

Pine Island Sound Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 09 January, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

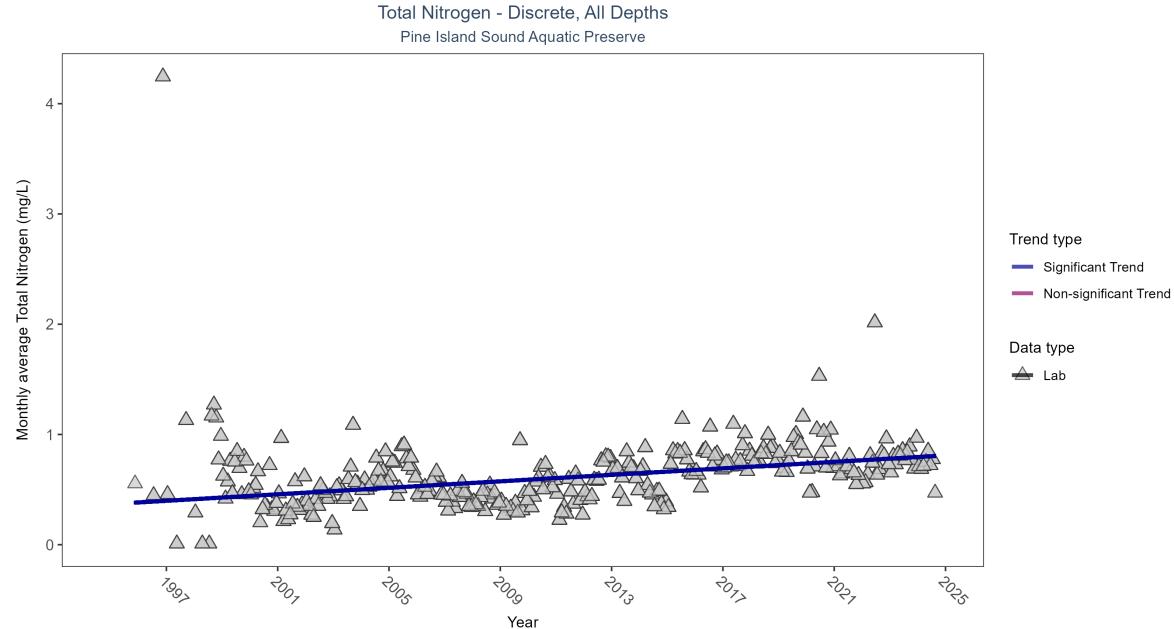


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	5940	30	1995 - 2024	0.604	0.3375	0.36889	0.01471	0.0000

Total Phosphorus - Discrete

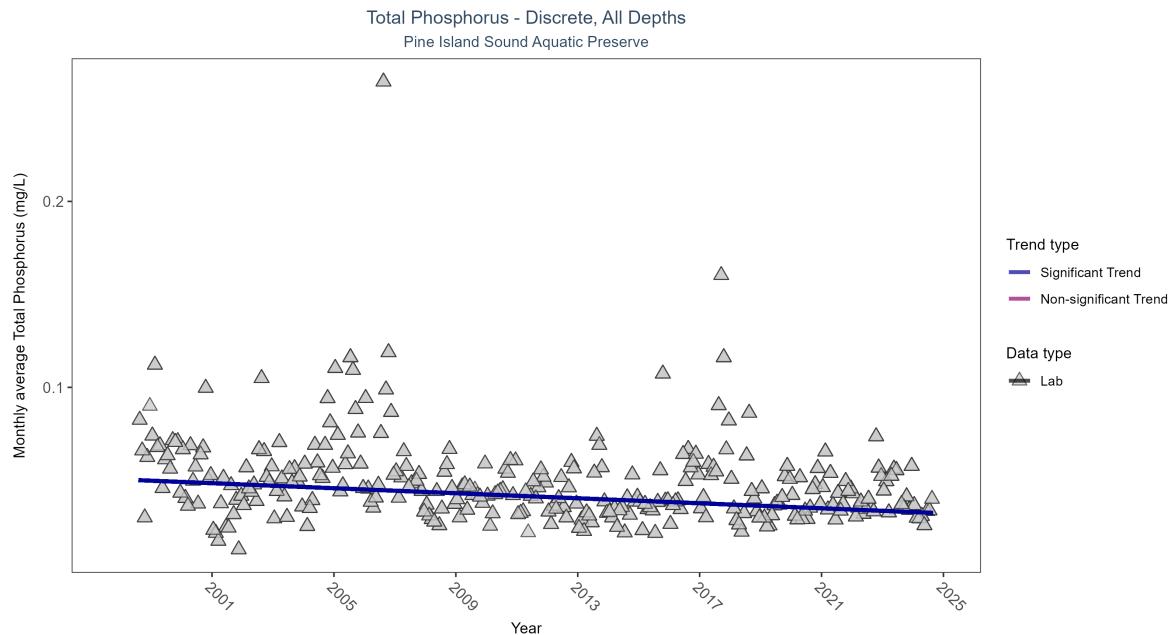


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	4315	27	1998 - 2024	0.038	-0.2214	0.05048	-0.00067	0.0000

Water Quality

Dissolved Oxygen - Discrete

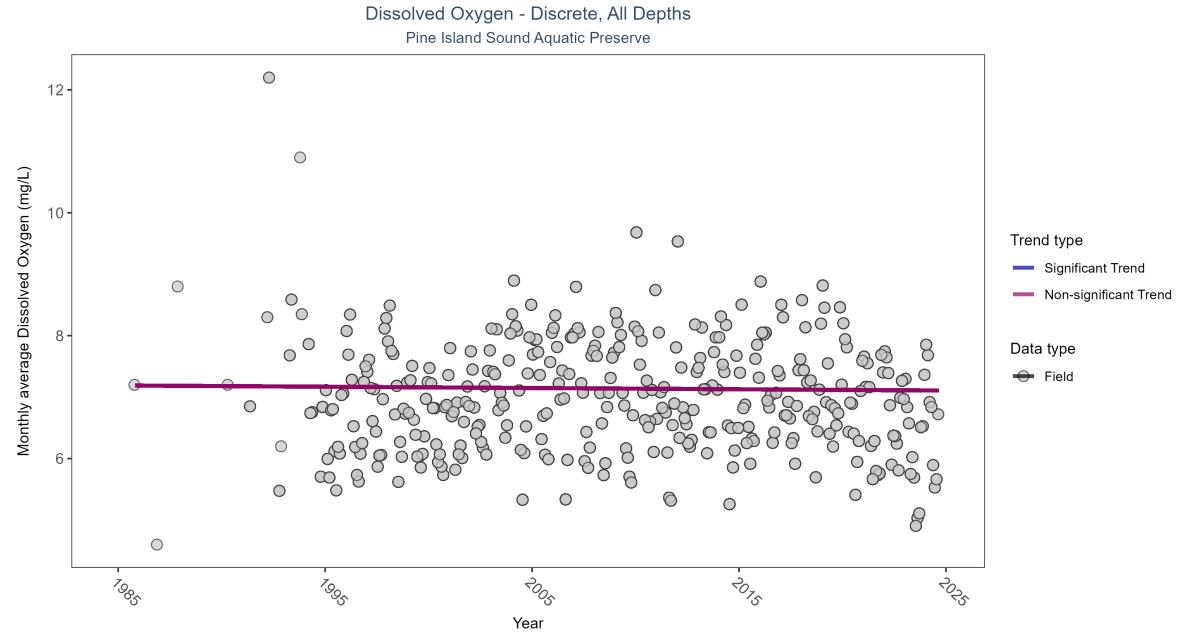


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	34660	38	1985 - 2024	6.9	-0.0184	7.18991	-0.00208	0.5997

Dissolved Oxygen - Continuous

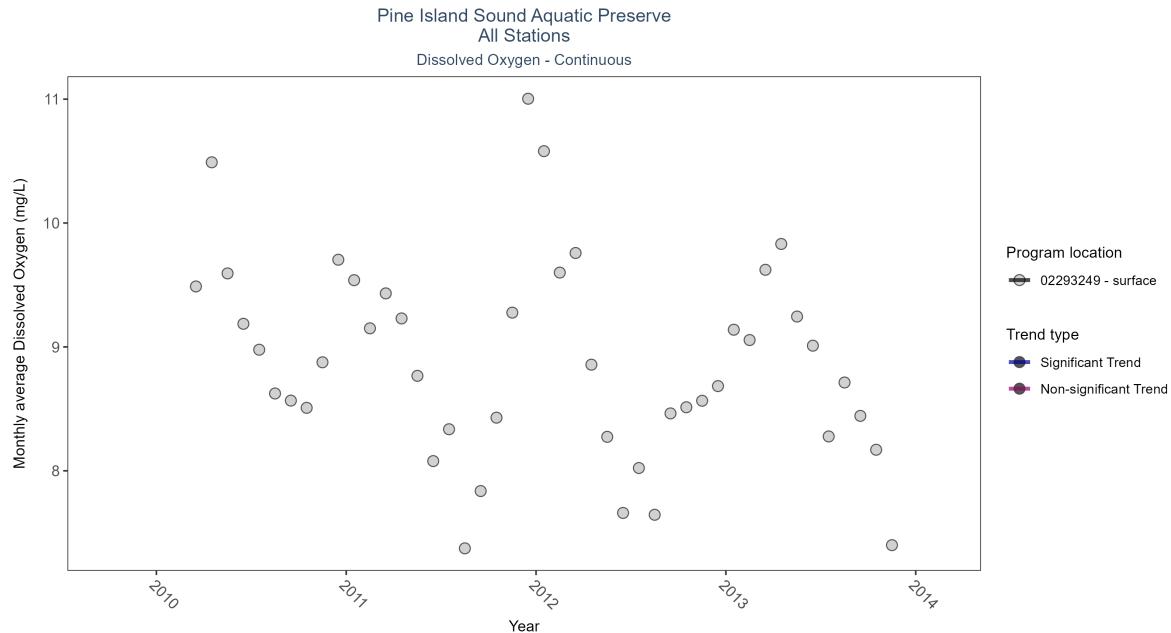


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02293249	Insufficient data to calculate trend	1302	4	2010 - 2013	8.8	-	-	-	-

Dissolved Oxygen Saturation - Discrete

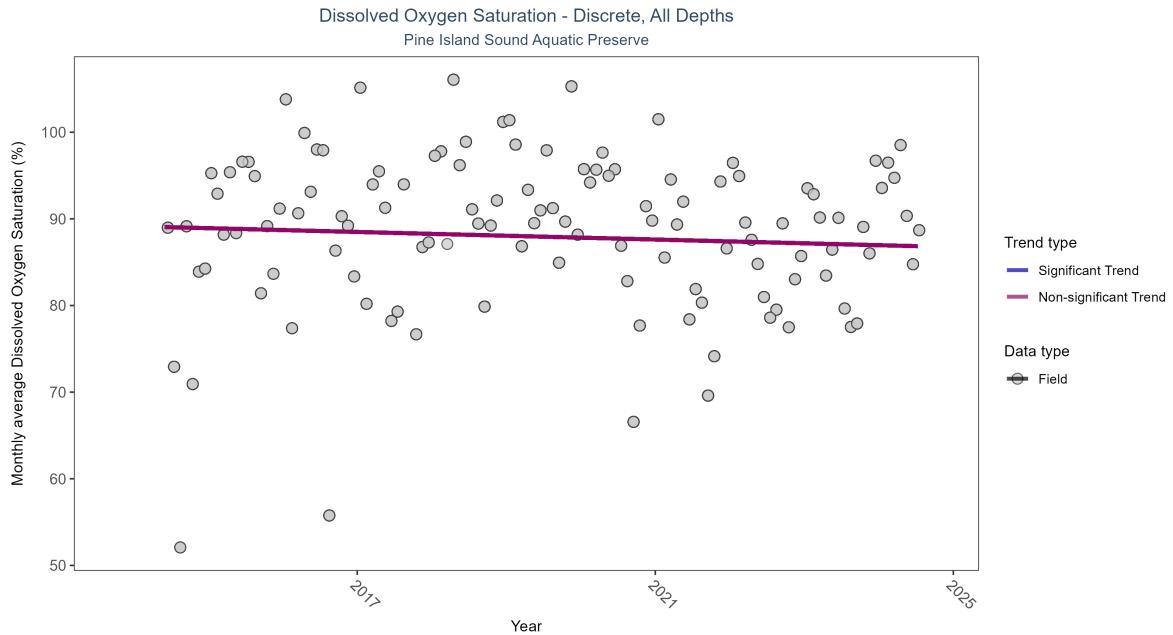


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	3158	11	2014 - 2024	90.8	-0.0816	89.14203	-0.21836	0.2633

Salinity - Discrete

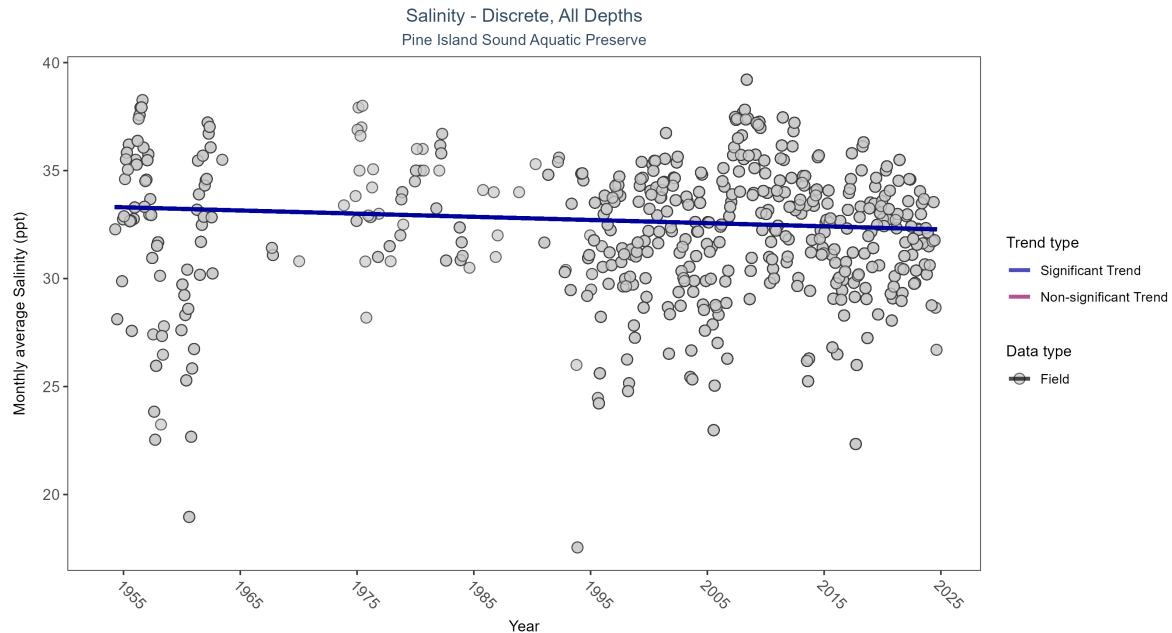


Table 6: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	Significantly decreasing trend	33533	63	1954 - 2024	32.8	-0.0797	33.31392	-0.01467	0.0116

Salinity - Continuous

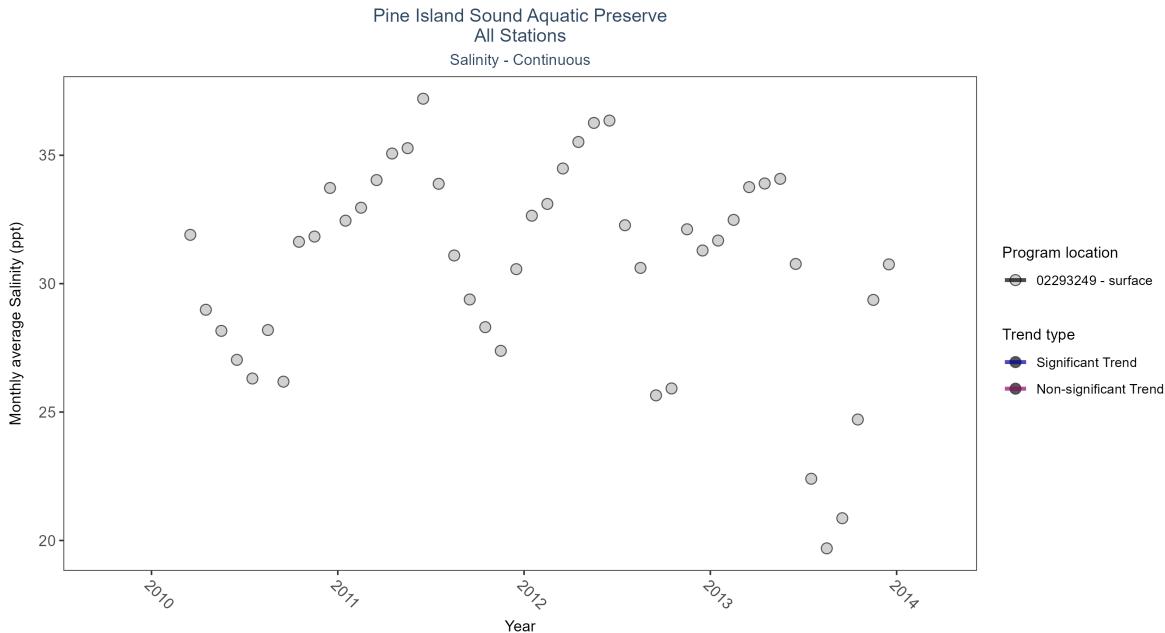


Table 7: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02293249	Insufficient data to calculate trend	1871	4	2010 - 2013	32	-	-	-	-

Water Temperature - Discrete

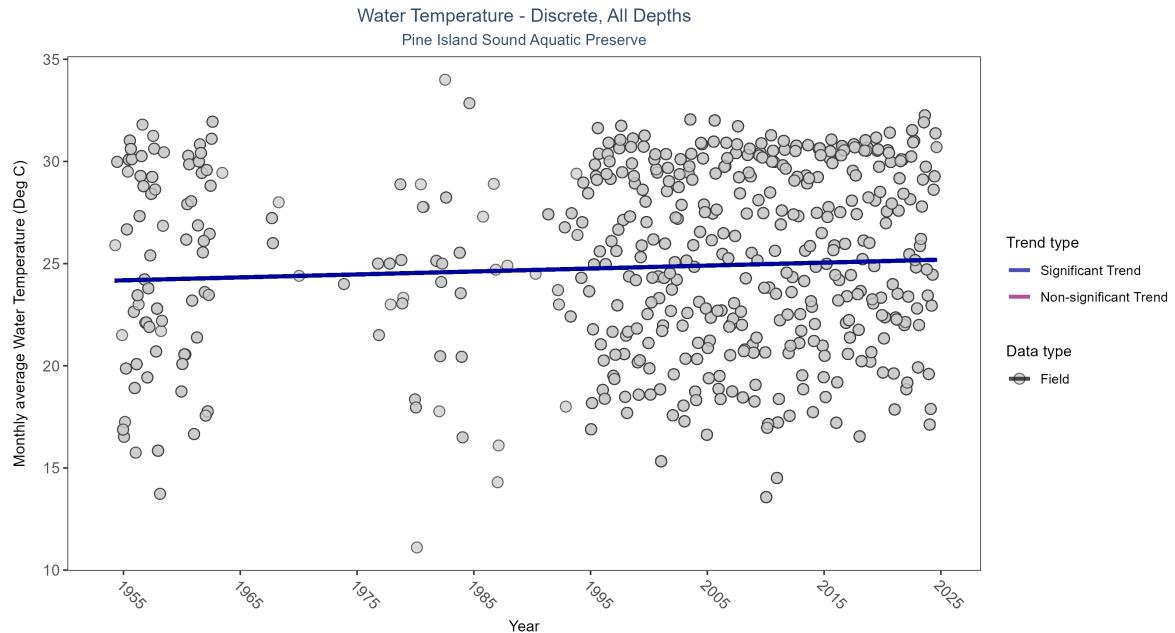


Table 8: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	36771	61	1954 - 2024	26.4	0.1453	24.16609	0.01446	0.0000

Water Temperature - Continuous

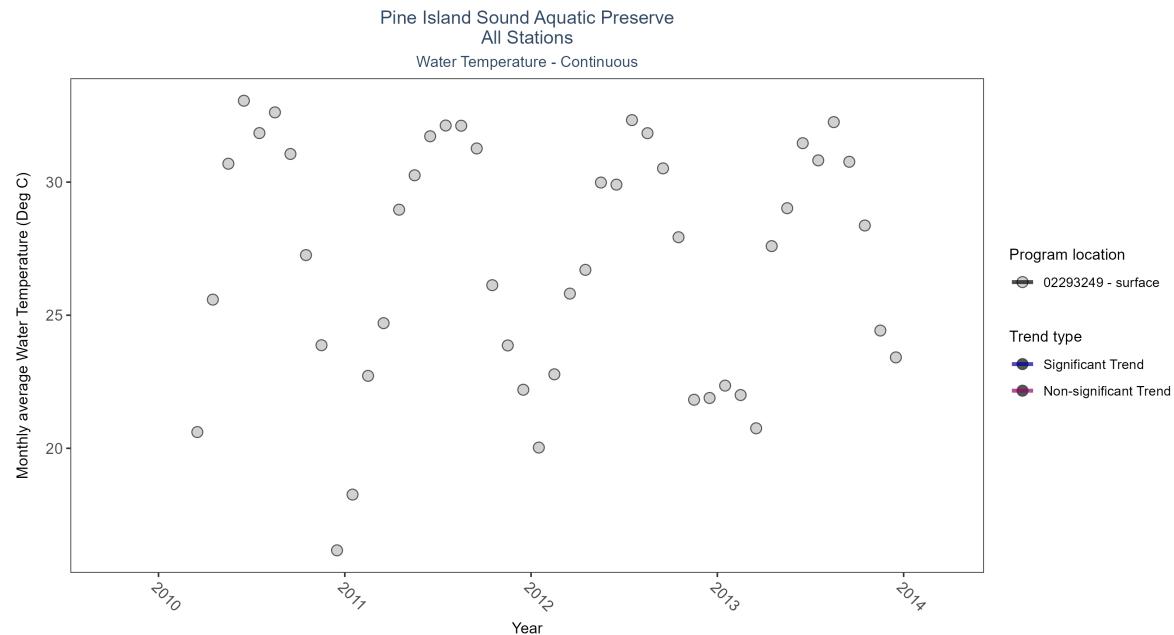


Table 9: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02293249	Insufficient data to calculate trend	2445	4	2010 - 2013	28.1	-	-	-	-

pH - Discrete

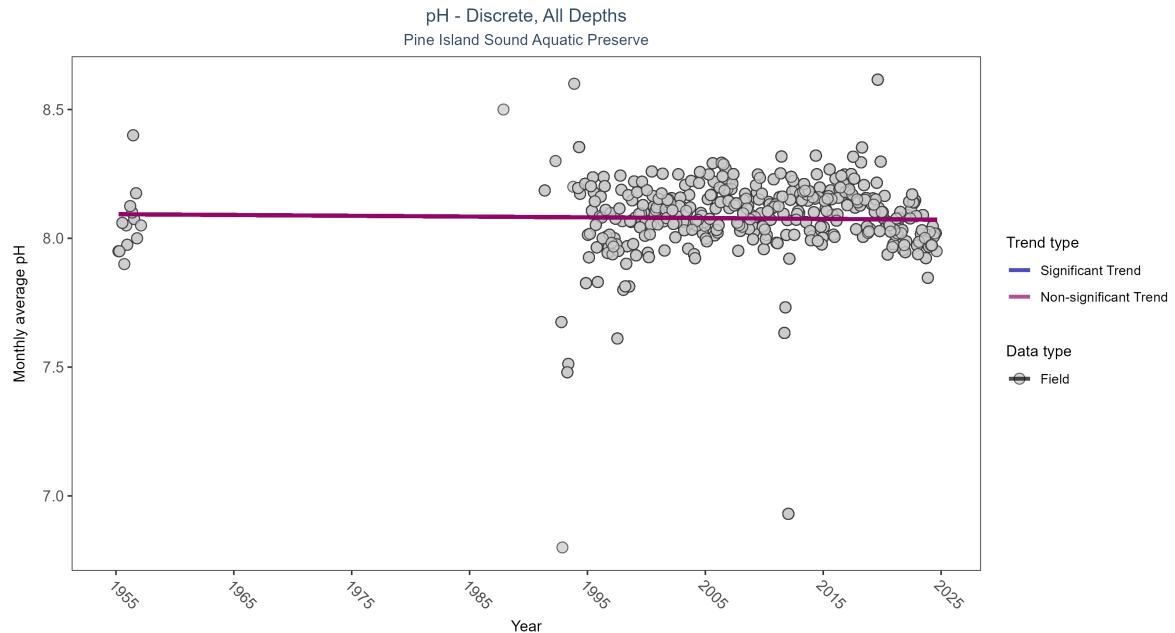


Table 10: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	32359	38	1955 - 2024	8.1	-0.0208	8.09353	-0.0003	0.5844

pH - Continuous

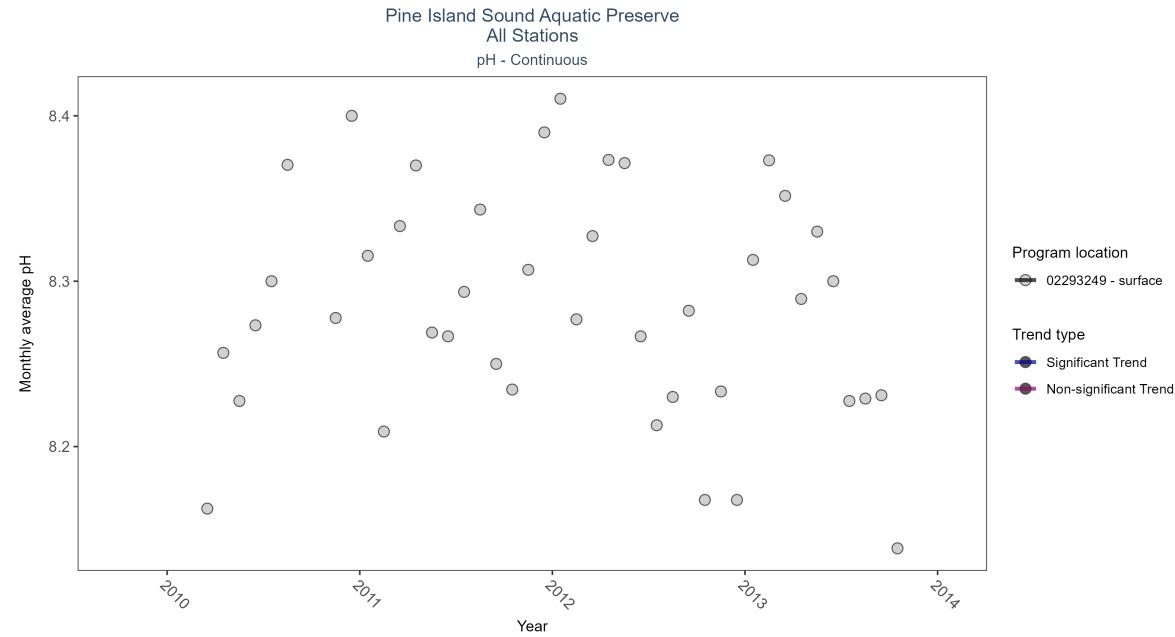


Table 11: Seasonal Kendall-Tau Results for All Stations - pH

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02293249	Insufficient data to calculate trend	1164	4	2010 - 2013	8.3	-	-	-	-

Water Clarity

Turbidity - Discrete

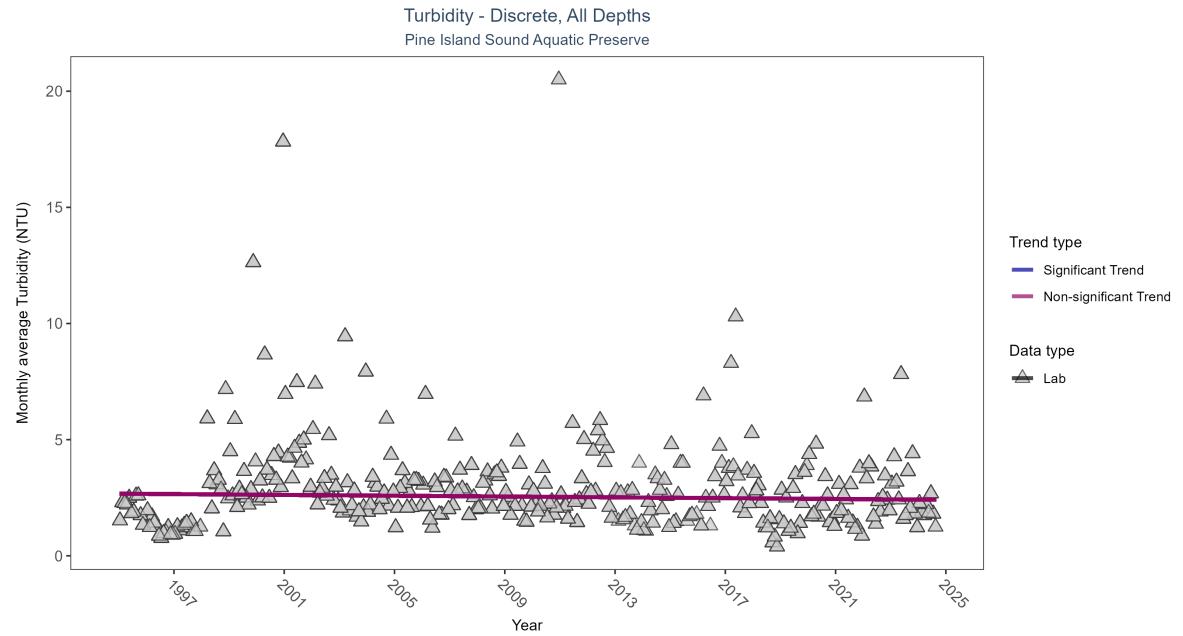


Table 12: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	6596	30	1995 - 2024	2	-0.036	2.67376	-0.00873	0.3560

Turbidity - Continuous

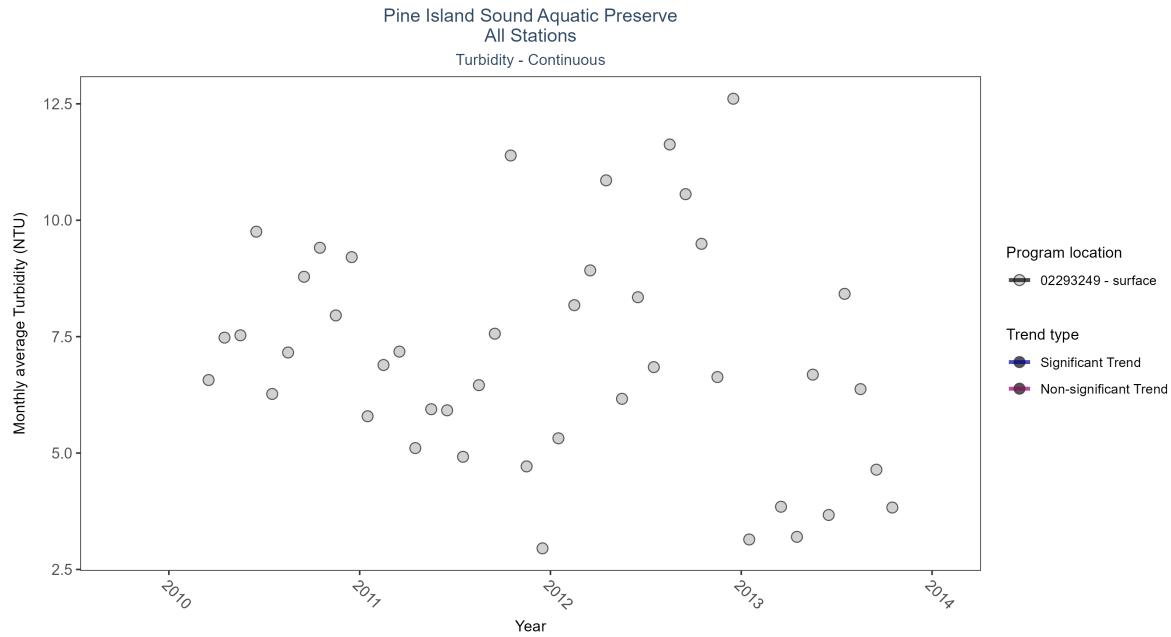


Table 13: Seasonal Kendall-Tau Results for All Stations - Turbidity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02293249	Insufficient data to calculate trend	1174	4	2010 - 2013	5.4	-	-	-	-

Total Suspended Solids - Discrete

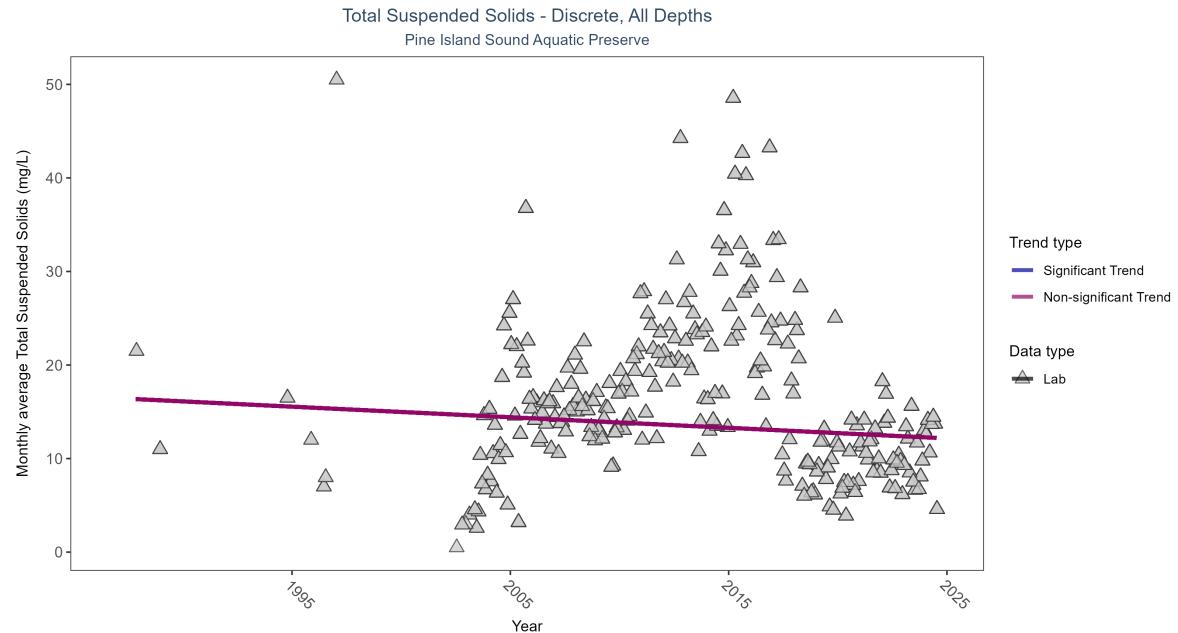


Table 14: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	2781	29	1987 - 2024	12.4	-0.0562	16.45117	-0.11303	0.2224

Chlorophyll a, Uncorrected for Pheophytin - Discrete

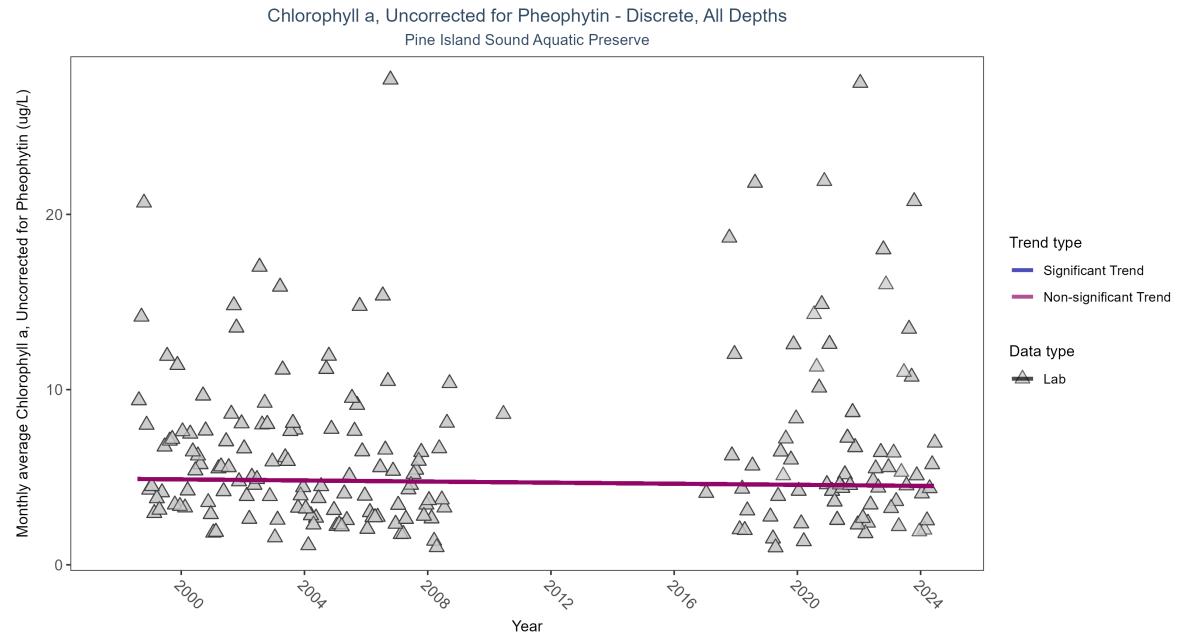


Table 15: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	1451	20	1998 - 2024	4.2558	-0.0389	4.90752	-0.01551	0.4707

Chlorophyll a, Corrected for Pheophytin - Discrete

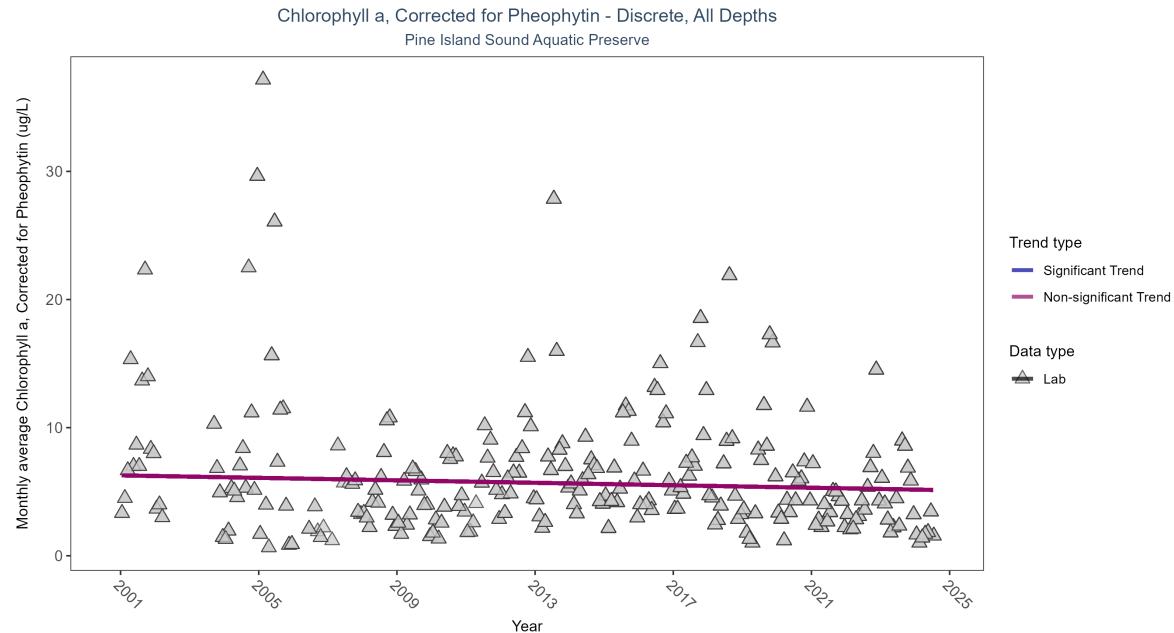


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	3888	24	2001 - 2024	3.925	-0.0847	6.27376	-0.04822	0.0782

Secchi Depth - Discrete

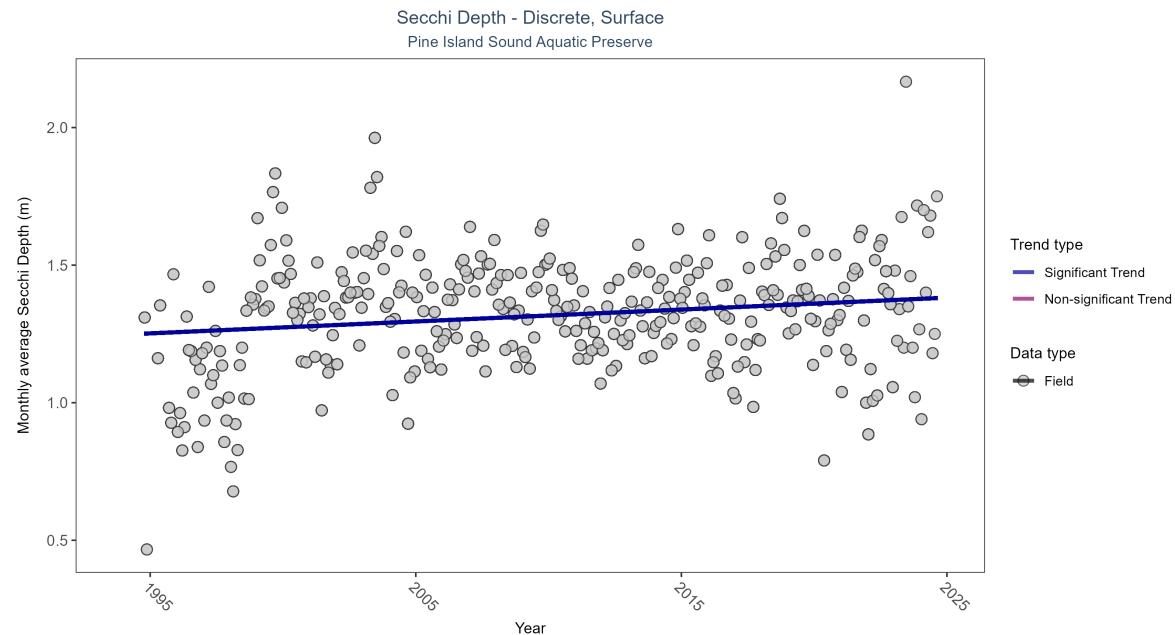


Table 17: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	21115	31	1994 - 2024	1.2	0.1161	1.24761	0.00433	0.0020

Colored Dissolved Organic Matter - Discrete

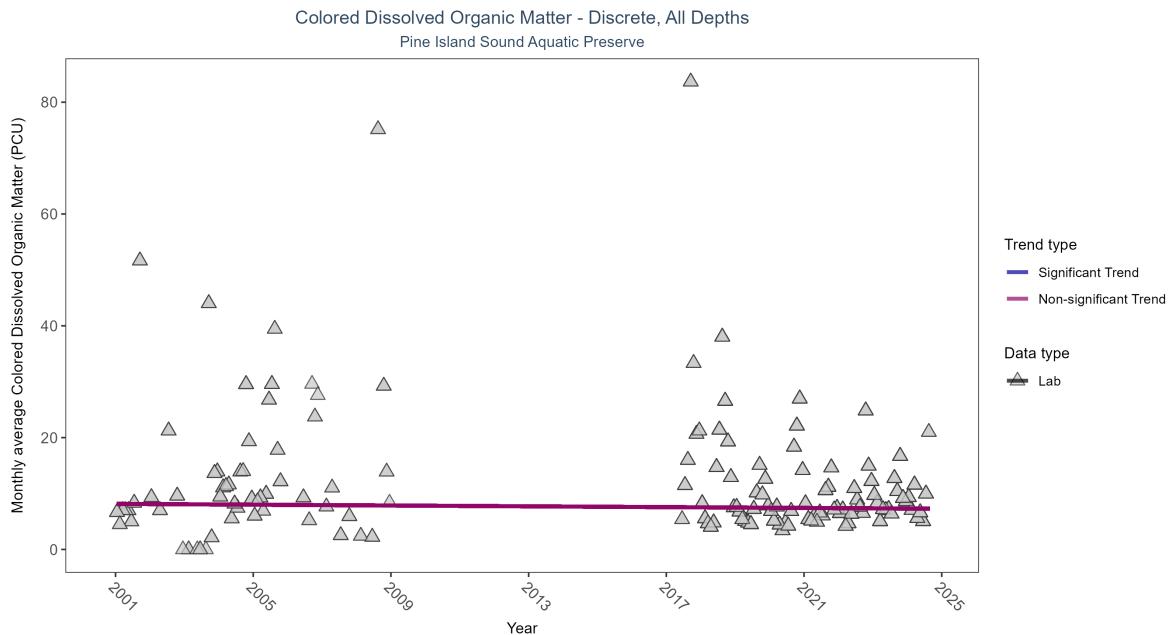


Table 18: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	1460	16	2001 - 2024	7.5	-0.0525	8.15217	-0.03654	0.4992