

# Pinellas County Aquatic Preserve

## SEACAR Water Quality Analysis

Last compiled on 09 January, 2025

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# Indicators

## Nutrients

### Total Nitrogen - Discrete

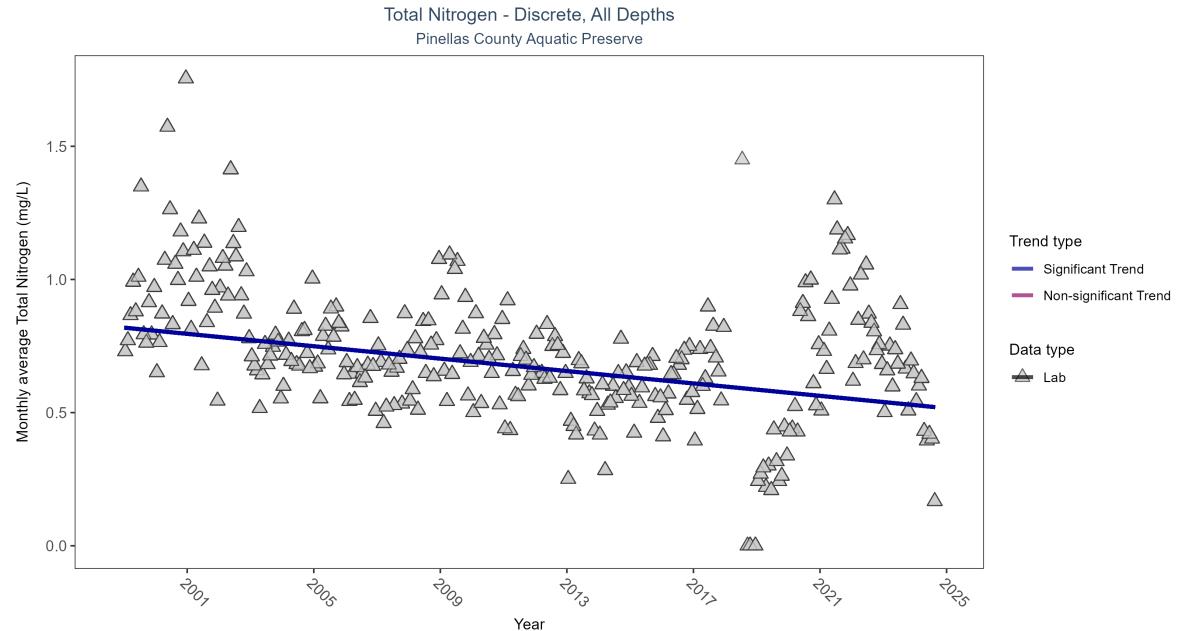


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	16034	26	1999 - 2024	0.59	-0.2761	0.81905	-0.01164	0.0000

## Total Phosphorus - Discrete

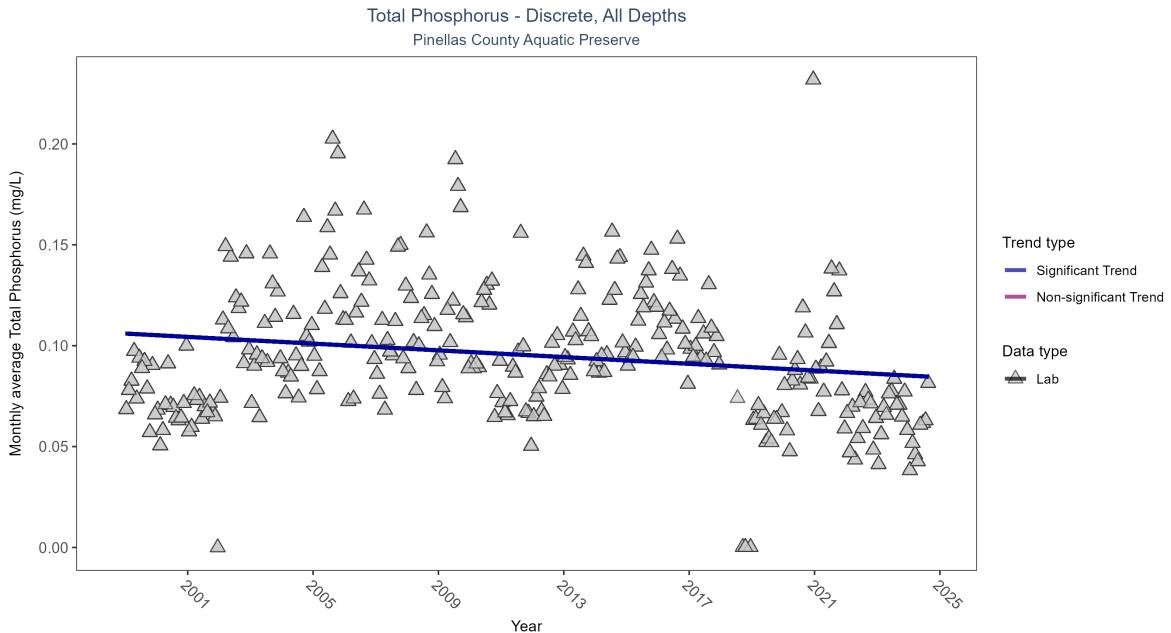


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	15870	26	1999 - 2024	0.088	-0.1522	0.10603	-0.00083	0.0002

## Water Quality

### Dissolved Oxygen - Discrete

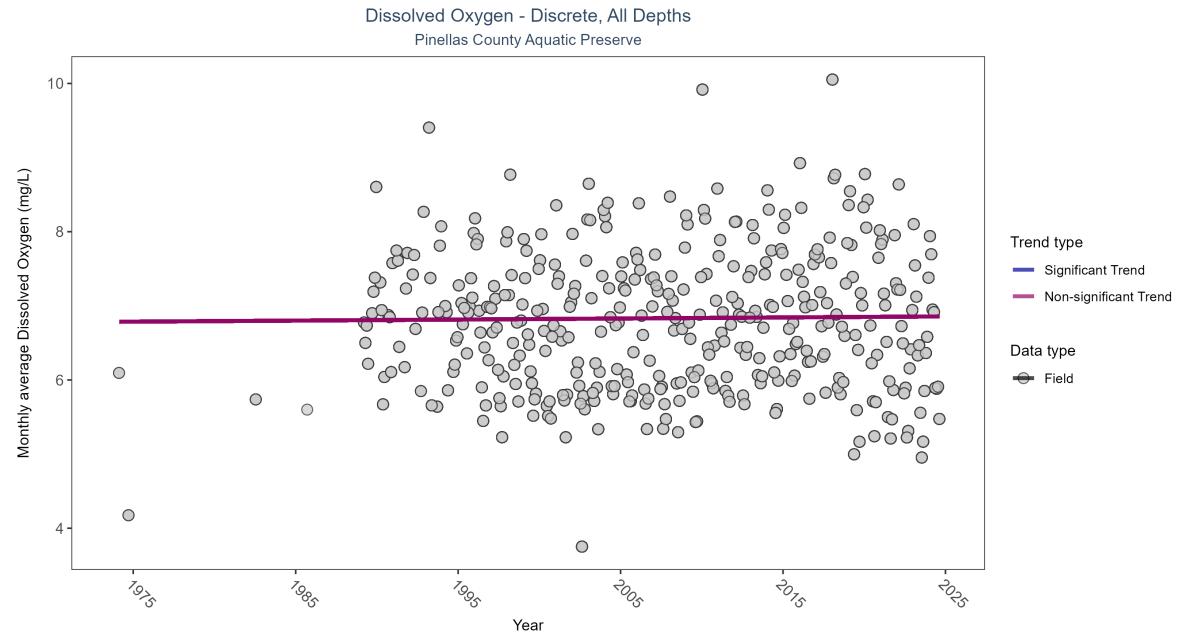


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	95575	39	1974 - 2024	6.6	0.0246	6.78518	0.00142	0.5699

## Dissolved Oxygen Saturation - Discrete

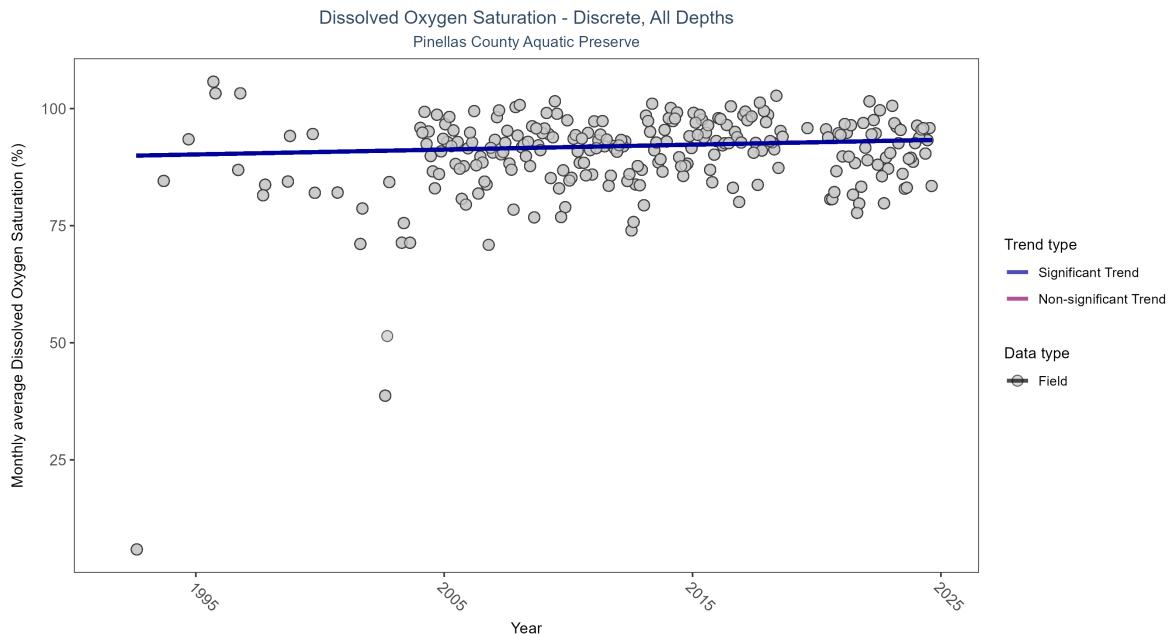


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	30215	33	1992 - 2024	90.9	0.0944	89.88893	0.10434	0.0395

## Salinity - Discrete

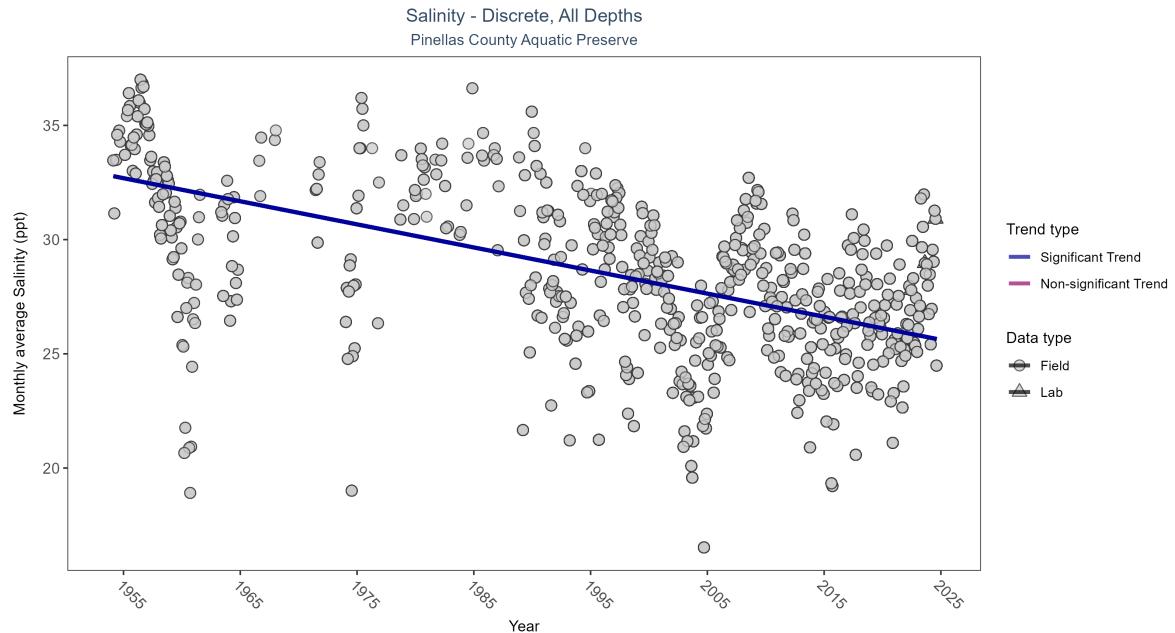


Table 5: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	Significantly decreasing trend	93362	64	1954 - 2024	28.93	-0.3821	32.7897	-0.10107	0.0000

## Water Temperature - Discrete

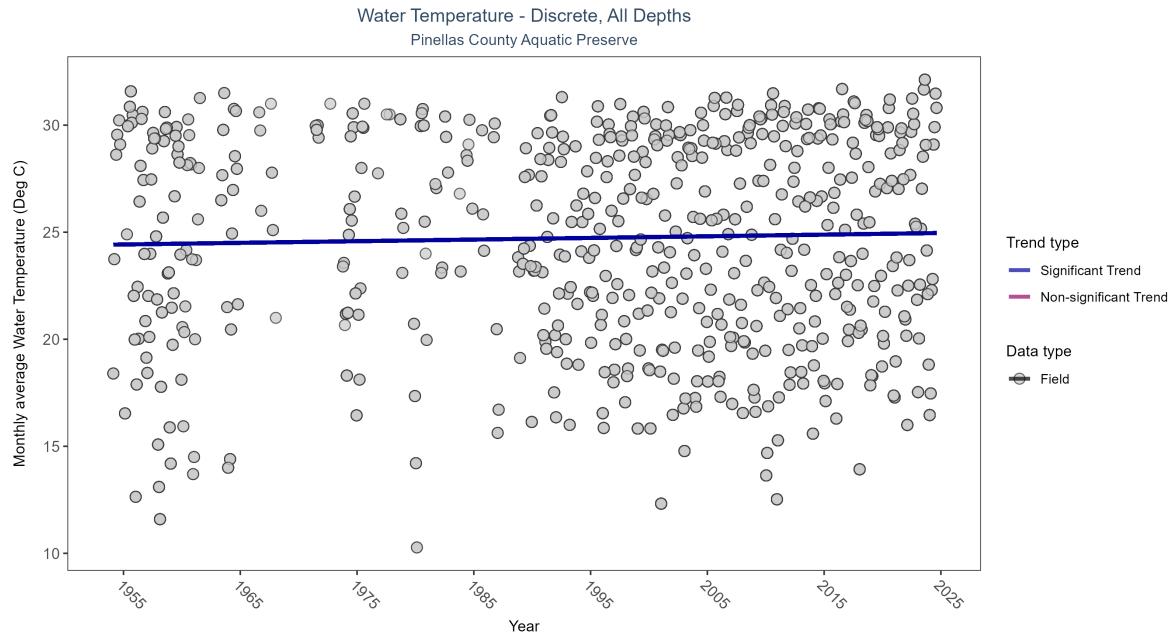


Table 6: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	101236	67	1954 - 2024	26.58	0.0841	24.41842	0.00766	0.0037

## Water Temperature - Continuous

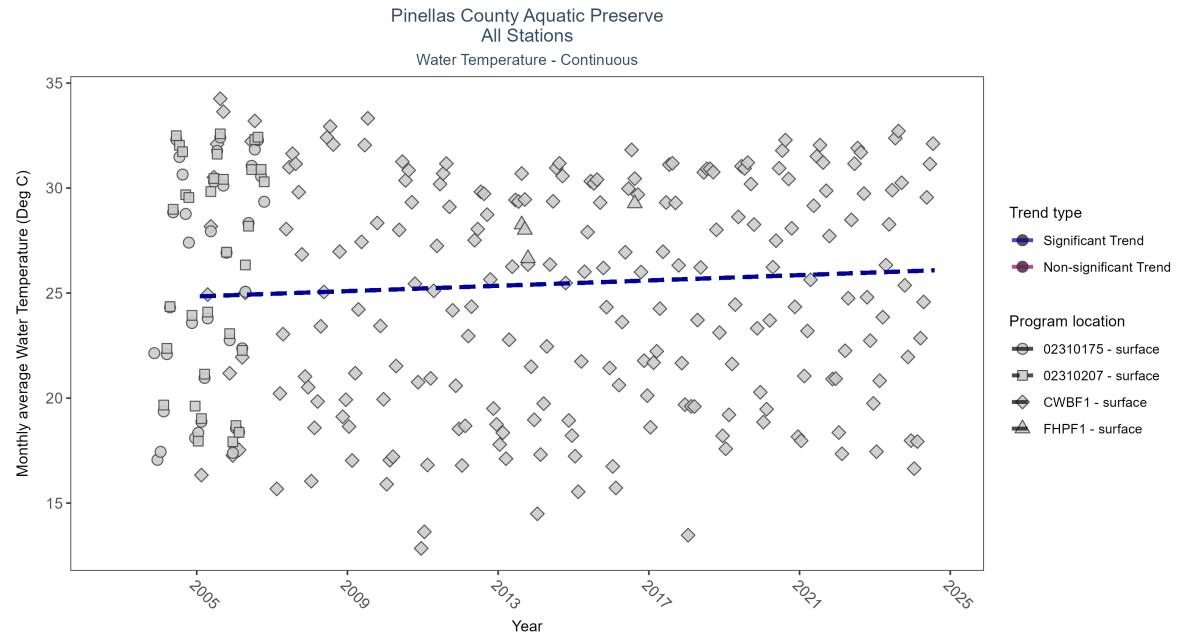


Table 7: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CWBF1	Significantly increasing trend	1383446	20	2005 - 2024	25.30	0.18	24.84	0.06	0.0003
FHPF1	Insufficient data to calculate trend	12636	2	2013 - 2016	27.90	-	-	-	-
02310175	Insufficient data to calculate trend	1421	4	2003 - 2006	26.50	-	-	-	-
02310207	Insufficient data to calculate trend	1424	3	2004 - 2006	27.55	-	-	-	-

## pH - Discrete

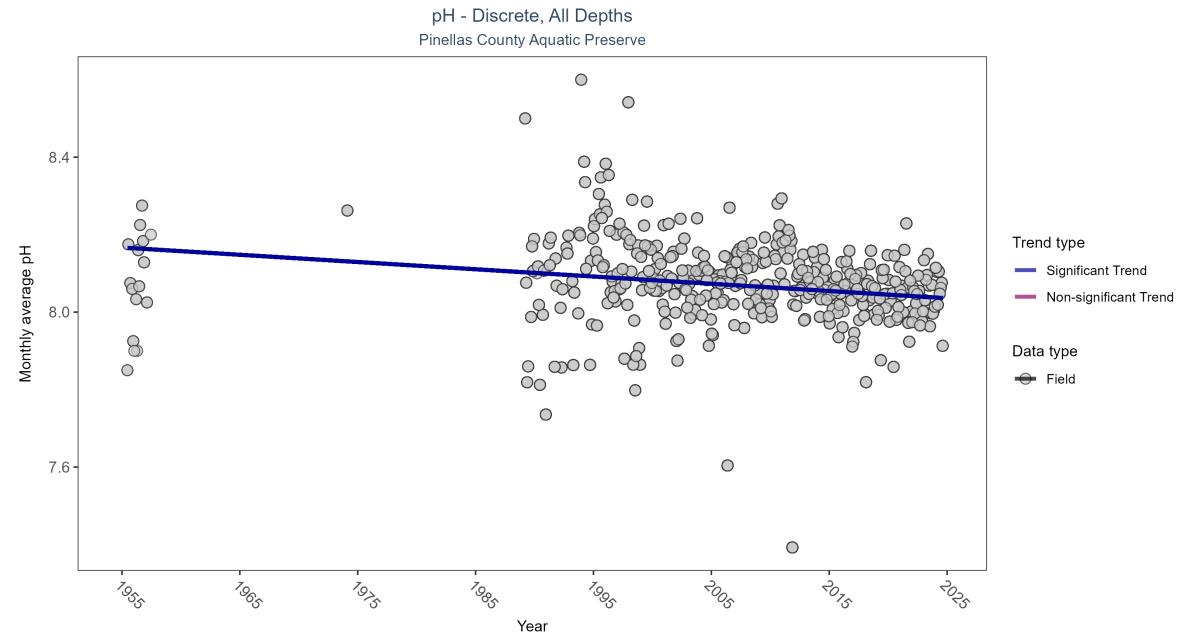


Table 8: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	90795	40	1955 - 2024	8.1	-0.1793	8.16677	-0.00187	0.0000

## Water Clarity

### Turbidity - Discrete

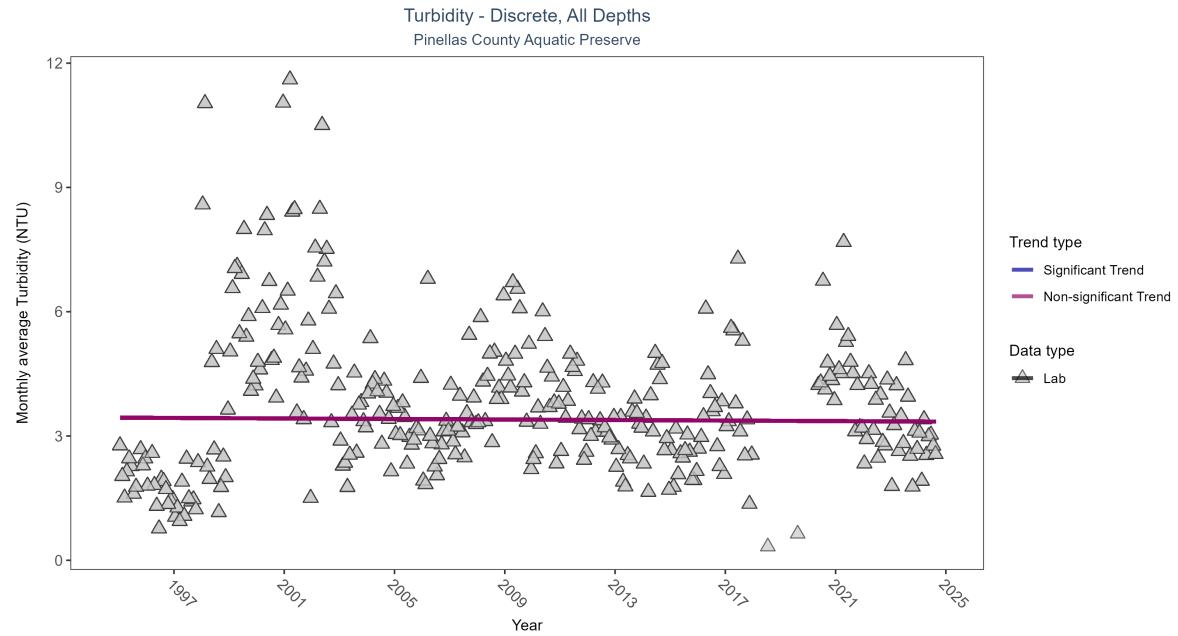


Table 9: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	21091	30	1995 - 2024	2.5	-0.0146	3.44229	-0.00318	0.7535

## Total Suspended Solids - Discrete

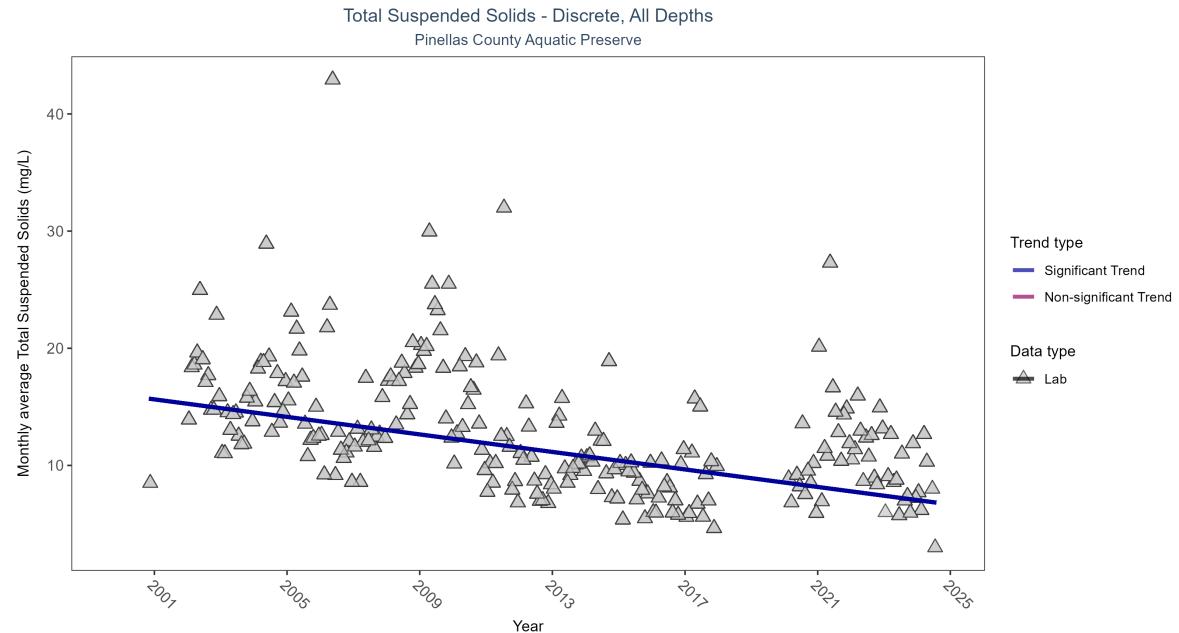


Table 10: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	12084	22	2000 - 2024	10	-0.3936	16.01068	-0.37372	0.0000

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

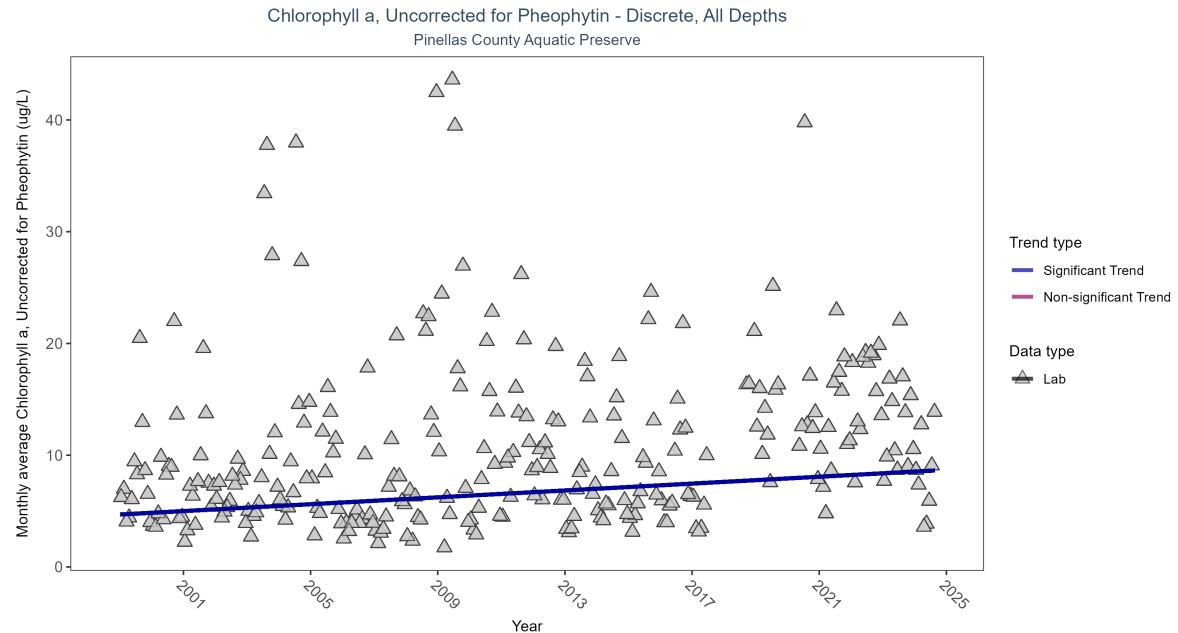


Table 11: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	6694	26	1999 - 2024	6.2	0.2256	4.69286	0.15365	0.0000

## Chlorophyll a, Corrected for Pheophytin - Discrete

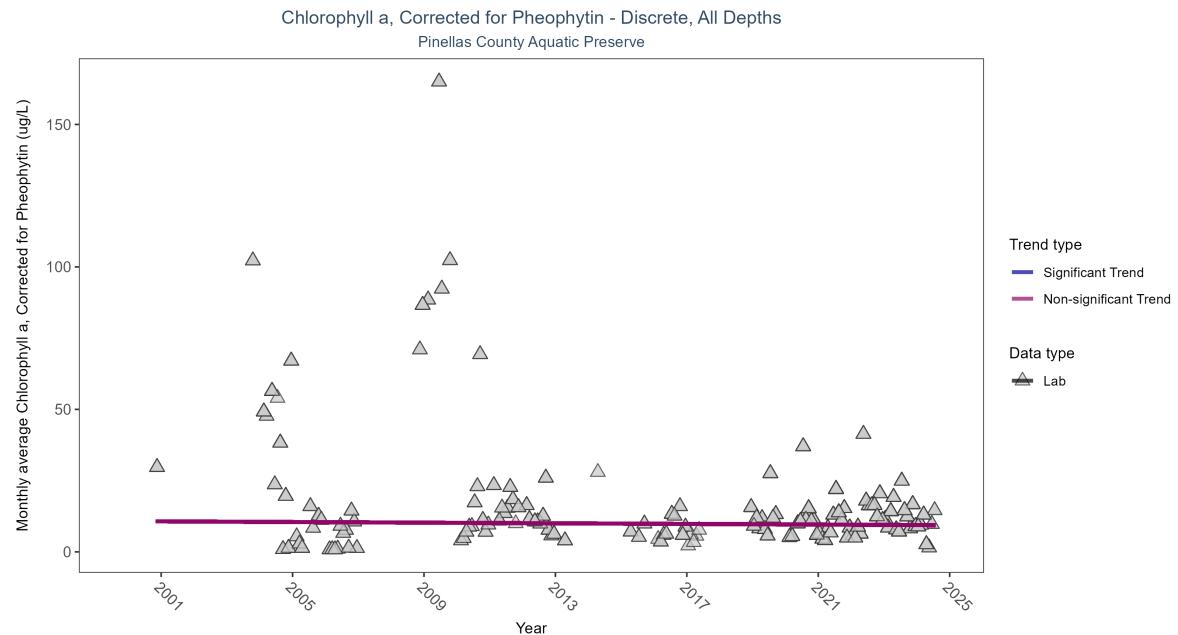


Table 12: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	3530	22	2000 - 2024	5.5	-0.0201	10.75439	-0.05603	0.6750

## Secchi Depth - Discrete

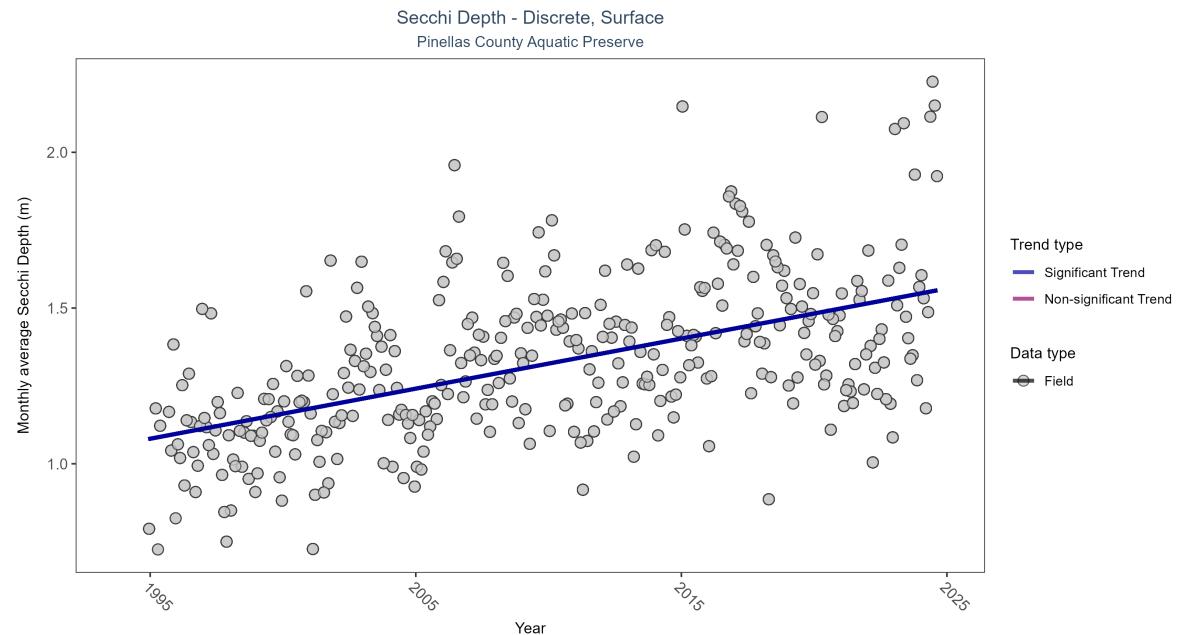


Table 13: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	30855	31	1994 - 2024	1.2	0.3994	1.0644	0.01608	0.0000

## Colored Dissolved Organic Matter - Discrete

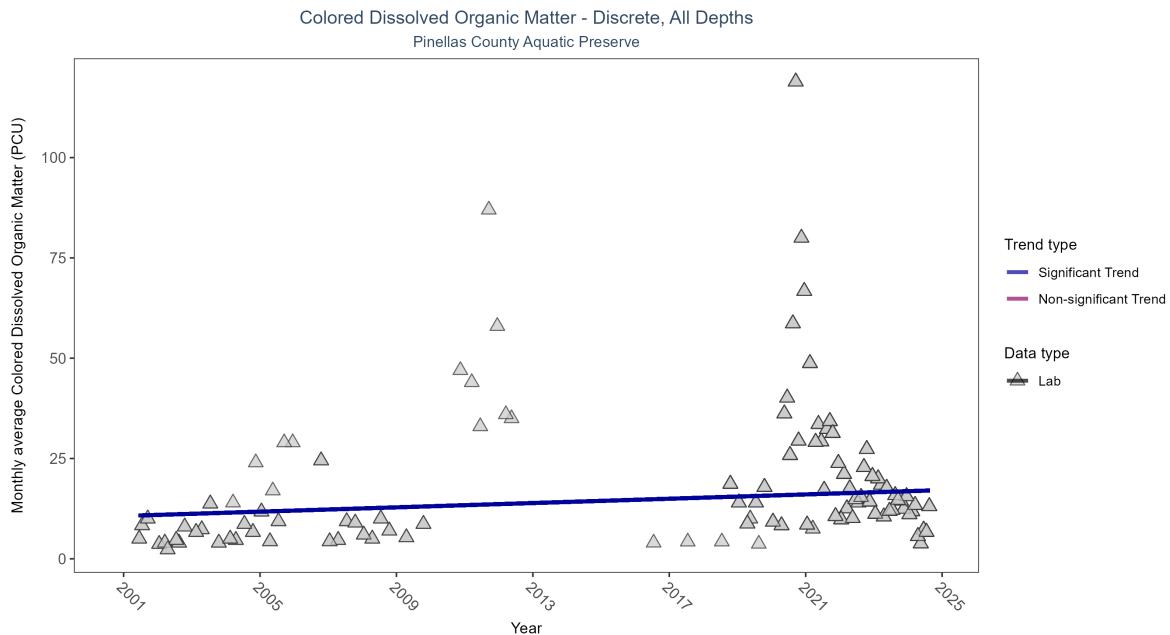


Table 14: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	1060	21	2001 - 2024	9.5	0.1149	10.67559	0.26852	0.0085