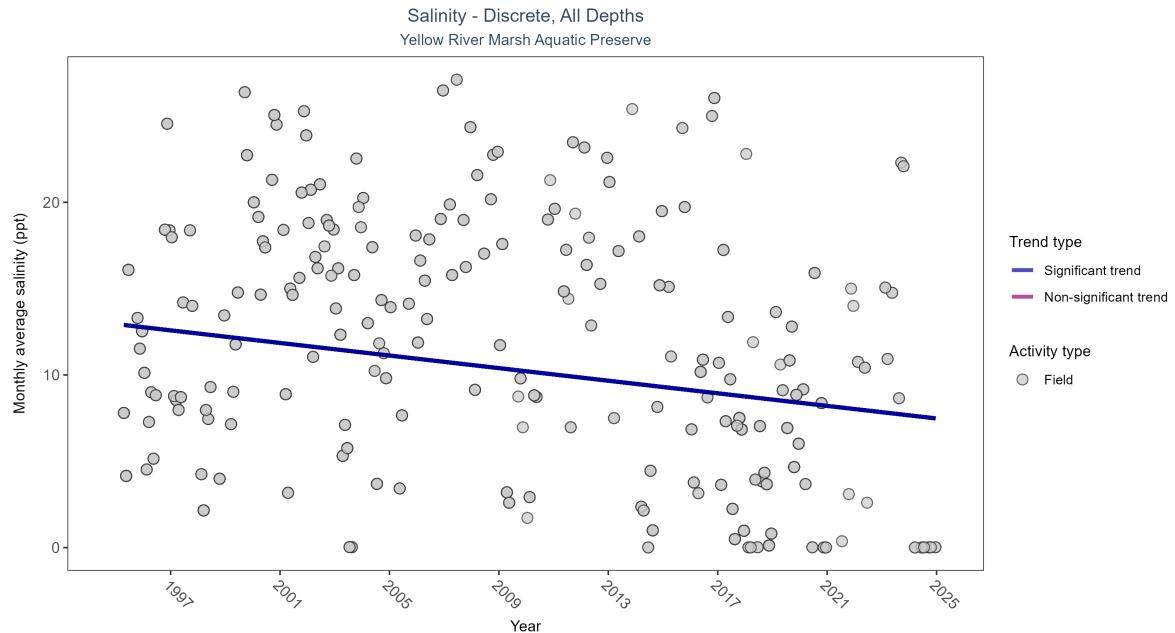
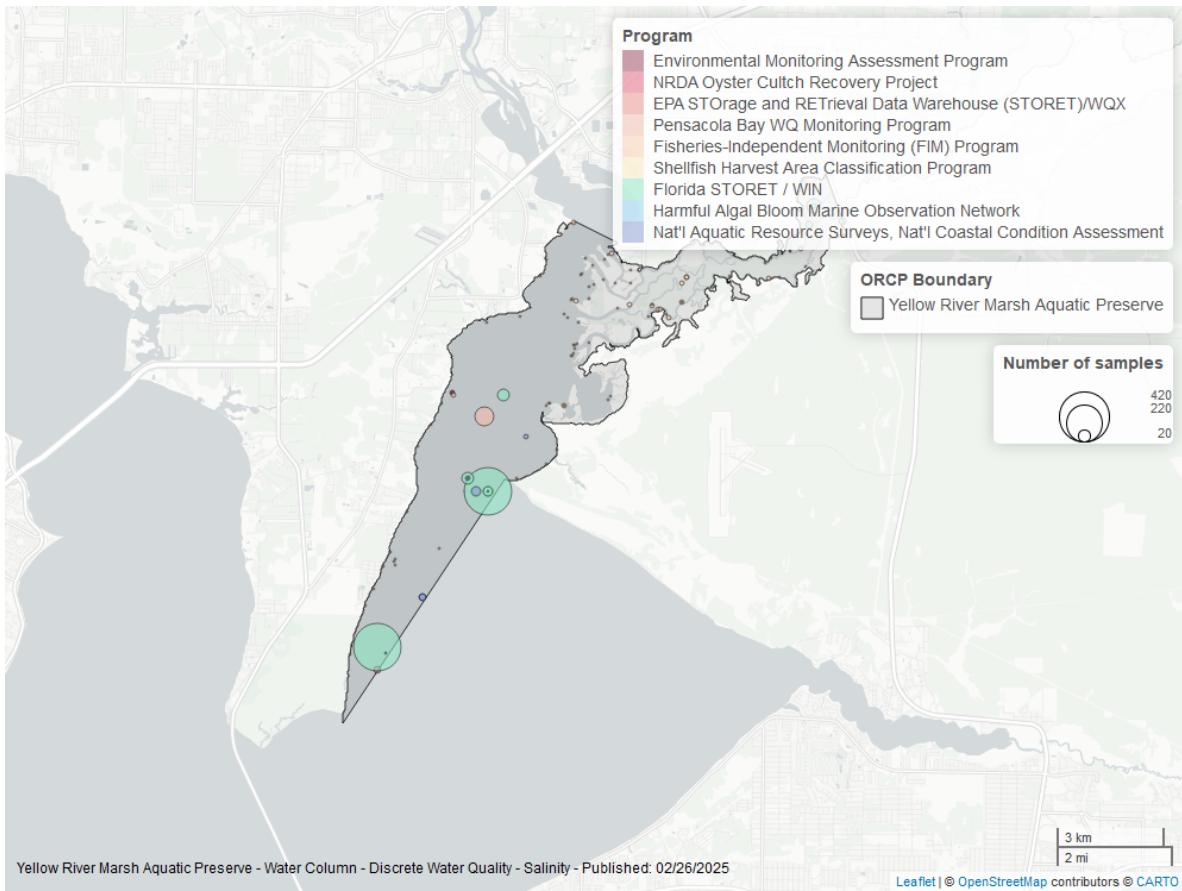


Table 7: Seasonal Kendall-Tau Results for - Salinity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
All	Significantly decreasing trend	1246	30	1995 - 2024	11	-0.1197	12.94704	-0.18228	0.01023583886276556963179640291627947590313851833



Salinity - Continuous

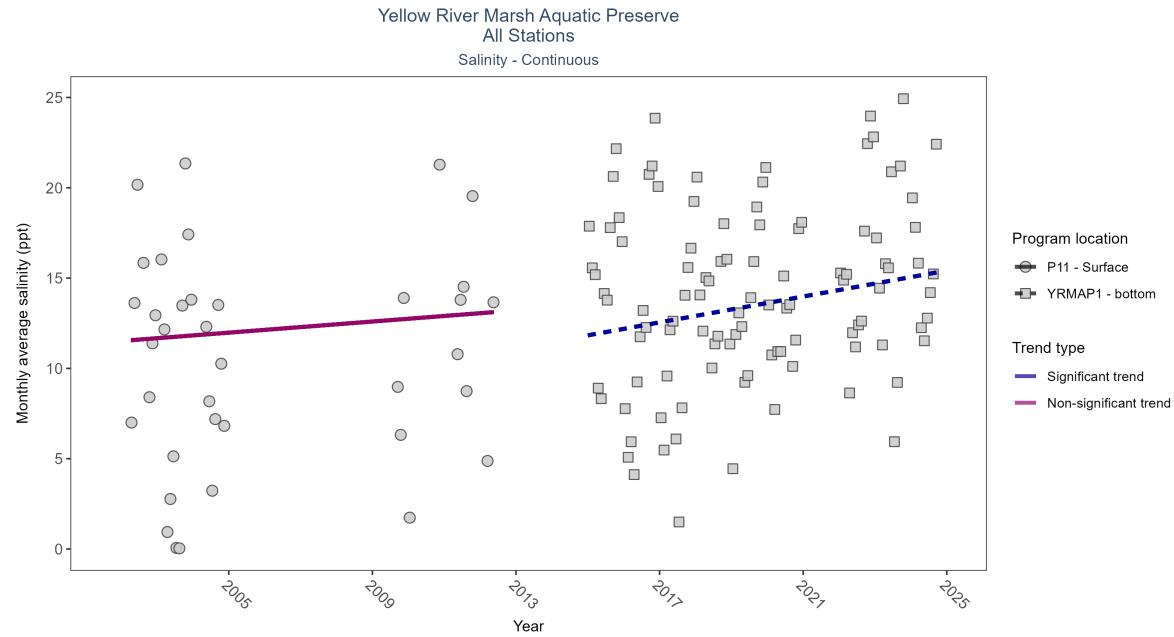
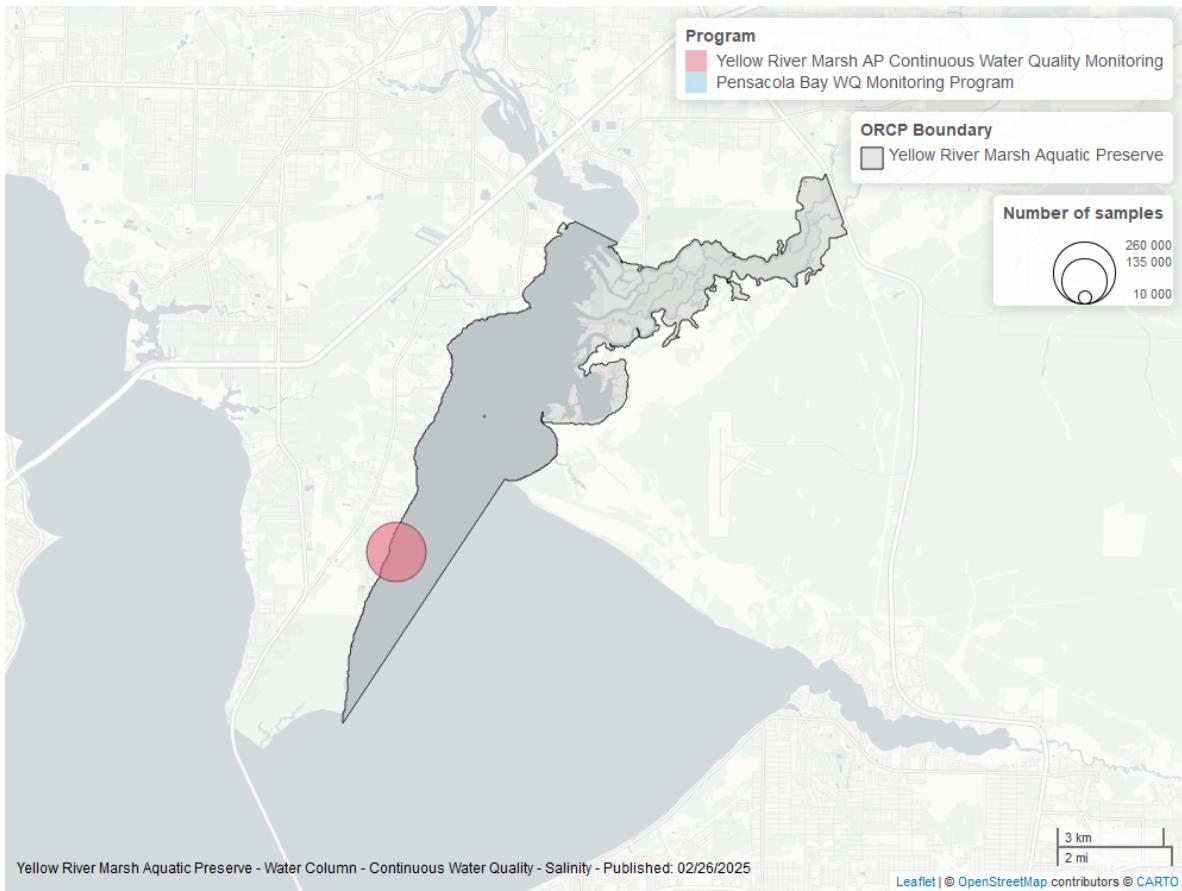


Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
YRMAP1	Significantly increasing trend	266823	9	2015 - 2024	14.20	0.22	11.83	0.36	0.006678604344933919
P11	No significant trend	136	7	2002 - 2012	10.05	0.06	11.52	0.15	0.649913986700530355



Water Temperature - Discrete

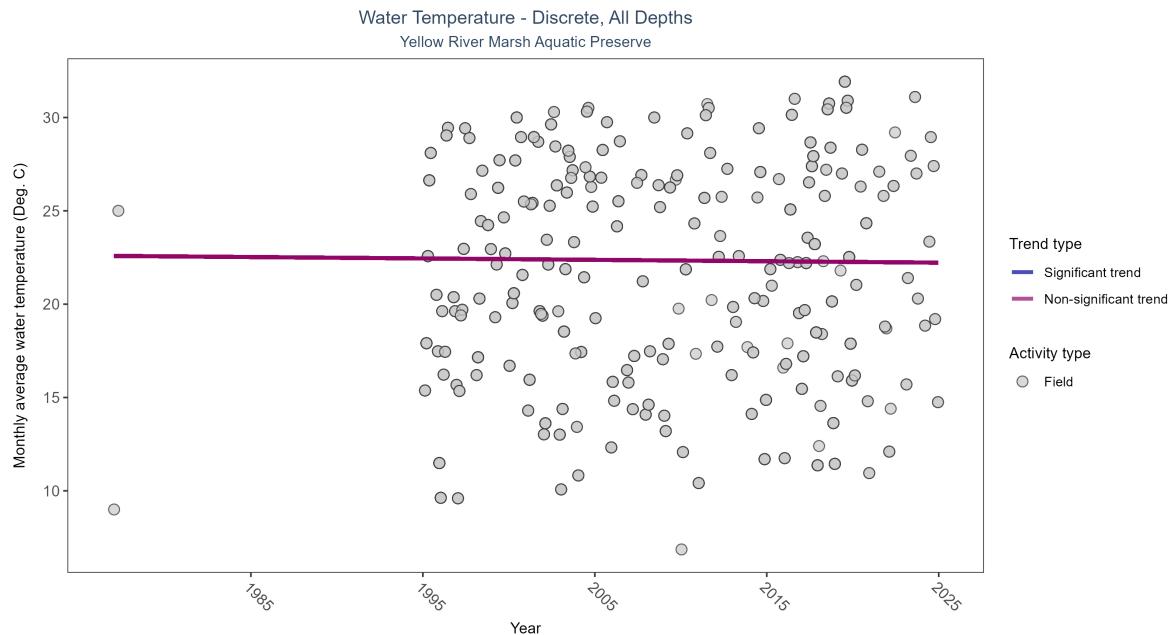
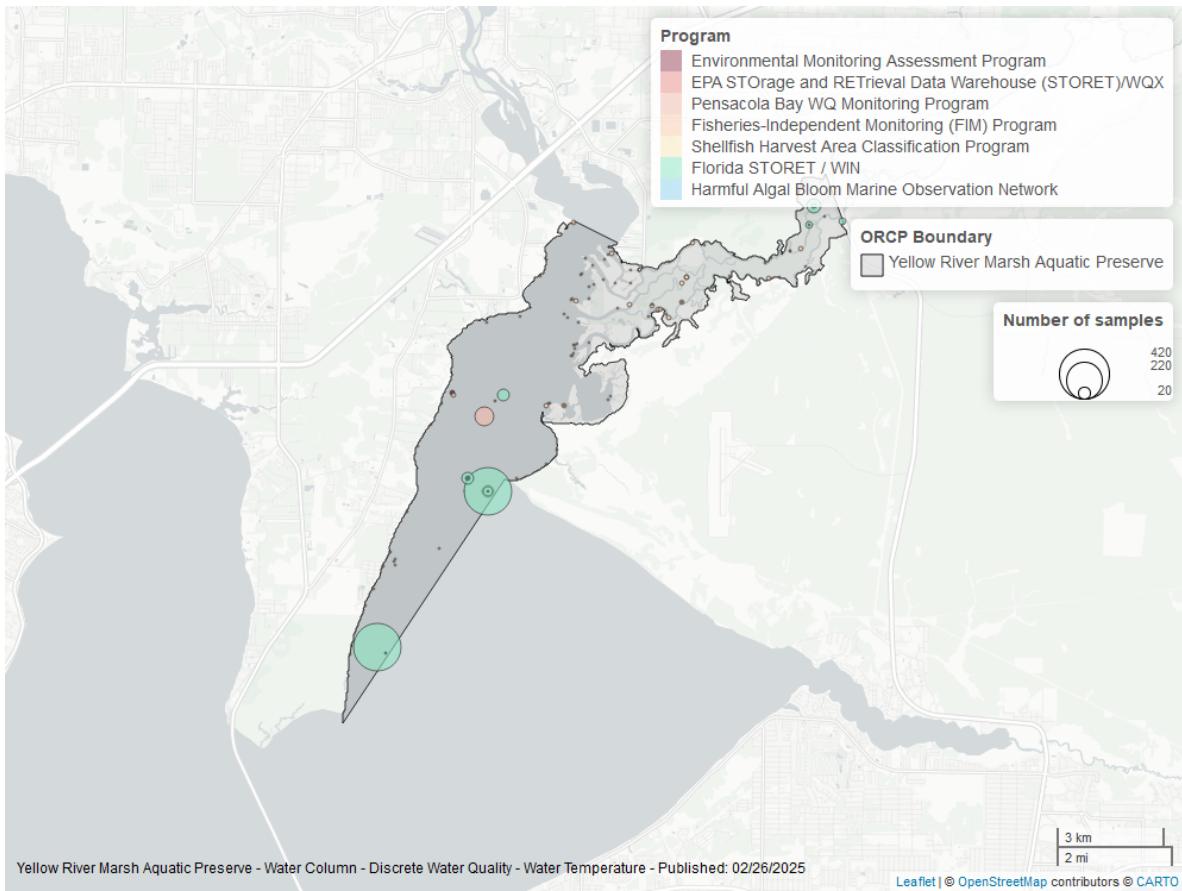


Table 9: Seasonal Kendall-Tau Results for - Water Temperature

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	No significant trend	1244	31	1977 - 2024	22	-0.00878	22.58458	-0.00751	0.689840136453304442



Water Temperature - Continuous

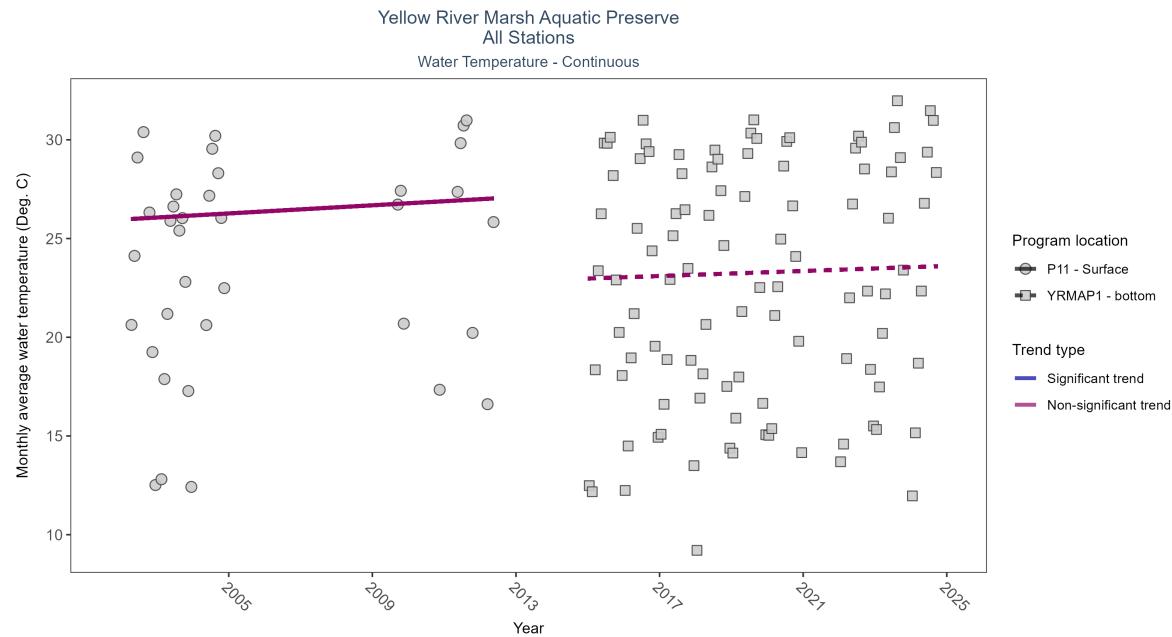
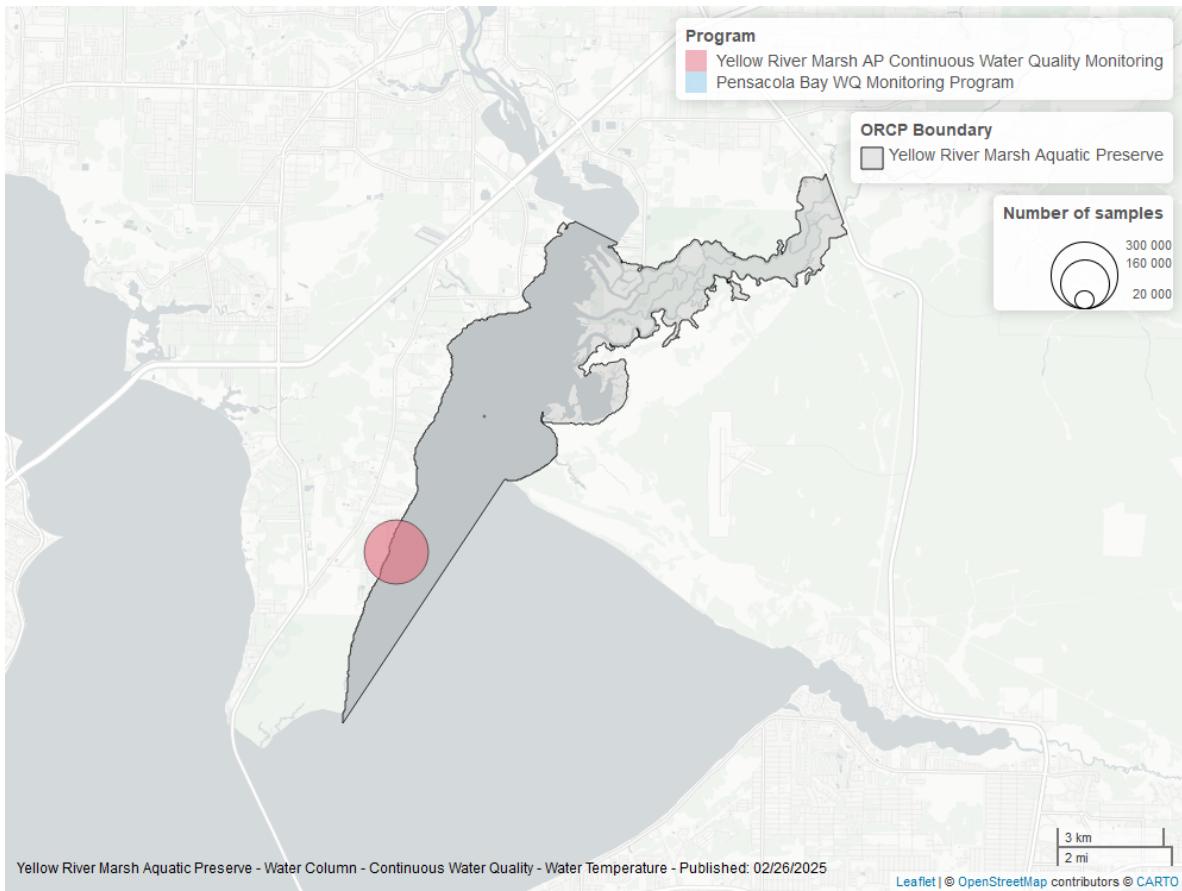


Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
YRMAP1	No significant trend	291592	9	2015 - 2024	23.20	0.08	22.97	0.06	0.2377149887443941456144358426172403
P11	No significant trend	136	7	2002 - 2012	26.22	0.13	25.96	0.10	0.4959837941436394670446929922036361



pH - Discrete

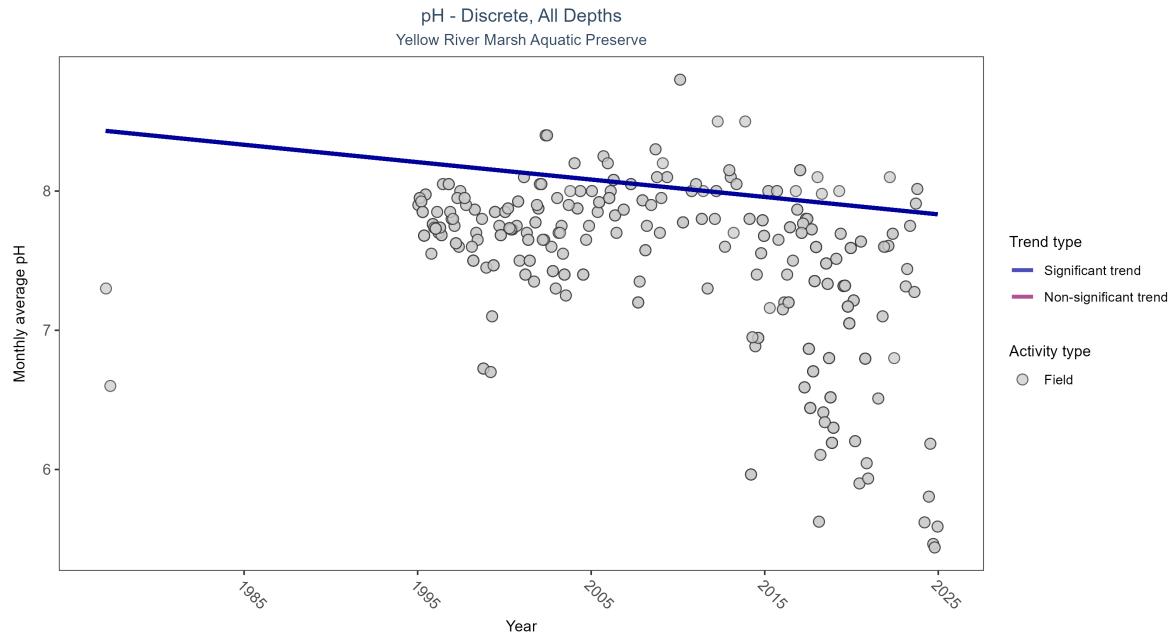
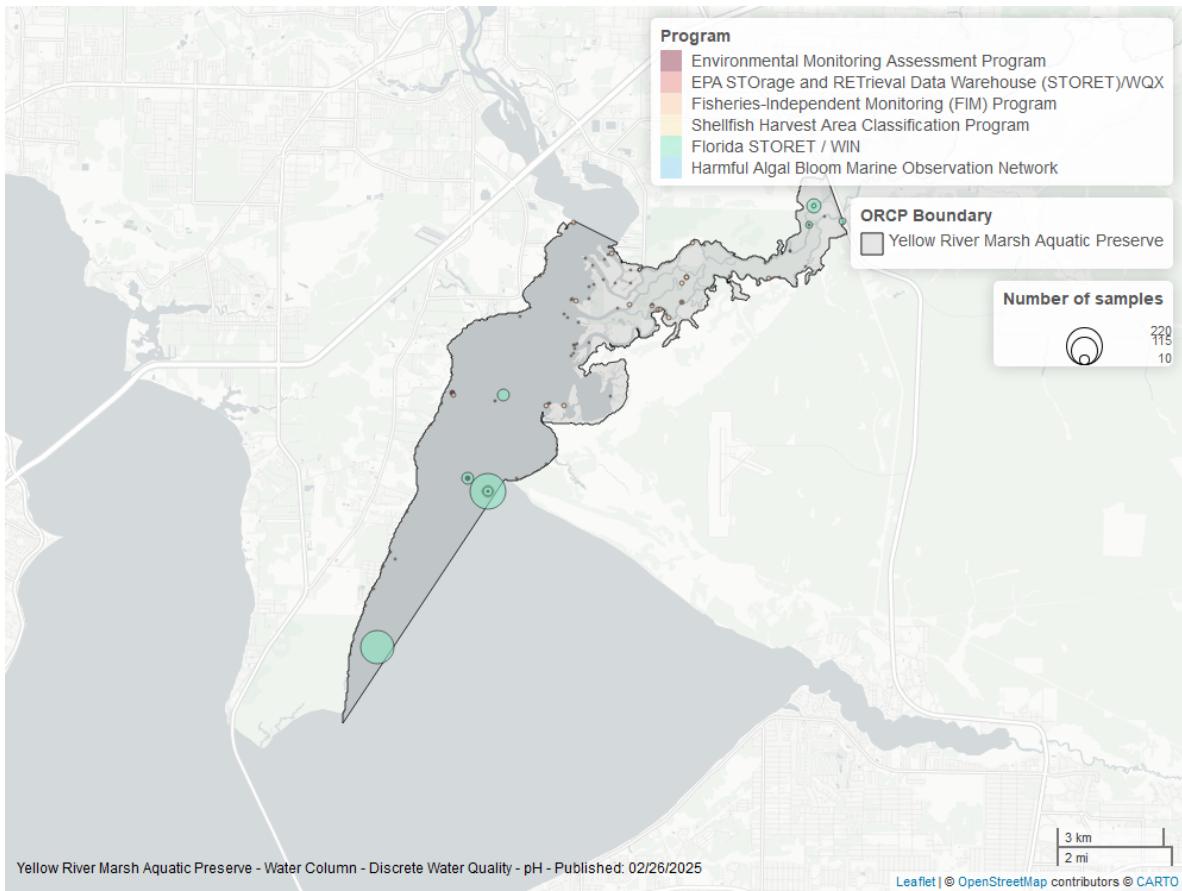


Table 11: Seasonal Kendall-Tau Results for - pH

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly decreasing trend	742	31	1977 - 2024	7.6	-0.15942	8.43268	-0.0125	0.00203489890965718144000273781557552865706



pH - Continuous

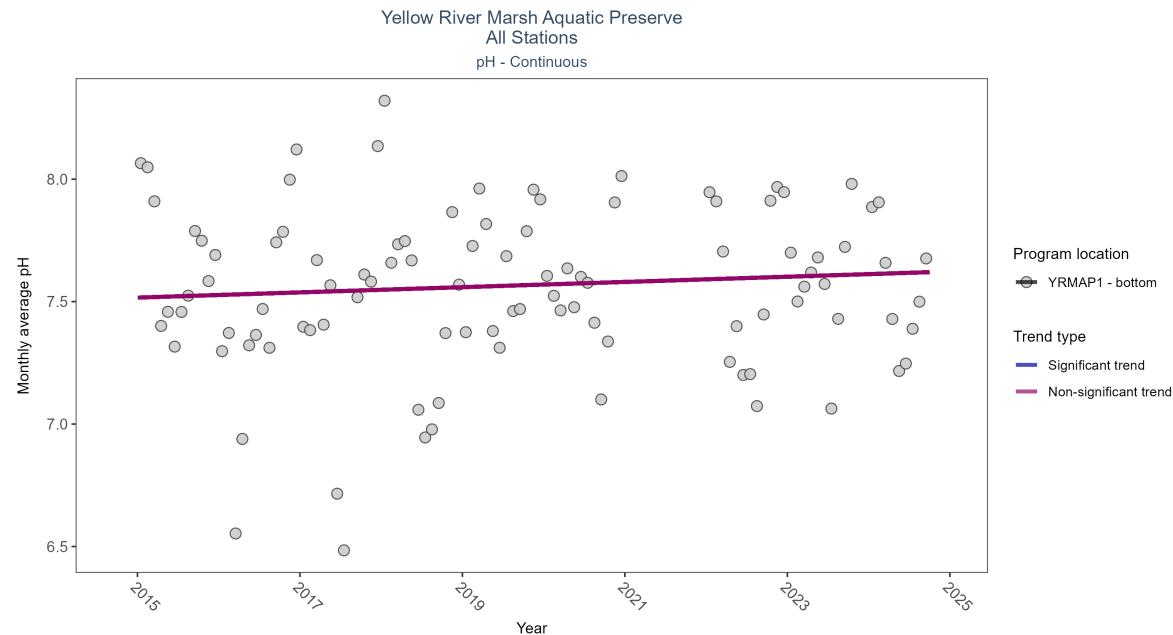
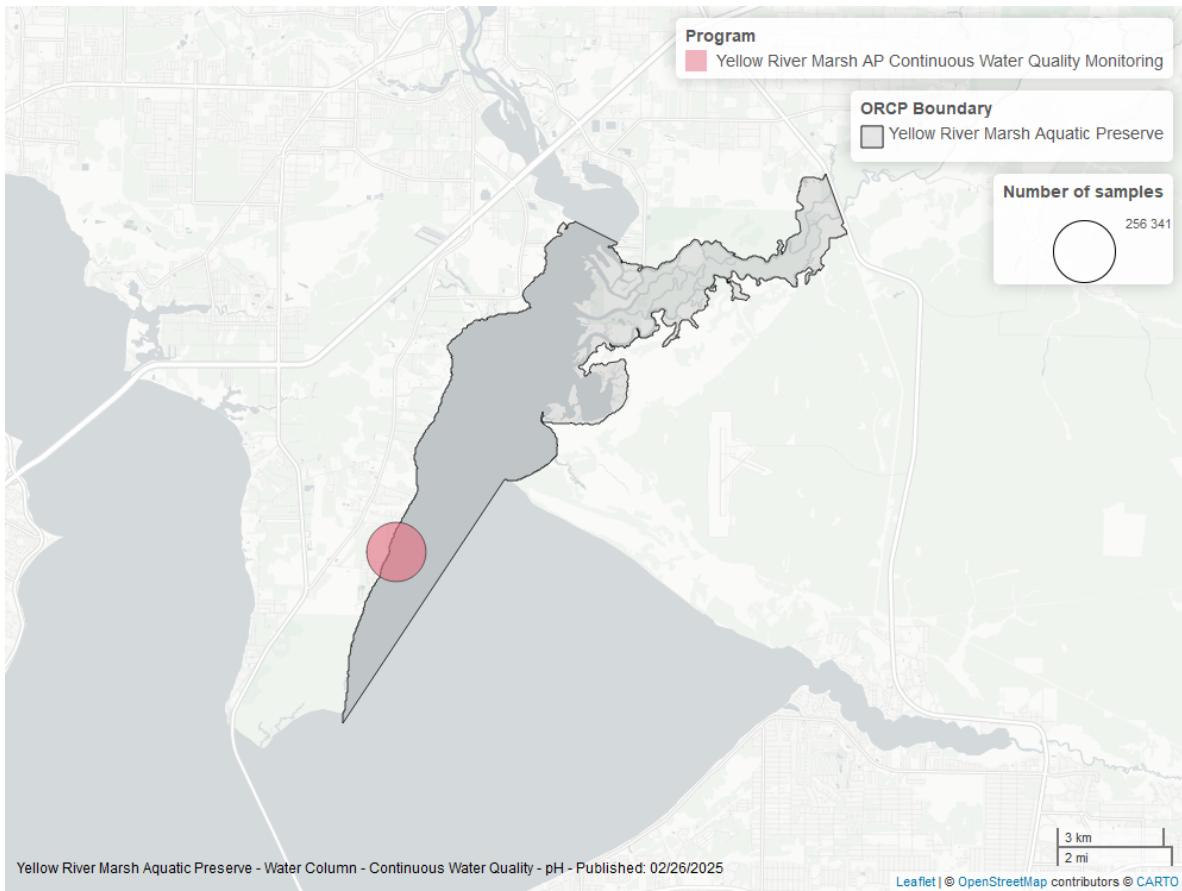


Table 12: Seasonal Kendall-Tau Results for All Stations - pH

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
YRMAP1	No significant trend	265169	9	2015 - 2024	7.6	0.08	7.52	0.01	0.38236497601



Water Clarity

Turbidity - Discrete

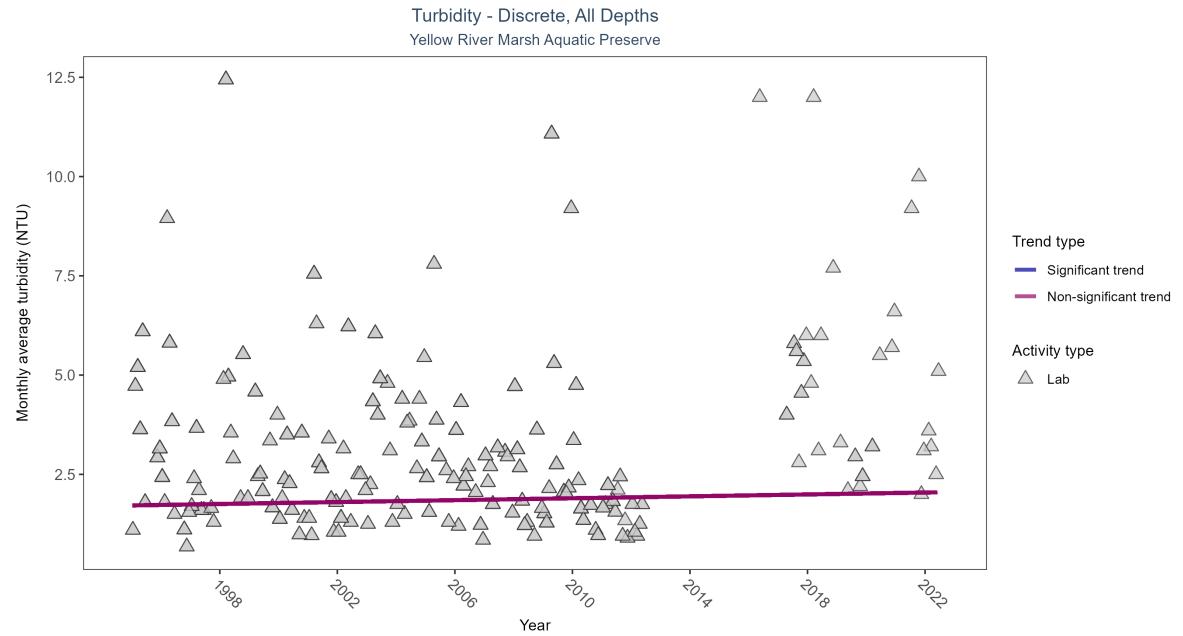
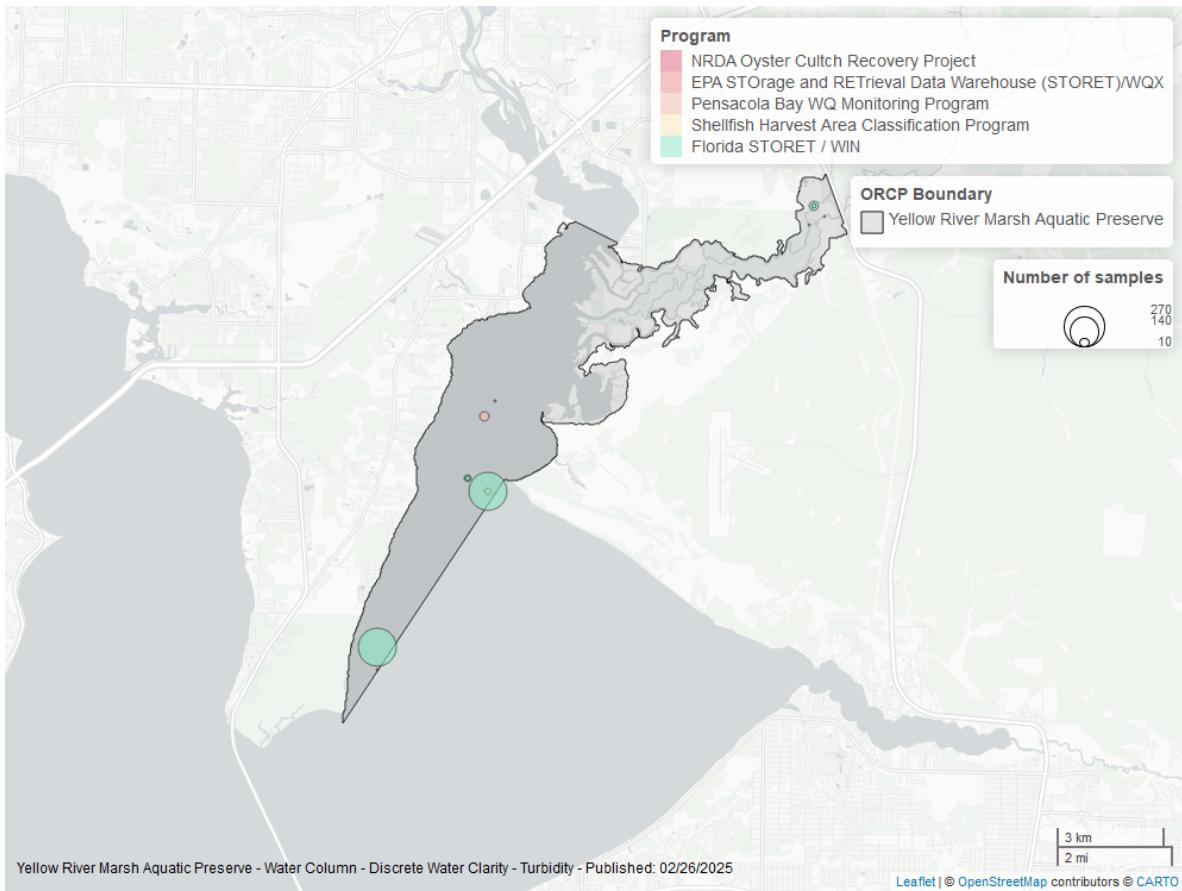


Table 13: Seasonal Kendall-Tau Results for - Turbidity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	589	25	1995 - 2022	2.47	0.07534	1.71738	0.01202	0.52837766495106808229



Turbidity - Continuous

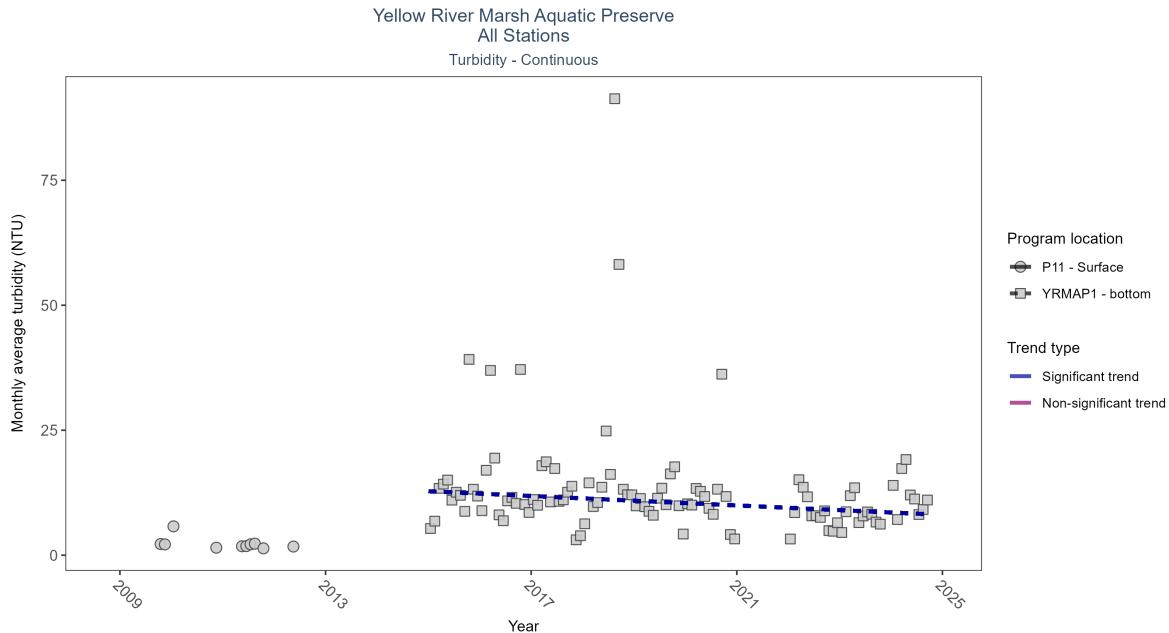
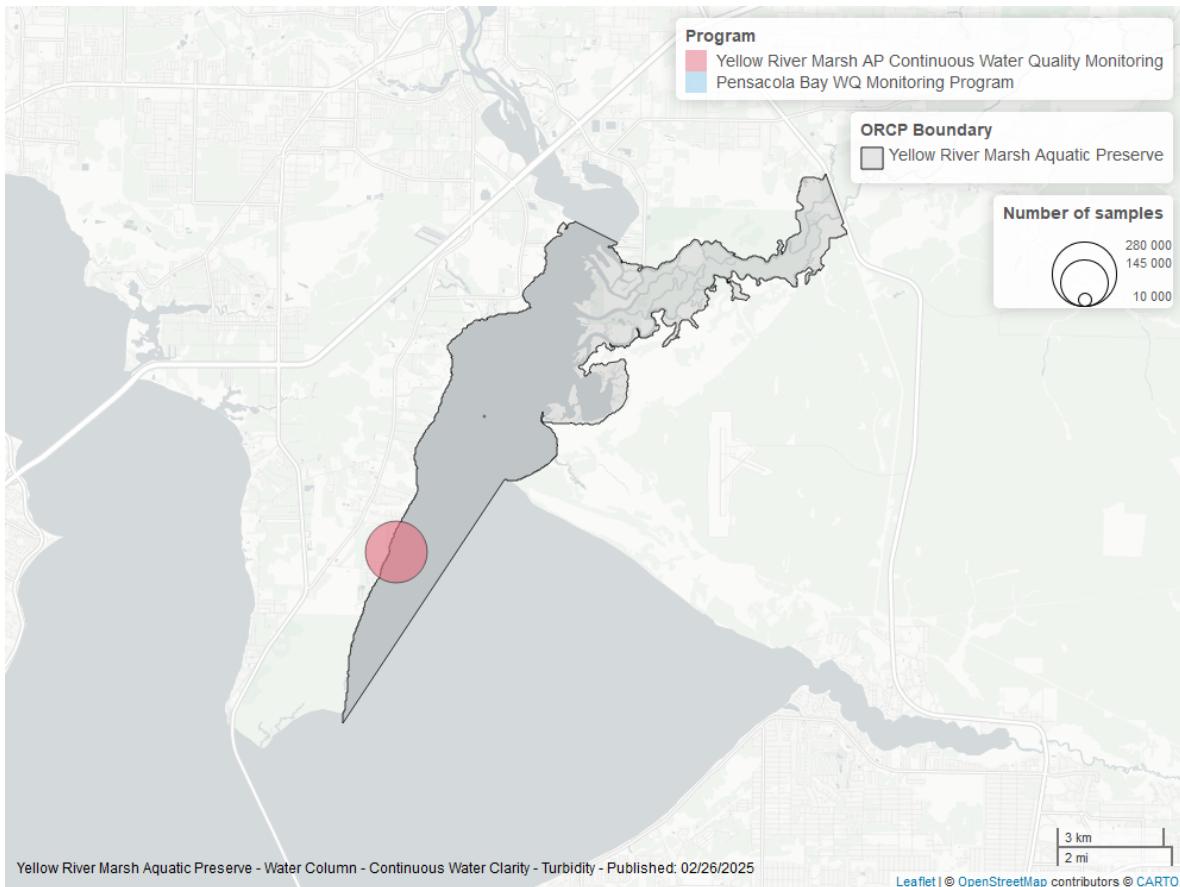


Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

Program Location	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
YRMAP1	Significantly decreasing trend	278916	9	2015 - 2024	6	-0.26	12.79	-0.47	0.0019655135841517
P11	Insufficient data to calculate trend	37	4	2009 - 2012	2	-	-	-	NA



Total Suspended Solids - Discrete

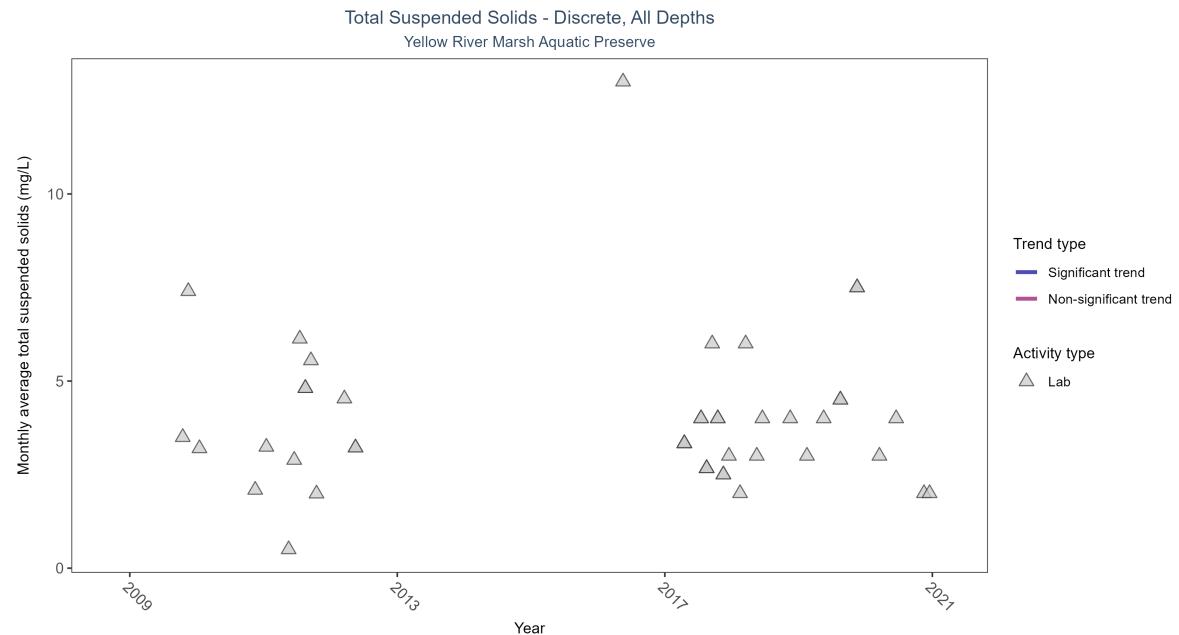
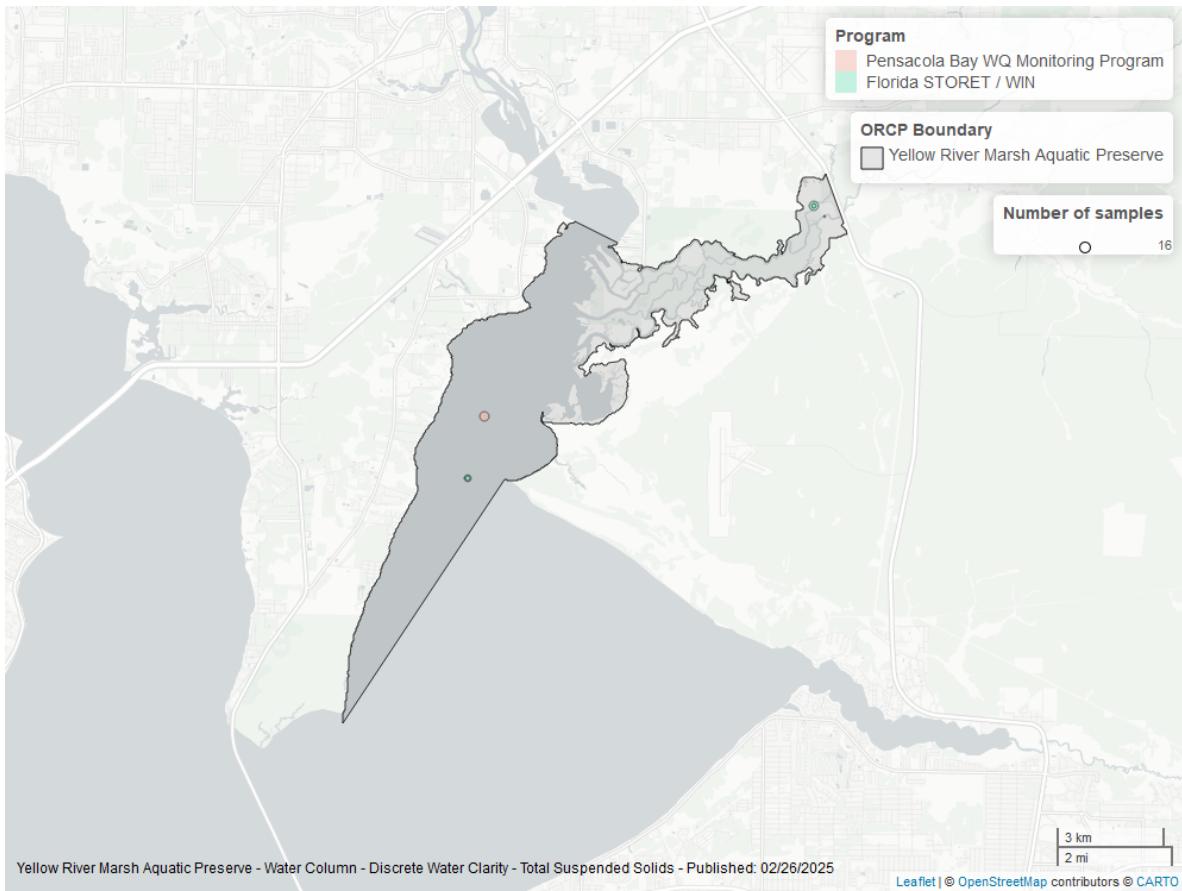


Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Insufficient data to calculate trend	45	9	2009 - 2020	3.3	-	-	-	NA



Chlorophyll a, Uncorrected for Pheophytin - Discrete

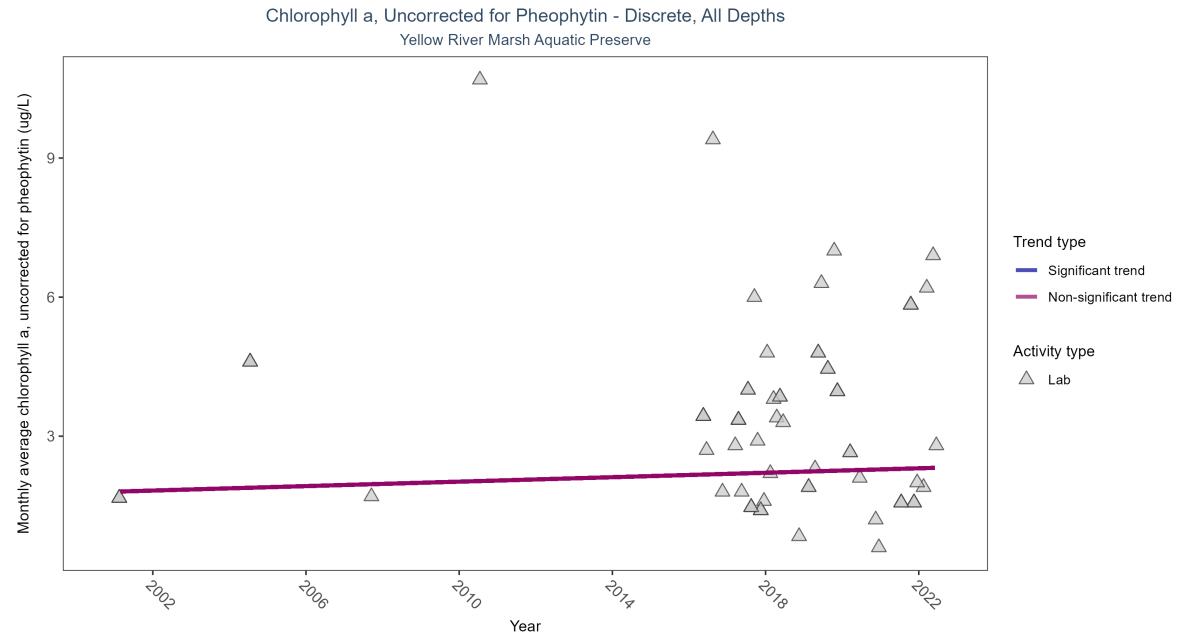
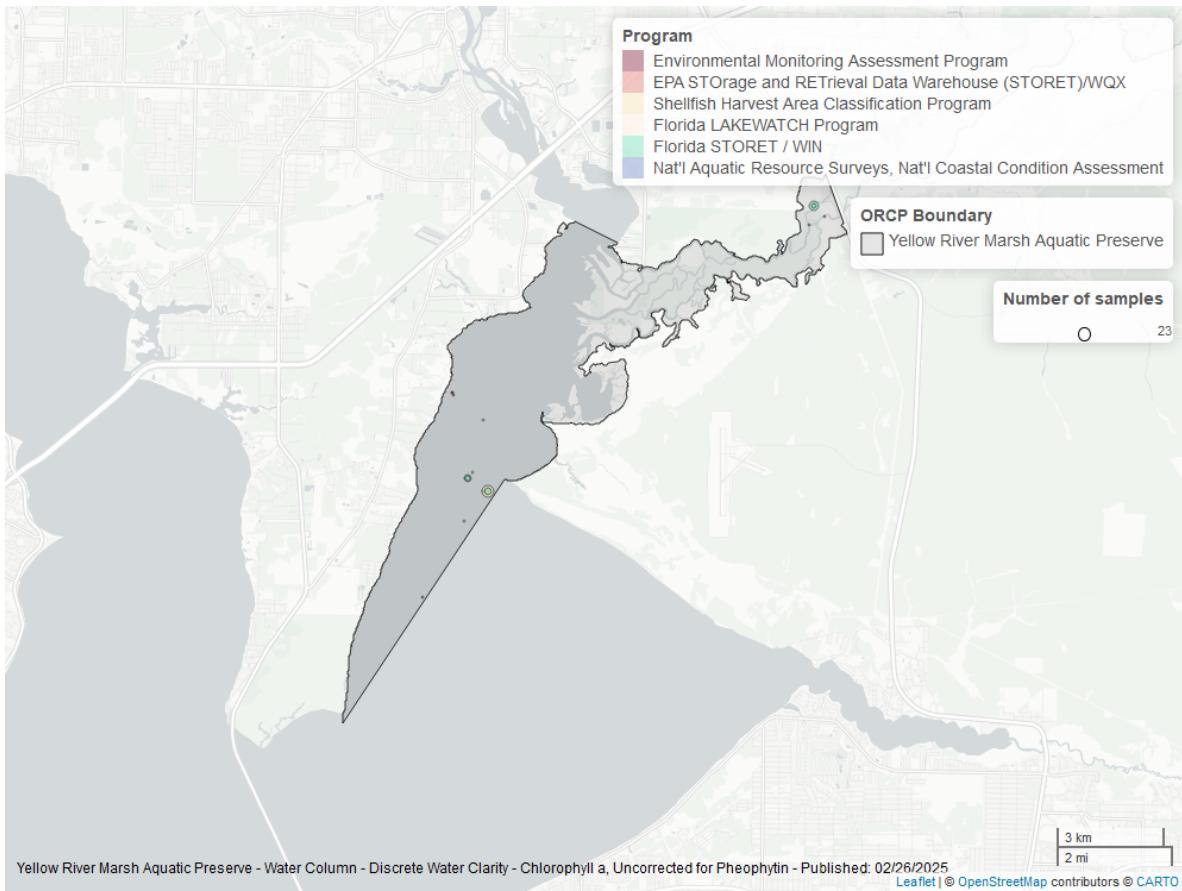


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	No significant trend	70	11	2001 - 2022	2.75	0.11746	1.80278	0.02402	0.55310073570278506238651062



Chlorophyll a, Corrected for Pheophytin - Discrete

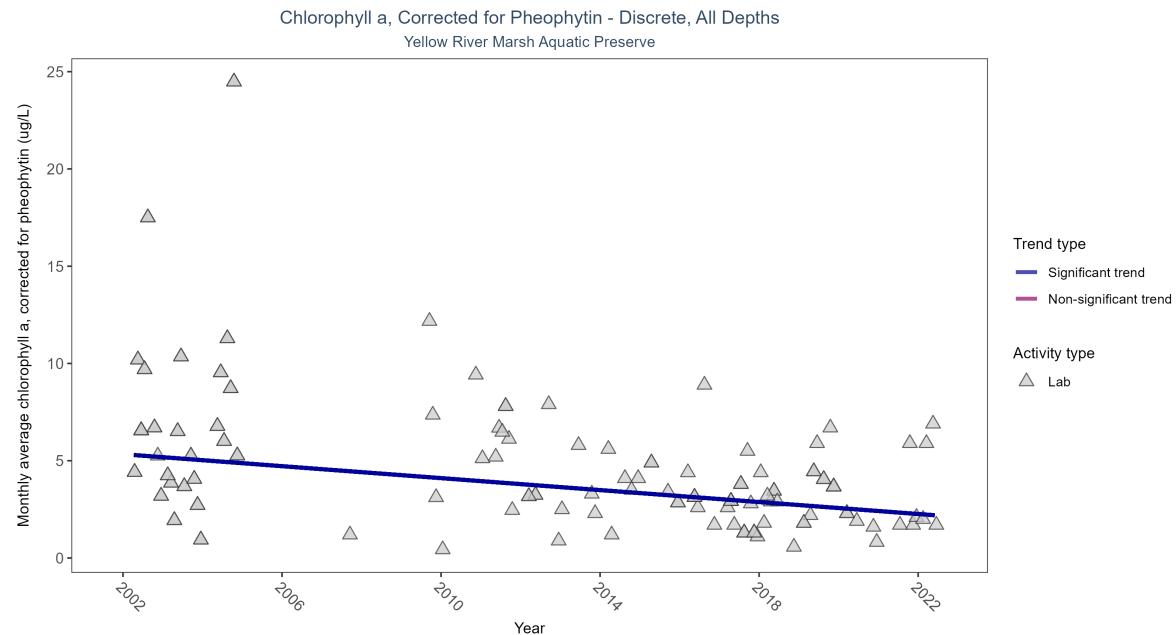
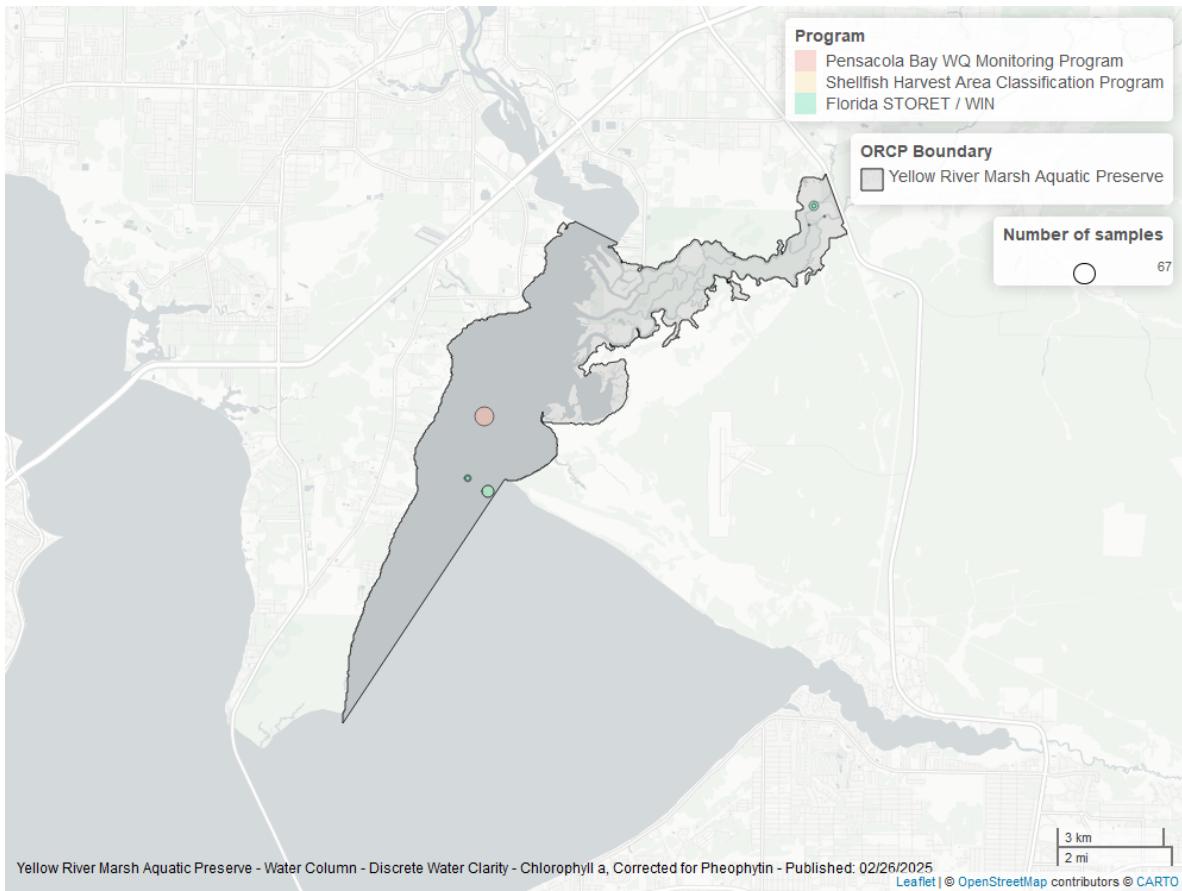


Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

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	142	18	2002 - 2022	3.75	-0.3054	5.33533	-0.1537	0.0001278013058782650232352018



Secchi Depth - Discrete

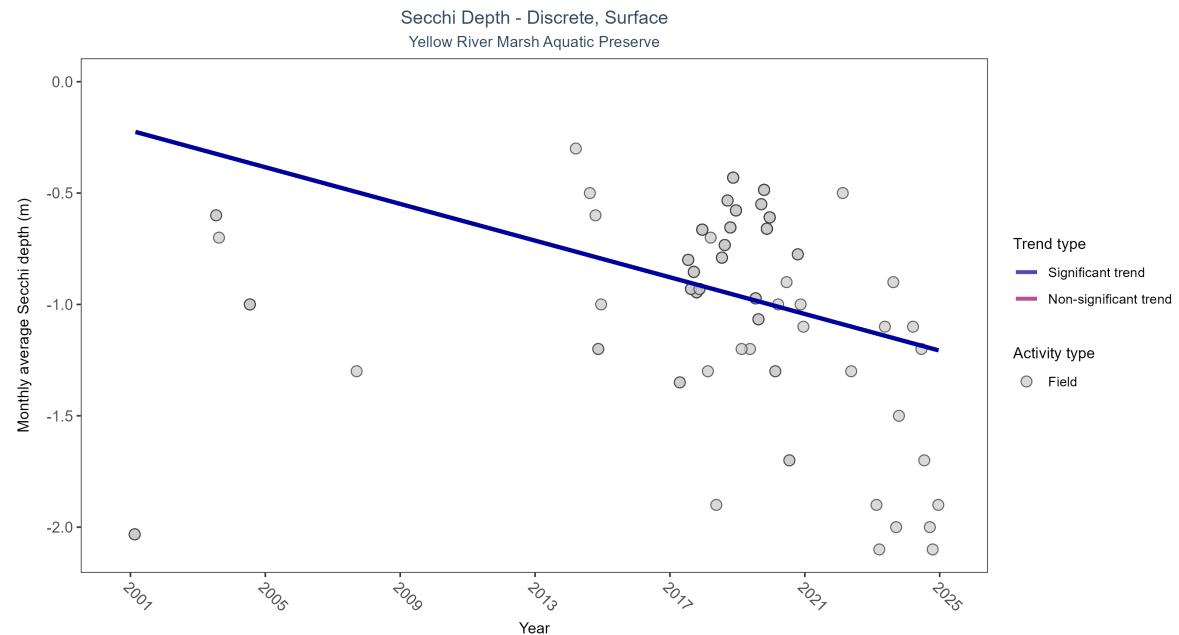
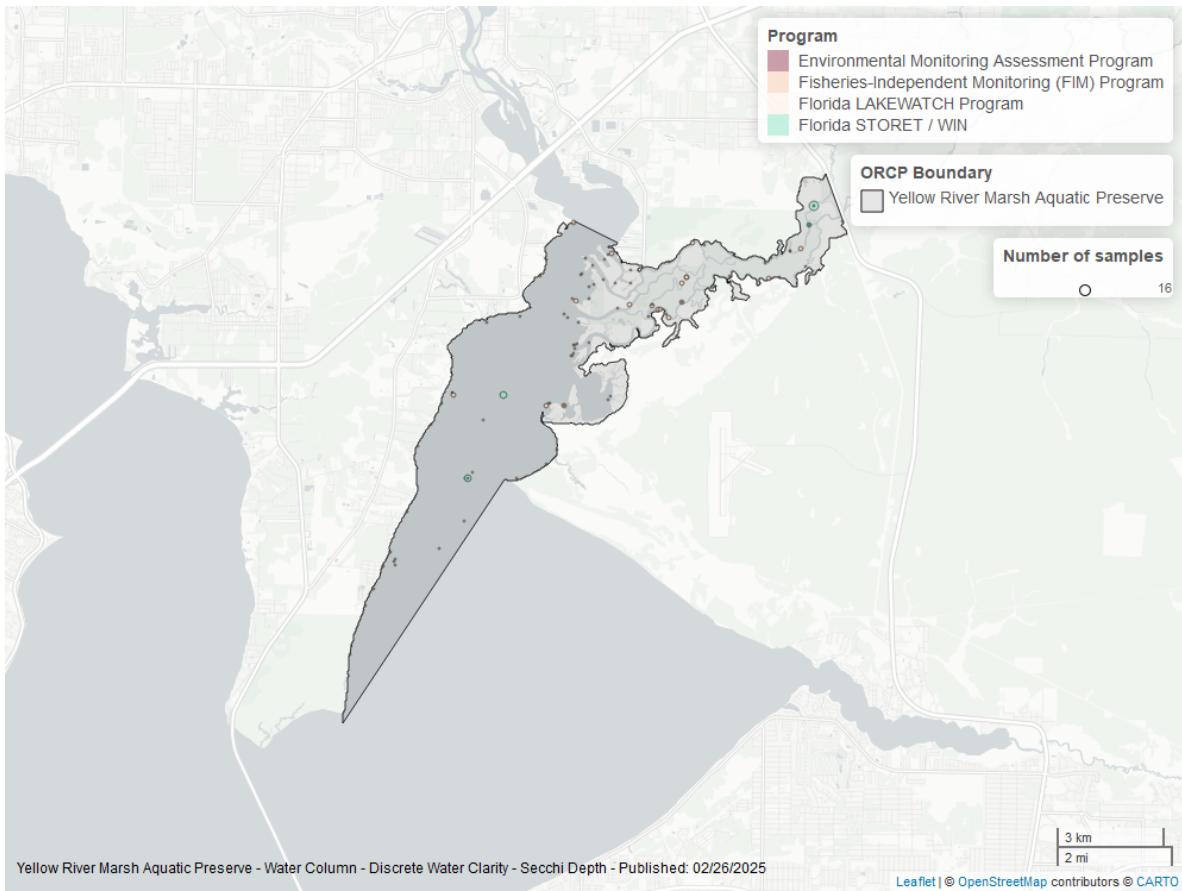


Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

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	237	12	2001 - 2024	-0.8	-0.27407	-0.21929	-0.04118	0.0173855906870953903775589566294



Colored Dissolved Organic Matter - Discrete

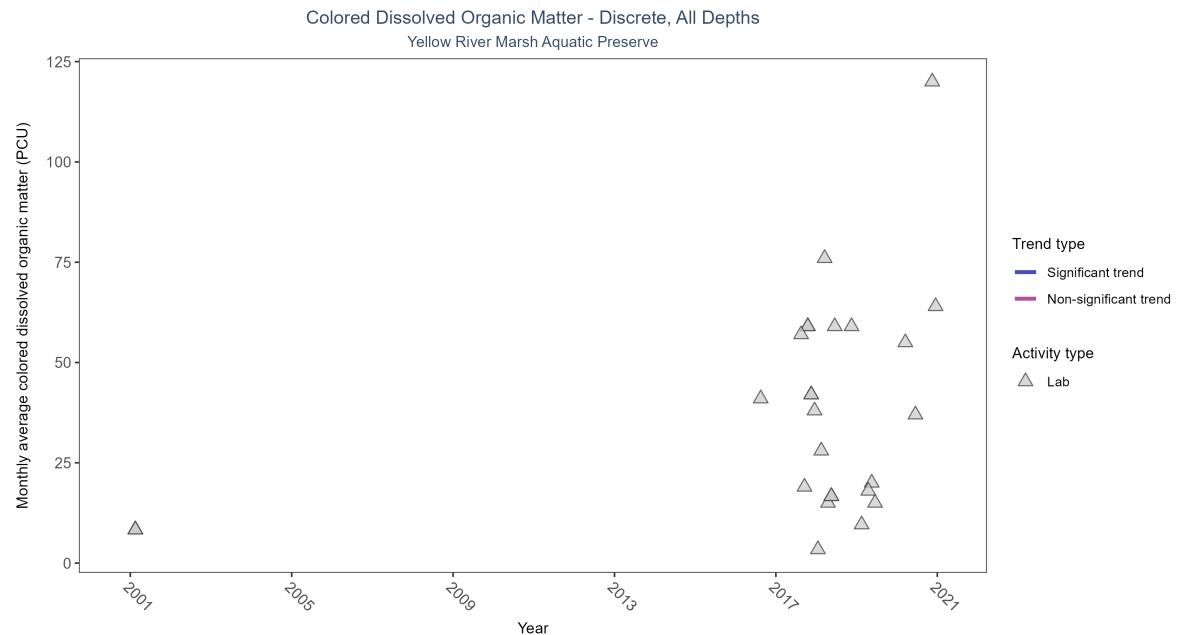


Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

