Fort Pickens State Park Aquatic Preserve

SEACAR Discrete Water Quality Analysis

Last compiled on 14 August, 2024

Contents

Indicators

Nutrients

Total Nitrogen - Discrete

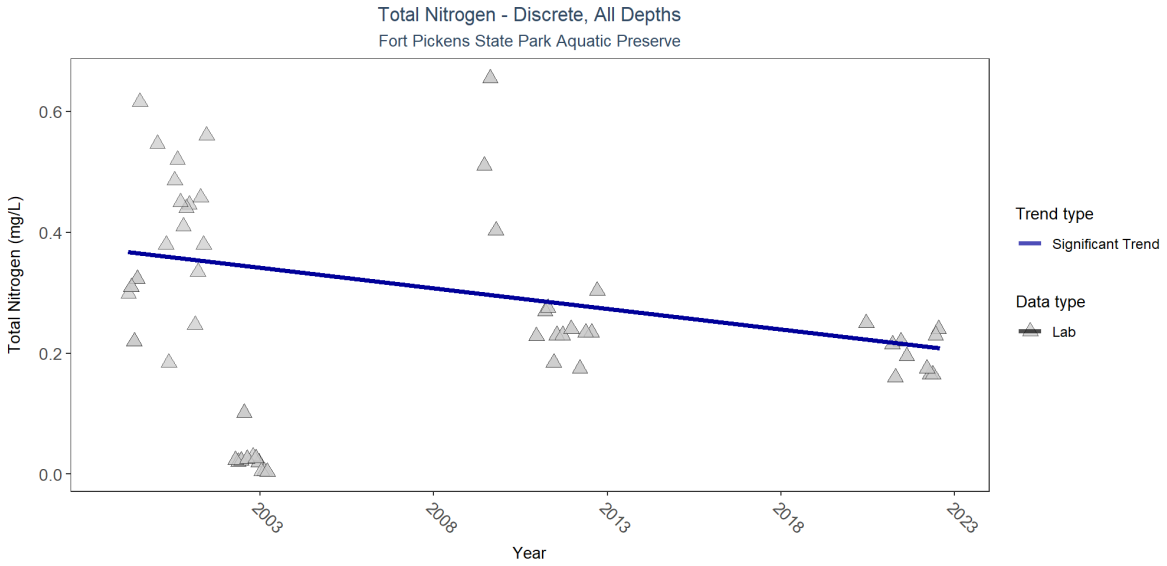

Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	96	12	1999 - 2022	0.22	-0.3169	0.36918	-0.00682	0.0442

Total Phosphorus - Discrete

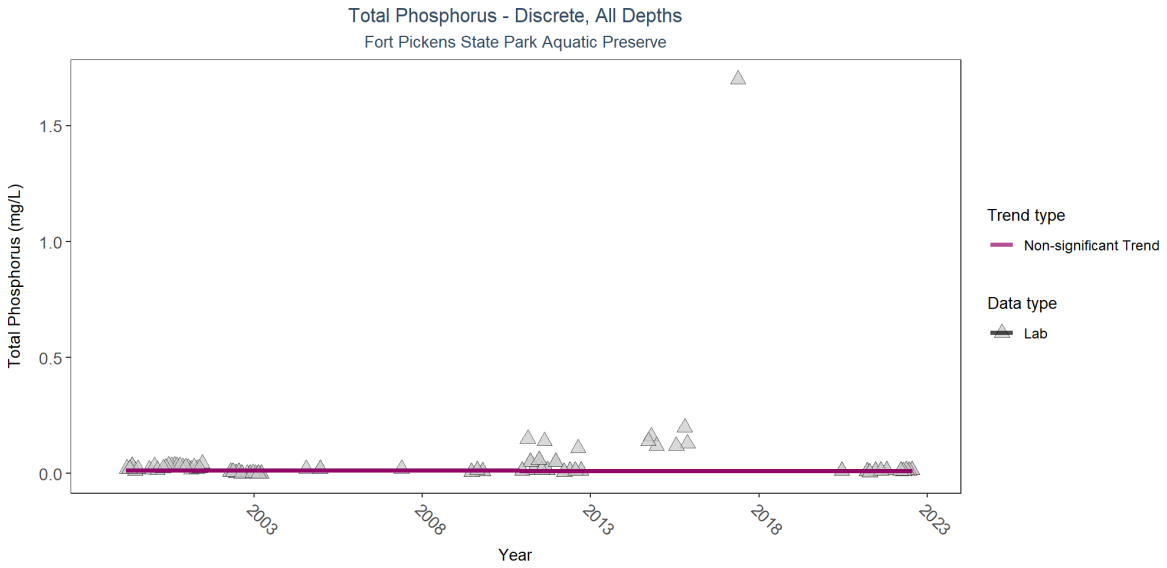

Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	124	17	1999 - 2022	0.014	-0.0195	0.01446	-0.00016	0.8462

Water Quality

Dissolved Oxygen - Discrete

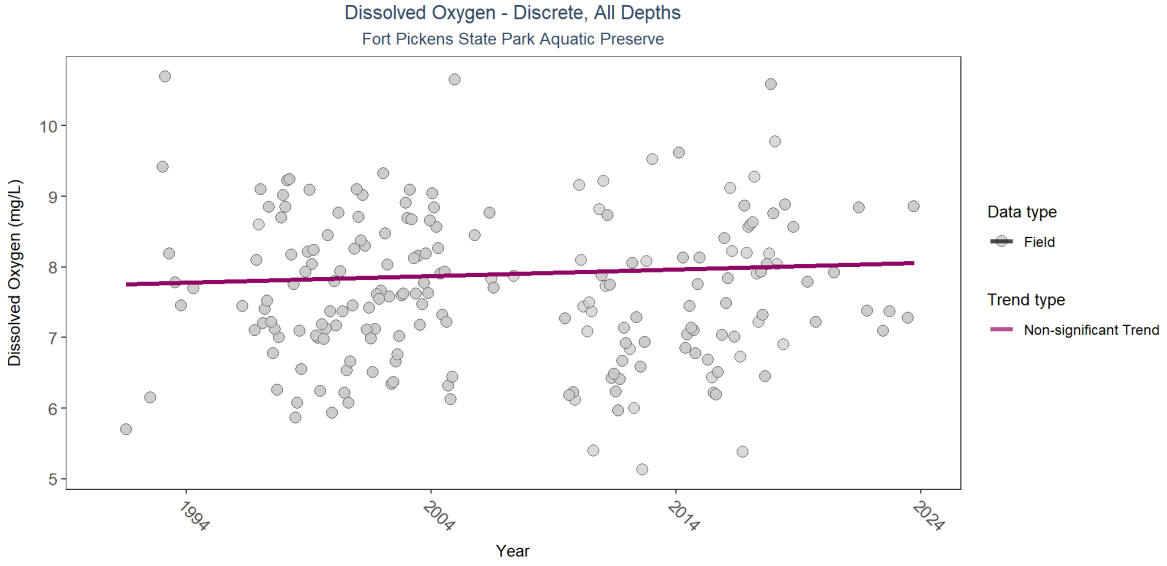

Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	1102	31	1991 - 2023	7.57	0.0585	7.74912	0.00948	0.2156

Dissolved Oxygen - Continuous

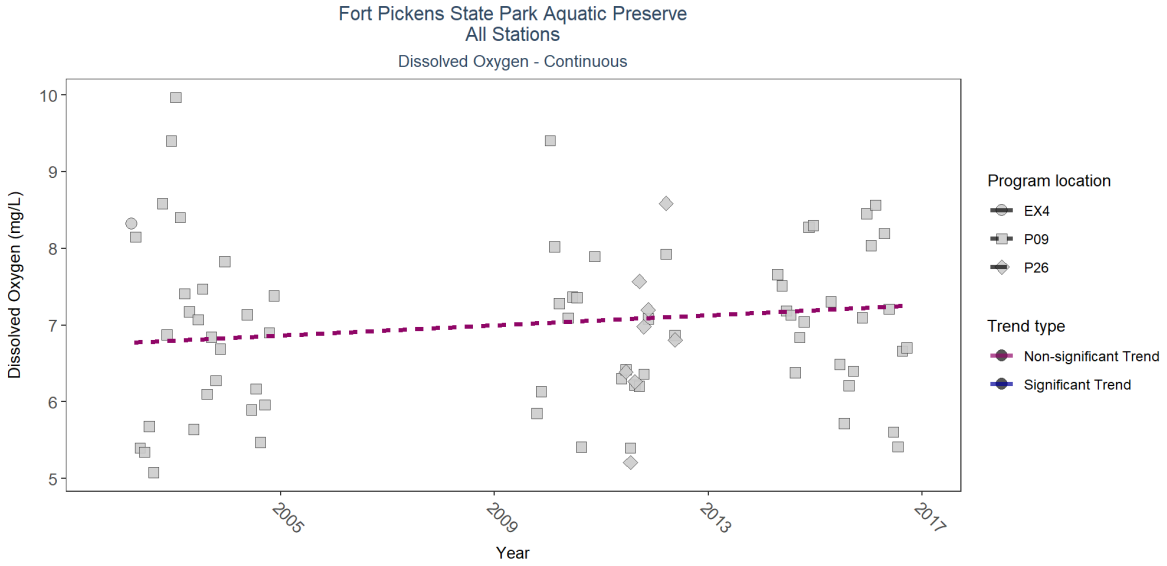

Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
P09	No significant trend	364	10	2002 - 2016	6.82	0.14	6.76	0.03	0.0970
P26	Insufficient data to calculate trend	27	2	2011 - 2012	6.61	-	-	-	-
EX4	Insufficient data to calculate trend	2	1	2002 - 2002	8.32	-	-	-	-

Dissolved Oxygen Saturation - Discrete

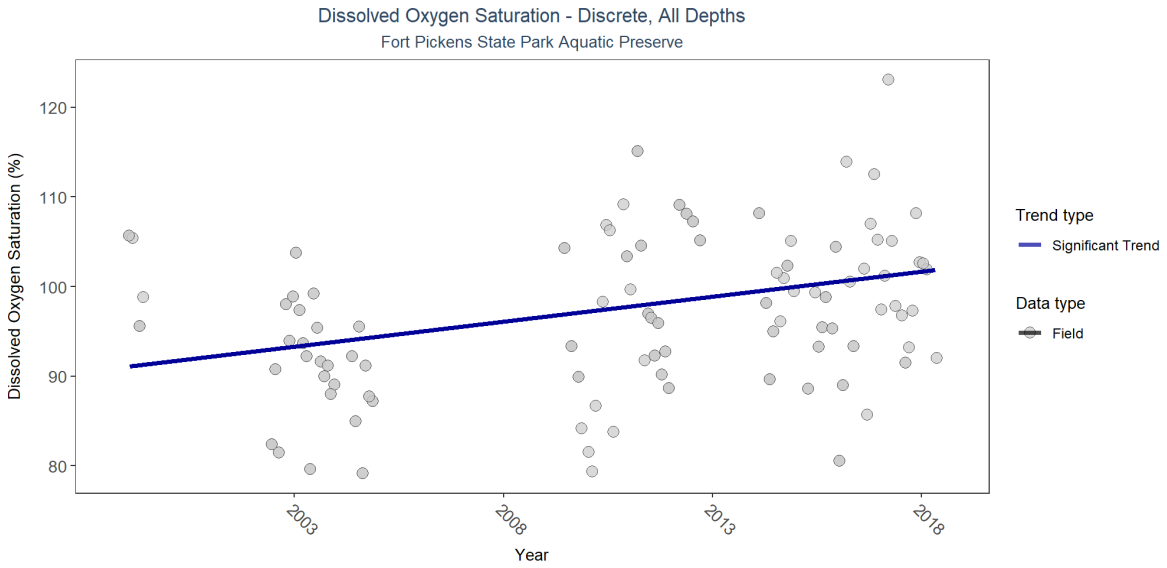

Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	247	13	1999 - 2018	98.01	0.2466	91.05751	0.5574	0.0025

Dissolved Oxygen Saturation - Continuous

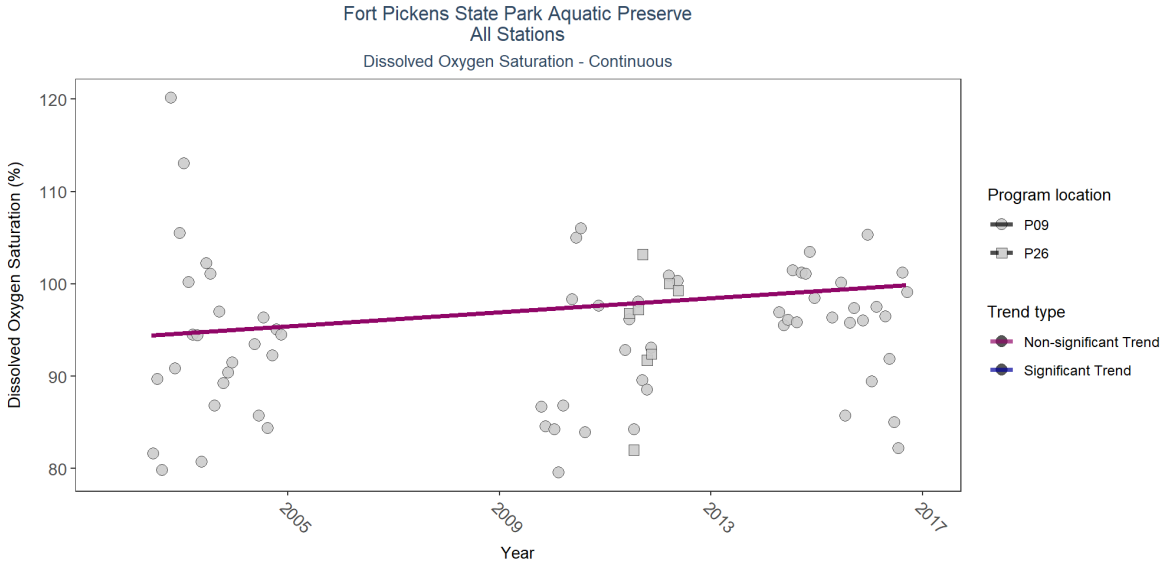

Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
P09	No significant trend	358	10	2002 - 2016	96.91	0.11	94.26	0.38	0.2446
P26	Insufficient data to calculate trend	27	2	2011 - 2012	98.17	-	-	-	-

Salinity - Discrete

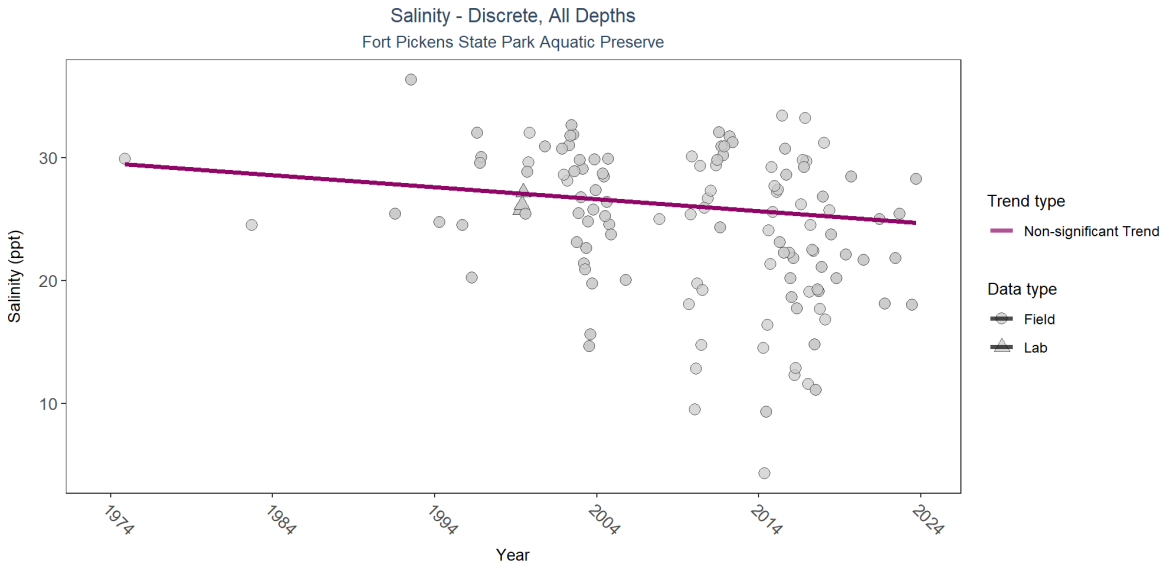

Table 7: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	No significant trend	1048	31	1974 - 2023	25.815	-0.0978	29.54346	-0.09705	0.0639

Salinity - Continuous

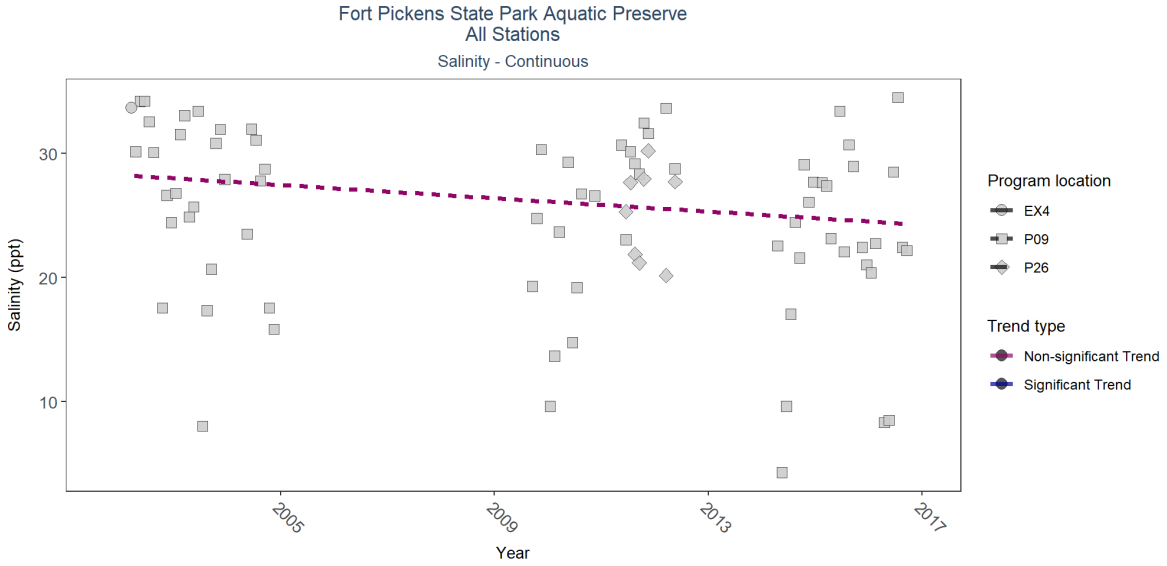

Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
P09	No significant trend	373	10	2002 - 2016	25.91	-0.17	28.25	-0.27	0.1296
P26	Insufficient data to calculate trend	27	2	2011 - 2012	26.38	-	-	-	-
EX4	Insufficient data to calculate trend	2	1	2002 - 2002	33.65	-	-	-	-

Water Temperature - Discrete

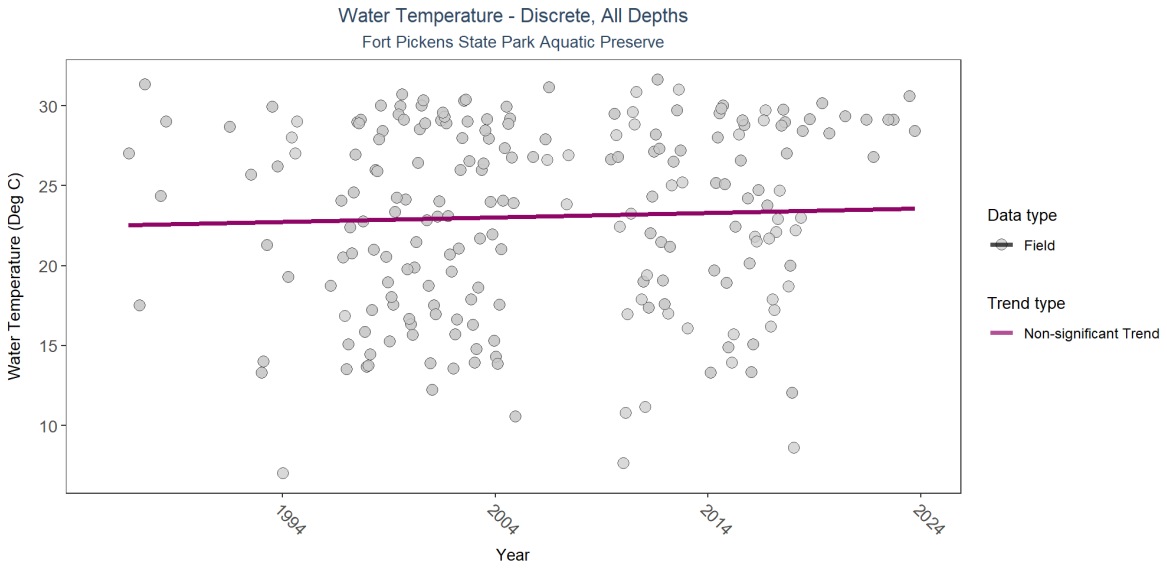

Table 9: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	1141	34	1986 - 2023	26.7	0.0893	22.53166	0.02778	0.0630

Water Temperature - Continuous

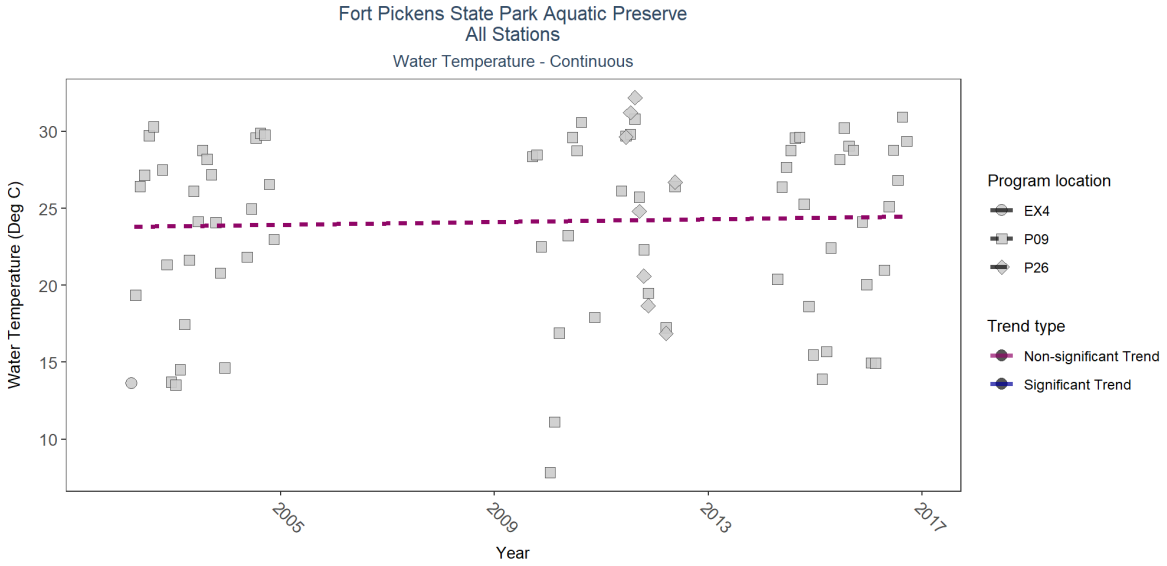

Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
P09	No significant trend	373	10	2002 - 2016	26.39	0.1	23.79	0.05	0.4485
P26	Insufficient data to calculate trend	27	2	2011 - 2012	29.64	-	-	-	-
EX4	Insufficient data to calculate trend	2	1	2002 - 2002	13.62	-	-	-	-

pH - Discrete

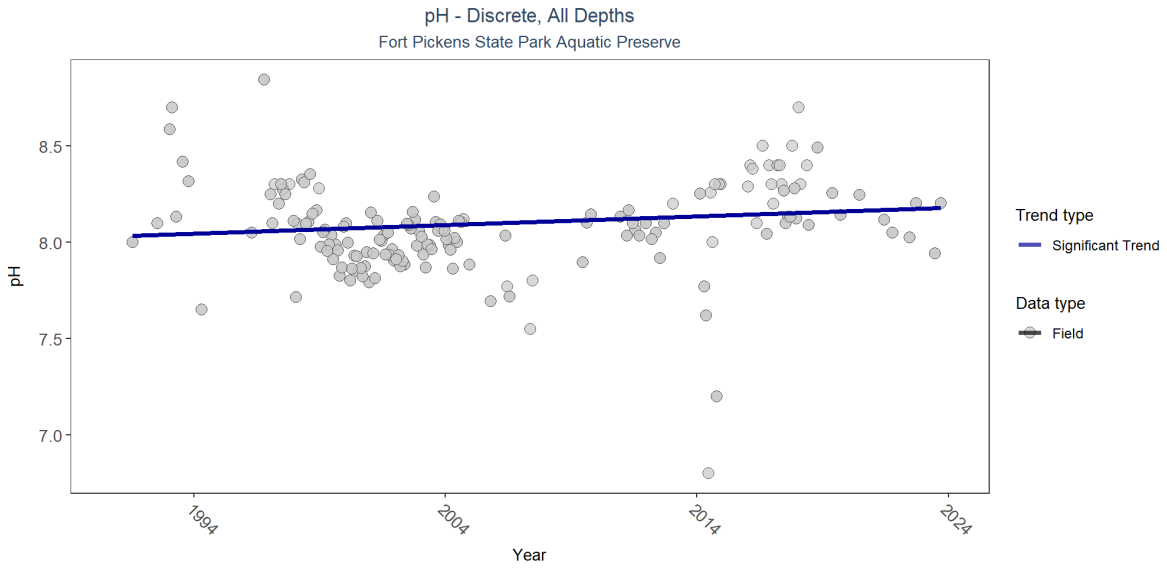

Table 11: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	920	30	1991 - 2023	8.1	0.1423	8.03113	0.00449	0.0450

pH - Continuous

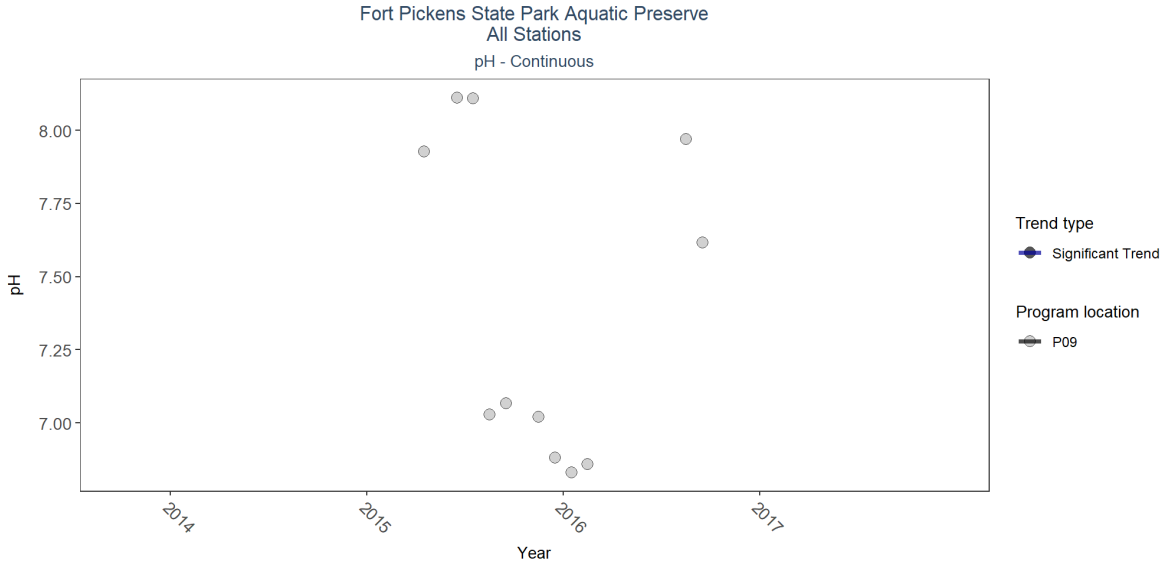

Table 12: Seasonal Kendall-Tau Results for All Stations - pH

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
P09	Insufficient data to calculate trend	157	2	2015 - 2016	7.06	-	-	-	-

Water Clarity

Turbidity - Discrete

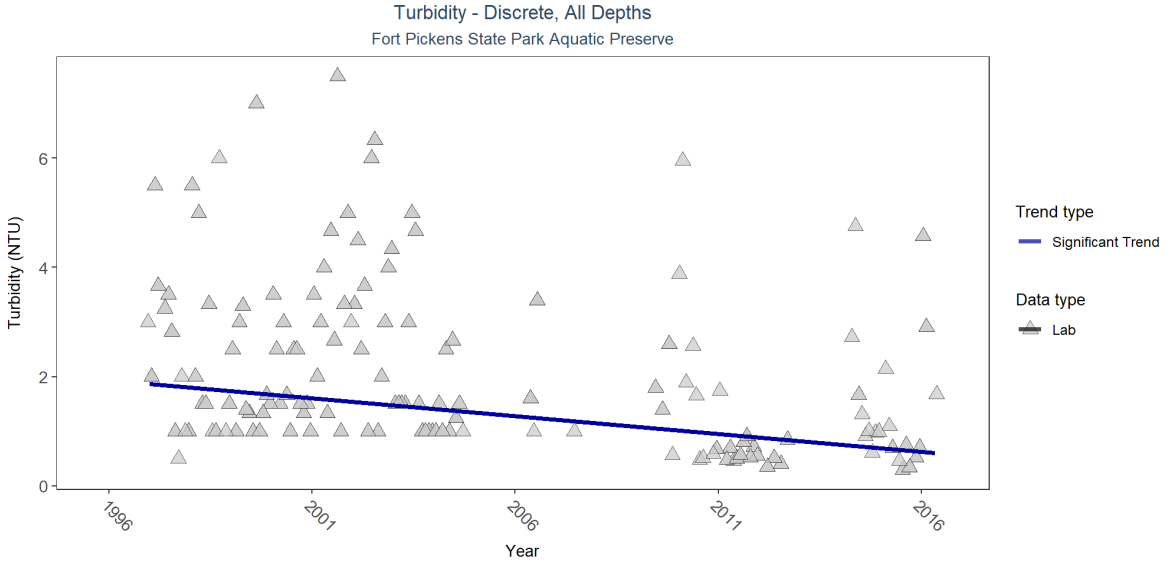

Table 13: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	312	18	1996 - 2016	1.04105	-0.3143	1.92558	-0.06511	0.0000

Turbidity - Continuous

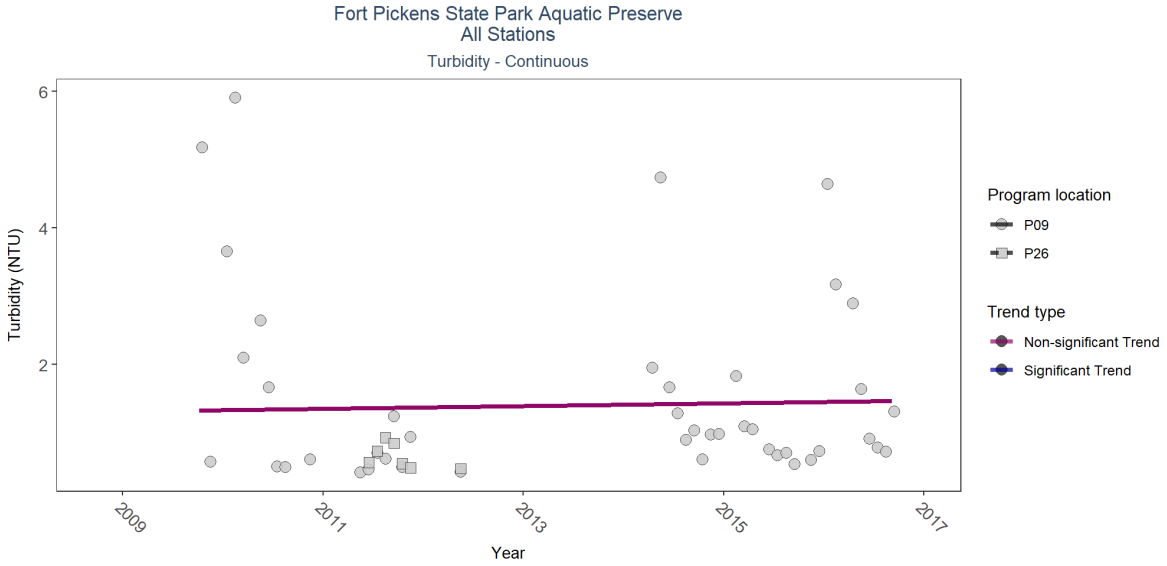

Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
P09	No significant trend	275	7	2009 - 2016	0.85	0.07	1.31	0.02	0.3820
P26	Insufficient data to calculate trend	25	2	2011 - 2012	0.62	-	-	-	-

Total Suspended Solids - Discrete

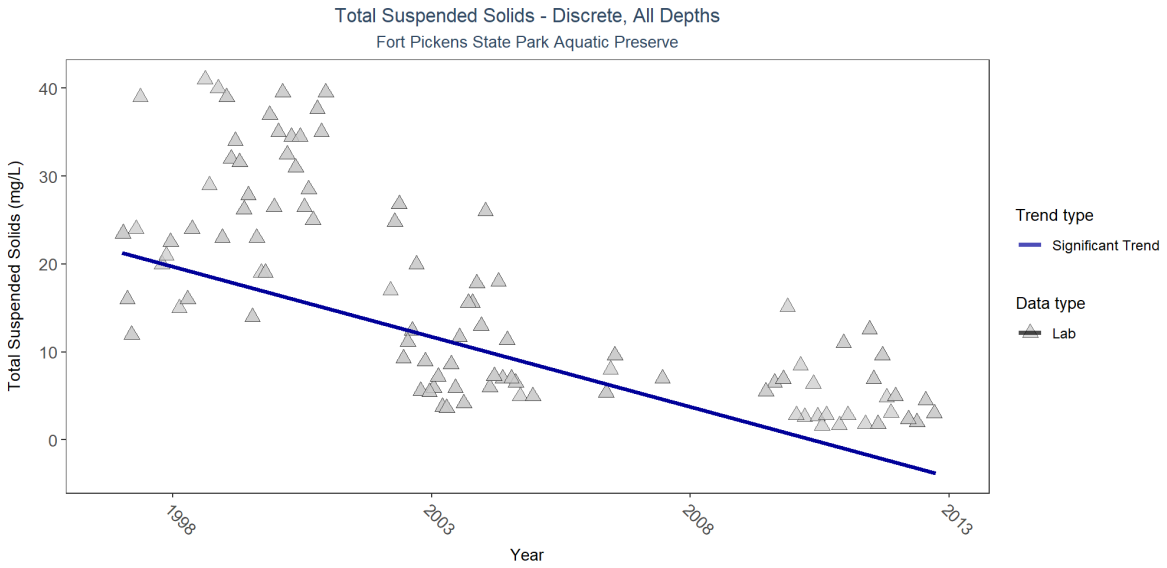

Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	255	13	1997 - 2012	11	-0.596	21.28139	-1.59615	0.0000

Chlorophyll a, Uncorrected for Pheophytin - Discrete

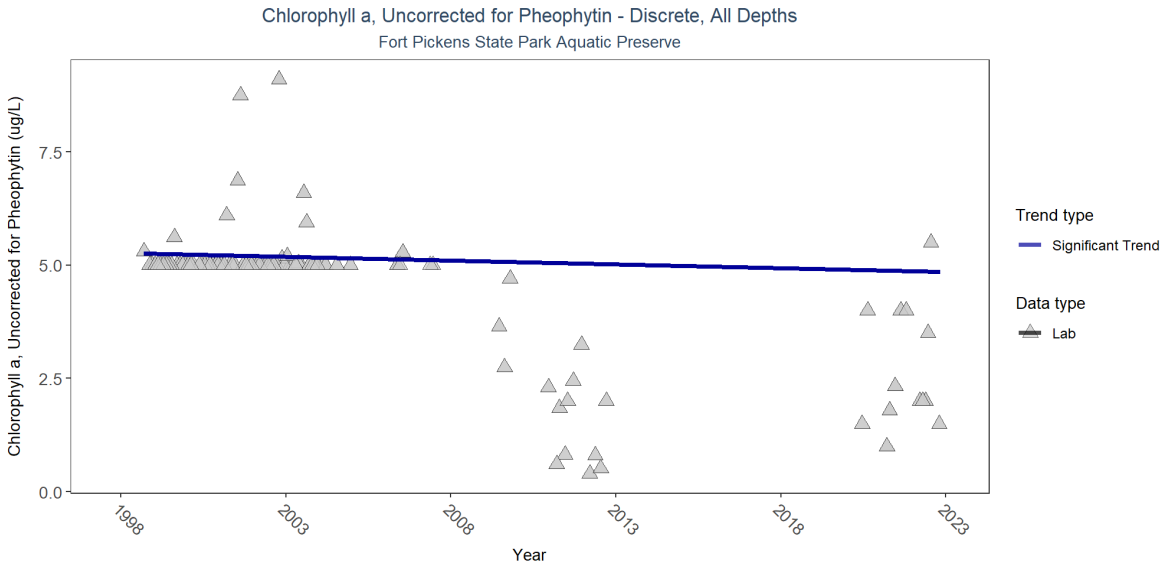

Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	226	16	1998 - 2022	5	-0.318	5.27153	-0.01667	0.0000

Chlorophyll a, Corrected for Pheophytin - Discrete

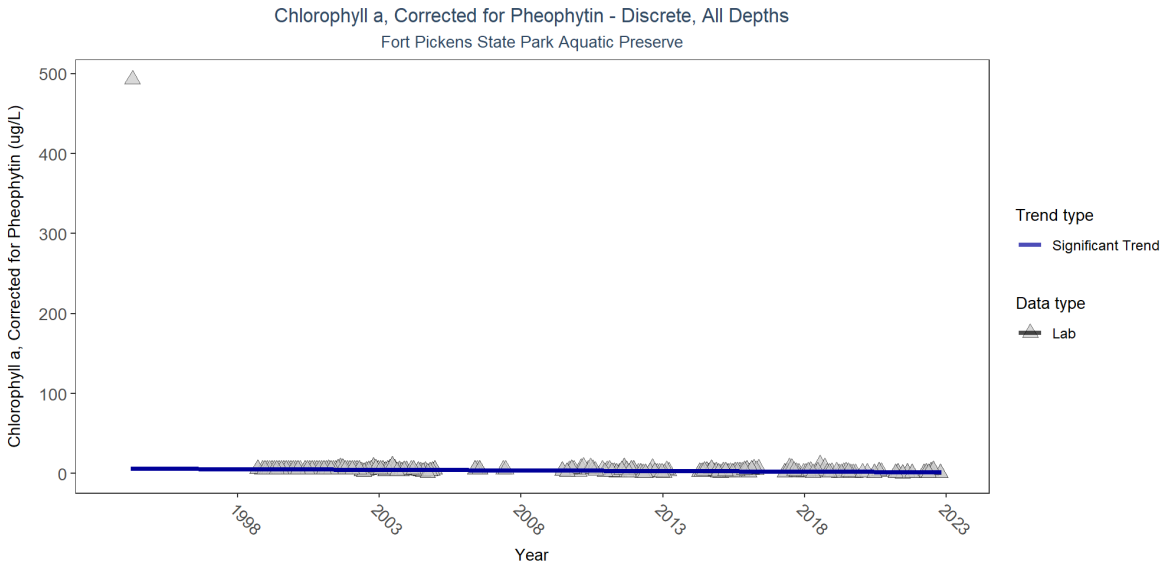

Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	386	24	1994 - 2022	5	-0.4241	6.10803	-0.15031	0.0000

Secchi Depth - Discrete

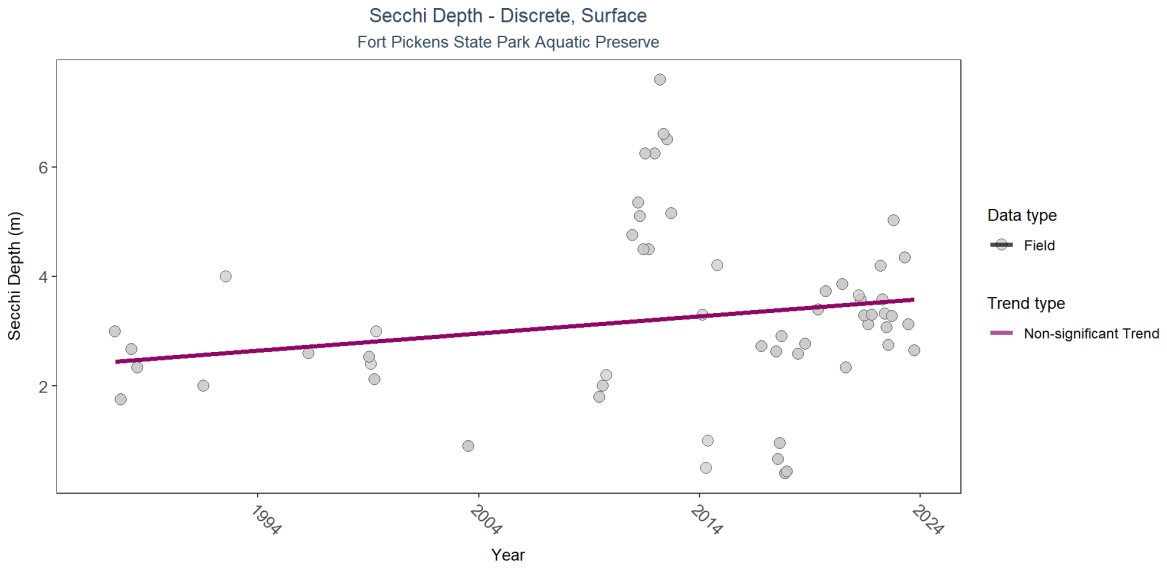

Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	432	20	1987 - 2023	3	0.1228	2.42386	0.03154	0.3239

Colored Dissolved Organic Matter - Discrete

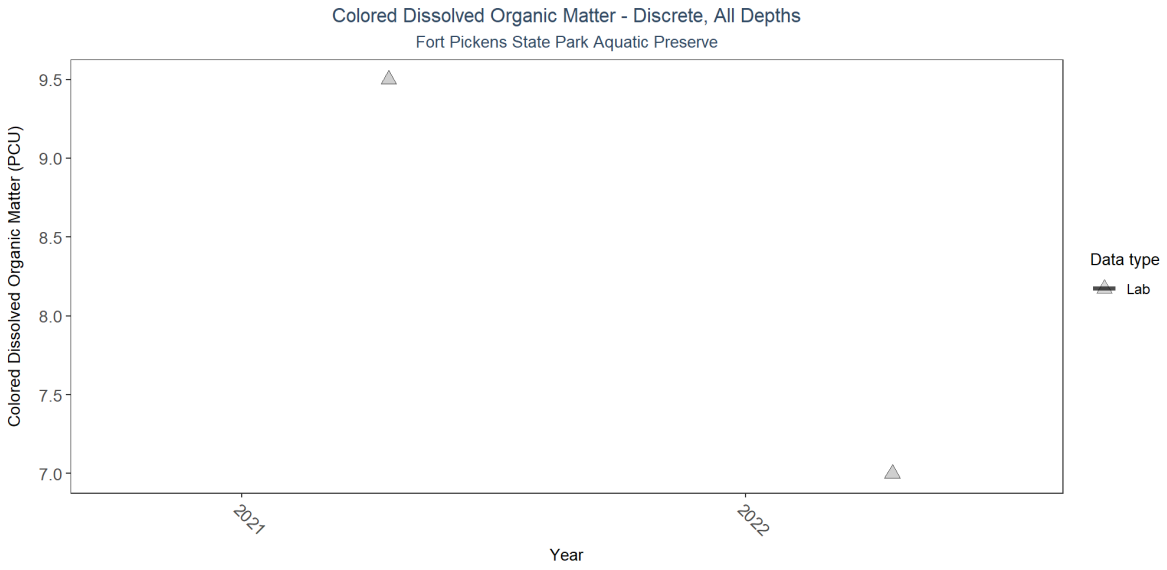

Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Insufficient data to calculate trend	4	2	2021 - 2022	8	-	-	-	NA