

Alligator Harbor Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 27 January, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

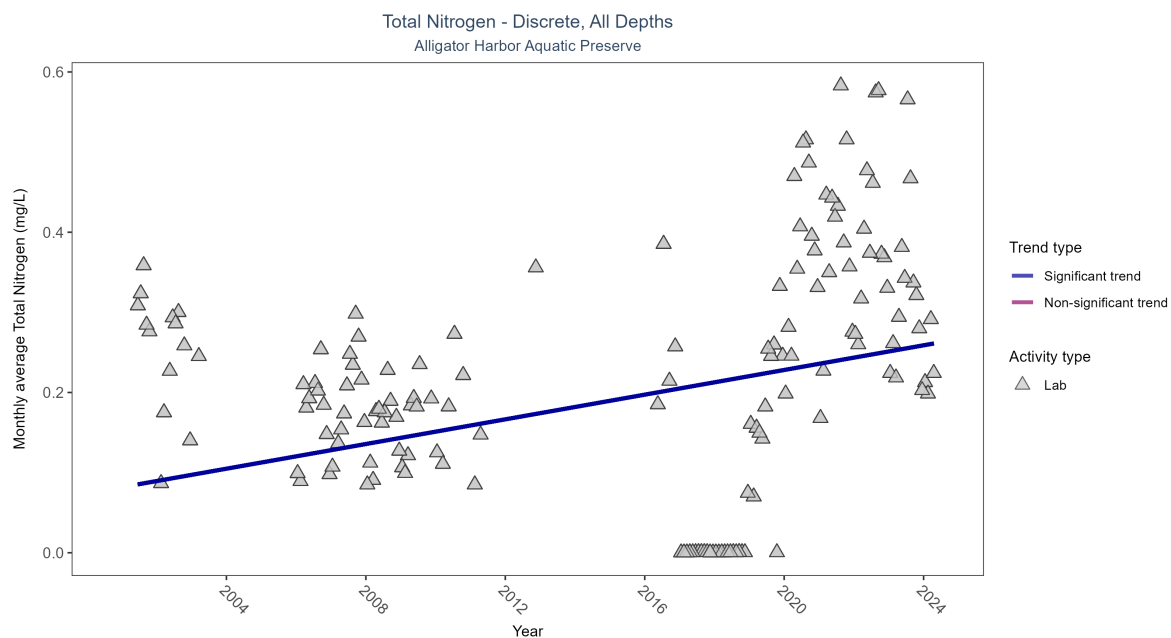


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

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	1585	19	2001 - 2024	0.19	0.2813	0.08179	0.0077	0.0000

Total Phosphorus - Discrete

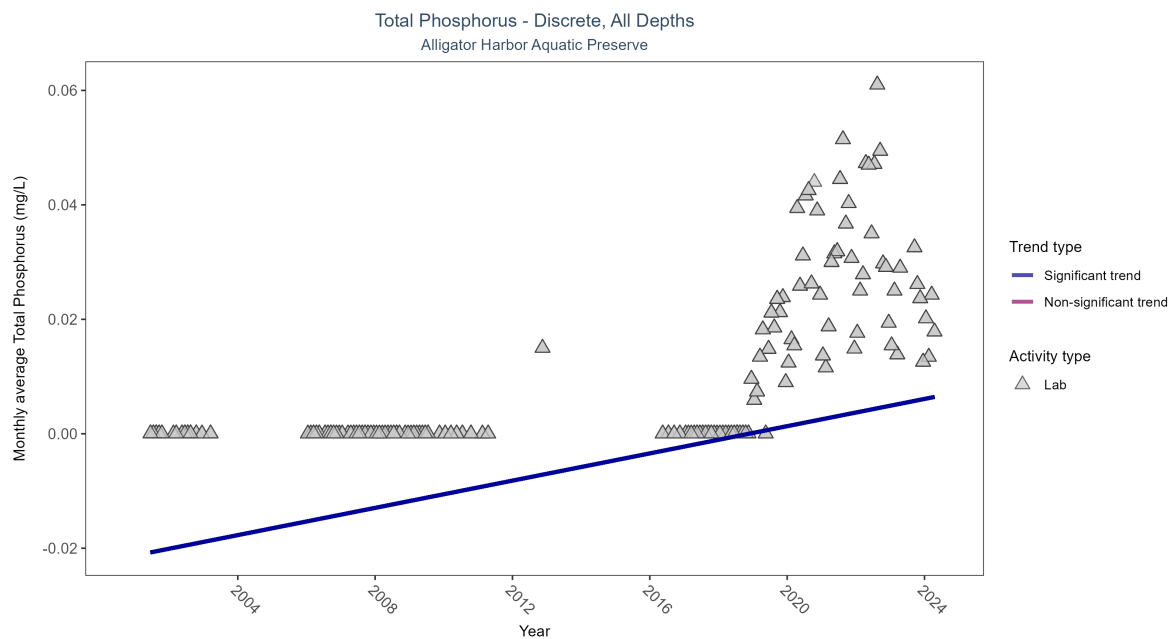


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

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	1149	19	2001 - 2024	0.00005	0.5677	-0.02128	0.00119	0.0000

Water Quality

Dissolved Oxygen - Discrete

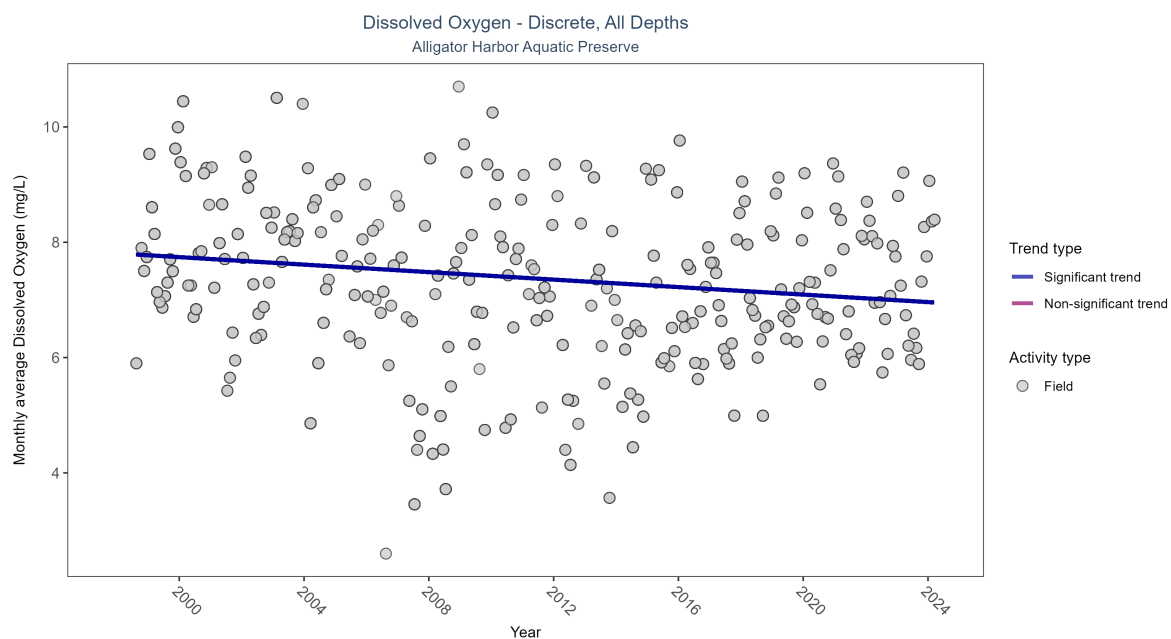


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly decreasing trend	8140	27	1998 - 2024	7.2	-0.1664	7.8071	-0.0325	0.0001

Dissolved Oxygen - Continuous

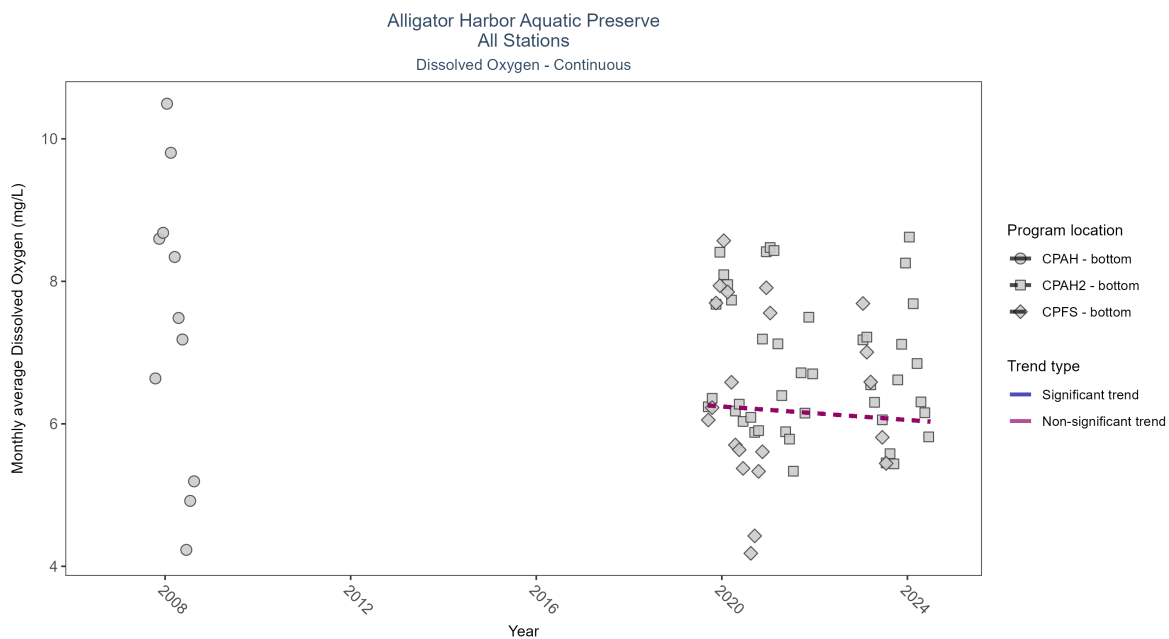


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH2	No significant trend	100052	5	2019 - 2024	6.9	-0.15	6.29	-0.05	0.3818
CPAH	Insufficient data to calculate trend	11557	2	2007 - 2008	8.0	-	-	-	-
CPFS	Insufficient data to calculate trend	39993	4	2019 - 2023	6.4	-	-	-	-

Dissolved Oxygen Saturation - Discrete

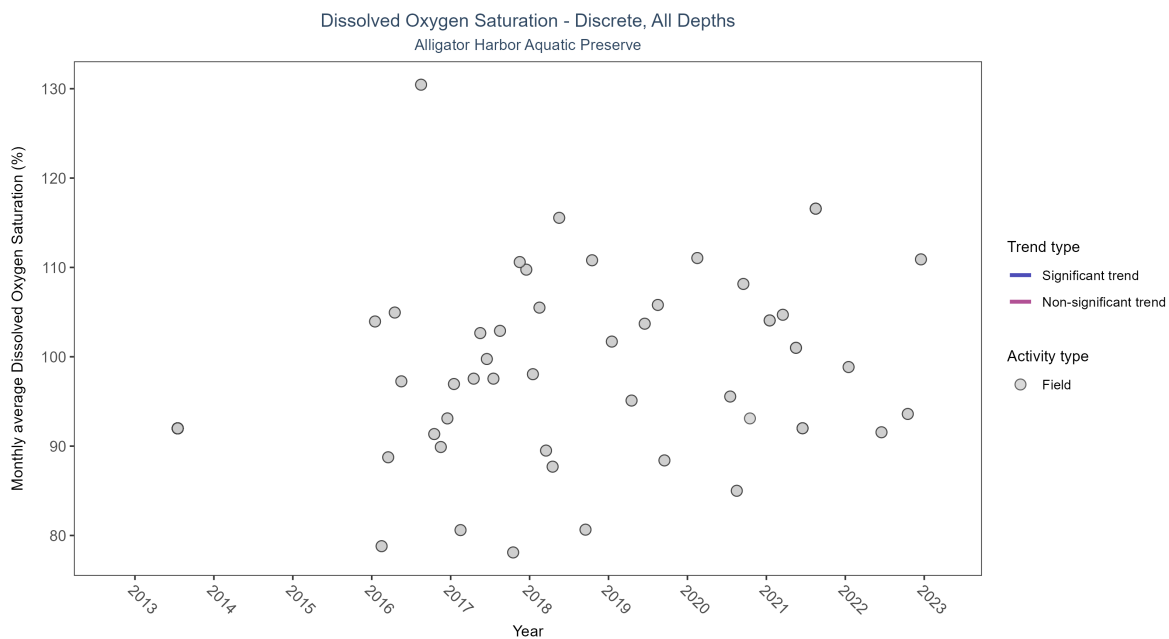


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Insufficient data to calculate trend	131	8	2013 - 2022	96.8	-	-	-	NA

Dissolved Oxygen Saturation - Continuous

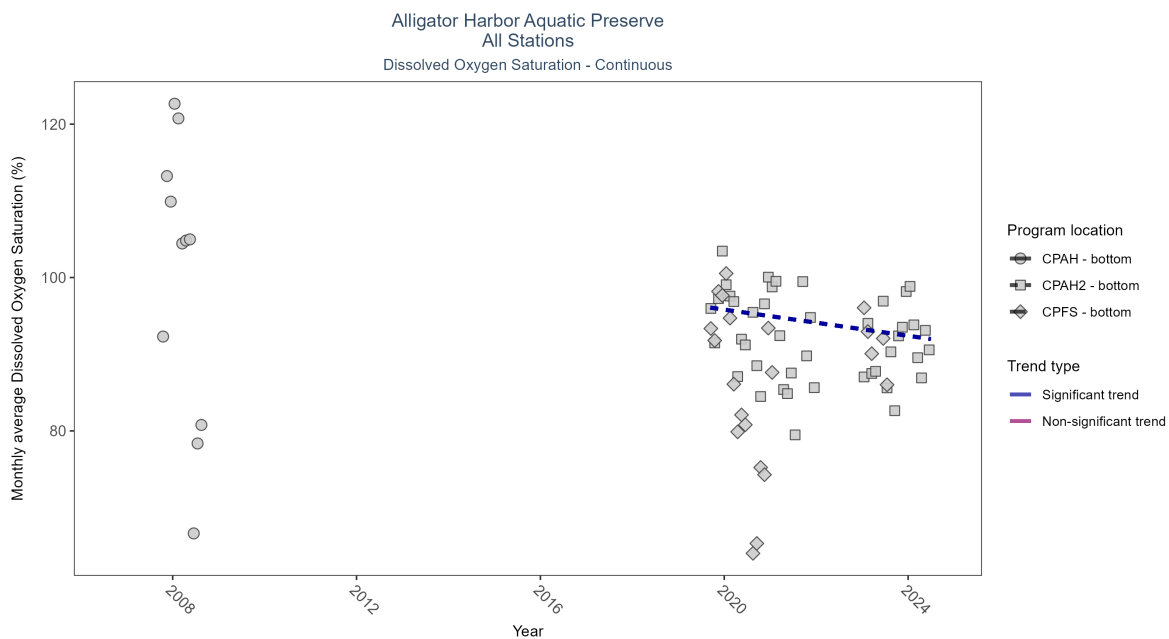


Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH	Insufficient data to calculate trend	11557	2	2007 - 2008	105.6	-	-	-	-
CPAH2	Significantly decreasing trend	100052	5	2019 - 2024	94.0	-0.29	96.67	-0.85	0.0491
CPFS	Insufficient data to calculate trend	39993	4	2019 - 2023	90.4	-	-	-	-

Salinity - Discrete

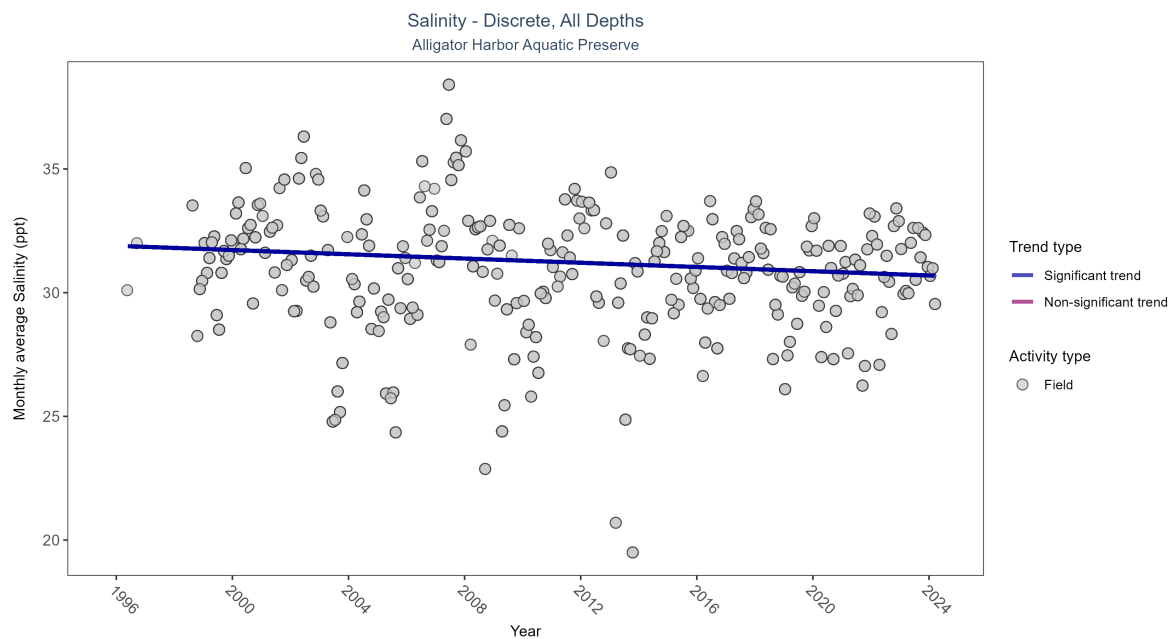


Table 7: Seasonal Kendall-Tau Results for - Salinity

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	9377	28	1996 - 2024	31.2	-0.1057	31.89388	-0.04281	0.0110

Salinity - Continuous

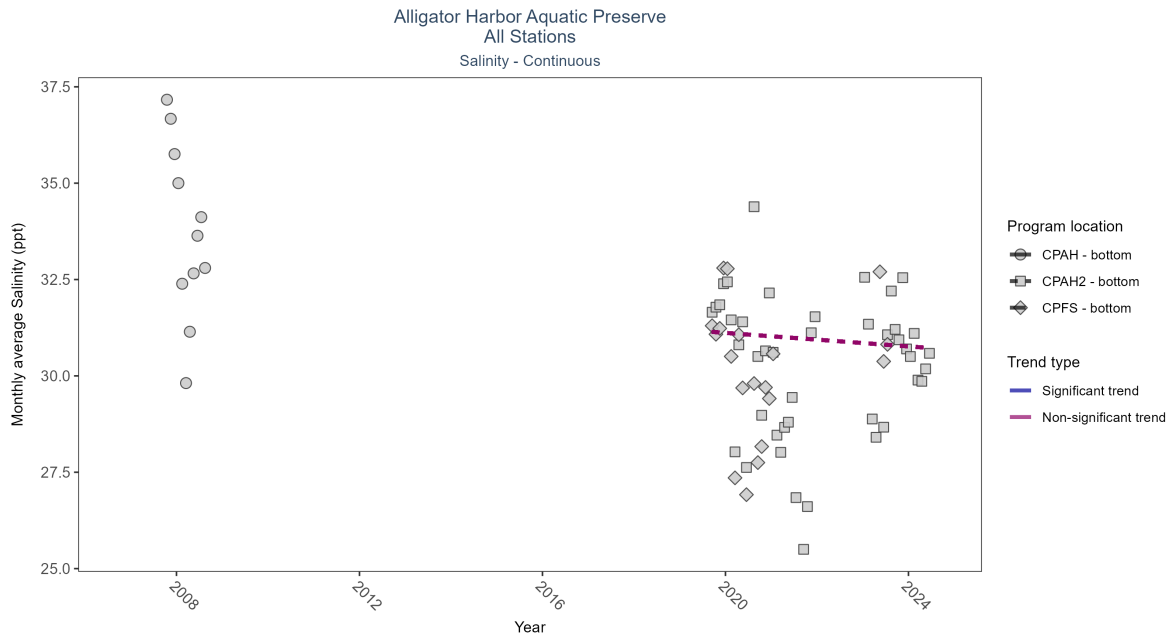


Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH	Insufficient data to calculate trend	13034	2	2007 - 2008	34.0	-	-	-	-
CPAH2	No significant trend	96481	5	2019 - 2024	30.6	-0.12	31.2	-0.09	0.5119
CPFS	Insufficient data to calculate trend	38401	4	2019 - 2023	30.7	-	-	-	-

Water Temperature - Discrete

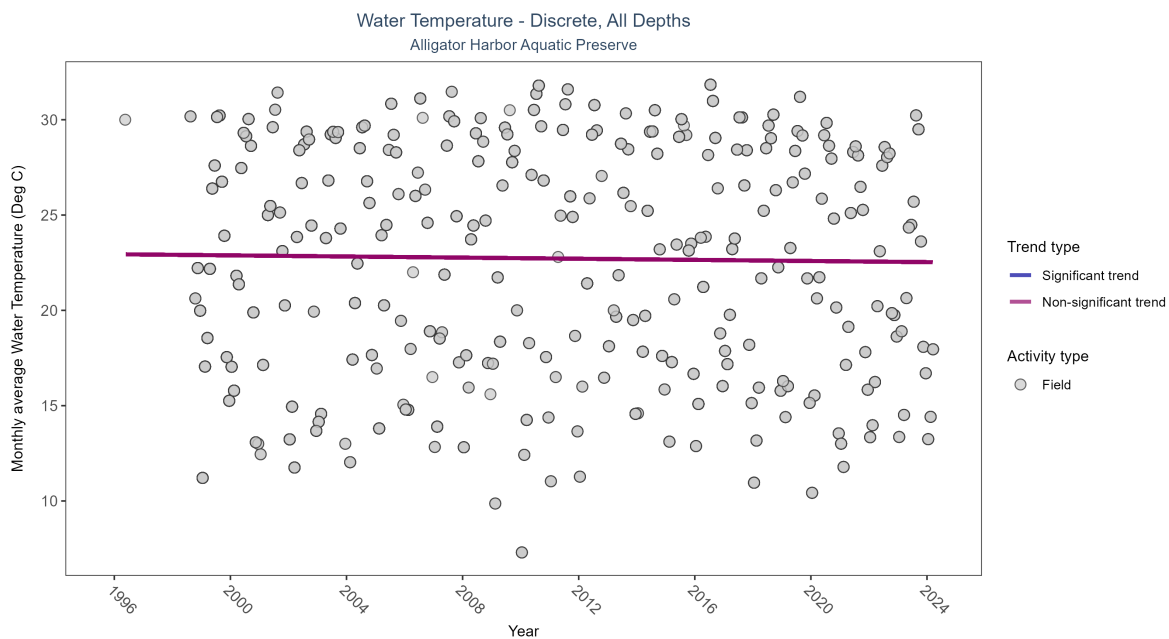


Table 9: Seasonal Kendall-Tau Results for - Water Temperature

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	9633	28	1996 - 2024	25.8	-0.0467	22.94377	-0.01477	0.2321

Water Temperature - Continuous

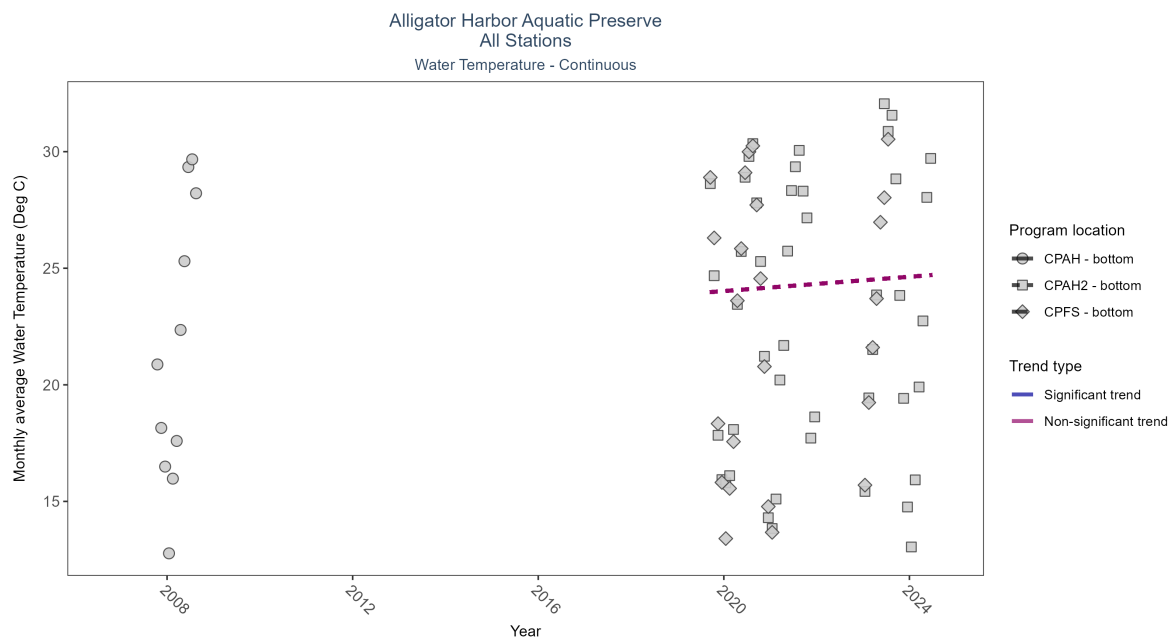


Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH	Insufficient data to calculate trend	13034	2	2007 - 2008	20.9	-	-	-	-
CPAH2	No significant trend	112899	5	2019 - 2024	22.9	0.14	23.87	0.15	0.5248
CPFS	Insufficient data to calculate trend	53708	4	2019 - 2023	24.2	-	-	-	-

pH - Discrete

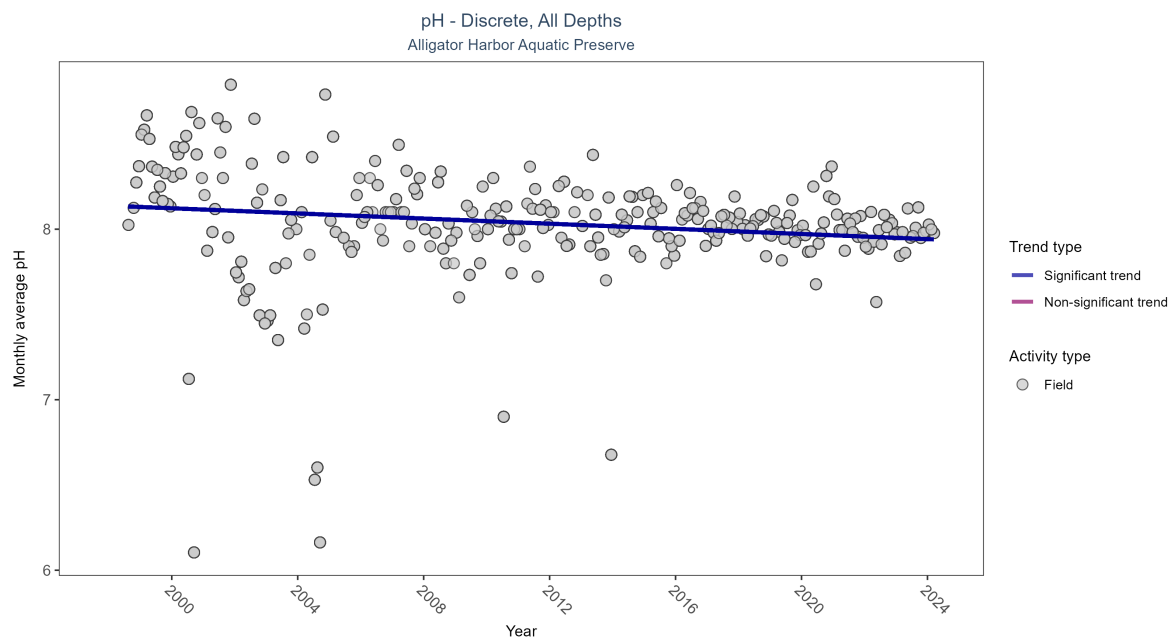


Table 11: Seasonal Kendall-Tau Results for - pH

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	5266	27	1998 - 2024	8.1	-0.1855	8.13778	-0.00754	0.0000

pH - Continuous

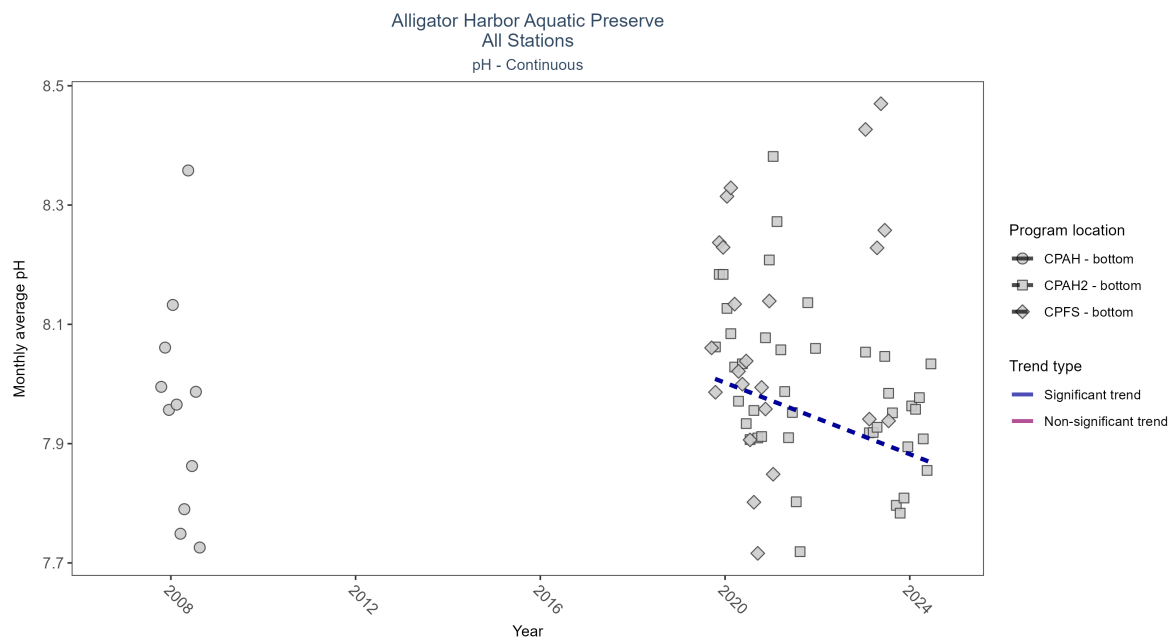


Table 12: Seasonal Kendall-Tau Results for All Stations - pH

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH	Insufficient data to calculate trend	13034	2	2007 - 2008	7.9	-	-	-	-
CPAH2	Significantly decreasing trend	99889	5	2019 - 2024	8.0	-0.41	8.03	-0.03	0.0221
CPFS	Insufficient data to calculate trend	43191	4	2019 - 2023	8.1	-	-	-	-

Water Clarity

Turbidity - Discrete

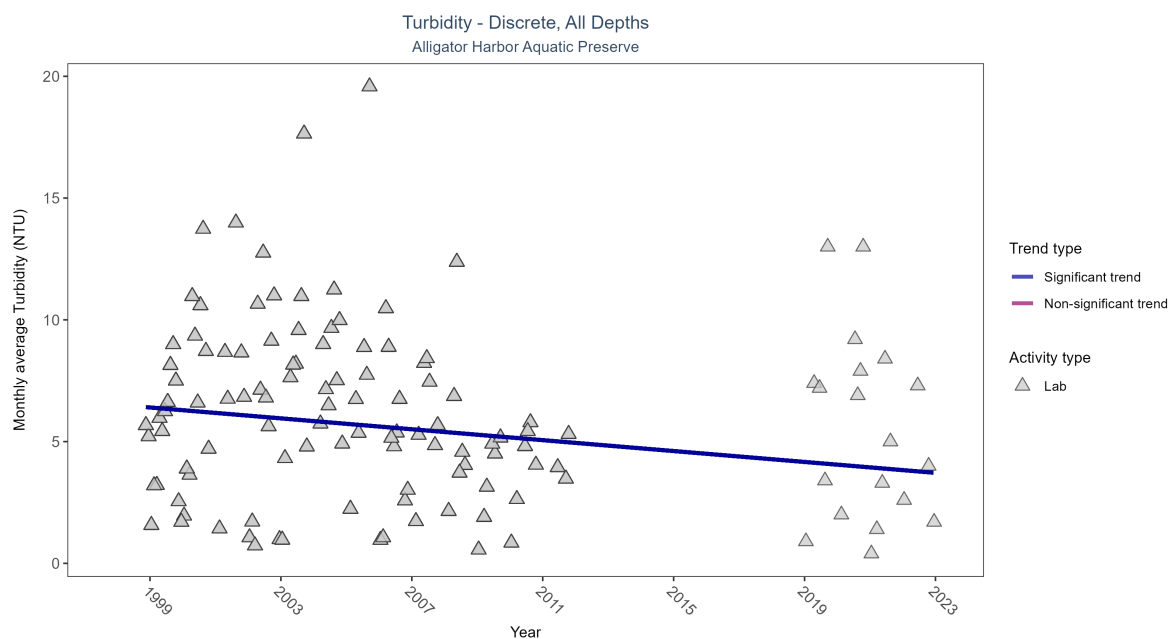


Table 13: Seasonal Kendall-Tau Results for - Turbidity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	3543	18	1998 - 2022	5.3	-0.2432	6.51312	-0.11185	0.0012

Turbidity - Continuous

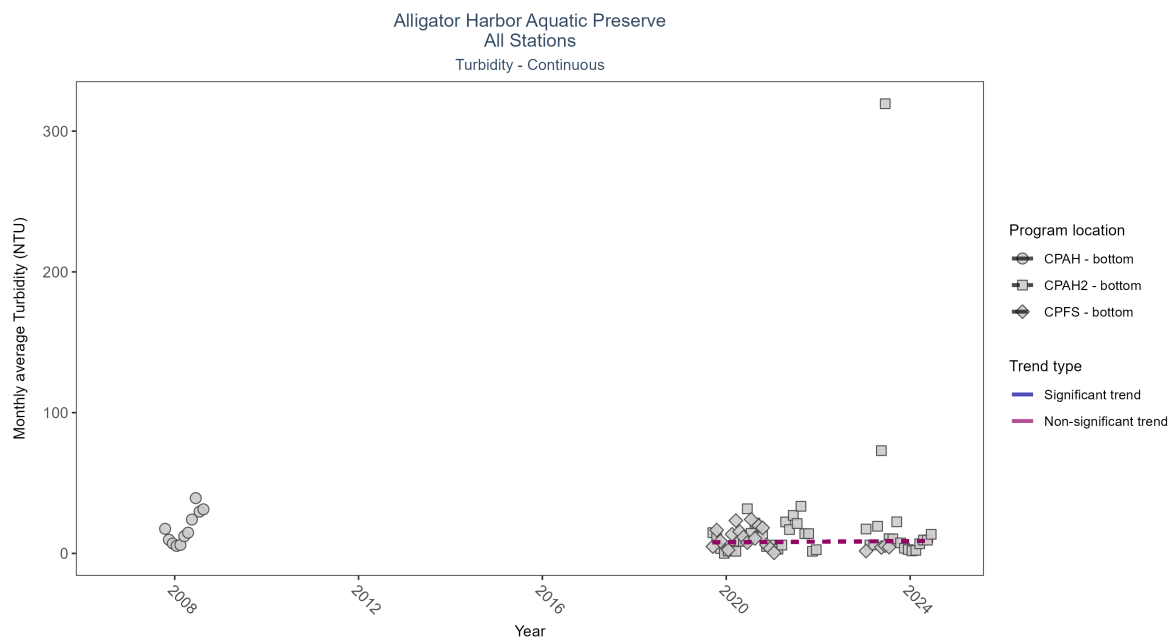


Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH	Insufficient data to calculate trend	12558	2	2007 - 2008	10	-	-	-	-
CPAH2	No significant trend	108064	5	2019 - 2024	6	0.16	7.68	0.22	0.2566
CPFS	Insufficient data to calculate trend	37491	4	2019 - 2023	4	-	-	-	-

Total Suspended Solids - Discrete

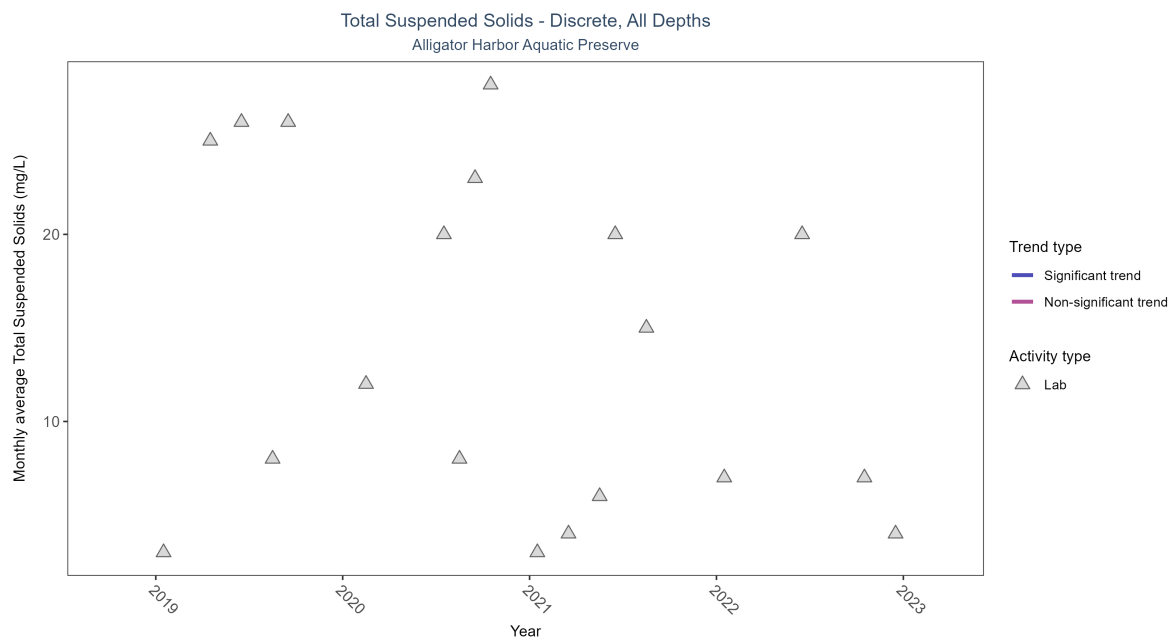


Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

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	19	4	2019 - 2022	12	-	-	-	NA

Chlorophyll a, Uncorrected for Pheophytin - Discrete

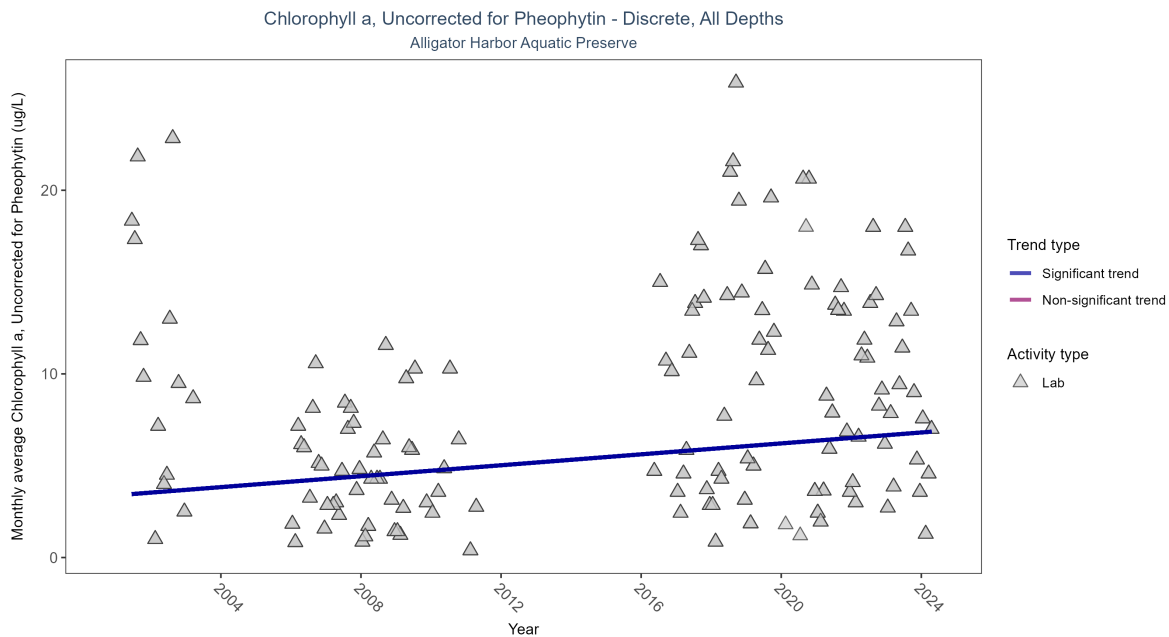


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly increasing trend	1213	18	2001 - 2024	6	0.2862	3.3869	0.14881	0.0000

Chlorophyll a, Corrected for Pheophytin - Discrete

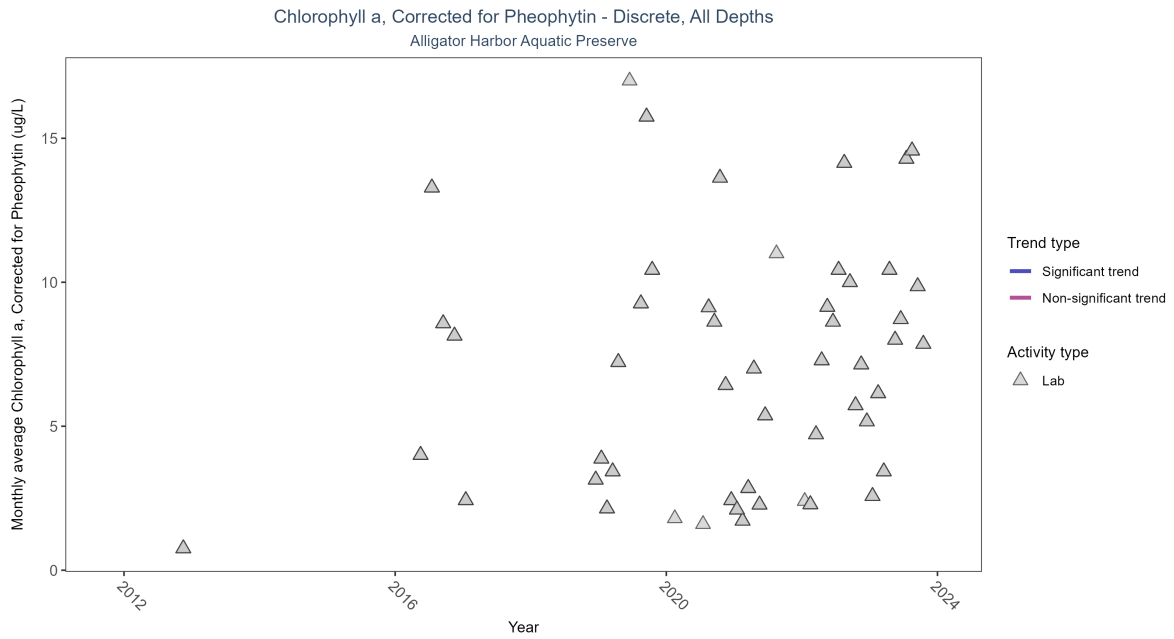


Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Insufficient data to calculate trend	339	9	2012 - 2023	6	-	-	-	NA

Secchi Depth - Discrete

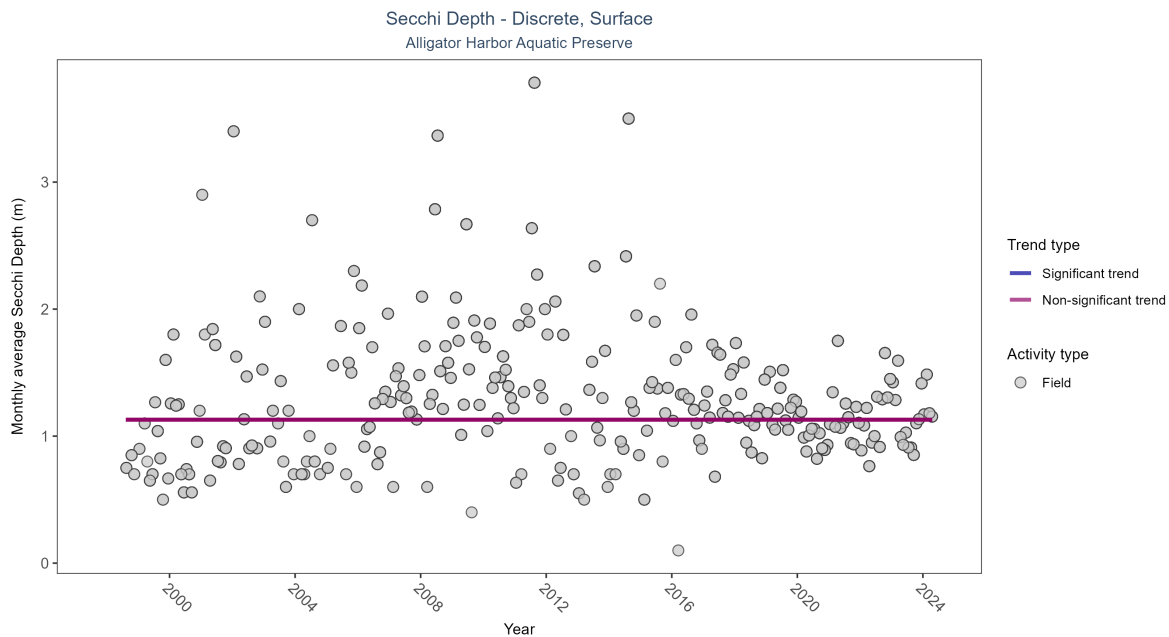


Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

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	2857	27	1998 - 2024	1.15825	-0.0009	1.12912	0	1.0000

Colored Dissolved Organic Matter - Discrete

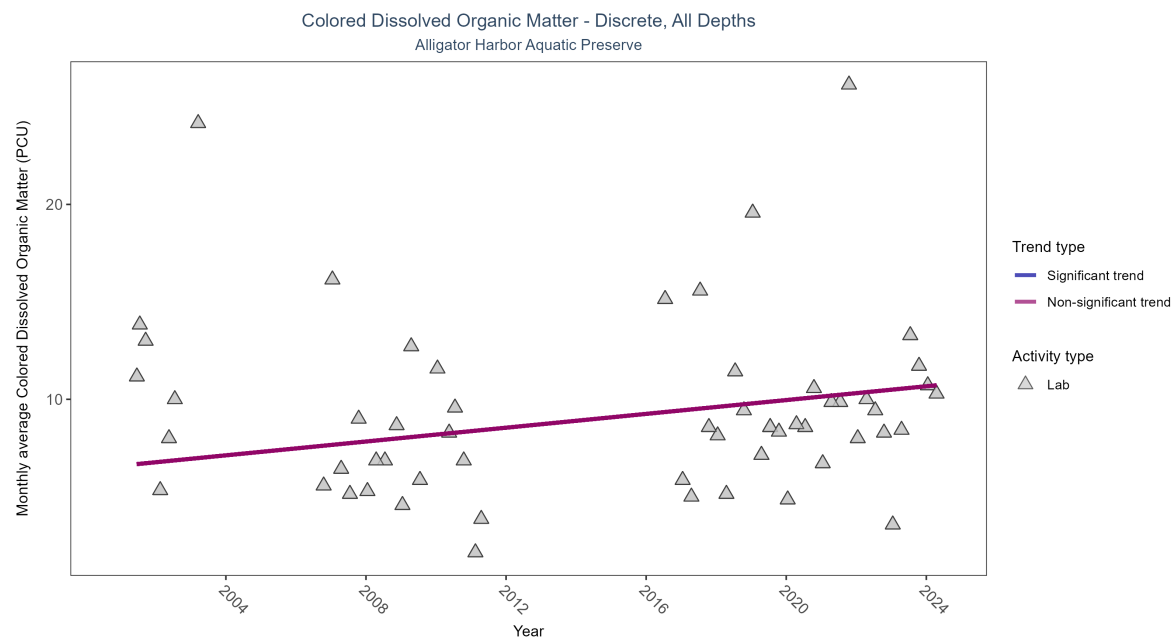


Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

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	409	18	2001 - 2024	8	0.2102	6.59392	0.1772	0.0598