Banana River Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 27 January, 2025

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Indicators

Nutrients

Total Nitrogen - Discrete

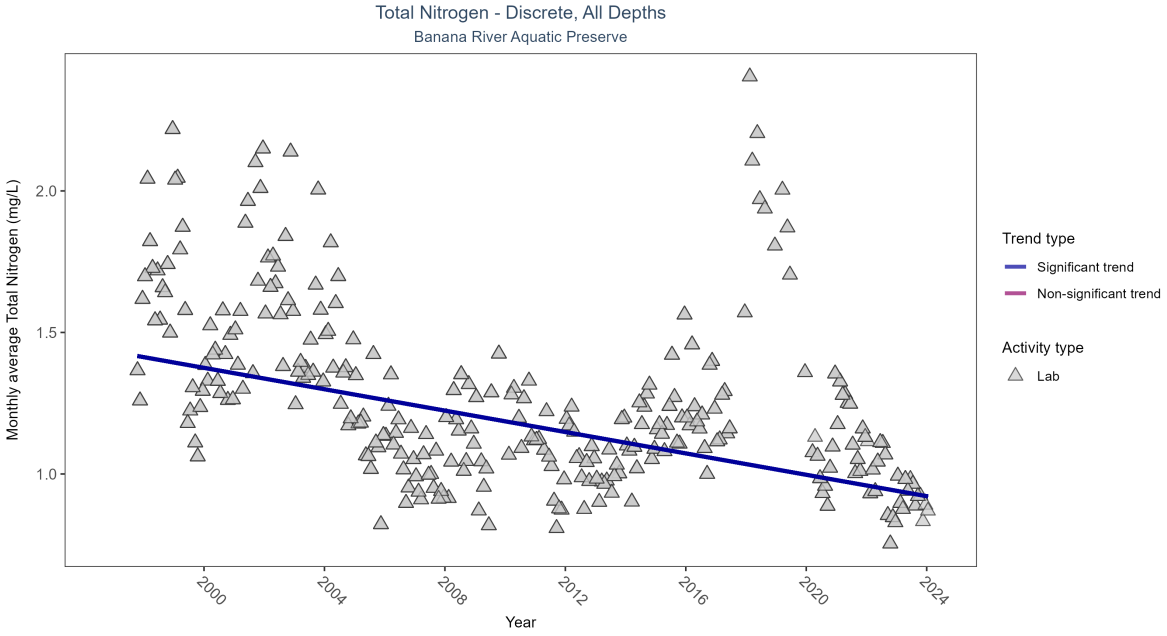

Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	2186	28	1997 - 2024	1.23541	-0.3929	1.43161	-0.01889	0.0000

Total Phosphorus - Discrete

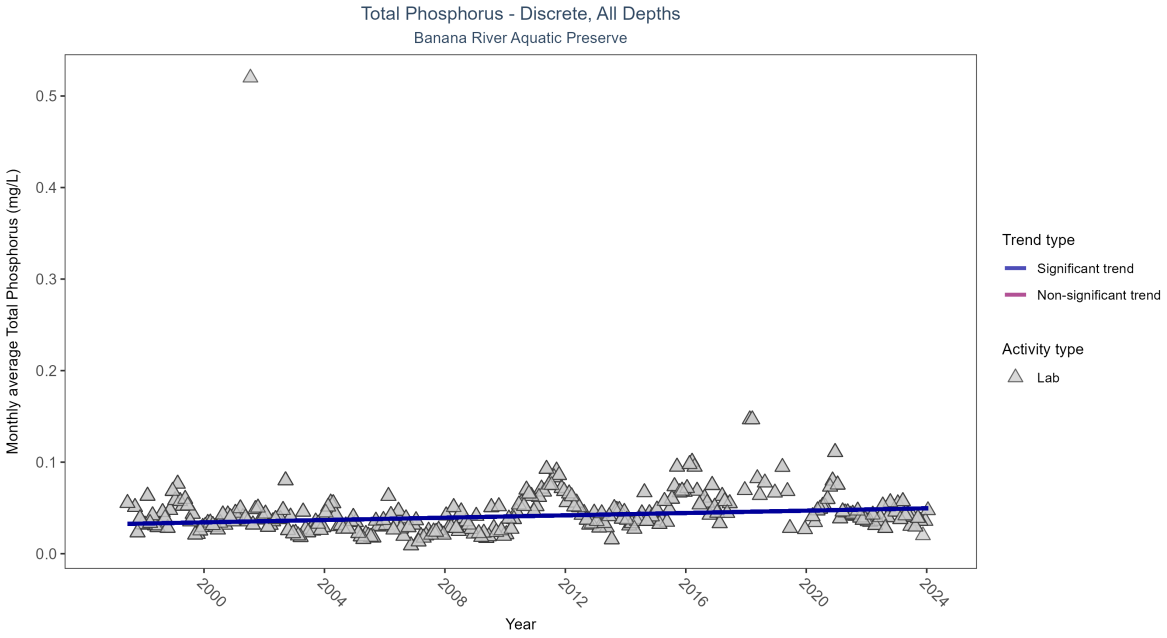

Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

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	4657	28	1997 - 2024	0.0355	0.2162	0.0323	0.00064	0.0000

Water Quality

Dissolved Oxygen - Discrete

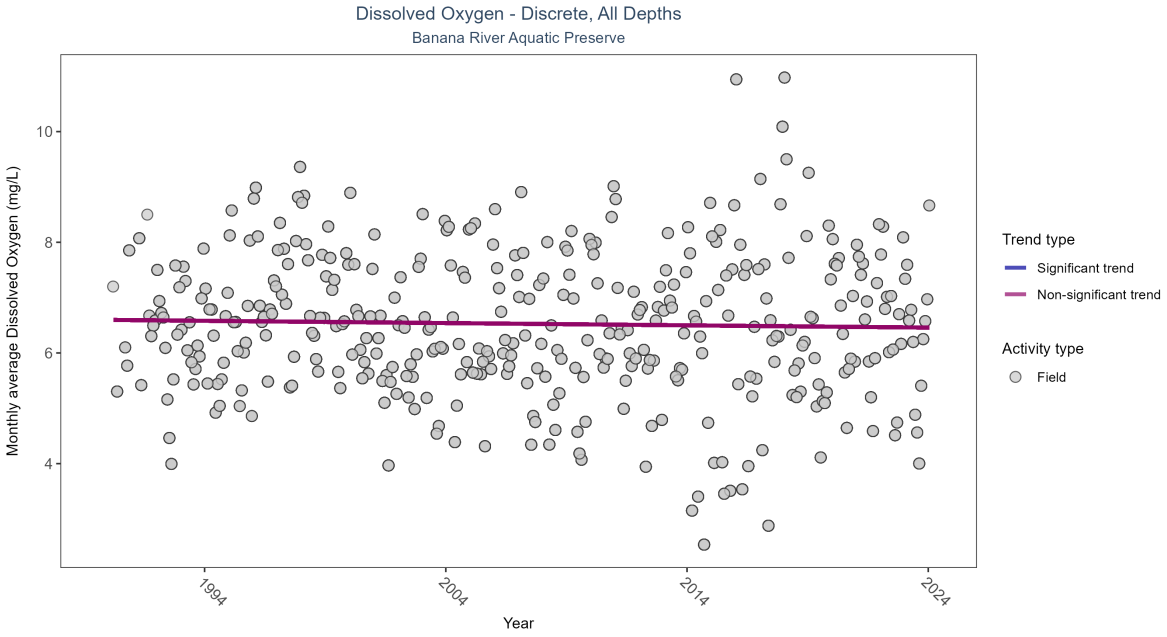

Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	No significant trend	29828	35	1990 - 2024	6.48	-0.0308	6.59734	-0.00409	0.3660

Dissolved Oxygen - Continuous

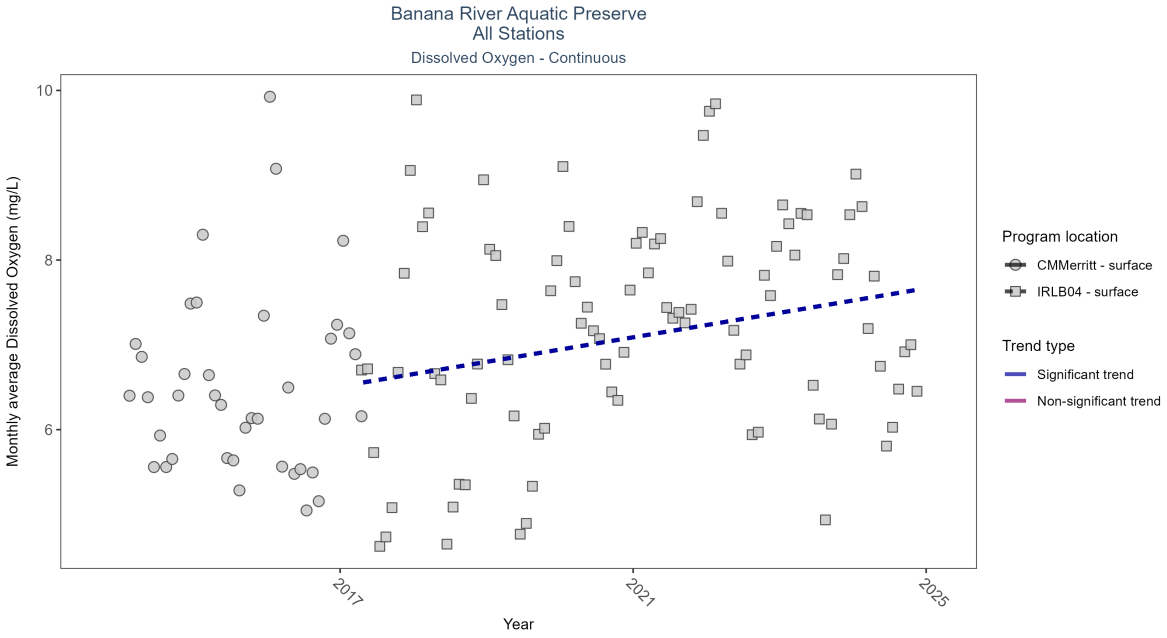

Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CMMerritt	Insufficient data to calculate trend	27378	4	2014 - 2017	6.51	-	-	-	-
IRLB04	Significantly increasing trend	65727	8	2017 - 2024	7.29	0.26	6.51	0.14	0.0022

Dissolved Oxygen Saturation - Discrete

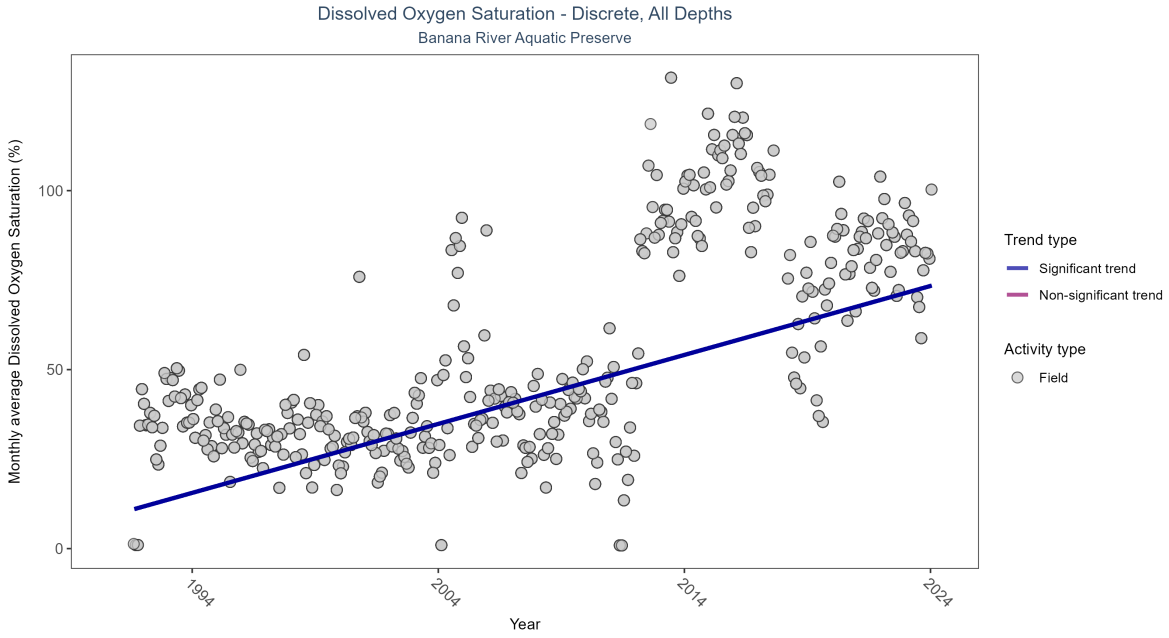

Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly increasing trend	7455	34	1991 - 2024	58	0.449	9.7875	1.92677	0.0000

Dissolved Oxygen Saturation - Continuous

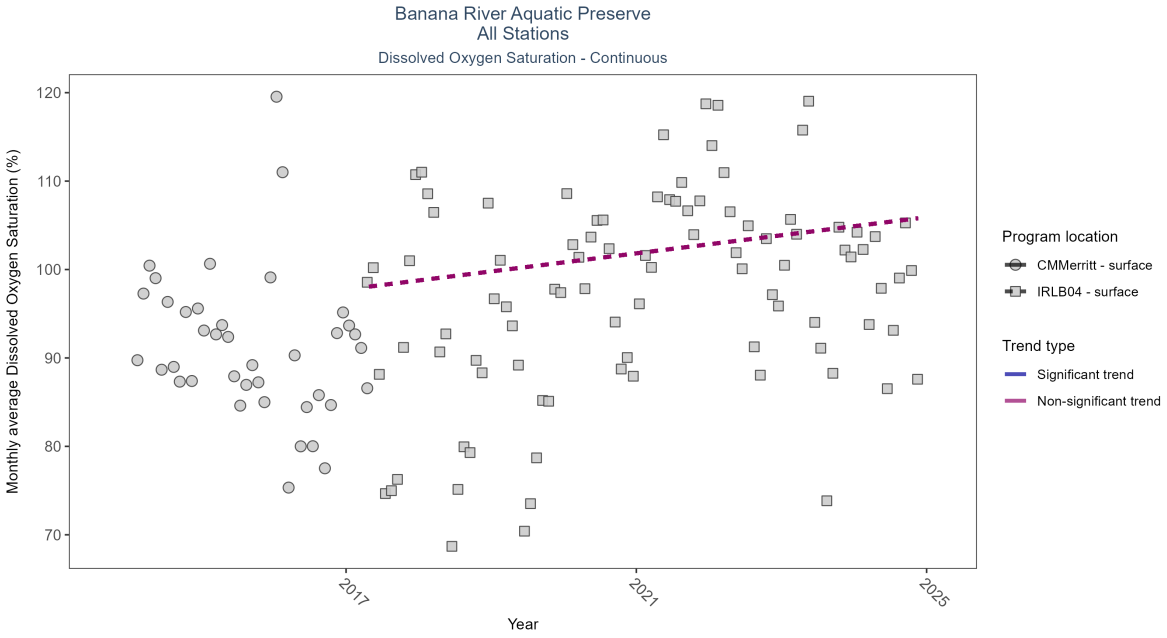

Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CMMerritt	Insufficient data to calculate trend	25864	4	2014 - 2017	91.03	-	-	-	-
IRLB04	No significant trend	78329	8	2017 - 2024	101.46	0.13	97.74	1.02	0.1041

Salinity - Discrete

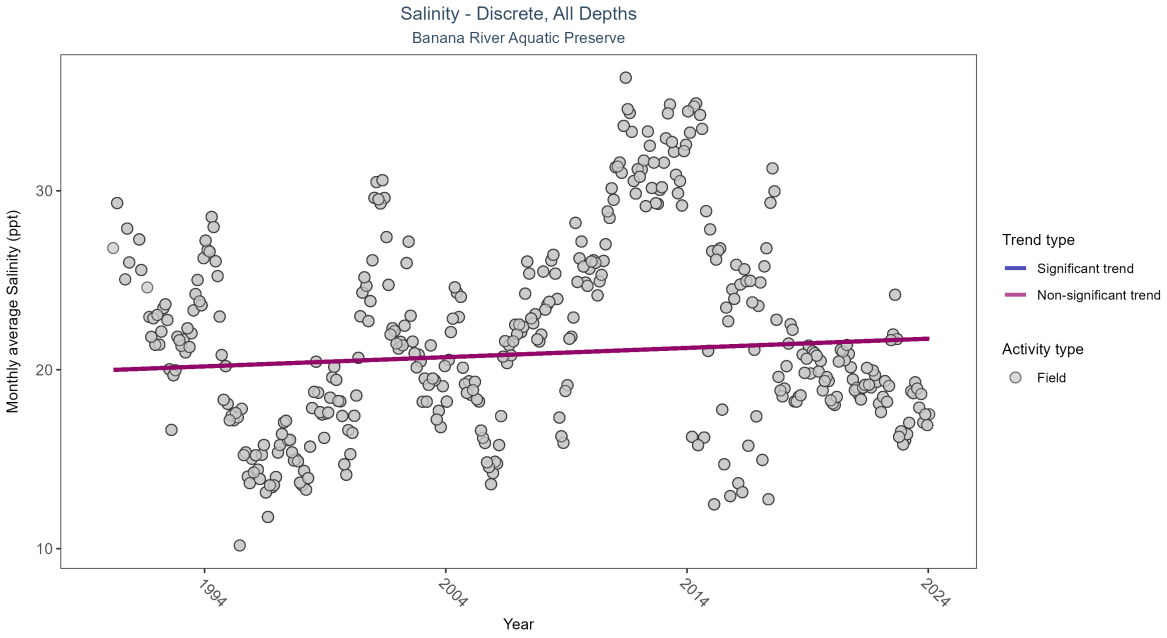

Table 7: Seasonal Kendall-Tau Results for - Salinity

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
All	No significant trend	31351	35	1990 - 2024	19.8	0.0652	19.97985	0.05162	0.0672

Salinity - Continuous

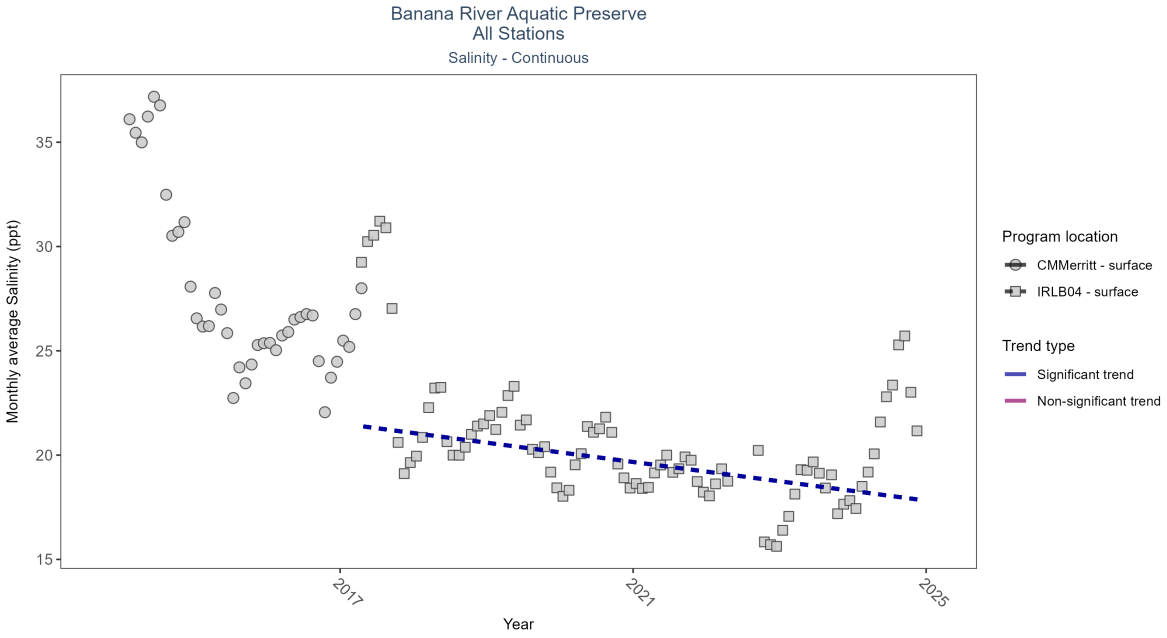

Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CMMerritt	Insufficient data to calculate trend	25902	4	2014 - 2017	26.40	-	-	-	-
IRLB04	Significantly decreasing trend	61864	8	2017 - 2024	19.82	-0.46	21.52	-0.46	0.0000

Water Temperature - Discrete

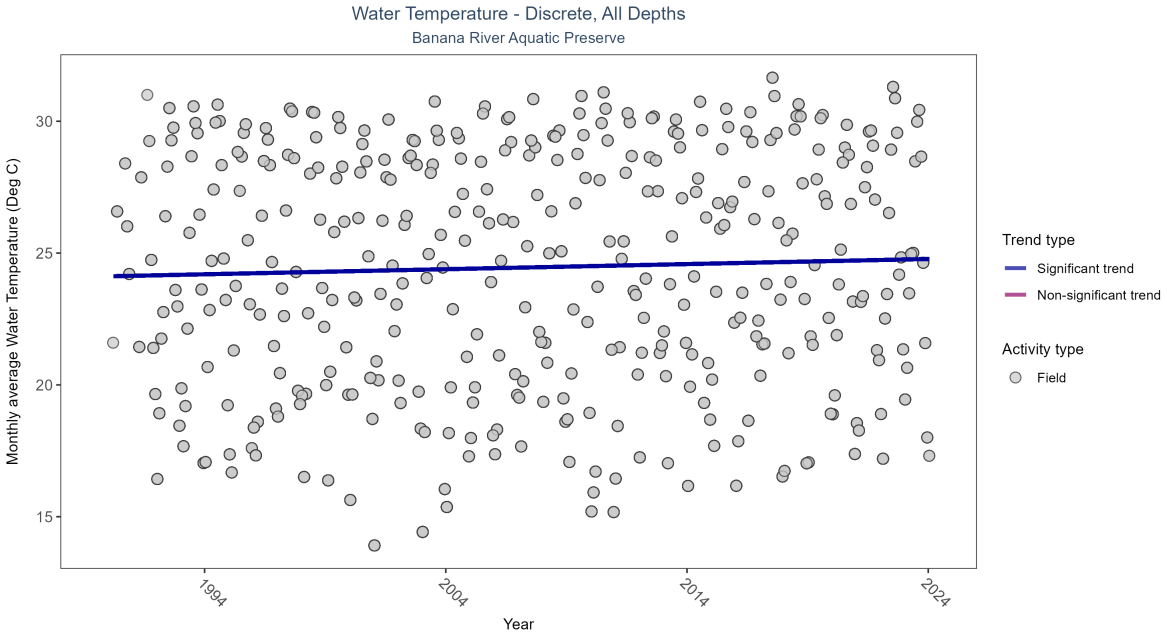

Table 9: Seasonal Kendall-Tau Results for - Water Temperature

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly increasing trend	31300	35	1990 - 2024	25.5	0.108	24.11772	0.01936	0.0023

Water Temperature - Continuous

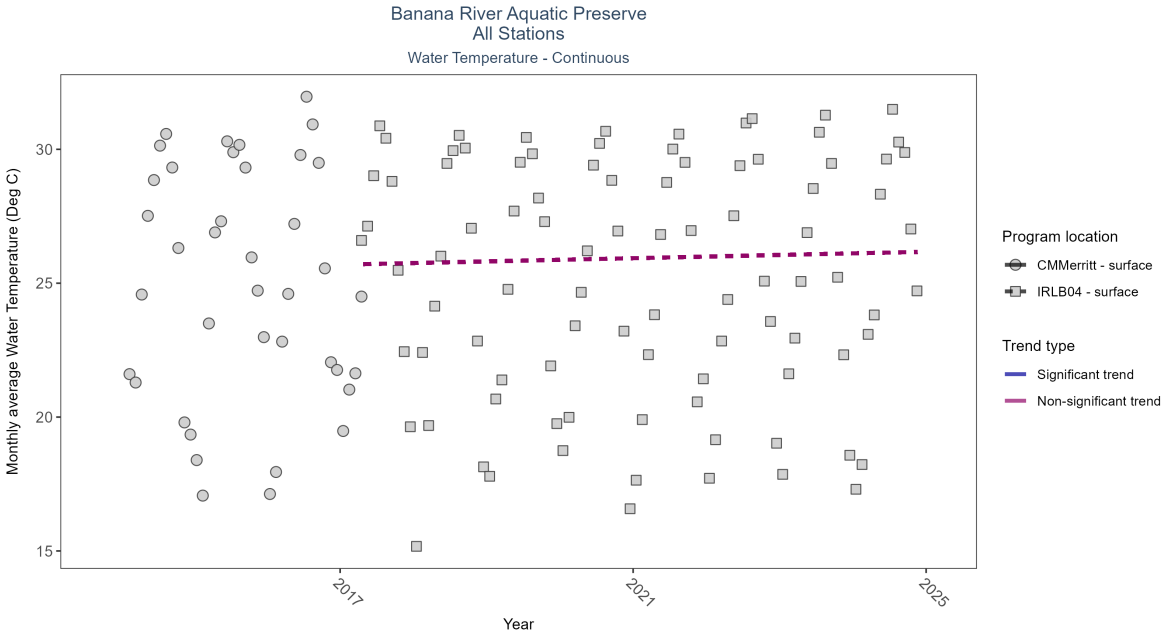

Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
IRLB04	No significant trend	65731	8	2017 - 2024	25.90	0.1	25.69	0.06	0.2413
CMMerritt	Insufficient data to calculate trend	27484	4	2014 - 2017	25.43	-	-	-	-

pH - Discrete

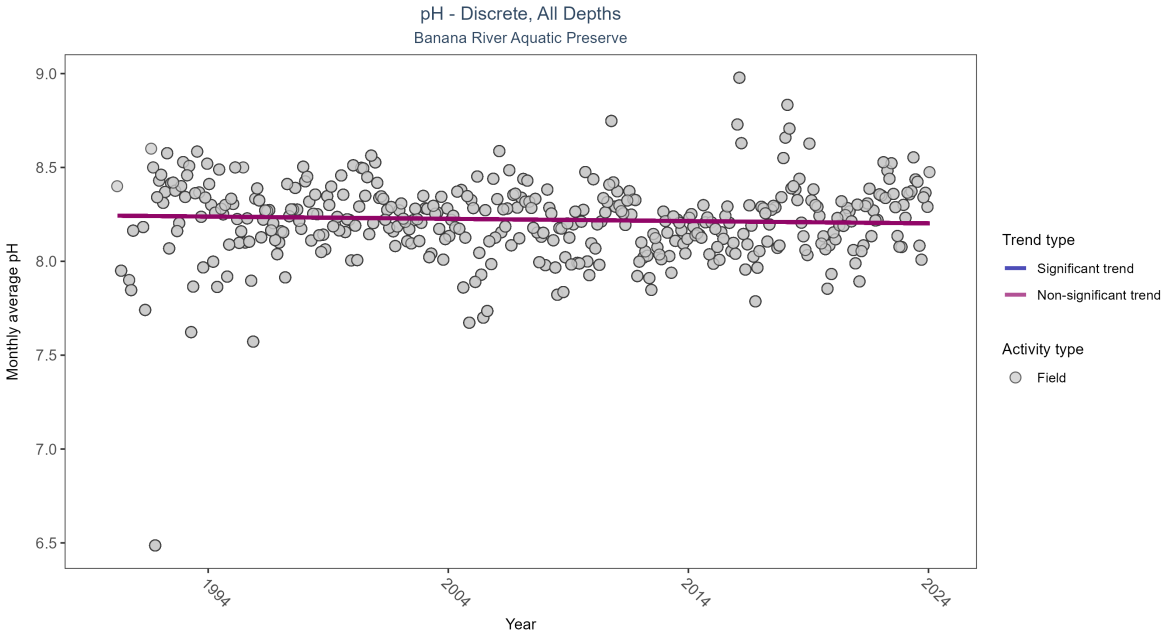

Table 11: Seasonal Kendall-Tau Results for - pH

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	No significant trend	22717	35	1990 - 2024	8.2	-0.0414	8.24329	-0.00121	0.2599

pH - Continuous

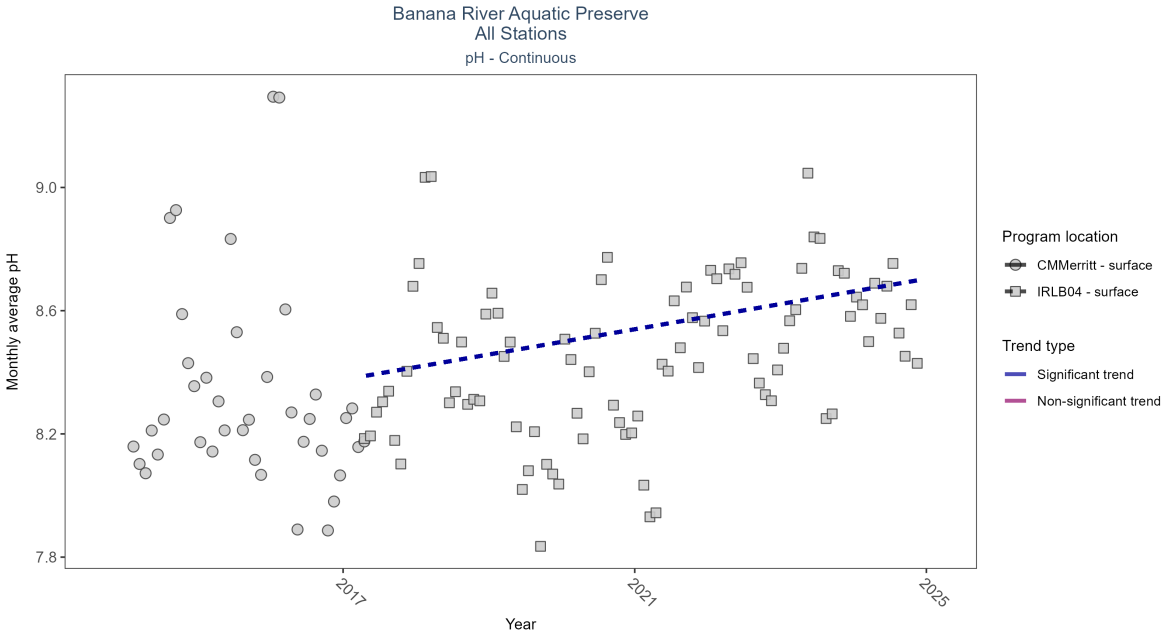

Table 12: Seasonal Kendall-Tau Results for All Stations - pH

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CMMerritt	Insufficient data to calculate trend	27417	4	2014 - 2017	8.22	-	-	-	-
IRLB04	Significantly increasing trend	65643	8	2017 - 2024	8.48	0.27	8.38	0.04	0.0008

Water Clarity

Turbidity - Discrete

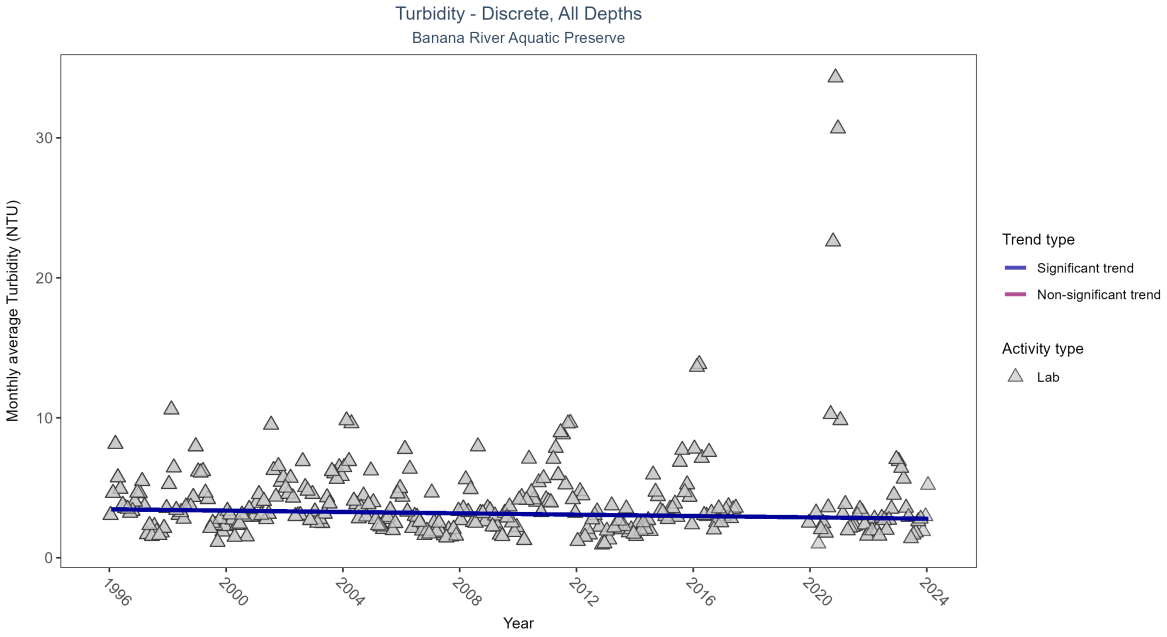

Table 13: Seasonal Kendall-Tau Results for - Turbidity

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	13427	28	1996 - 2024	3.2	-0.0902	3.46631	-0.02409	0.0256

Turbidity - Continuous

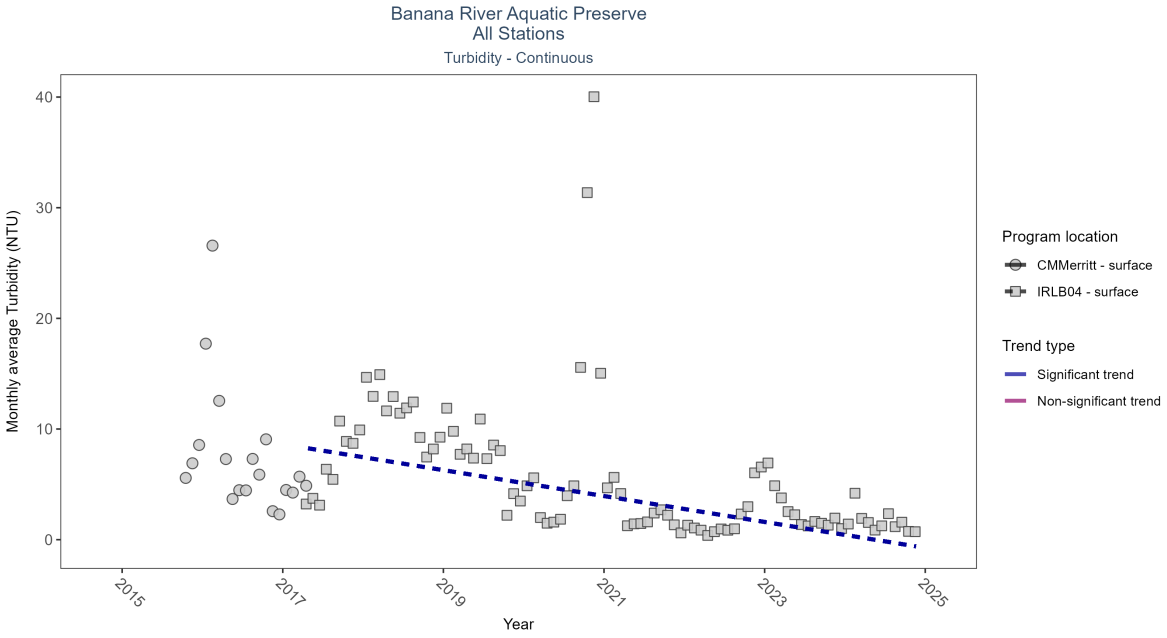

Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
IRLB04	Significantly decreasing trend	62930	8	2017 - 2024	3.18	-0.6	8.62	-1.17	0.0000
CMMerritt	Insufficient data to calculate trend	12912	3	2015 - 2017	5.29	-	-	-	-

Total Suspended Solids - Discrete

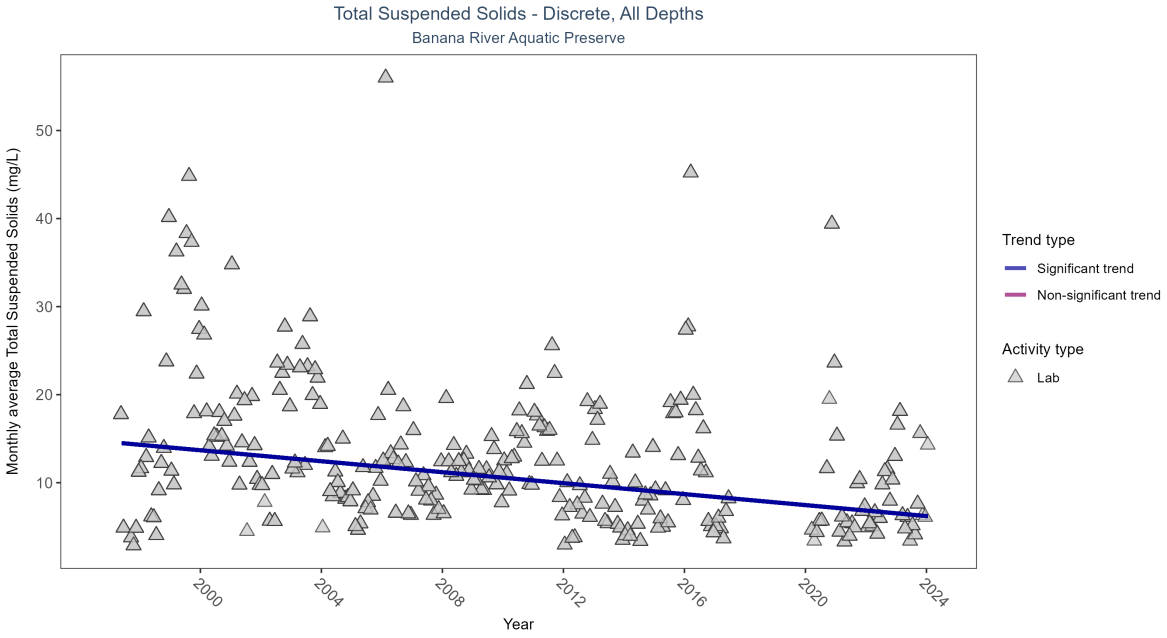

Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	2416	26	1997 - 2024	10	-0.2639	14.61993	-0.3114	0.0000

Chlorophyll a, Uncorrected for Pheophytin - Discrete

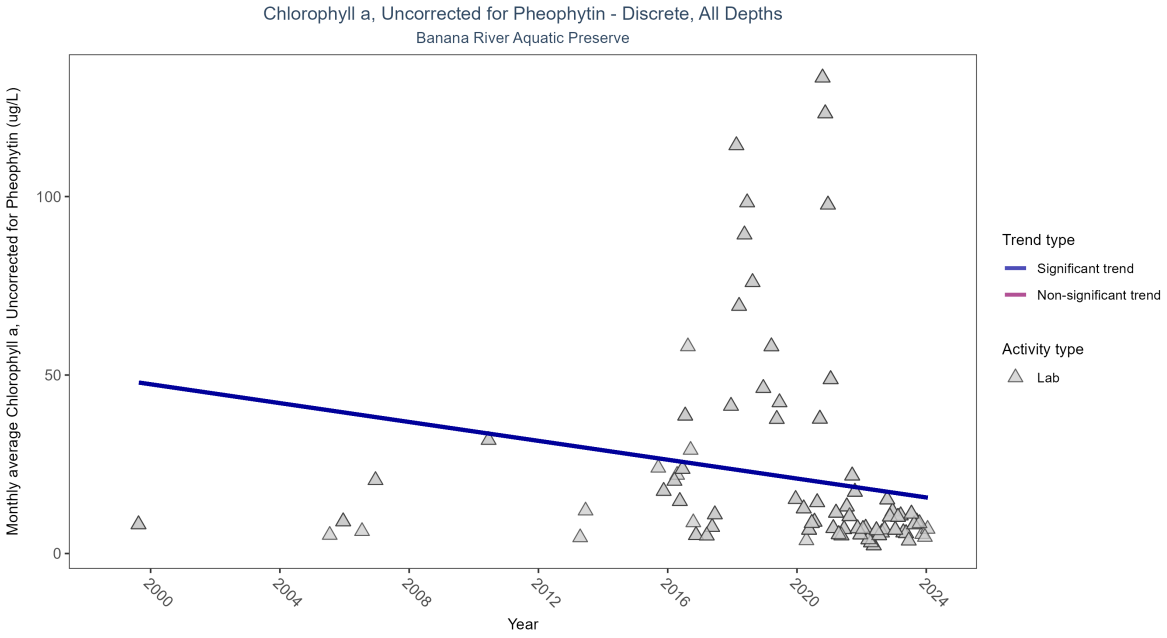

Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	386	15	1999 - 2024	8.47787	-0.3217	48.73476	-1.32103	0.0003

Chlorophyll a, Corrected for Pheophytin - Discrete

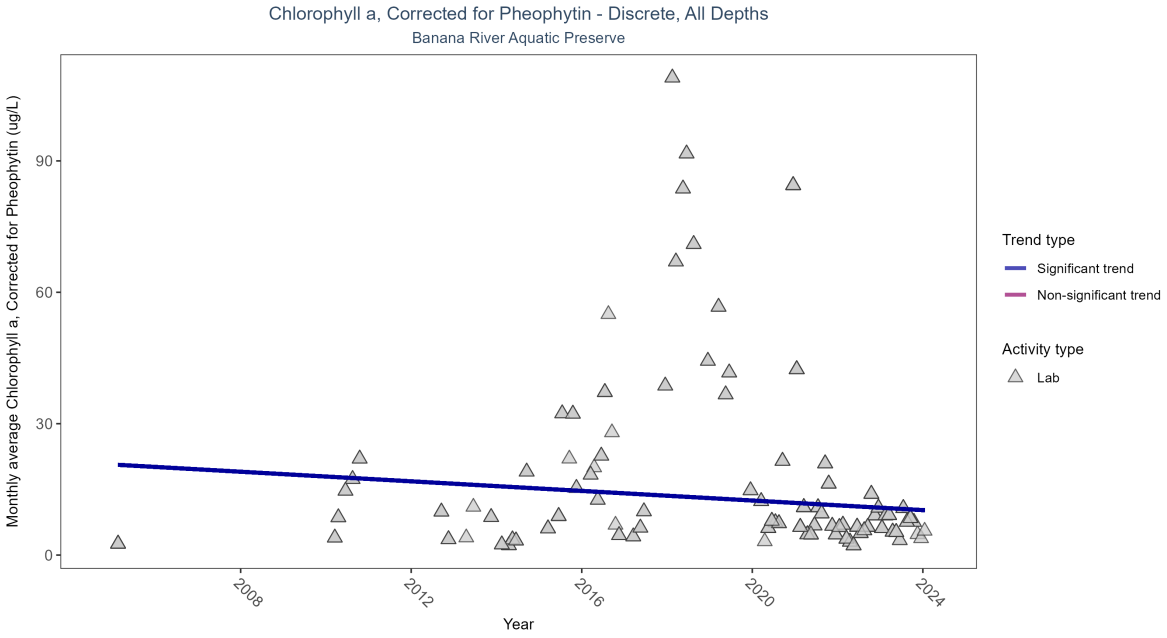

Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Significantly decreasing trend	475	15	2005 - 2024	7.0221	-0.2346	20.67029	-0.54761	0.0154

Secchi Depth - Discrete

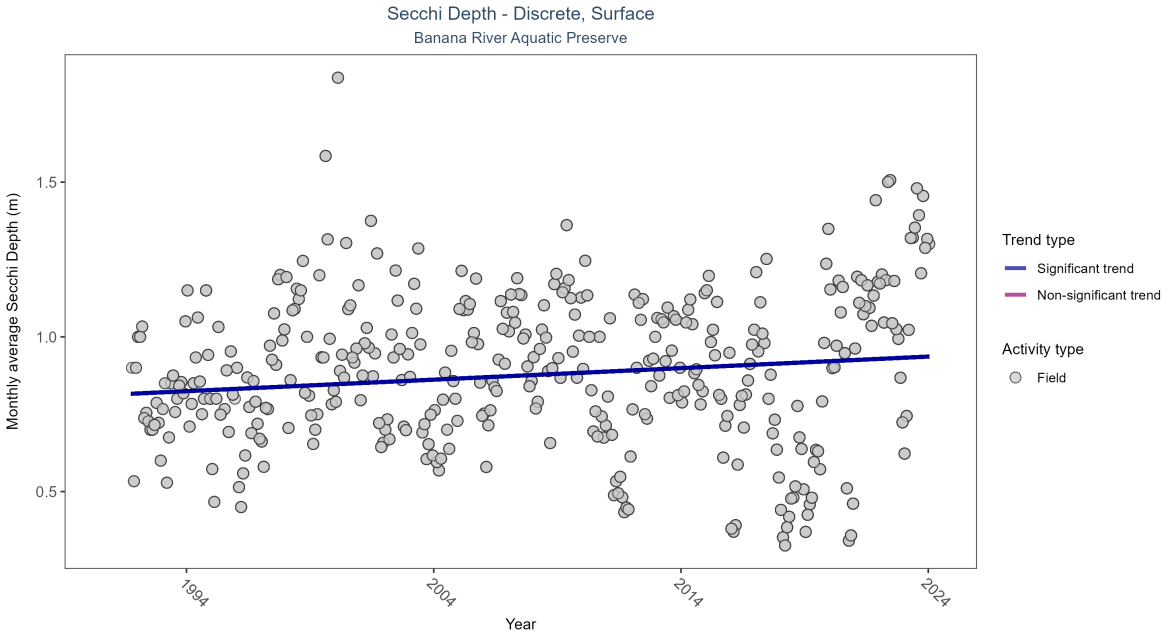

Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Field	Significantly increasing trend	8795	34	1991 - 2024	0.85	0.091	0.81327	0.00373	0.0112

Colored Dissolved Organic Matter - Discrete

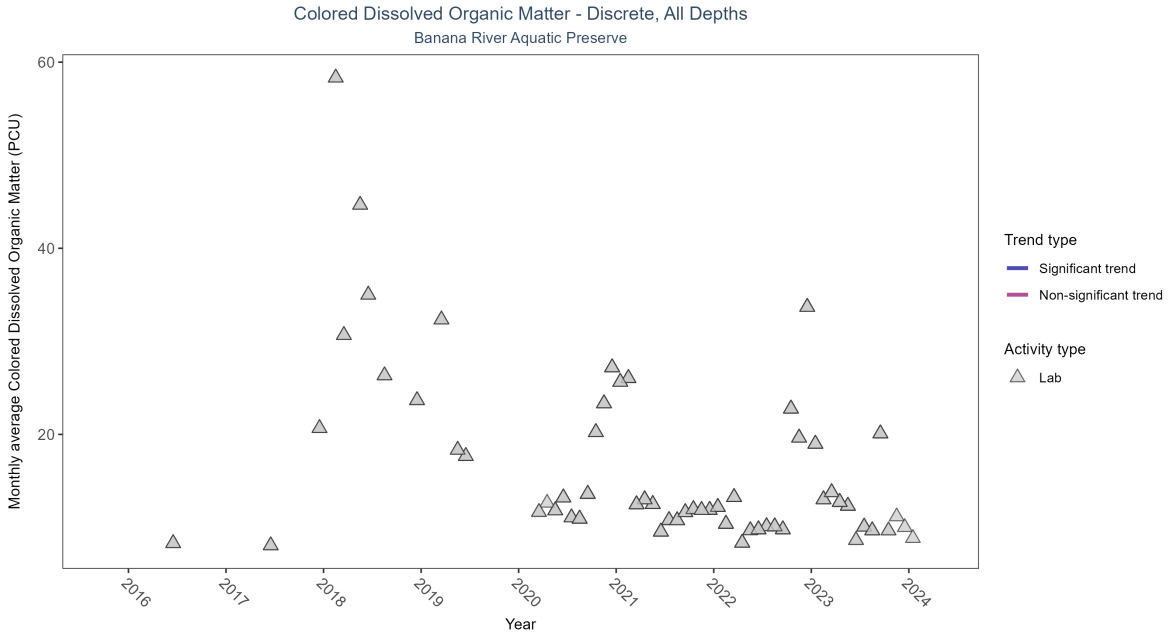

Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

Activity Type	Statistical Trend	Sample Count	Years with Data	Period of Record	Median Result Value	Tau	Sen Intercept	Sen Slope	P
Lab	Insufficient data to calculate trend	332	9	2016 - 2024	11.8761	-	-	-	NA