Yellow River Marsh Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 09 January, 2025

Contents

Indicators

Nutrients

Total Nitrogen - Discrete

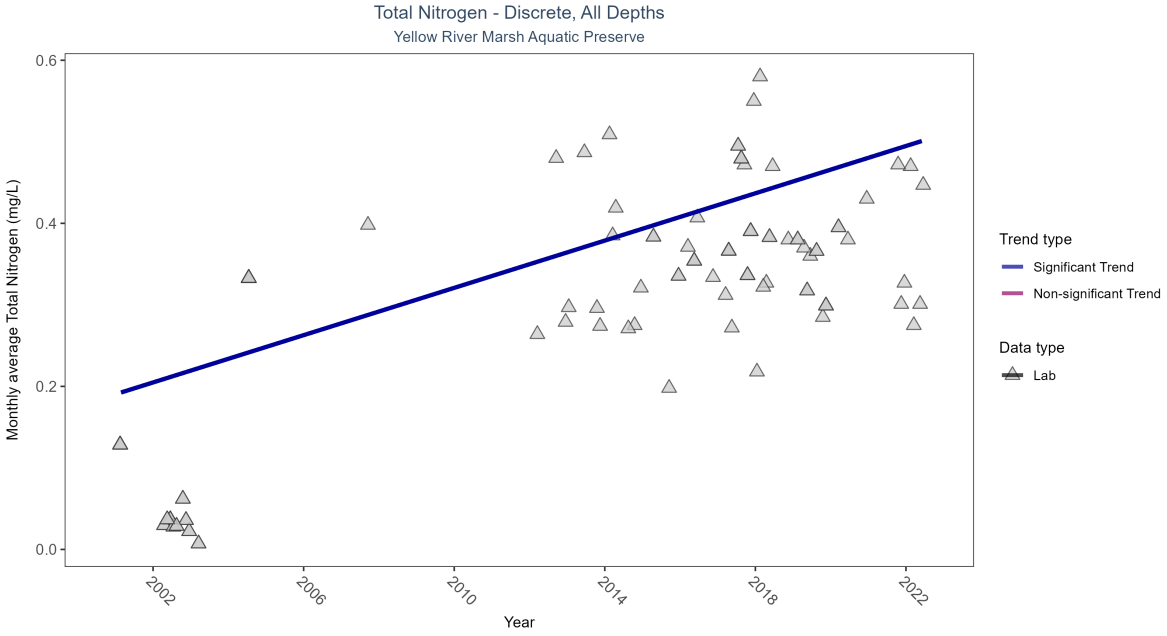

Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	109	16	2001 - 2022	0.322	0.2823	0.19033	0.0145	0.0088

Total Phosphorus - Discrete

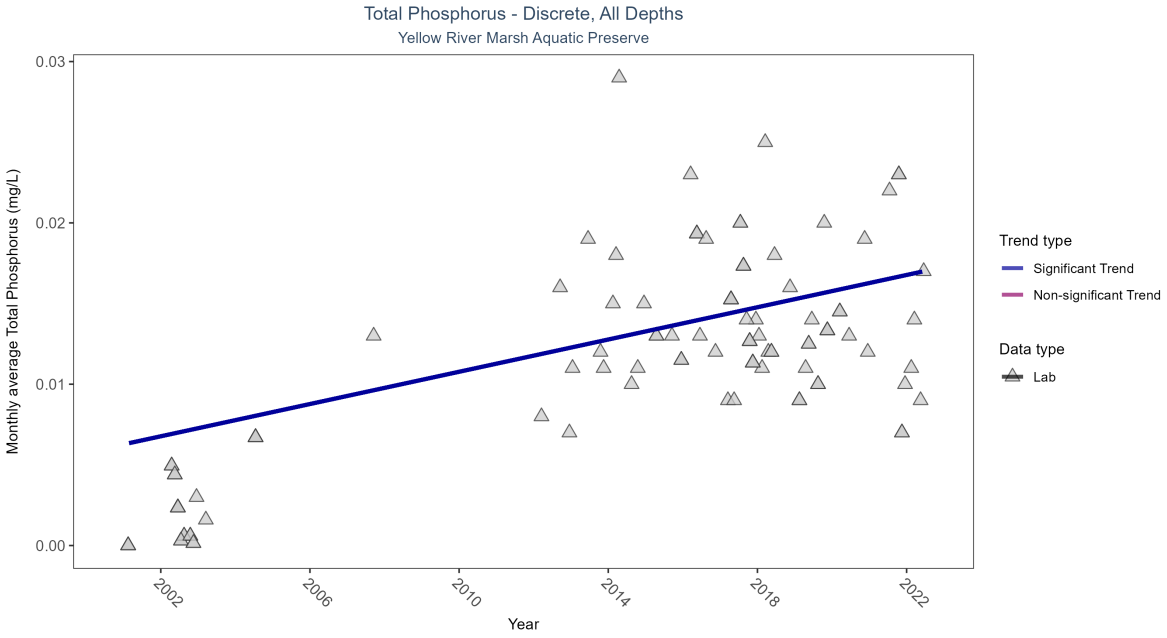

Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	105	16	2001 - 2022	0.0117	0.3174	0.00627	0.0005	0.0066

Water Quality

Dissolved Oxygen - Discrete

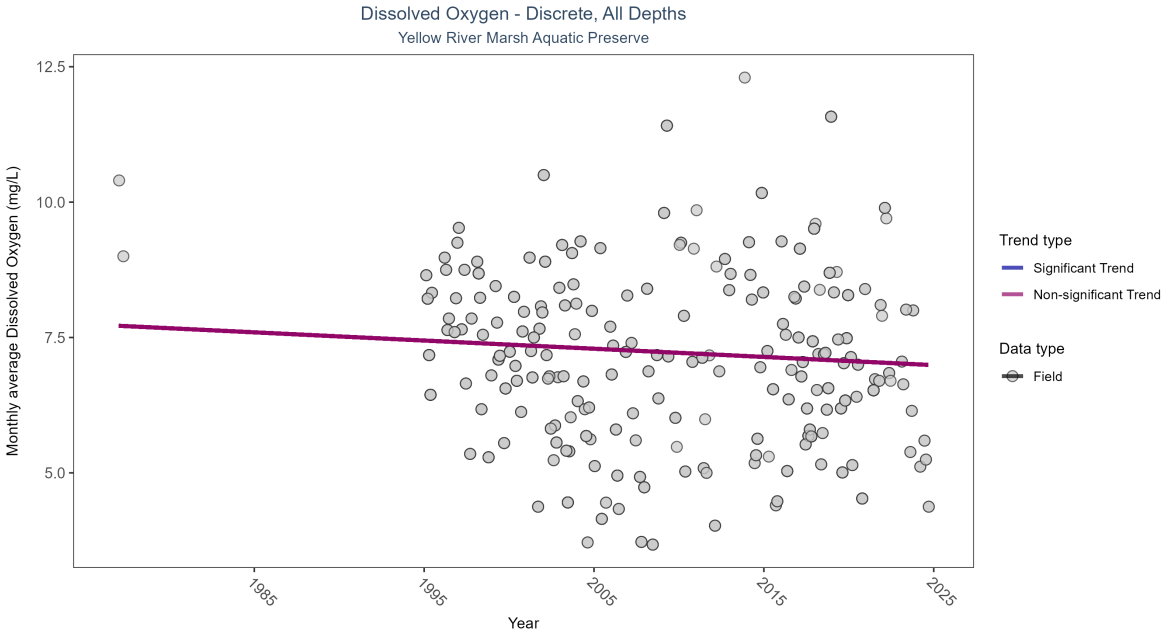

Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	1105	31	1977 - 2024	7.2	-0.0437	7.71638	-0.01514	0.1724

Dissolved Oxygen - Continuous

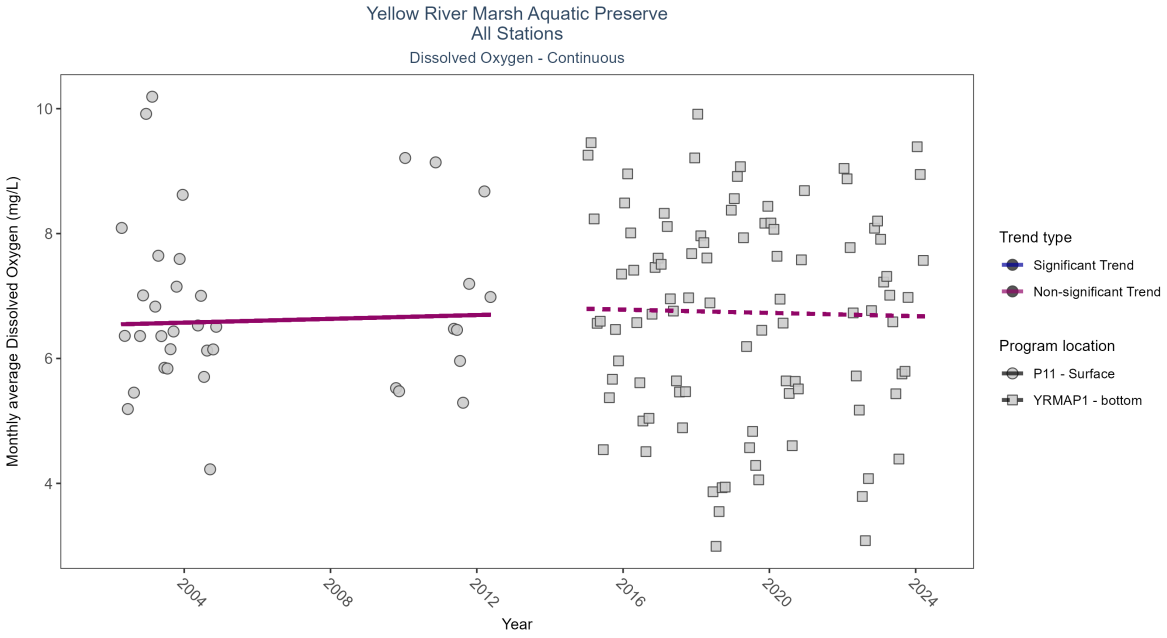

Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
YRMAP1	No significant trend	232610	9	2015 - 2024	7.00	-0.04	6.80	-0.01	0.4753
P11	No significant trend	131	7	2002 - 2012	6.37	0.04	6.54	0.02	0.4884

Dissolved Oxygen Saturation - Discrete

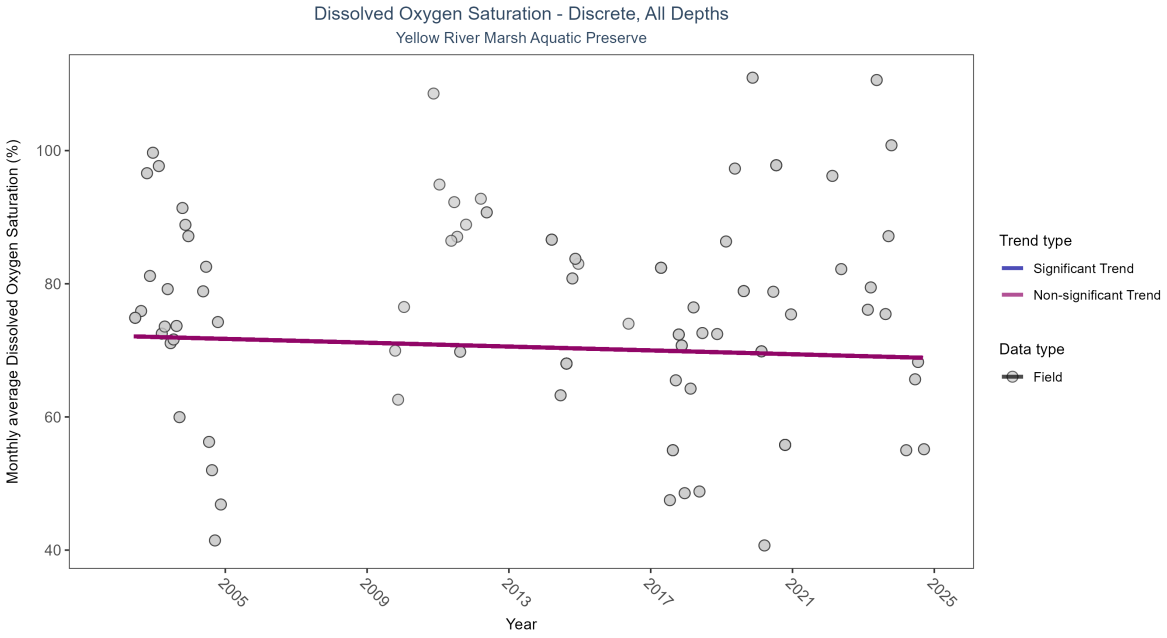

Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	171	16	2002 - 2024	76.2	-0.0063	72.1564	-0.14423	0.7968

Dissolved Oxygen Saturation - Continuous

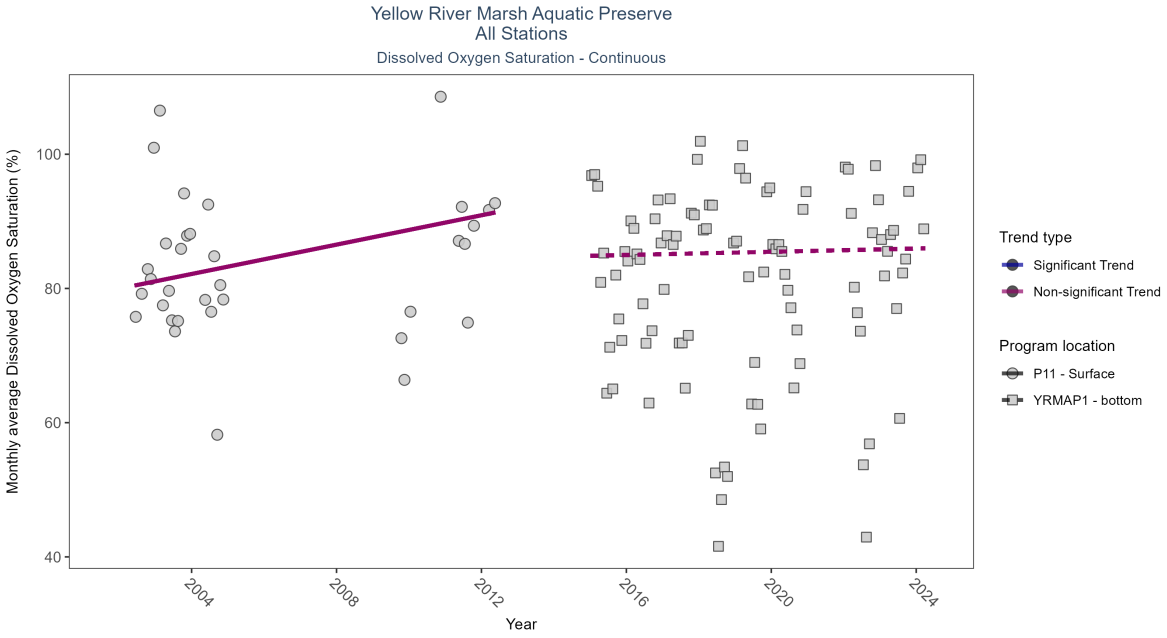

Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
YRMAP1	No significant trend	238878	9	2015 - 2024	87.30	0.06	84.86	0.12	0.5973
P11	No significant trend	126	7	2002 - 2012	79.93	0.09	79.97	1.09	0.7119

Salinity - Discrete

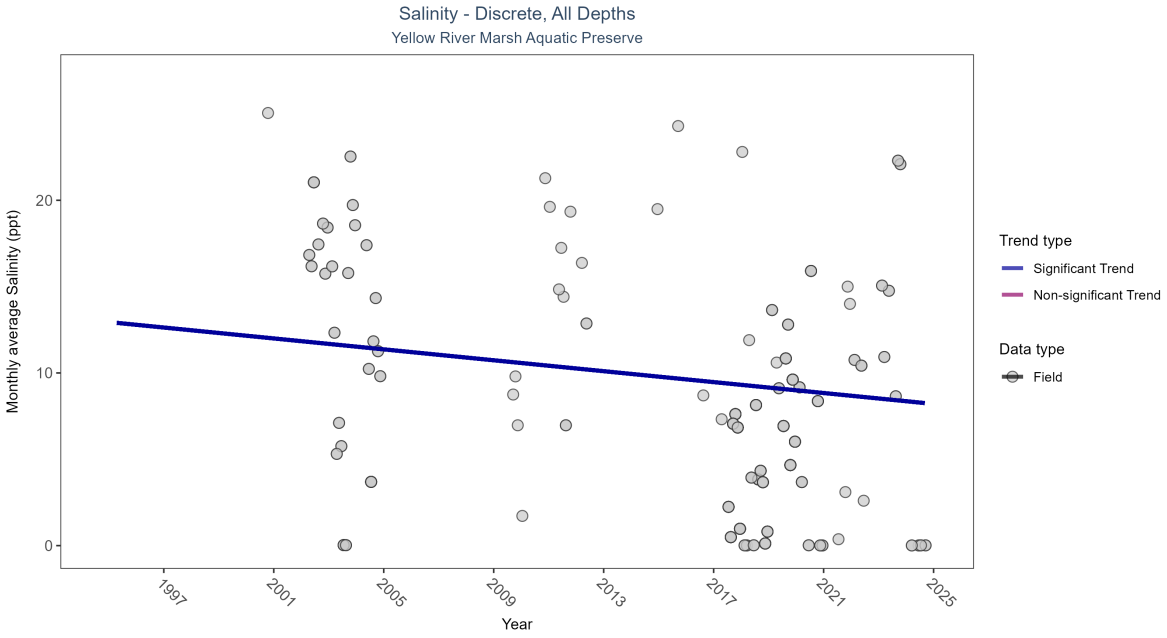

Table 7: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	Significantly decreasing trend	1242	30	1995 - 2024	11	-0.1055	12.94704	-0.15805	0.0264

Salinity - Continuous

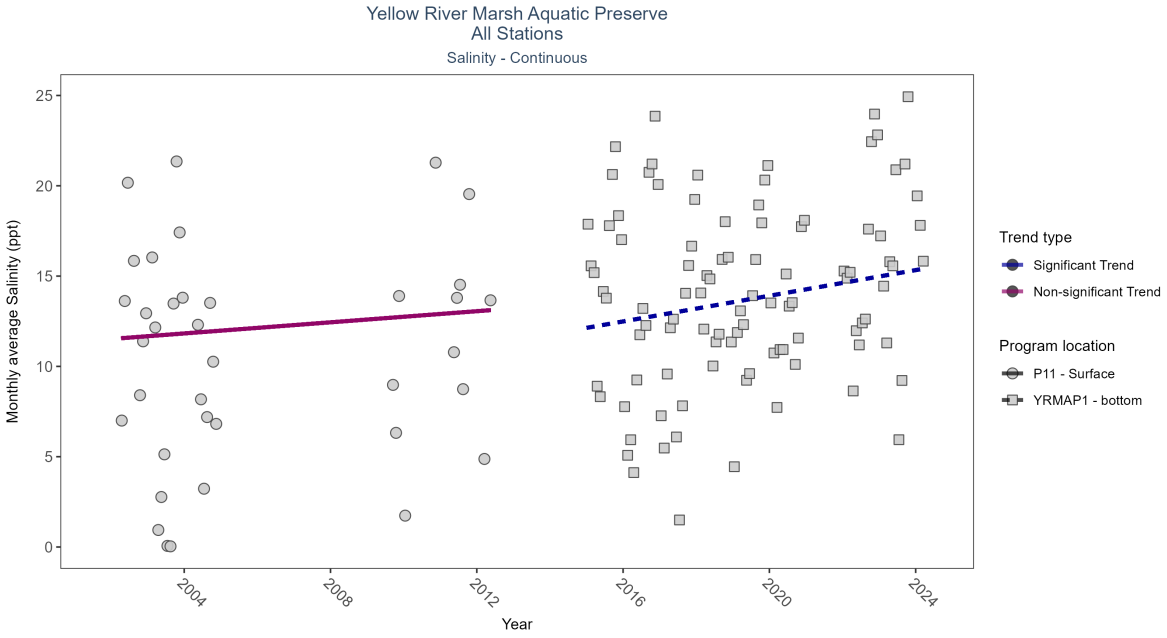

Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
YRMAP1	Significantly increasing trend	249262	9	2015 - 2024	14.20	0.17	12.13	0.36	0.0334
P11	No significant trend	136	7	2002 - 2012	10.05	0.06	11.52	0.15	0.6499

Water Temperature - Discrete

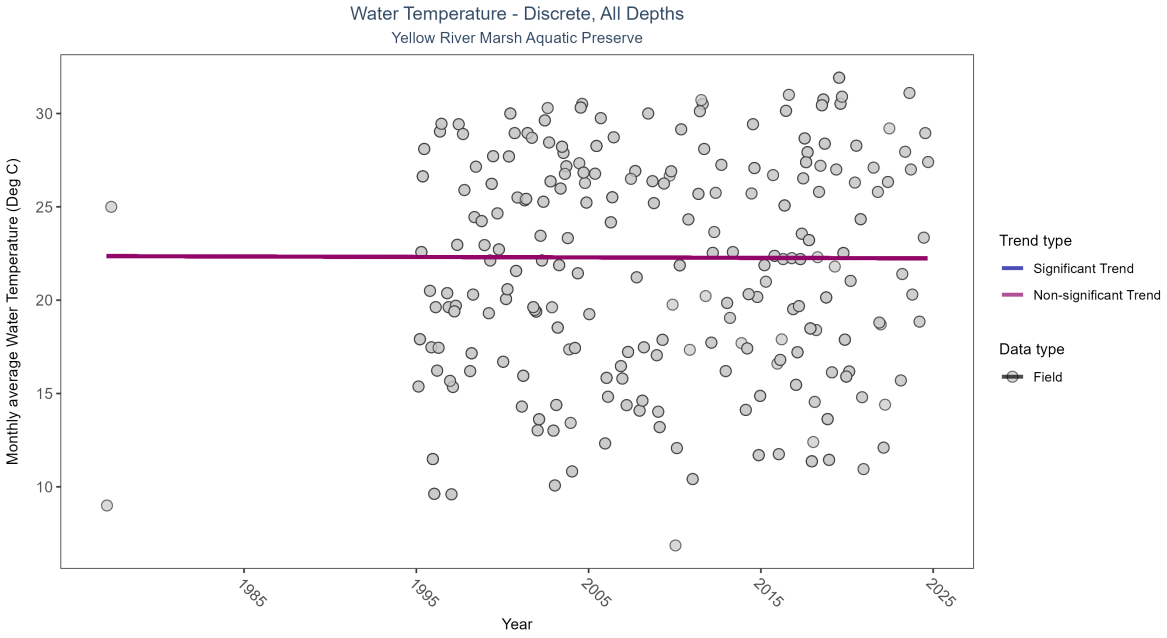

Table 9: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	1240	31	1977 - 2024	22	0.0007	22.35856	-0.00246	0.8773

Water Temperature - Continuous

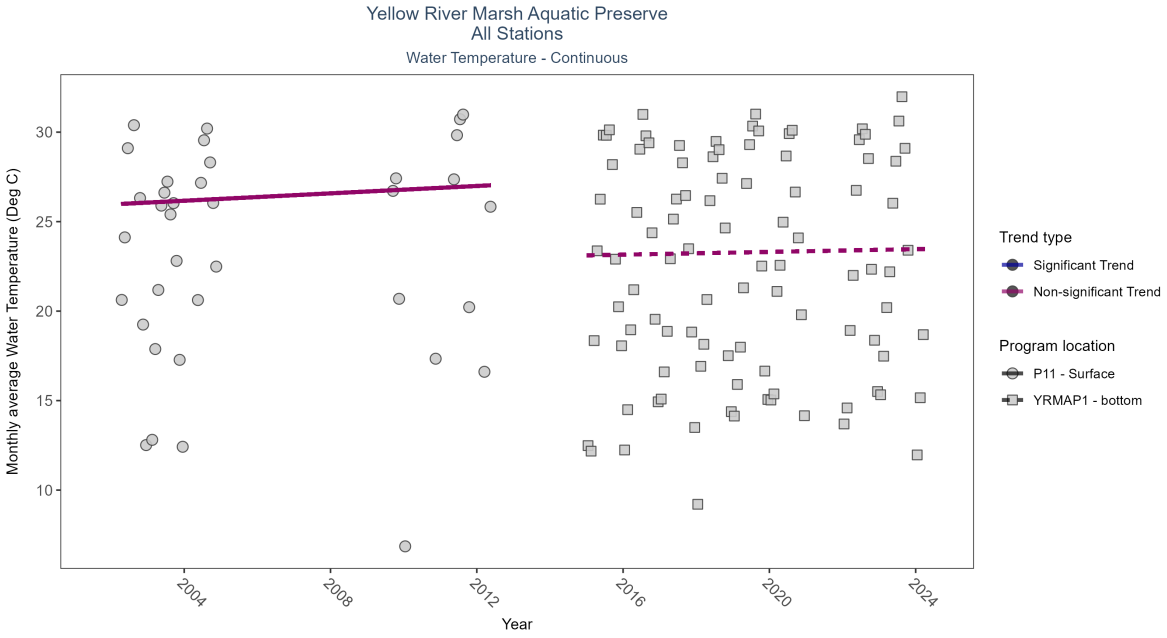

Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
YRMAP1	No significant trend	274031	9	2015 - 2024	22.70	0.03	23.12	0.04	0.6502
P11	No significant trend	136	7	2002 - 2012	26.22	0.13	25.96	0.10	0.4960

pH - Discrete

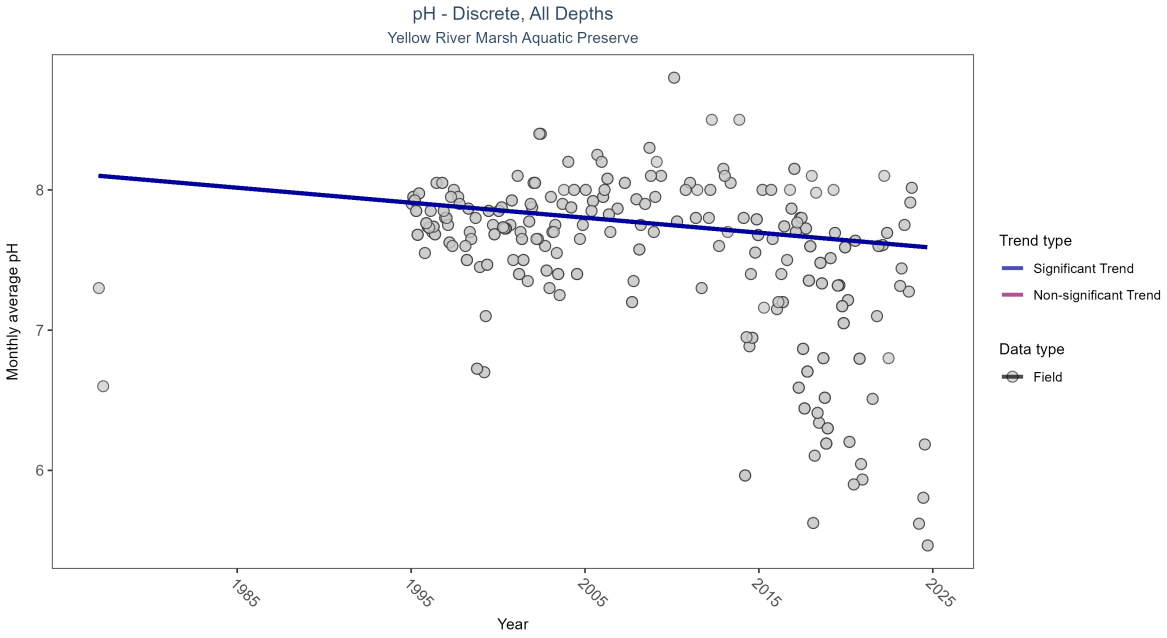

Table 11: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	738	31	1977 - 2024	7.66	-0.1435	8.10098	-0.01069	0.0063

pH - Continuous

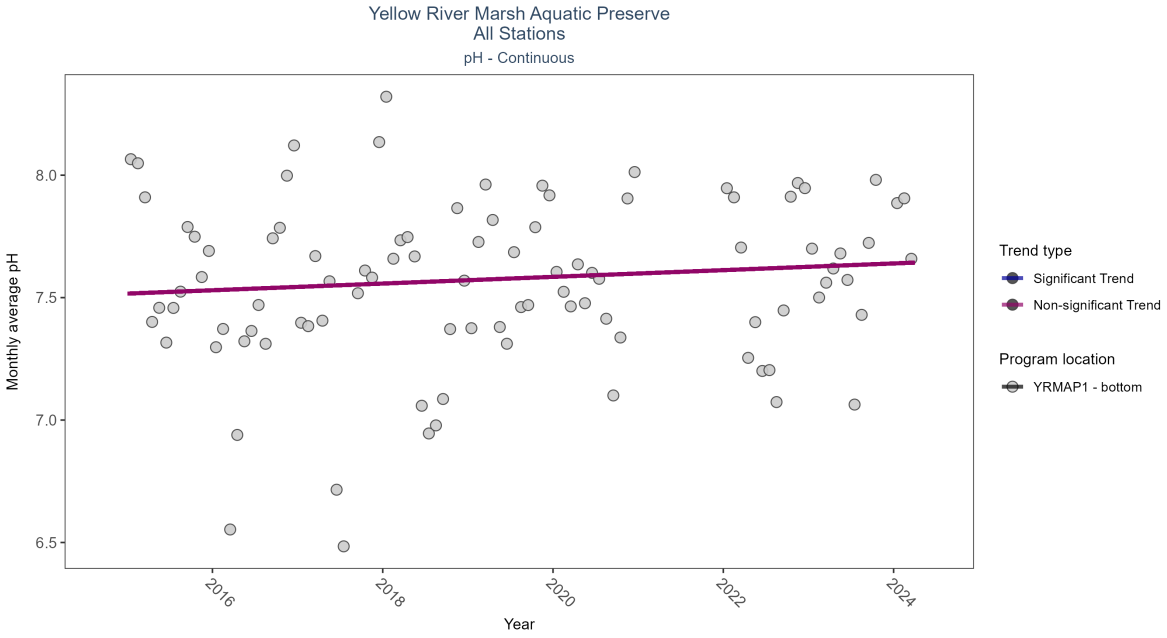

Table 12: Seasonal Kendall-Tau Results for All Stations - pH

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
YRMAP1	No significant trend	247608	9	2015 - 2024	7.6	0.09	7.52	0.01	0.2891

Water Clarity

Turbidity - Discrete

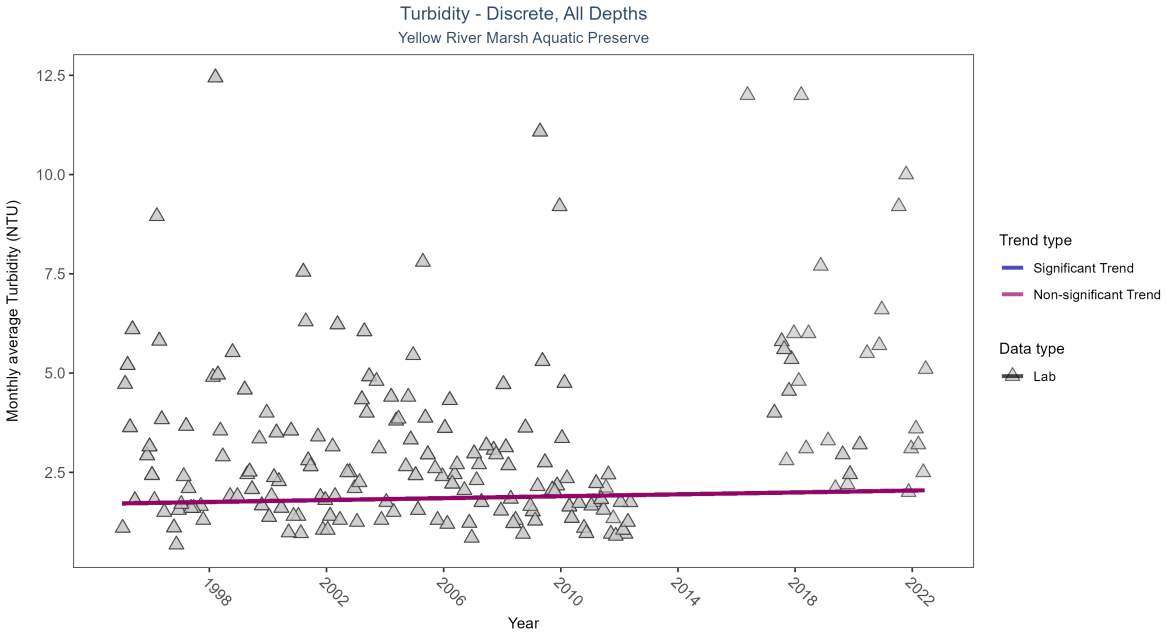

Table 13: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	589	25	1995 - 2022	2.47	0.0753	1.71738	0.01202	0.5284

Turbidity - Continuous

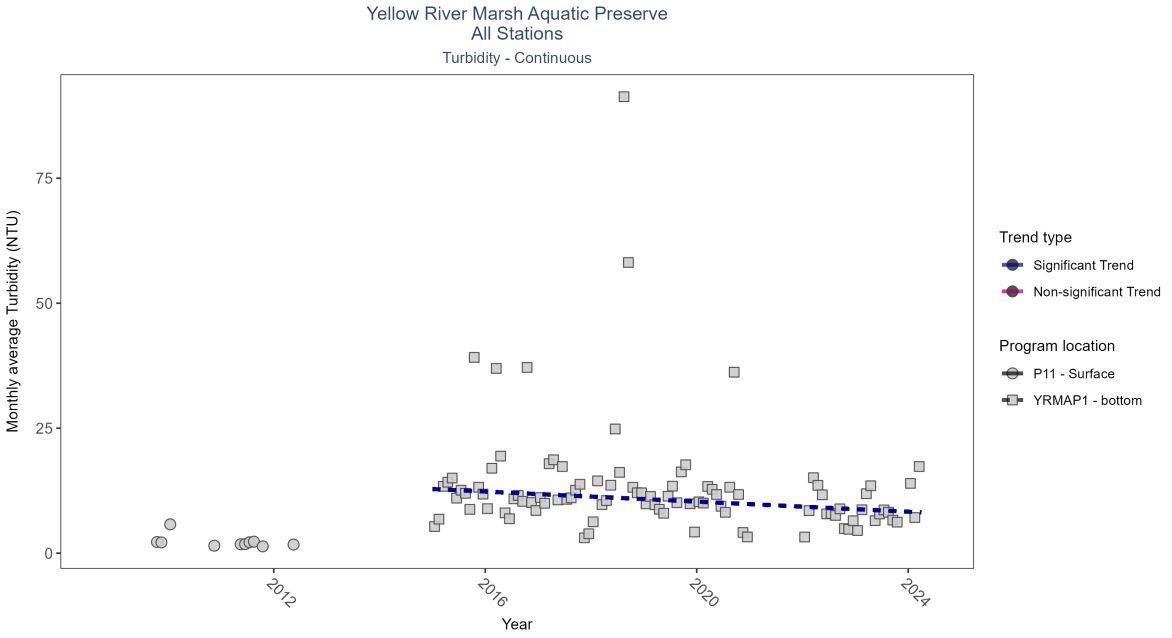

Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
YRMAP1	Significantly decreasing trend	261360	9	2015 - 2024	6	-0.3	12.83	-0.5	0.0006
P11	Insufficient data to calculate trend	37	4	2009 - 2012	2	-	-	-	-

Total Suspended Solids - Discrete

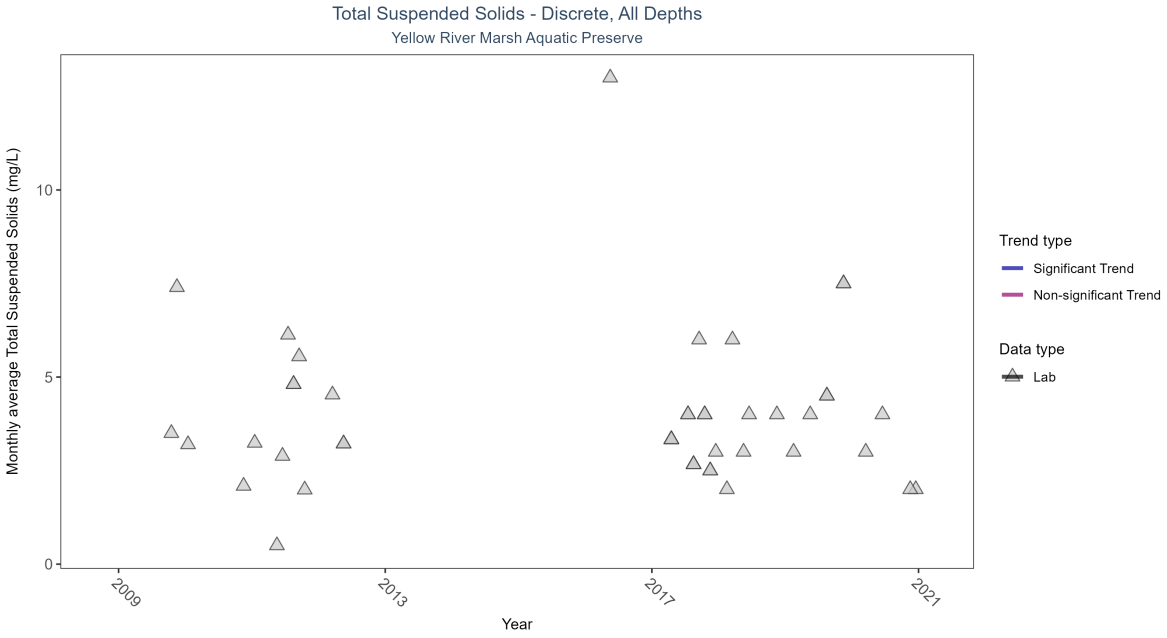

Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Insufficient data to calculate trend	45	9	2009 - 2020	3.3	-	-	-	NA

Chlorophyll a, Uncorrected for Pheophytin - Discrete

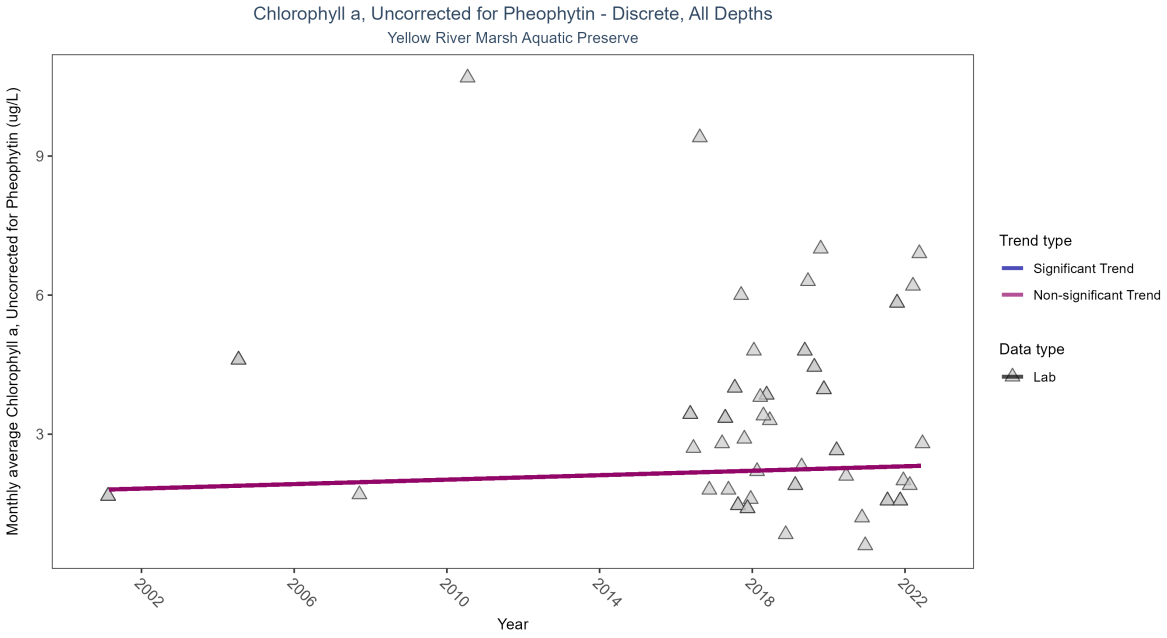

Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	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

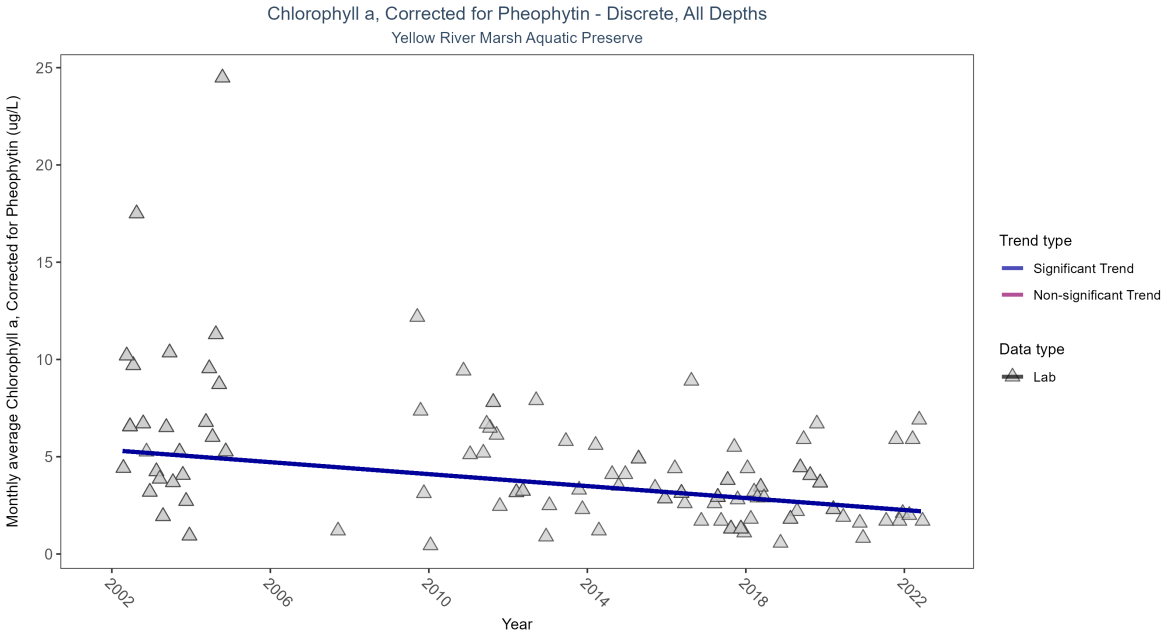

Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	142	18	2002 - 2022	3.75	-0.3054	5.33533	-0.1537	0.0001

Secchi Depth - Discrete

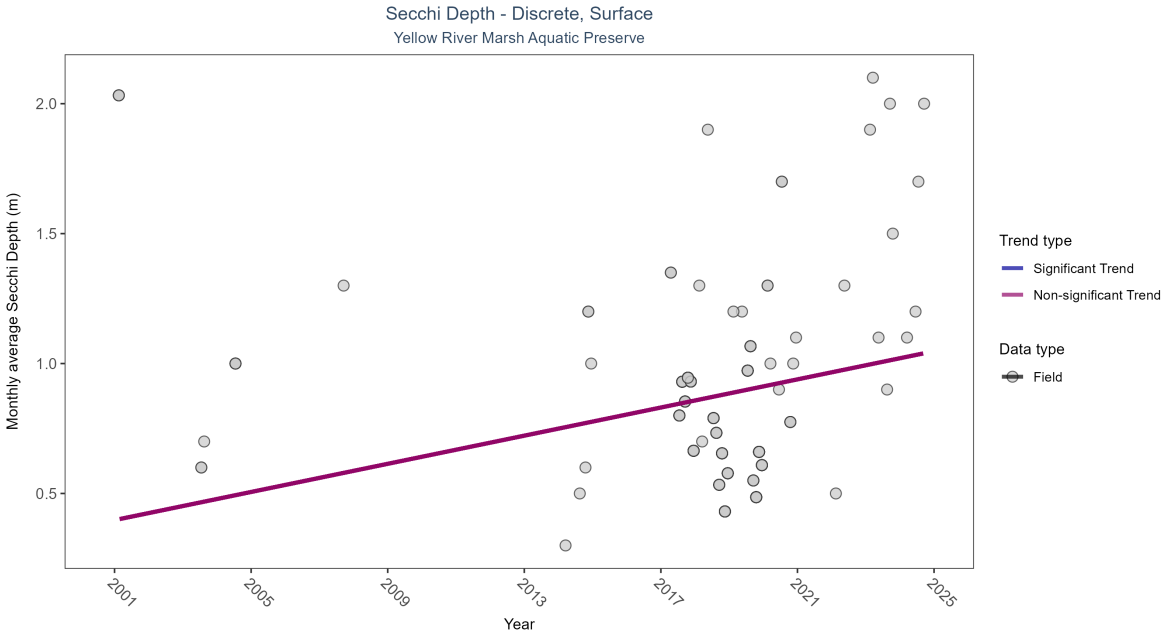

Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	235	12	2001 - 2024	0.8	0.2141	0.39744	0.02708	0.0757

Colored Dissolved Organic Matter - Discrete

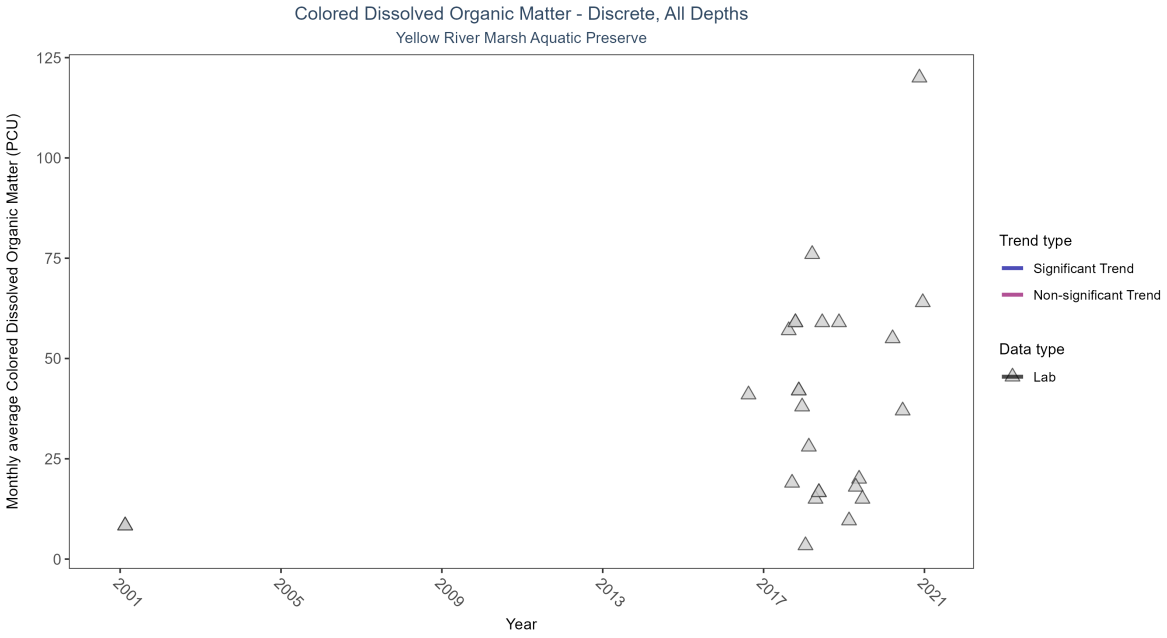

Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Insufficient data to calculate trend	27	6	2001 - 2020	26	-	-	-	NA