

# Yellow River Marsh Aquatic Preserve

## SEACAR Water Quality Analysis

Last compiled on 06 March, 2025

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# Indicators

## Nutrients

### Total Nitrogen - Discrete

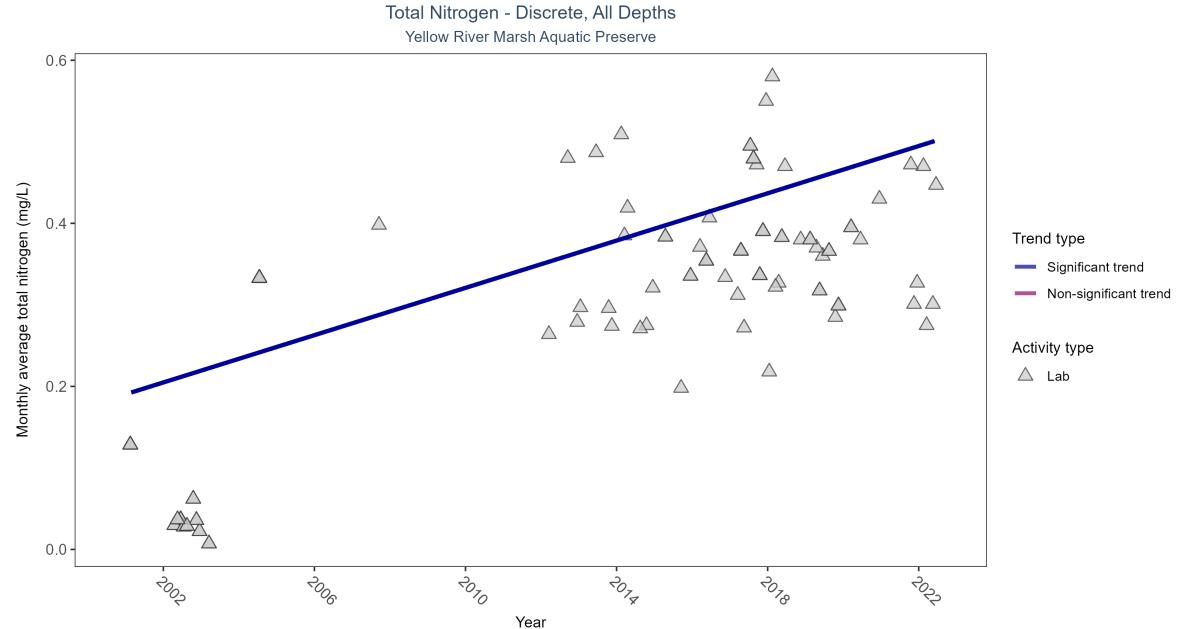
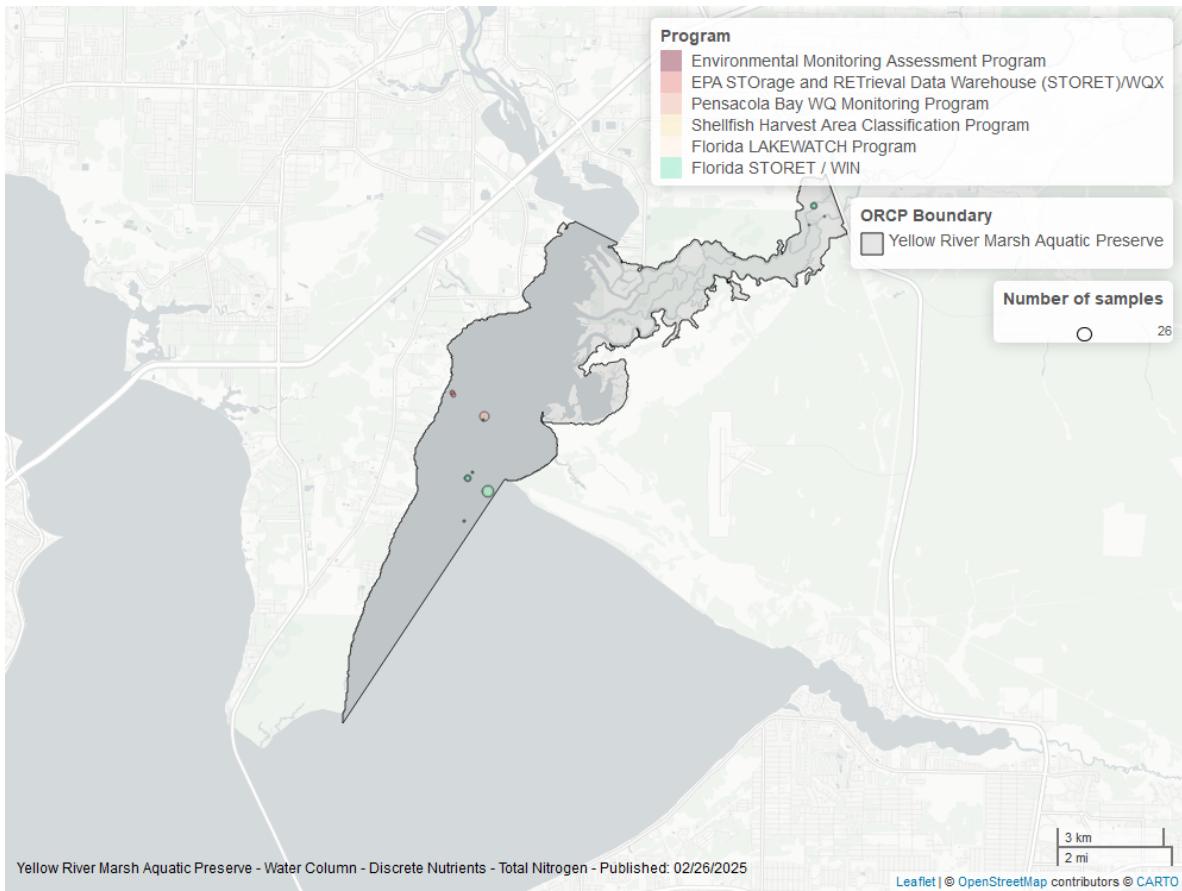


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

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	109	16	2001 - 2022	0.322	0.2823	0.19033	0.0145	0.0088



## Total Phosphorus - Discrete

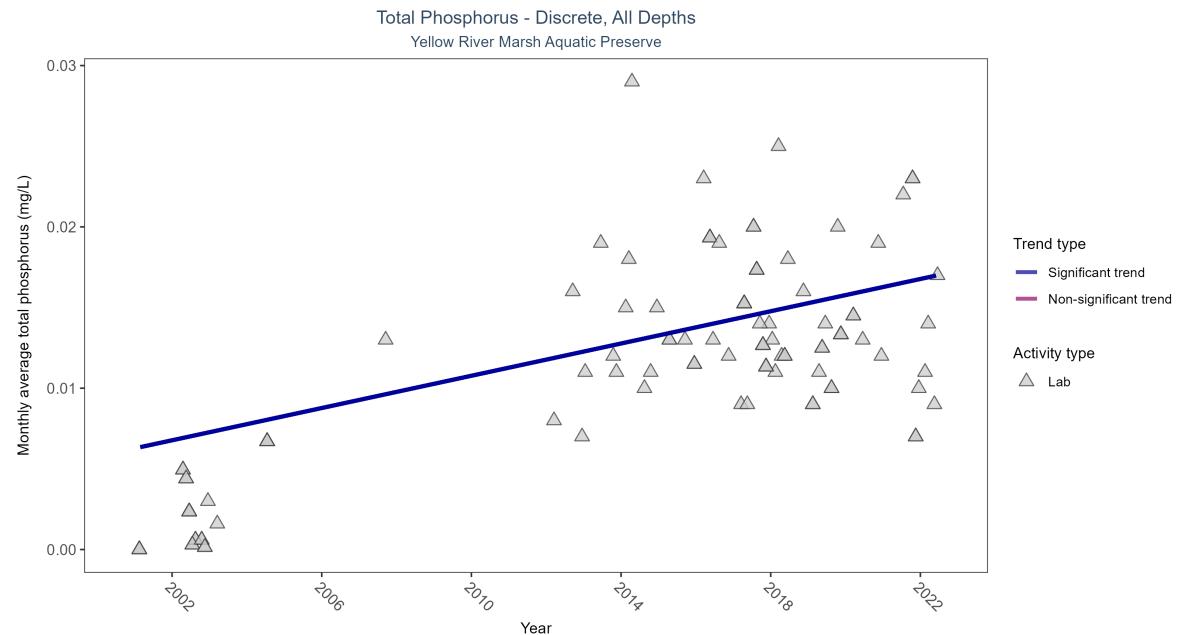
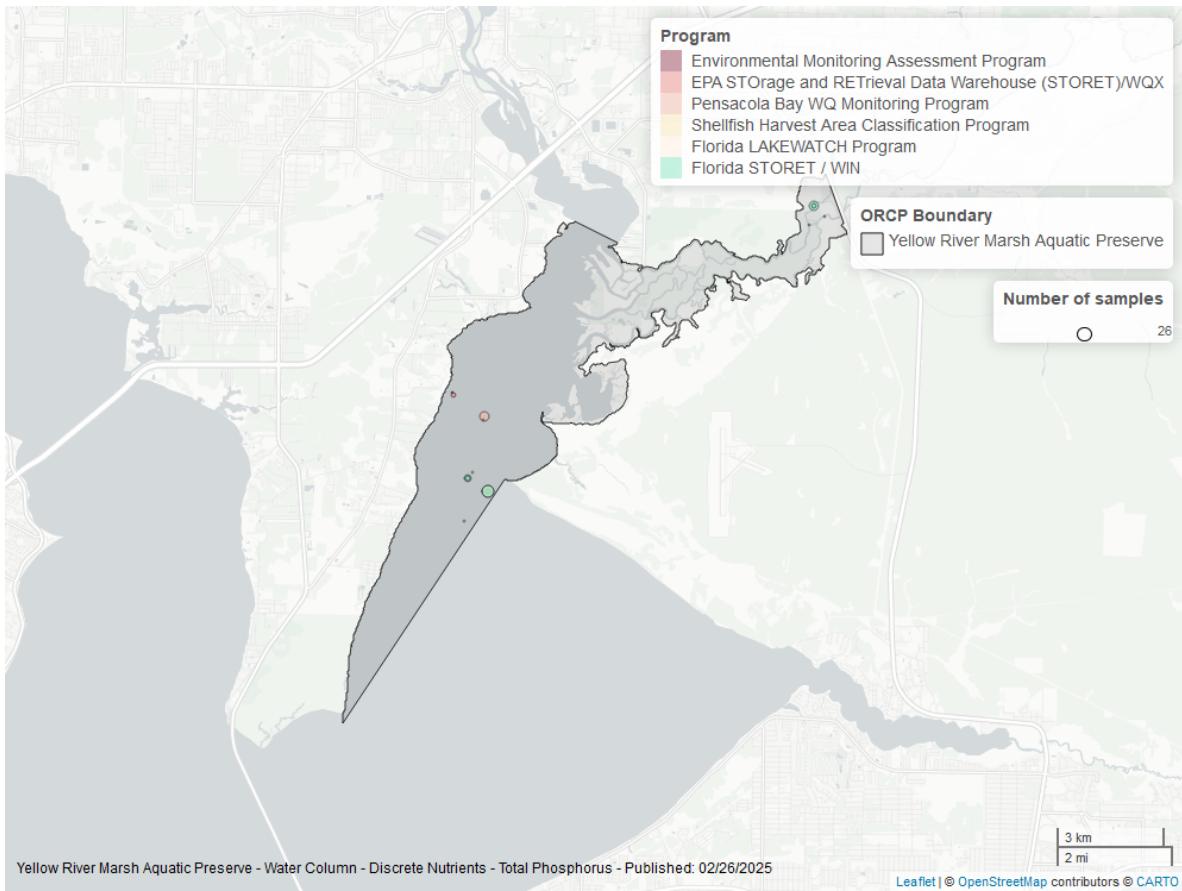


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

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	0.3174	0.00627	0.0005	0.0066



## Water Quality

### Dissolved Oxygen - Discrete

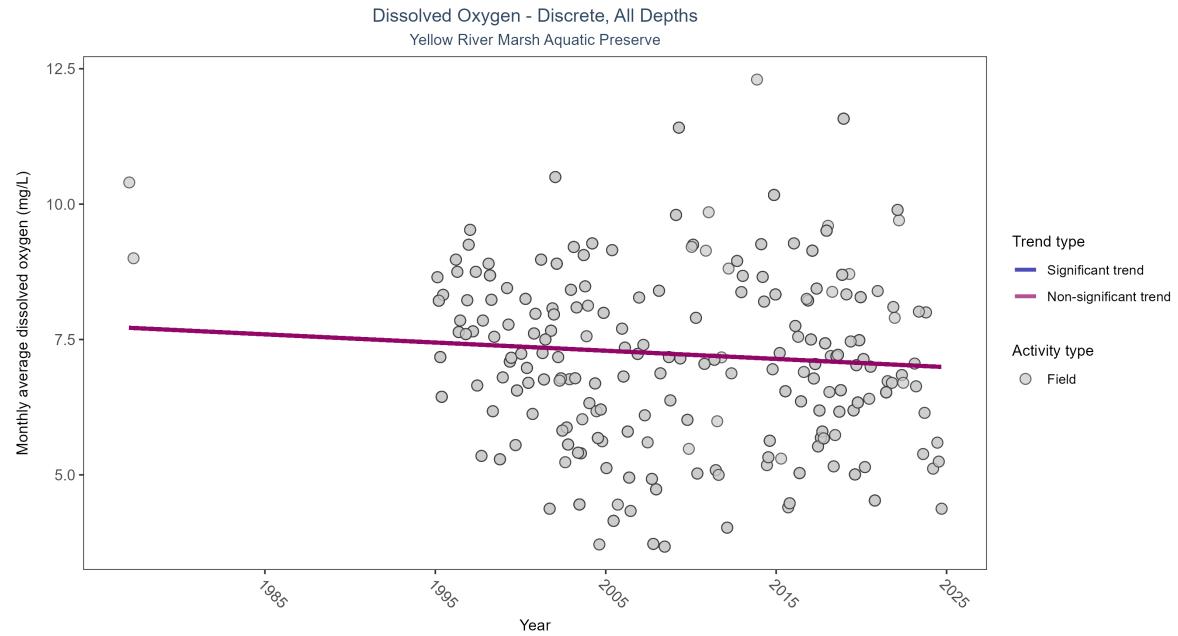
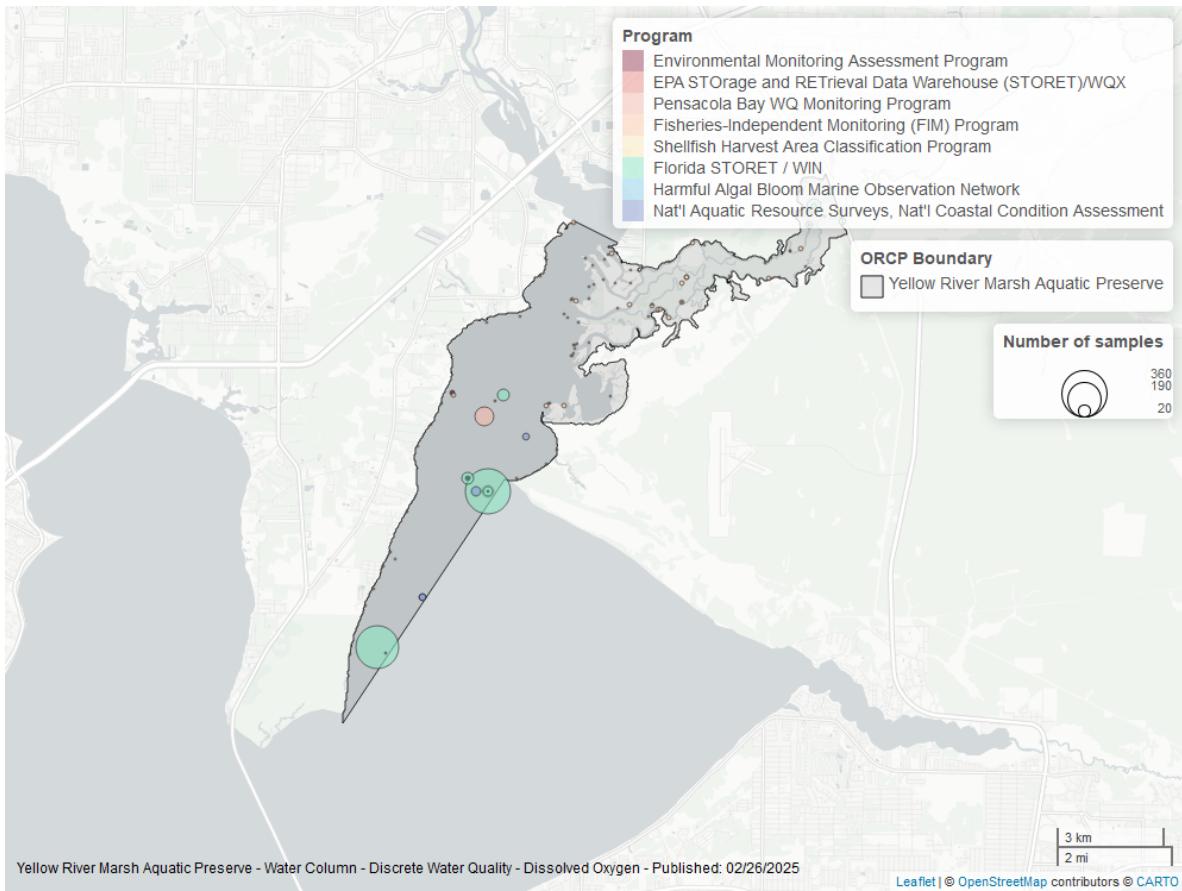


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

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	1105	31	1977 - 2024	7.2	-0.0437	7.71638	-0.01514	0.1724



## Dissolved Oxygen - Continuous

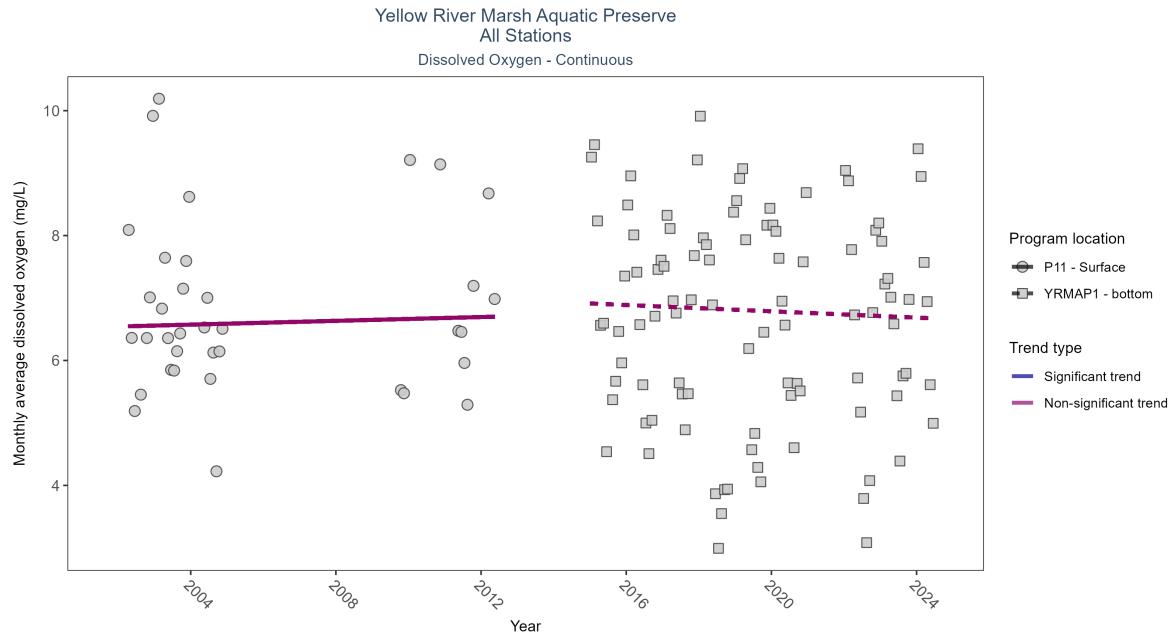
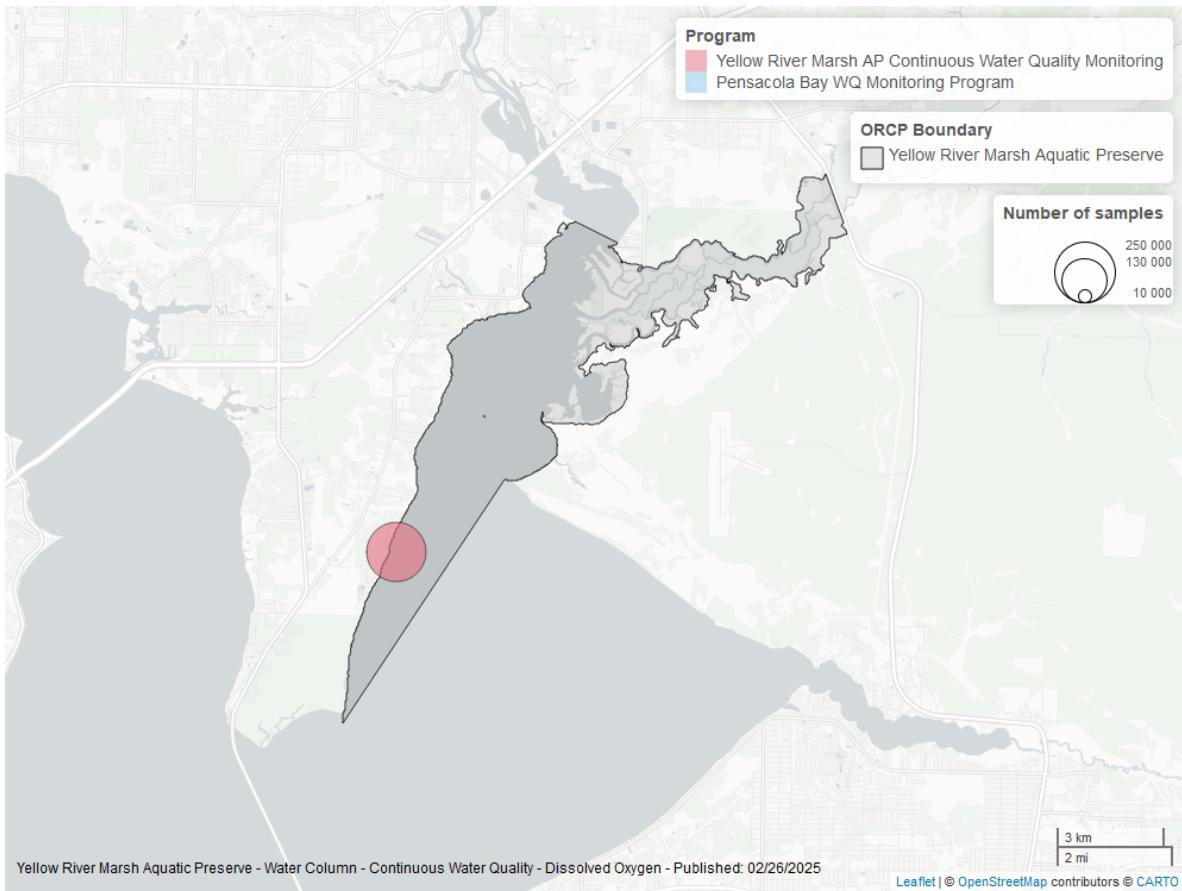


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

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	241317	9	2015 - 2024	7.00	-0.07	6.91	-0.03	0.2477
P11	No significant trend	131	7	2002 - 2012	6.37	0.04	6.54	0.02	0.4884



## Dissolved Oxygen Saturation - Discrete

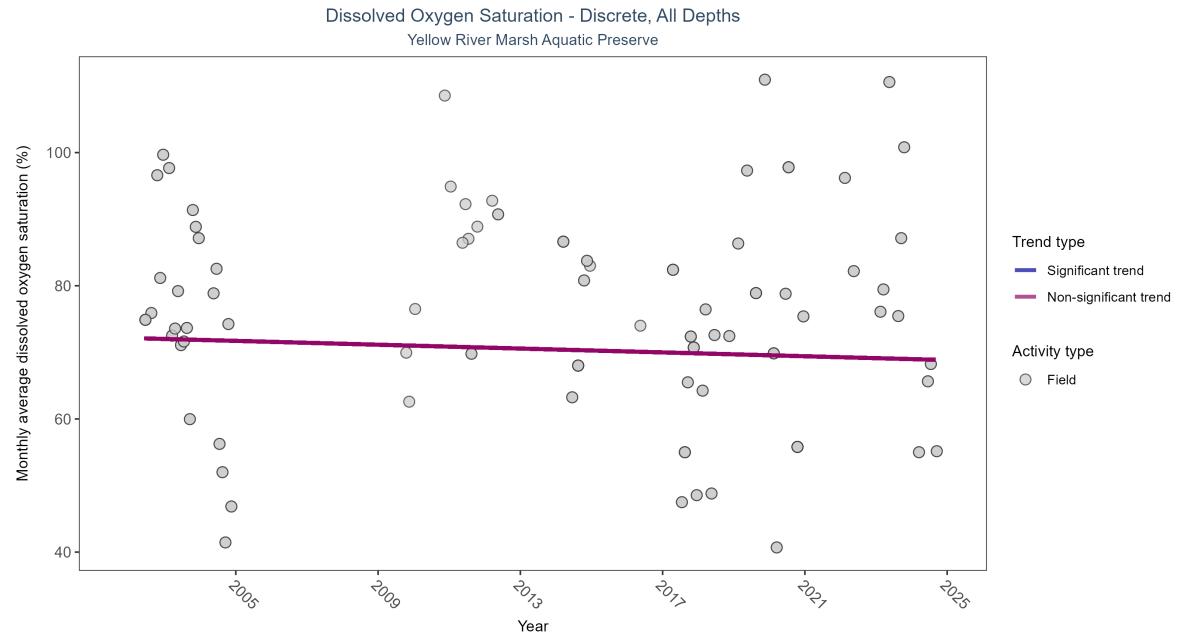
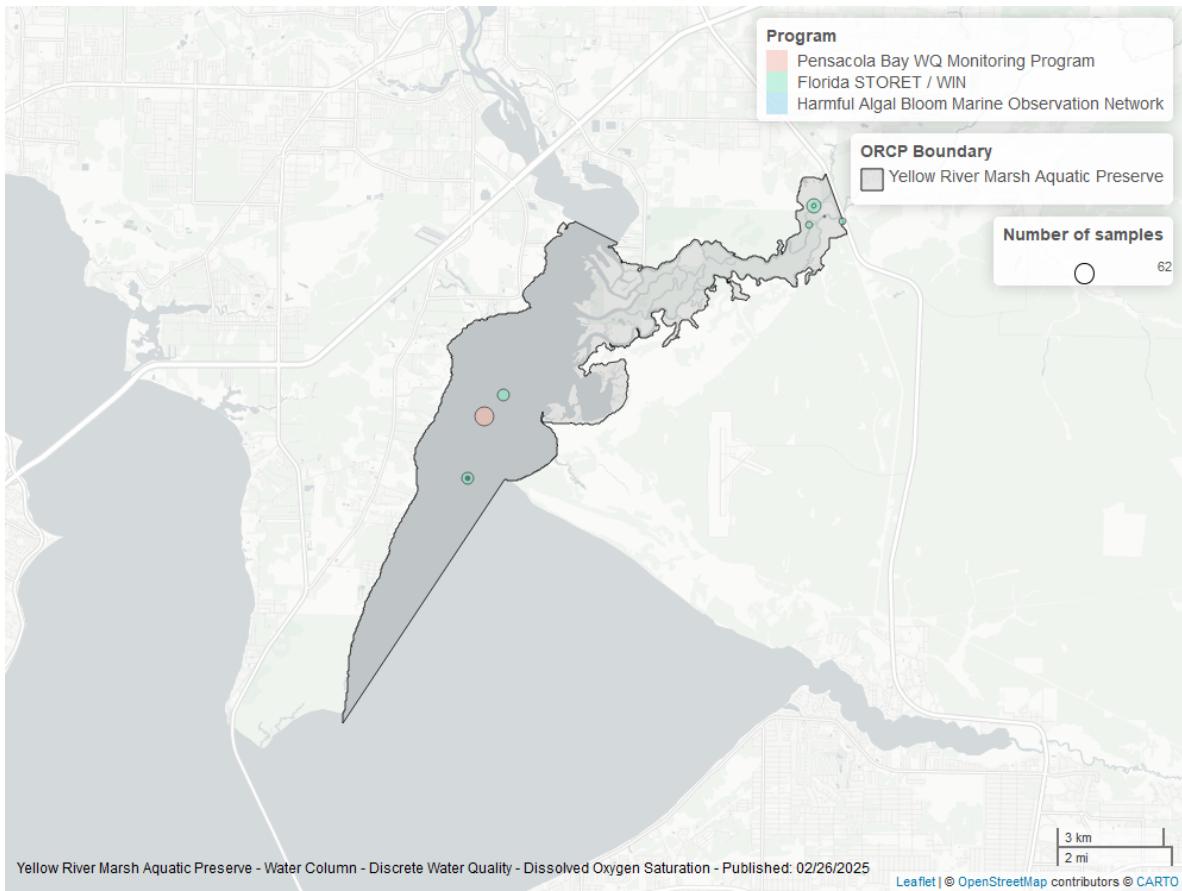


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

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	171	16	2002 - 2024	76.2	-0.0063	72.1564	-0.14423	0.7968



## Dissolved Oxygen Saturation - Continuous

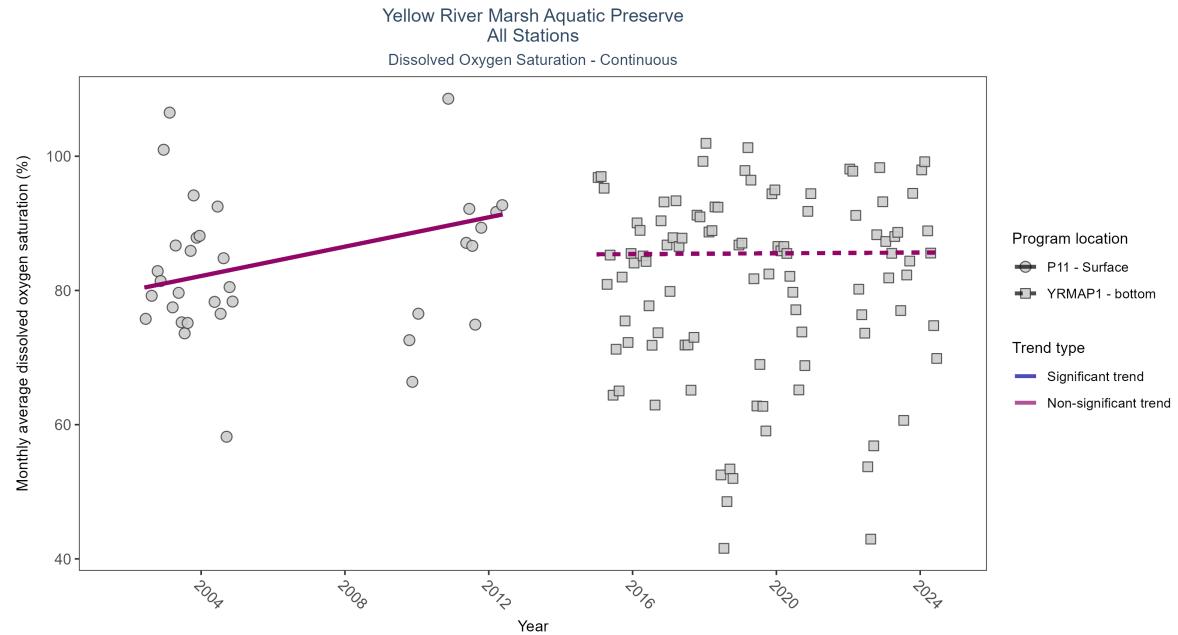
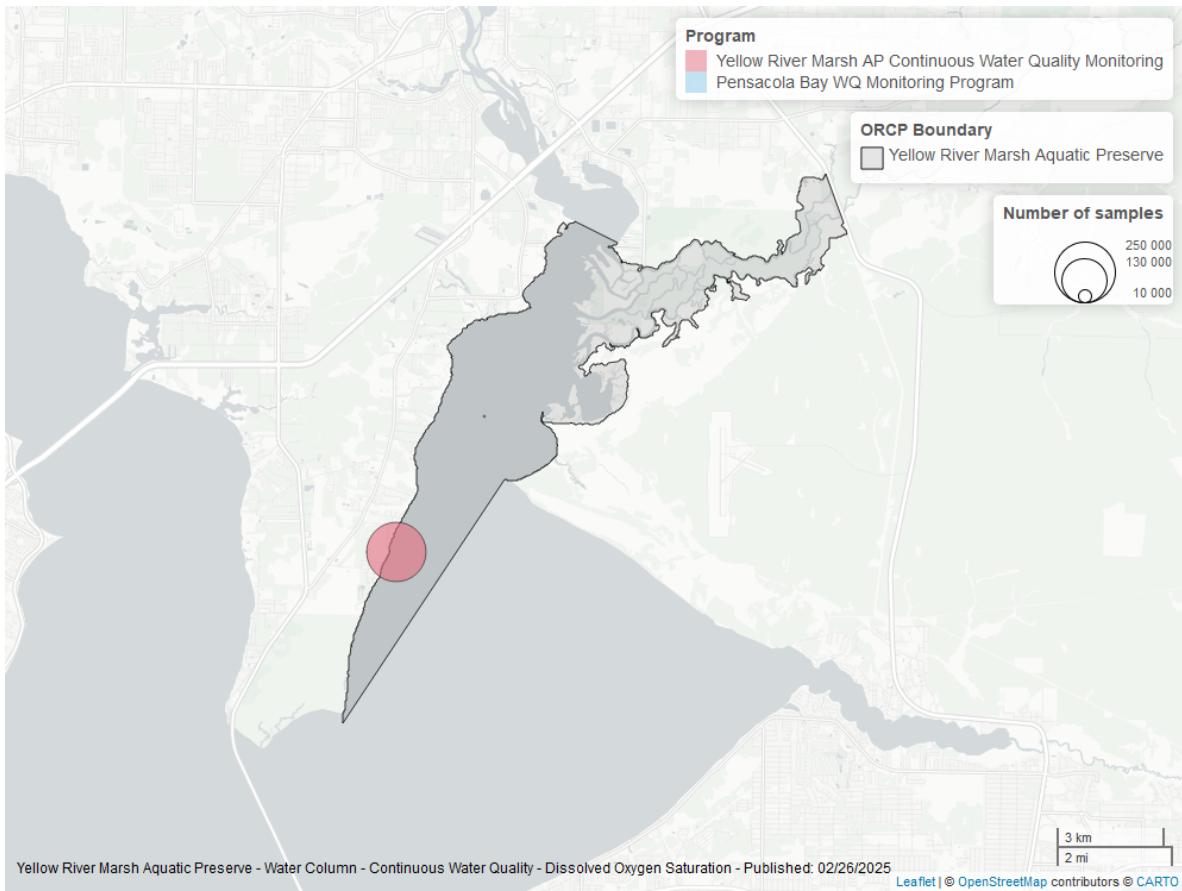


Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

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	247585	9	2015 - 2024	87.20	0.03	85.39	0.03	0.8666
P11	No significant trend	126	7	2002 - 2012	79.93	0.09	79.97	1.09	0.7119



## Salinity - Discrete

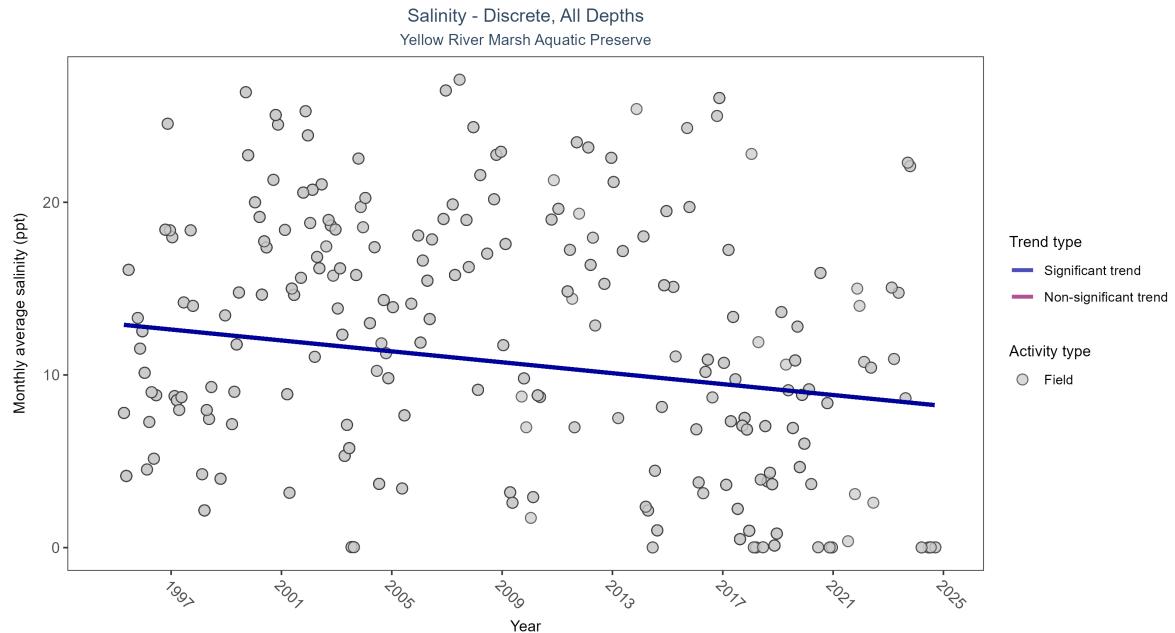
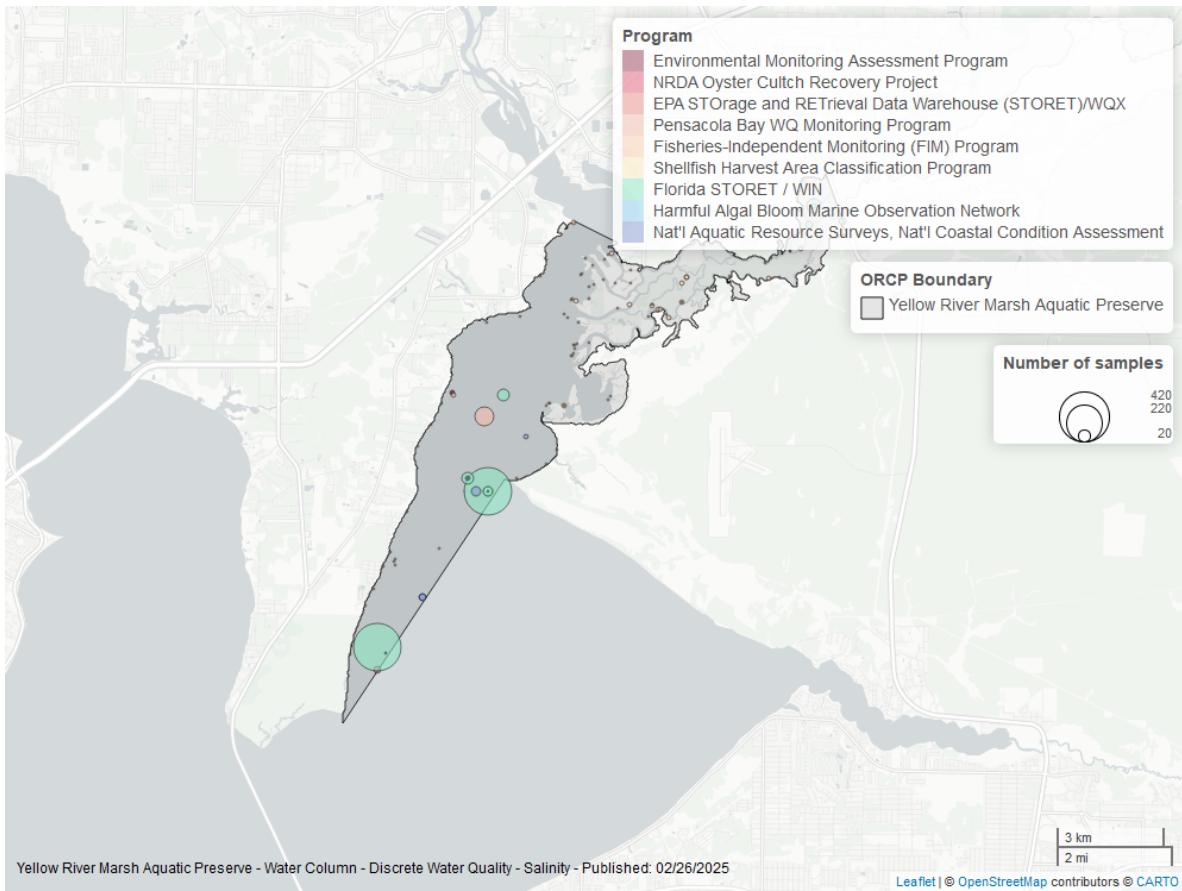


Table 7: Seasonal Kendall-Tau Results for - Salinity

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	1242	30	1995 - 2024	11	-0.1055	12.94704	-0.15805	0.0264



## Salinity - Continuous

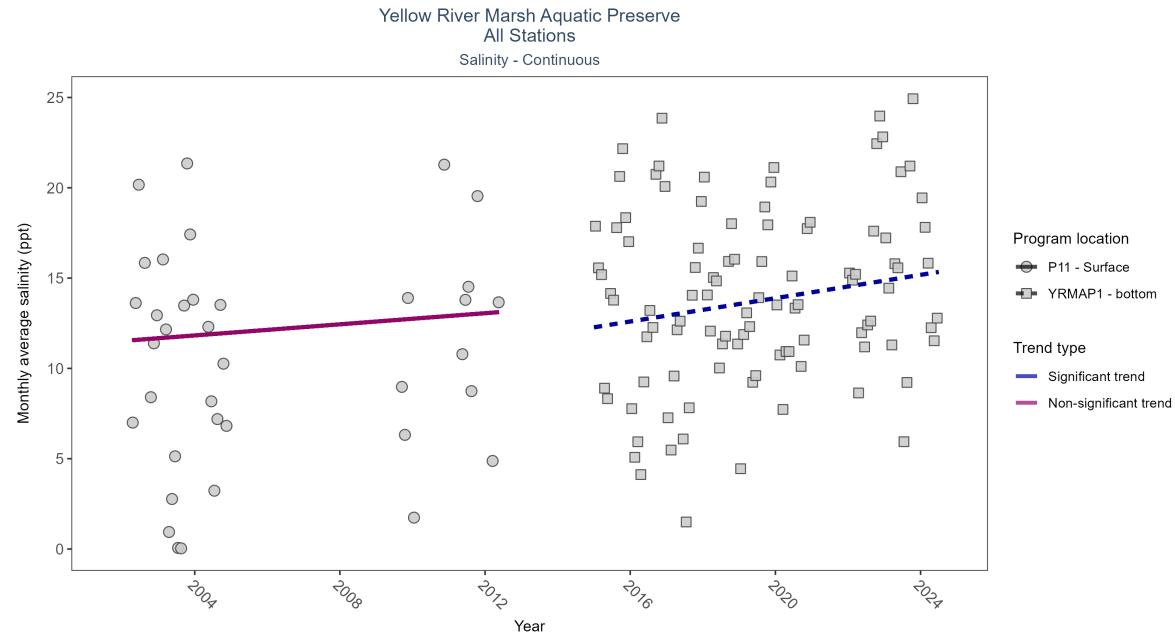
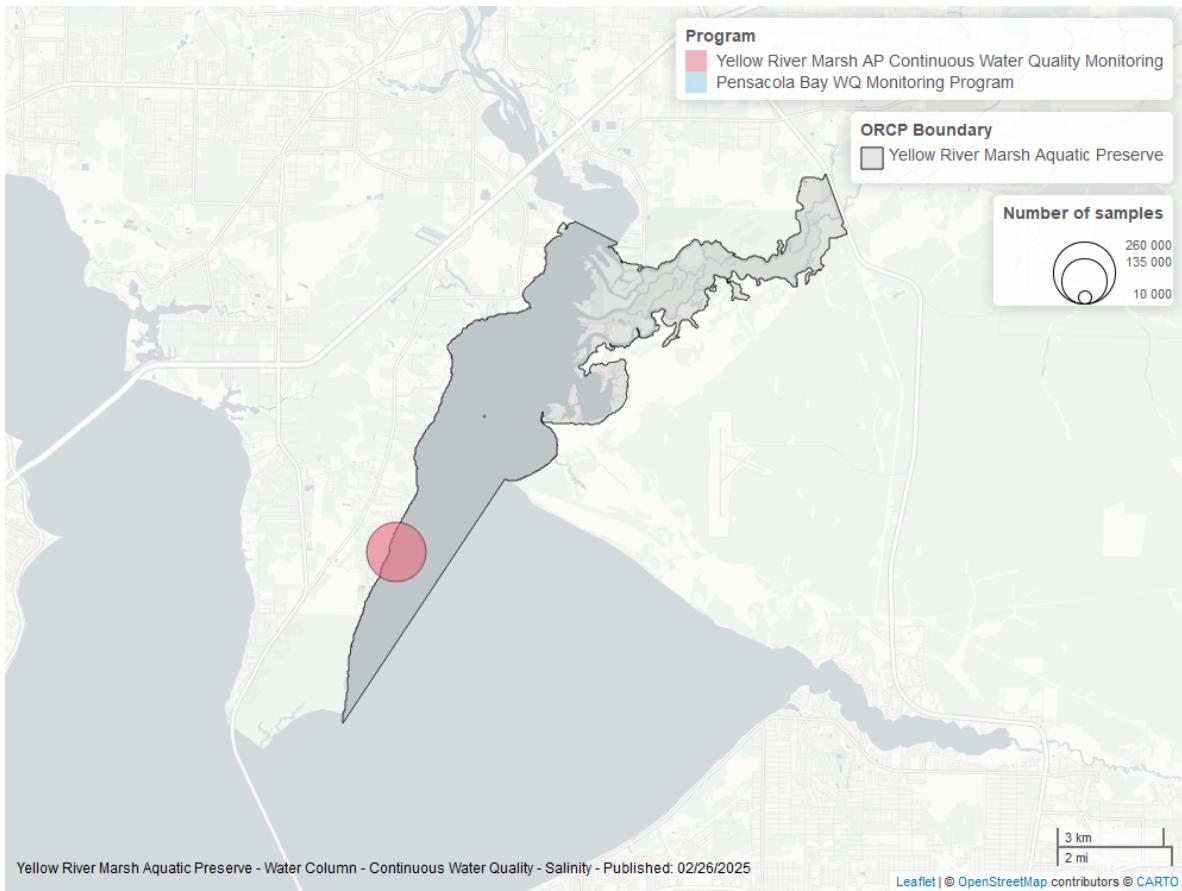


Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

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	257995	9	2015 - 2024	14.10	0.17	12.27	0.32	0.0304
P11	No significant trend	136	7	2002 - 2012	10.05	0.06	11.52	0.15	0.6499



## Water Temperature - Discrete

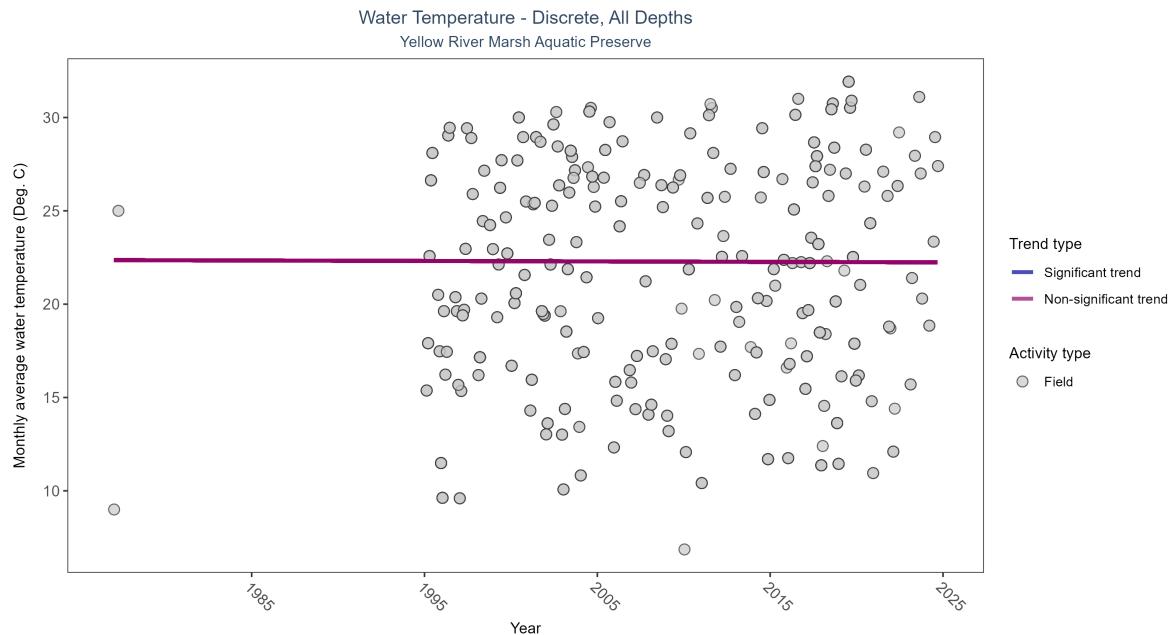
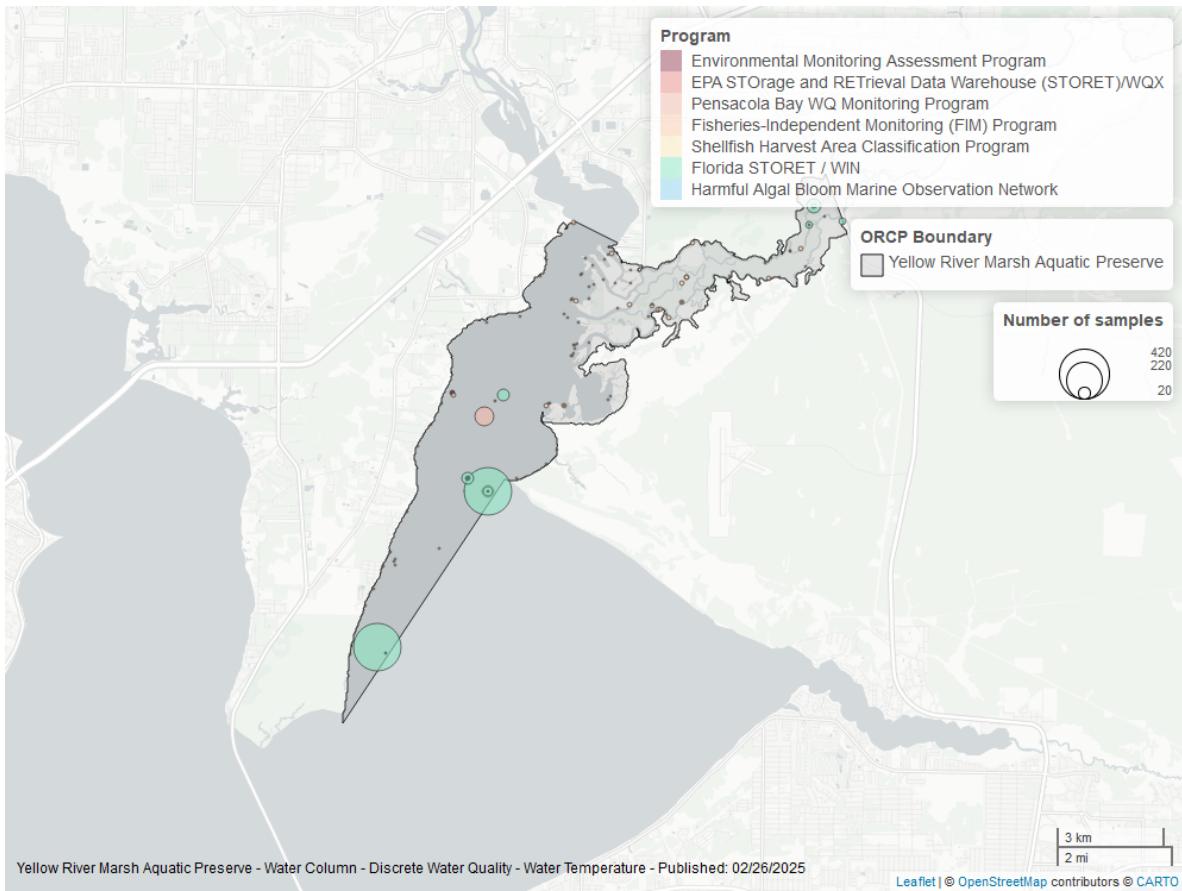


Table 9: Seasonal Kendall-Tau Results for - Water Temperature

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	1240	31	1977 - 2024	22	0.0007	22.35856	-0.00246	0.8773



## Water Temperature - Continuous

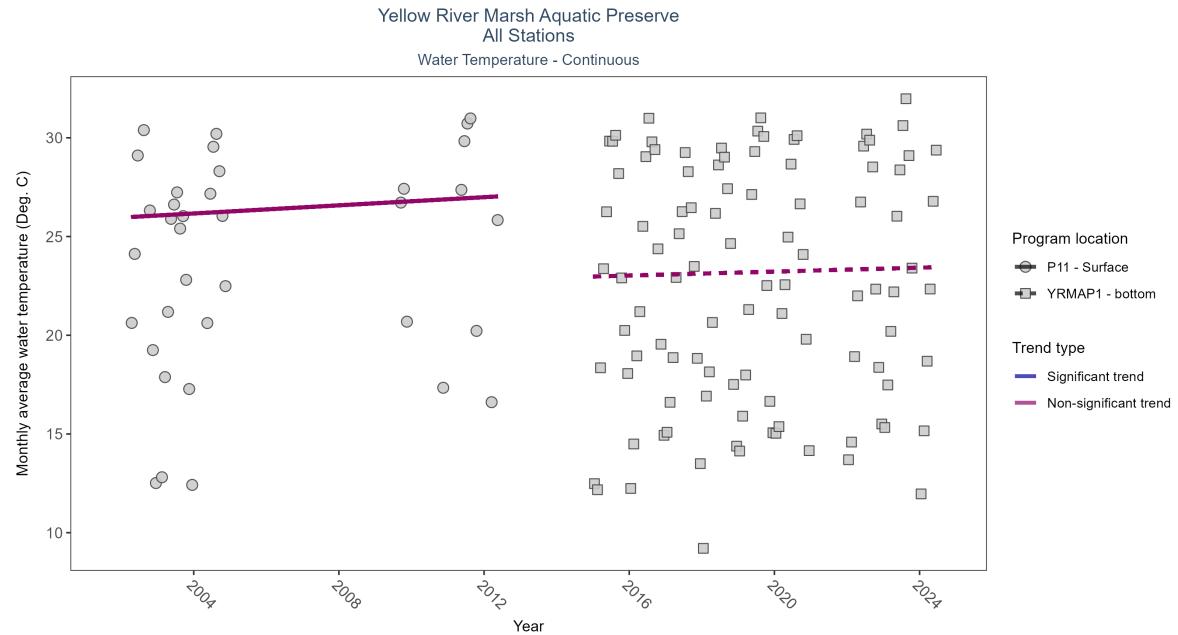
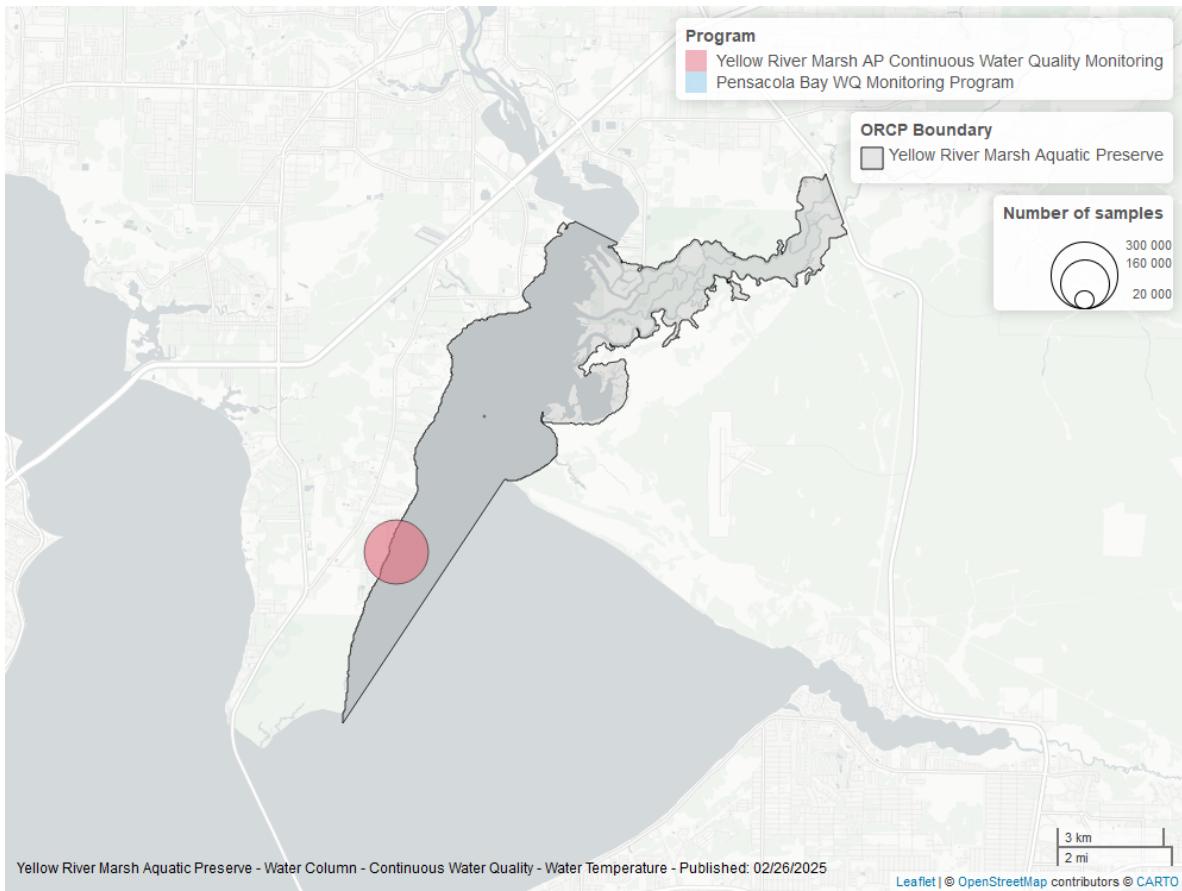


Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

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	282764	9	2015 - 2024	22.90	0.06	22.97	0.05	0.4052
P11	No significant trend	136	7	2002 - 2012	26.22	0.13	25.96	0.10	0.4960



## pH - Discrete

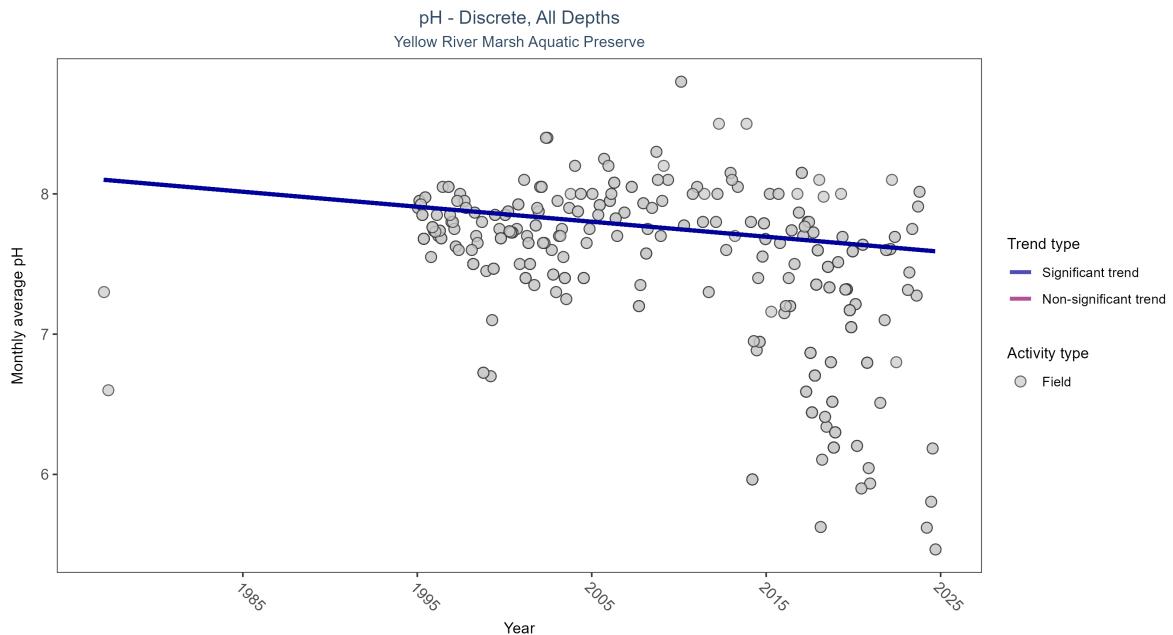
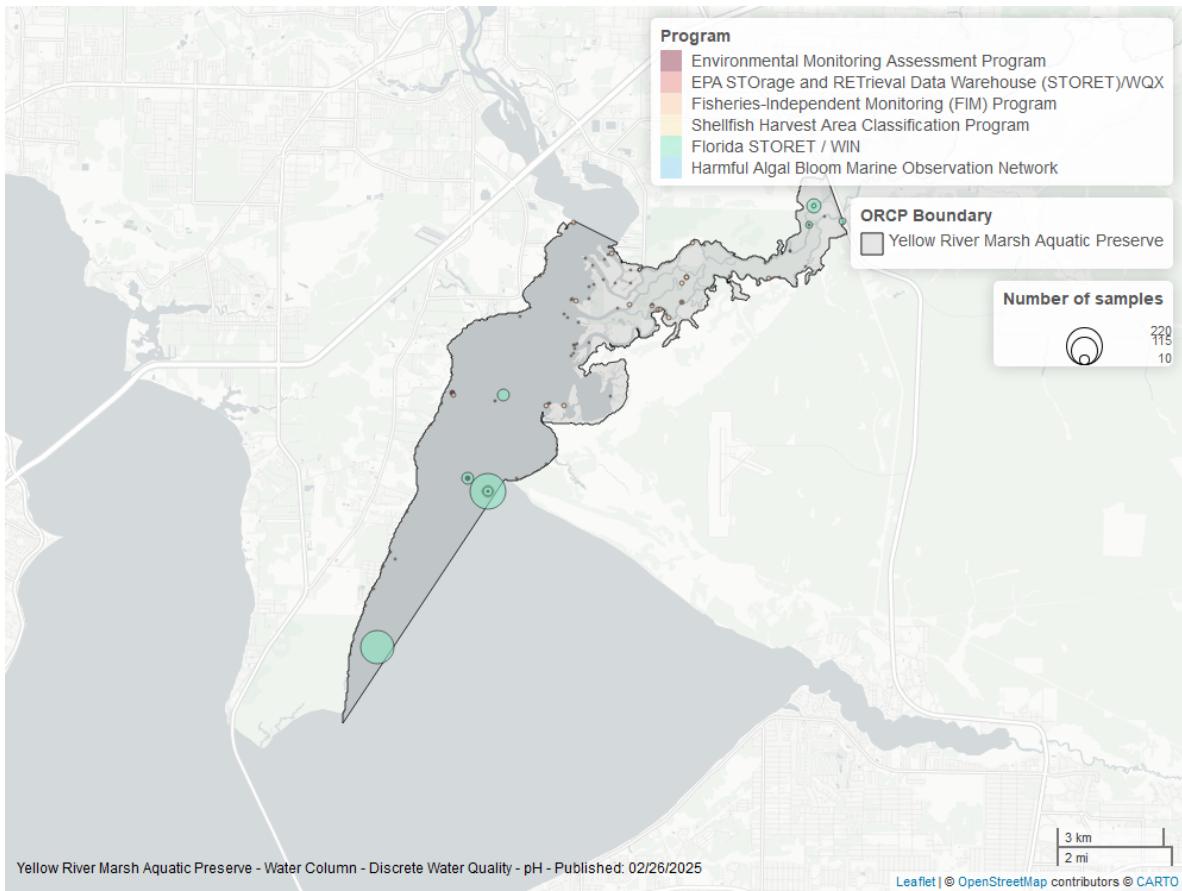


Table 11: Seasonal Kendall-Tau Results for - pH

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	738	31	1977 - 2024	7.66	-0.1435	8.10098	-0.01069	0.0063



## pH - Continuous

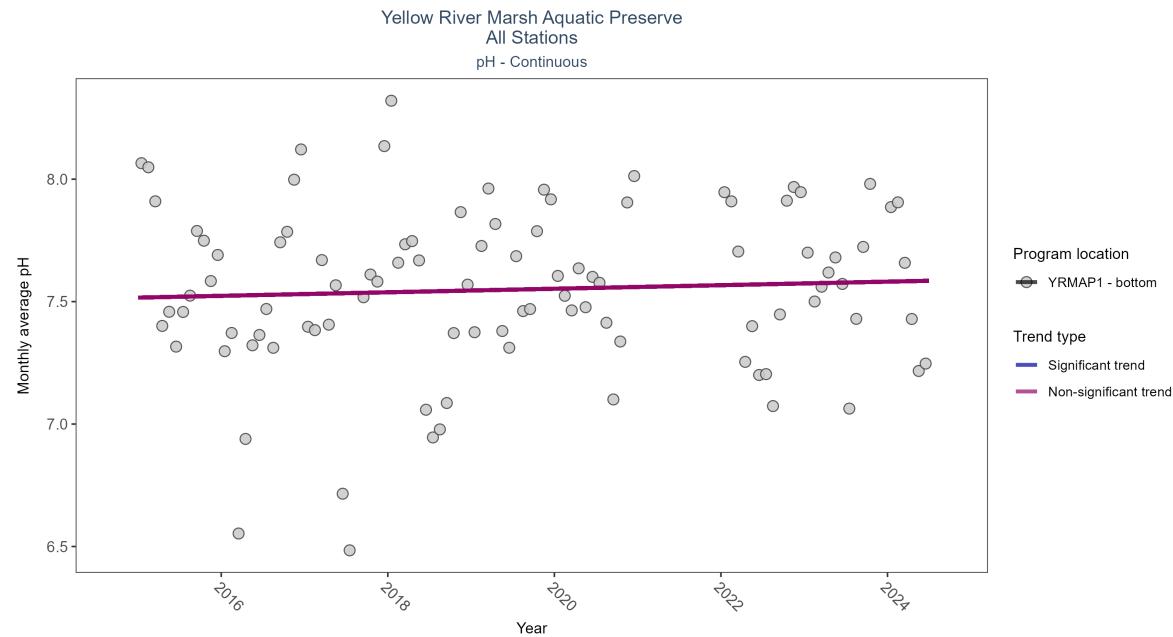
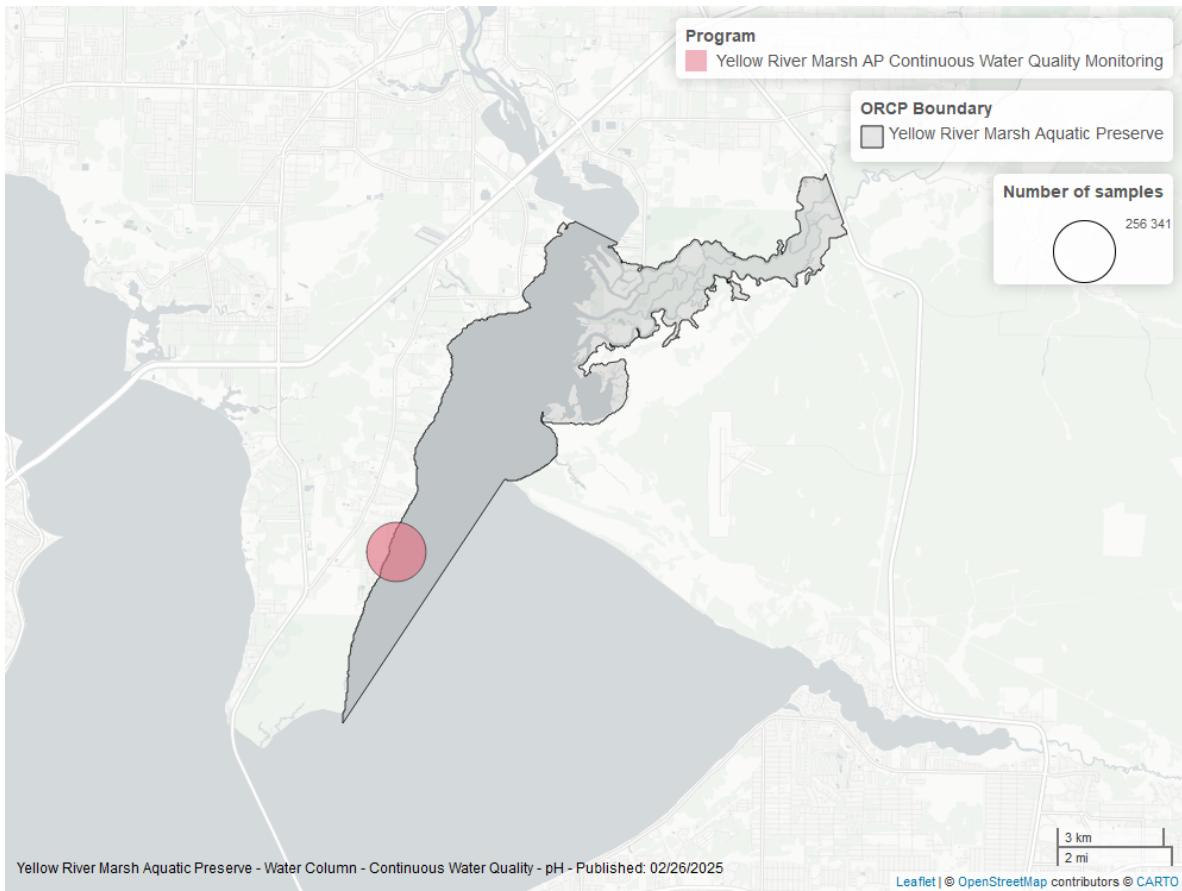


Table 12: Seasonal Kendall-Tau Results for All Stations - pH

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	256341	9	2015 - 2024	7.6	0.06	7.52	0.01	0.5004



## Water Clarity

### Turbidity - Discrete

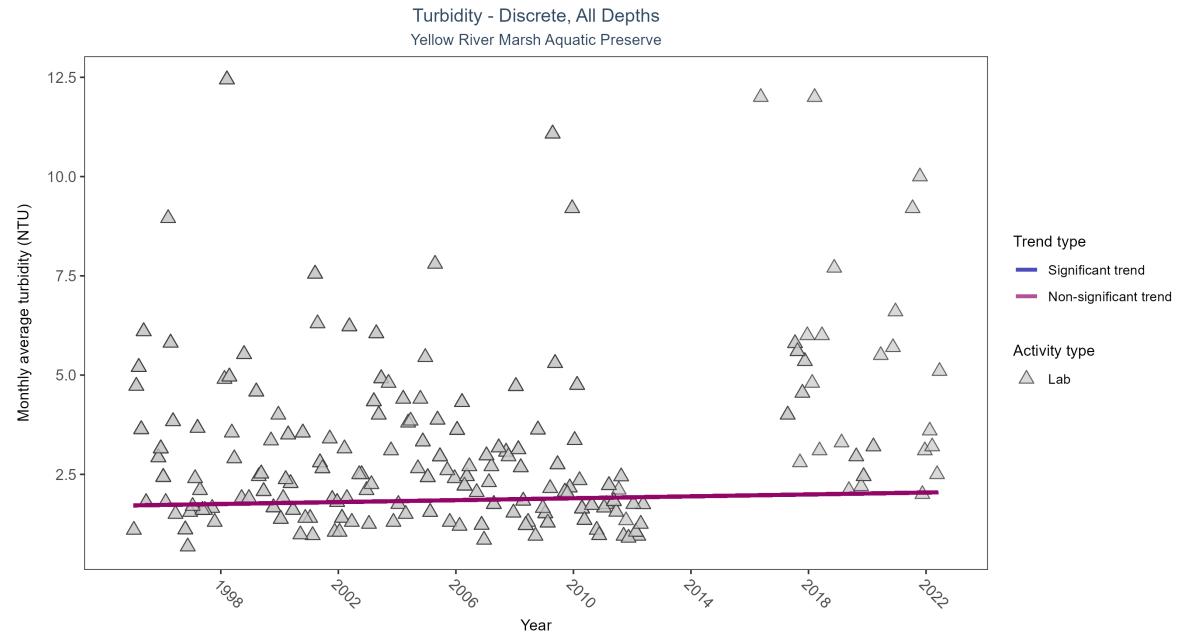
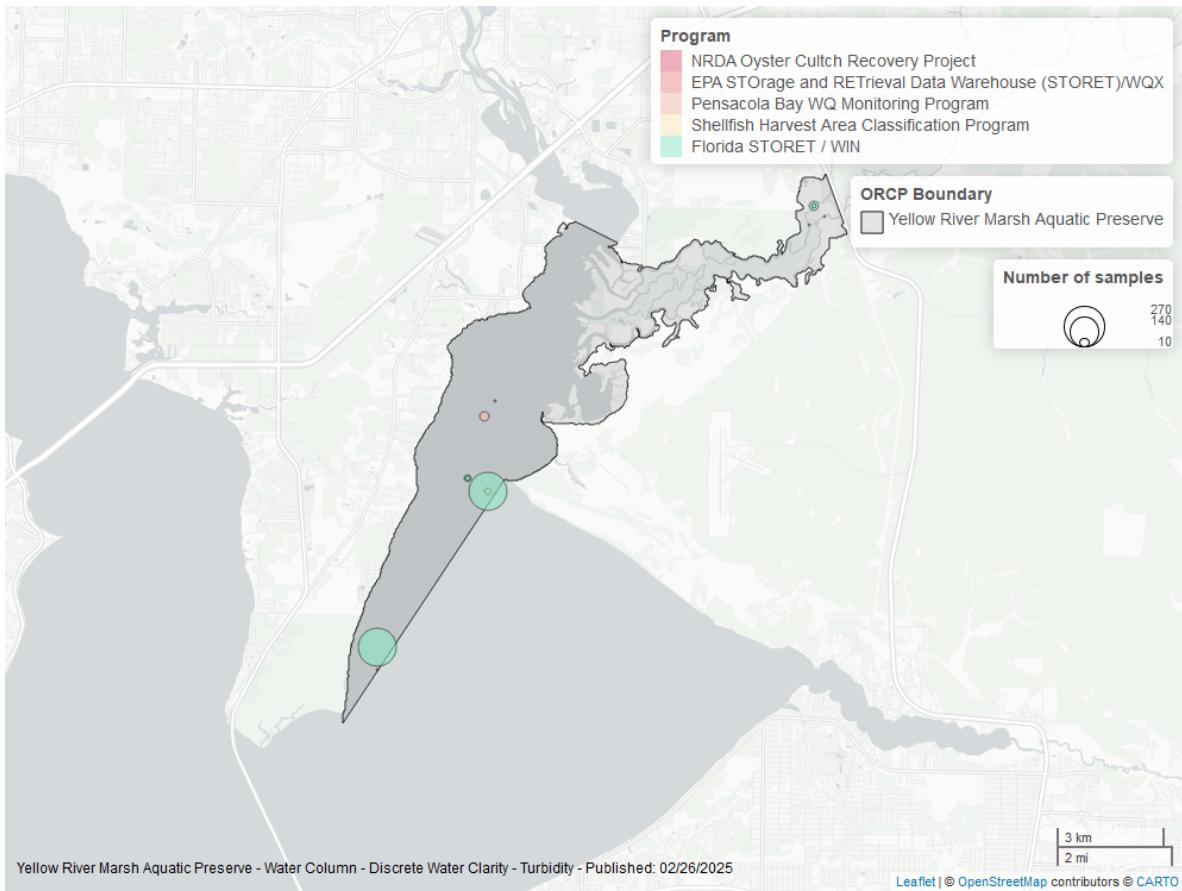


Table 13: Seasonal Kendall-Tau Results for - Turbidity

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	0.0753	1.71738	0.01202	0.5284



## Turbidity - Continuous

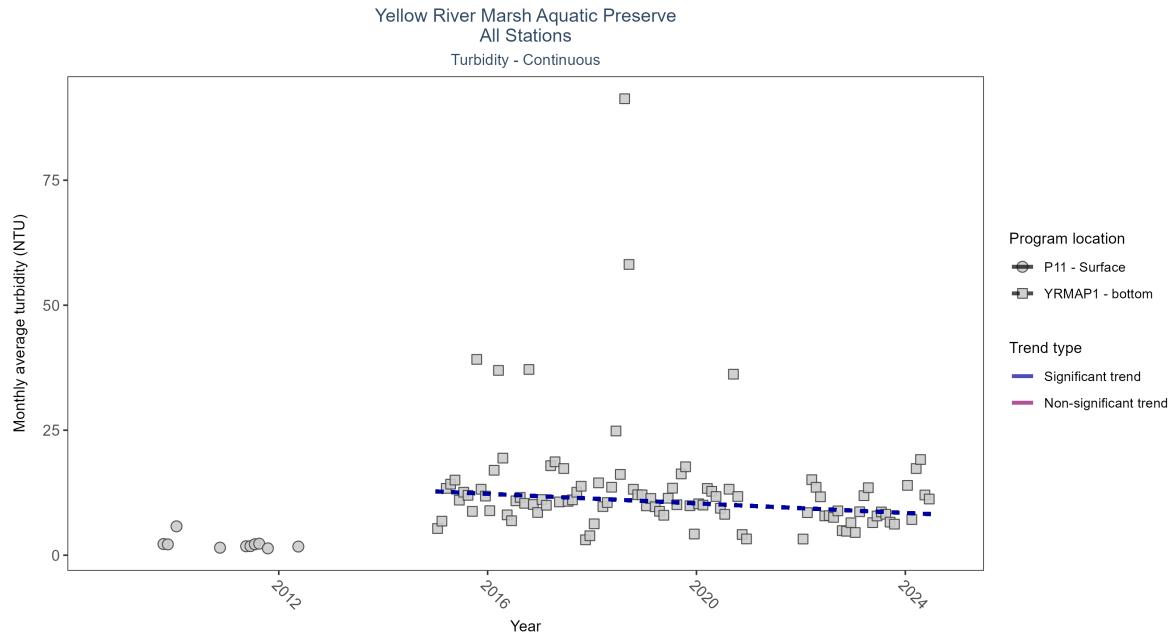
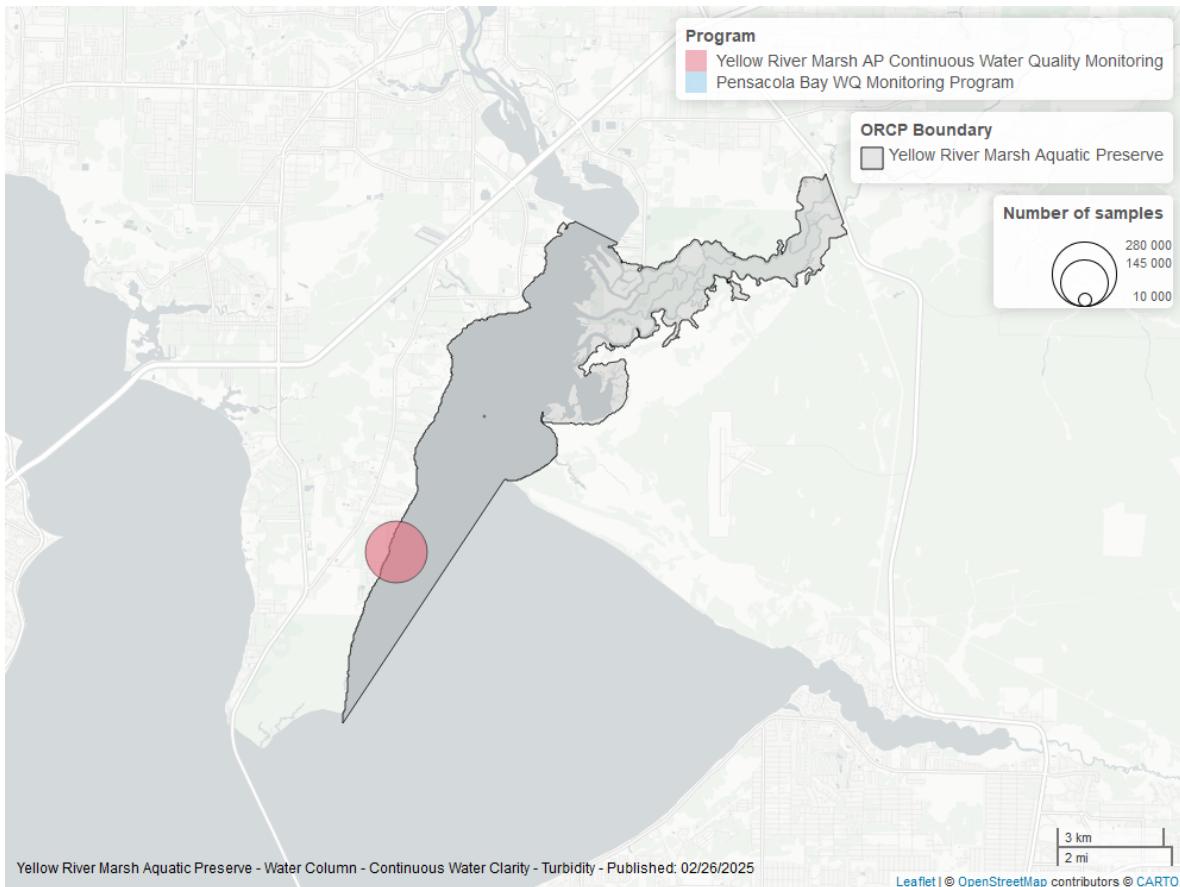


Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

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	270091	9	2015 - 2024	6	-0.25	12.75	-0.48	0.0038
P11	Insufficient data to calculate trend	37	4	2009 - 2012	2	-	-	-	NA



## Total Suspended Solids - Discrete

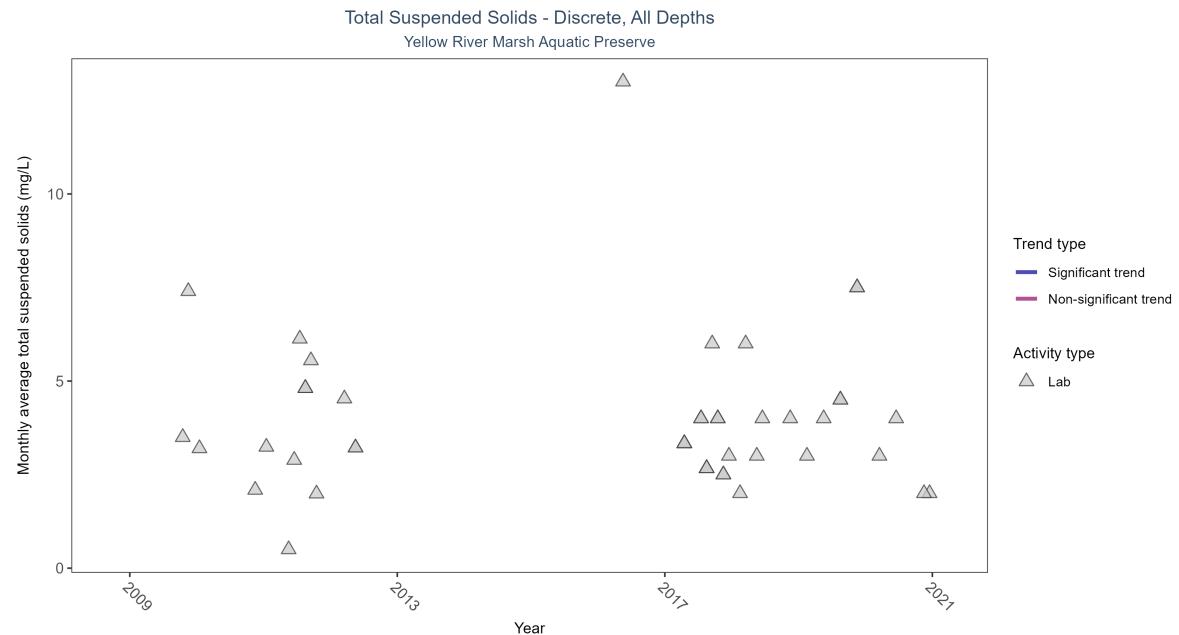
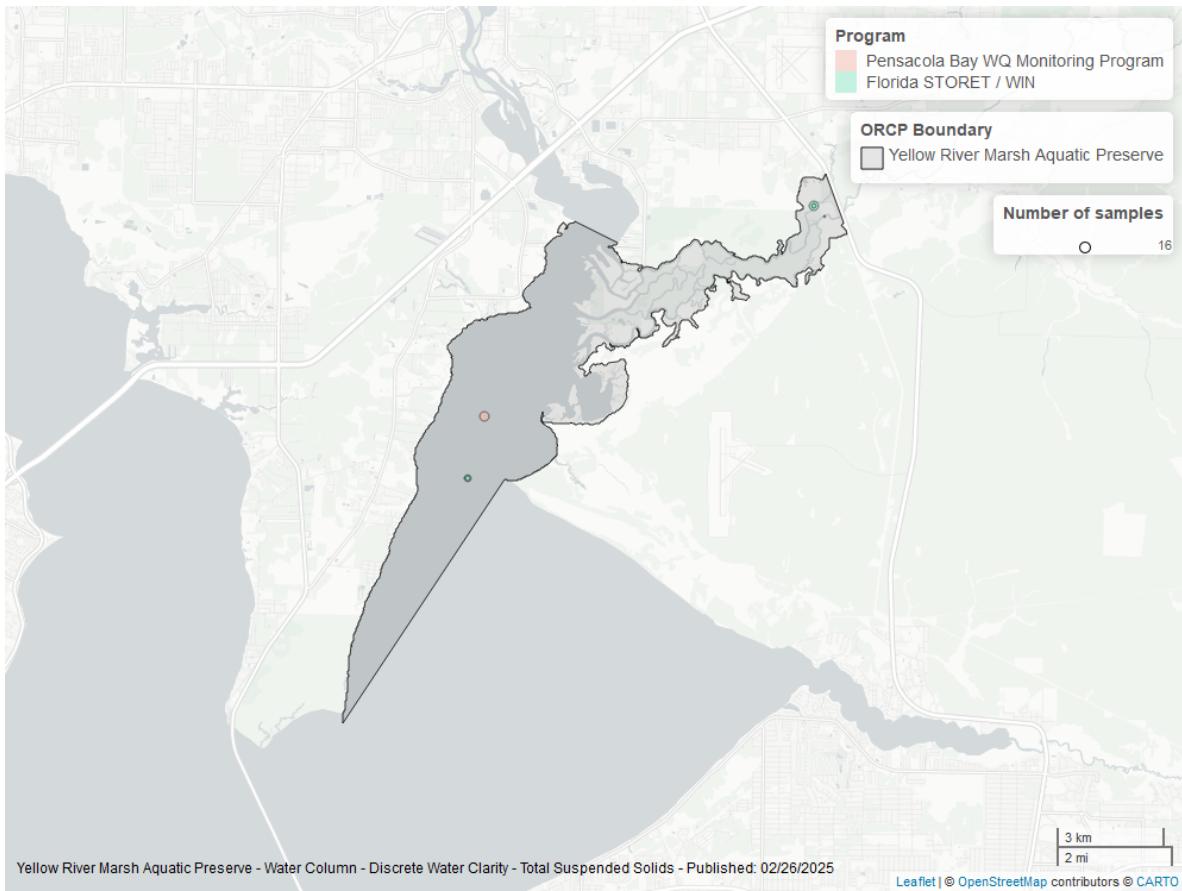


Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

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

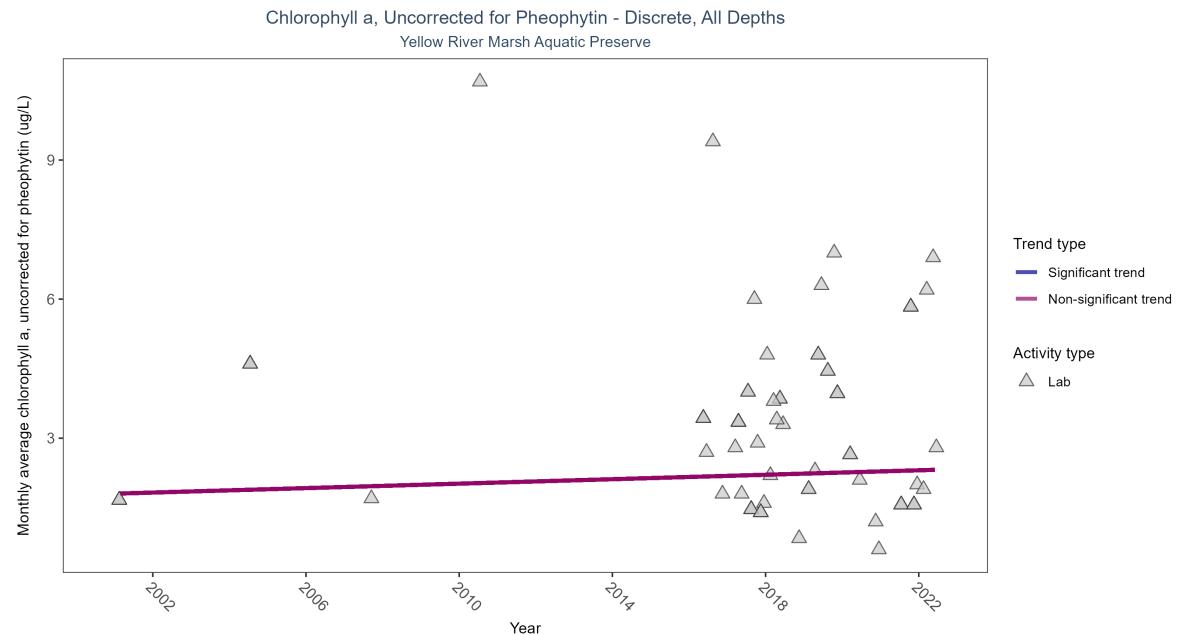
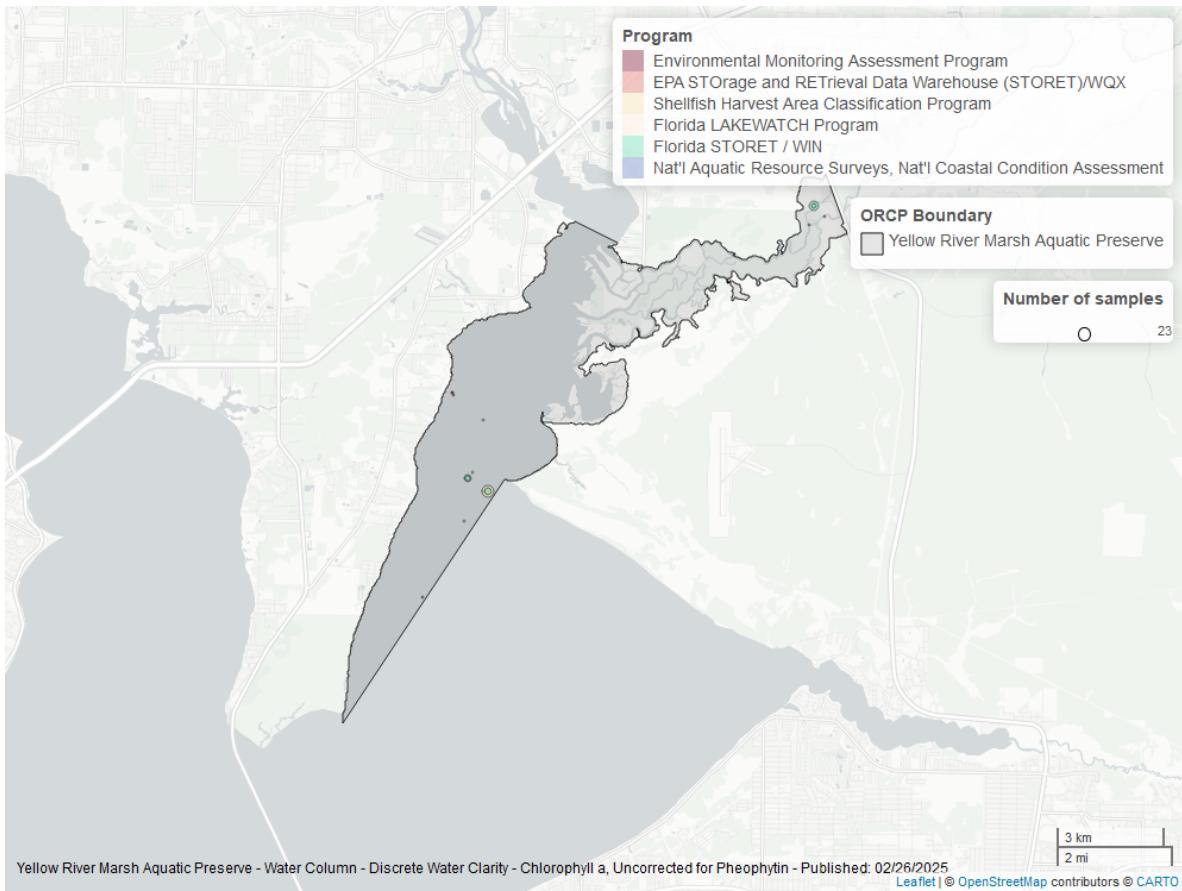


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

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	0.1175	1.80278	0.02402	0.5531



## Chlorophyll a, Corrected for Pheophytin - Discrete

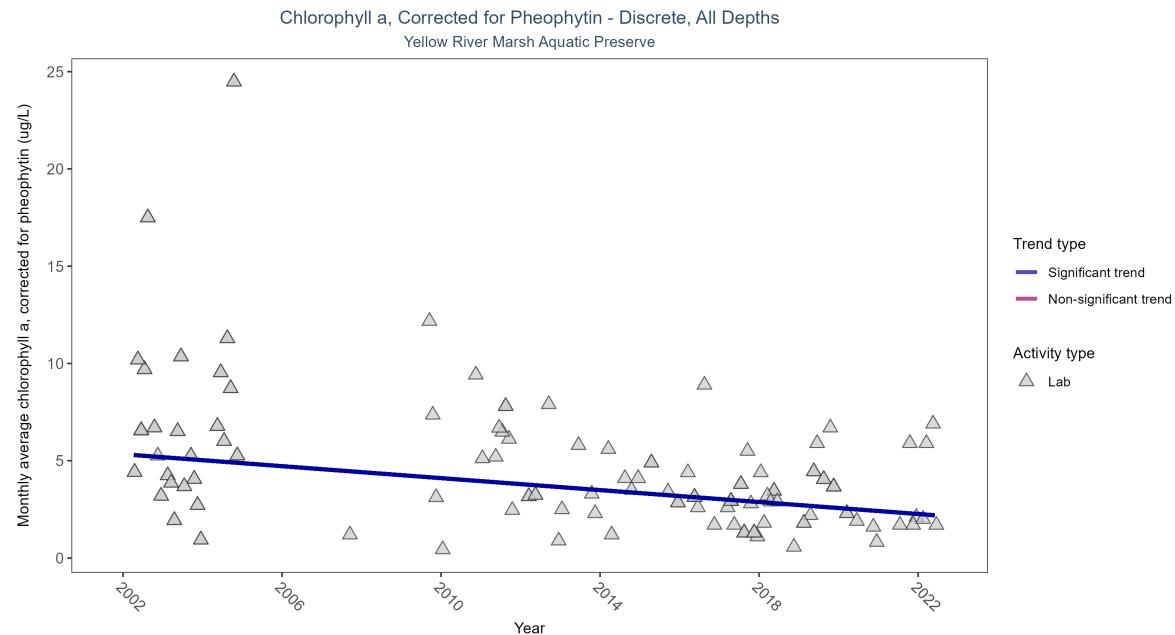
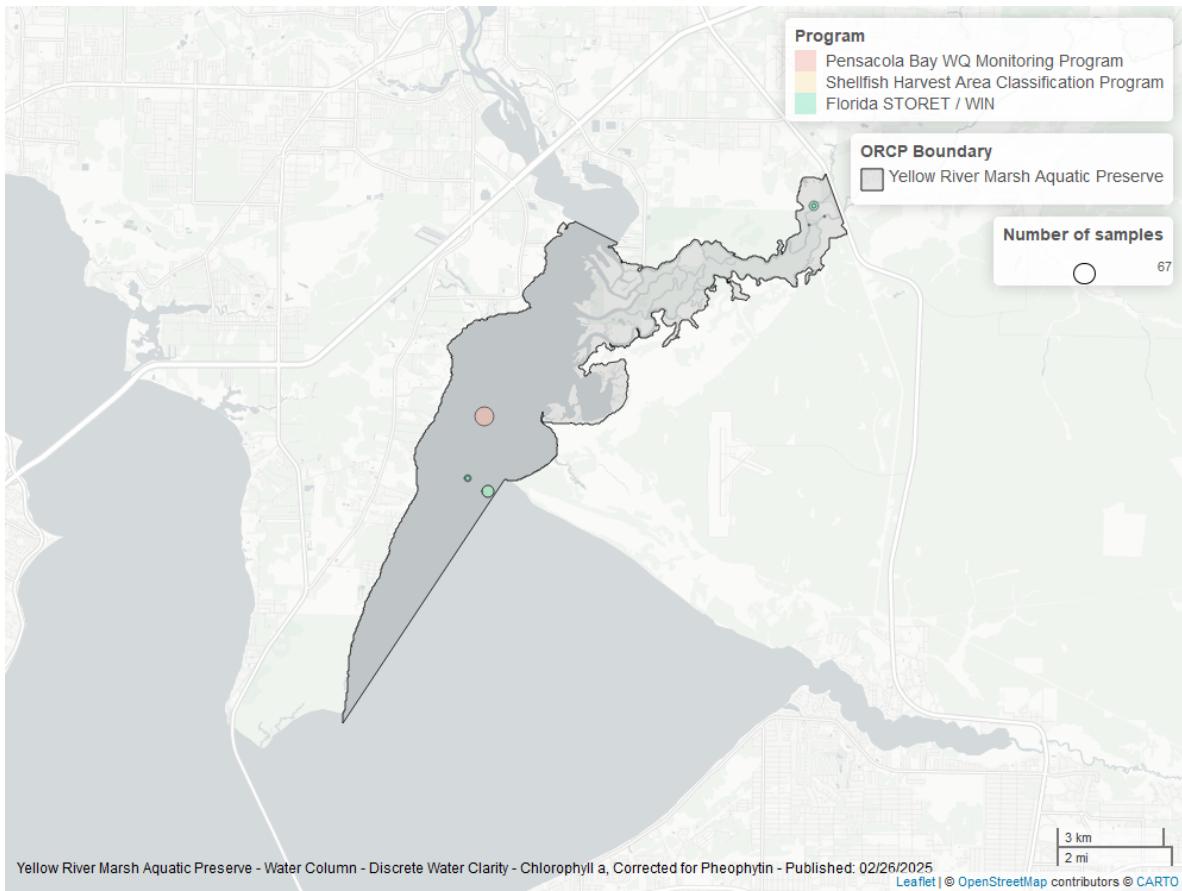


Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

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	0.0001



## Secchi Depth - Discrete

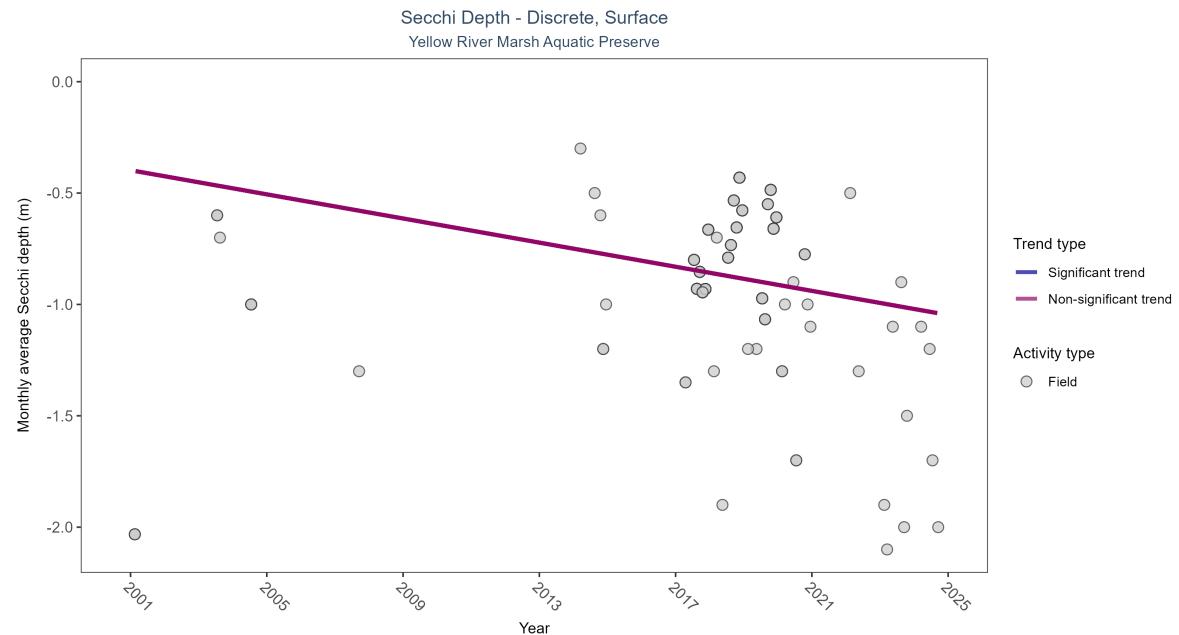
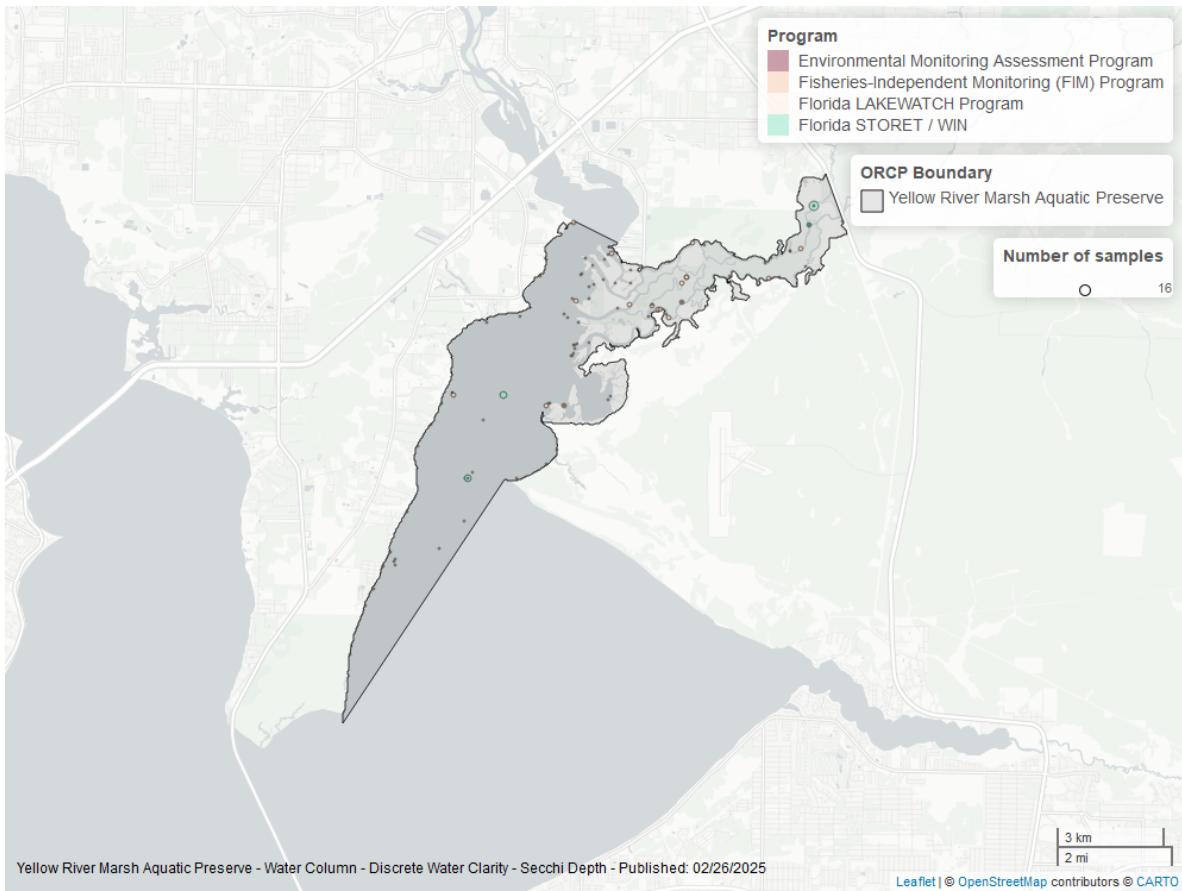


Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	No significant trend	235	12	2001 - 2024	-0.8	-0.2141	-0.39744	-0.02708	0.0757



## Colored Dissolved Organic Matter - Discrete

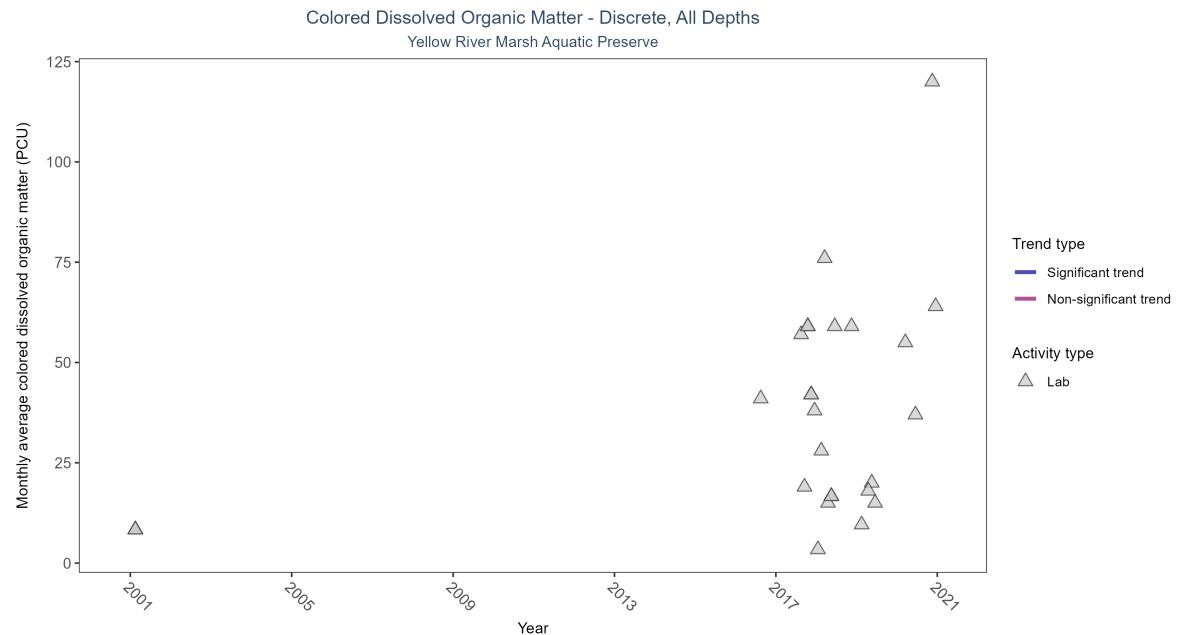


Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

