

Banana River Aquatic Preserve

SEACAR Discrete Water Quality Analysis

Last compiled on 14 August, 2024

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Indicators

Nutrients

Total Nitrogen - Discrete

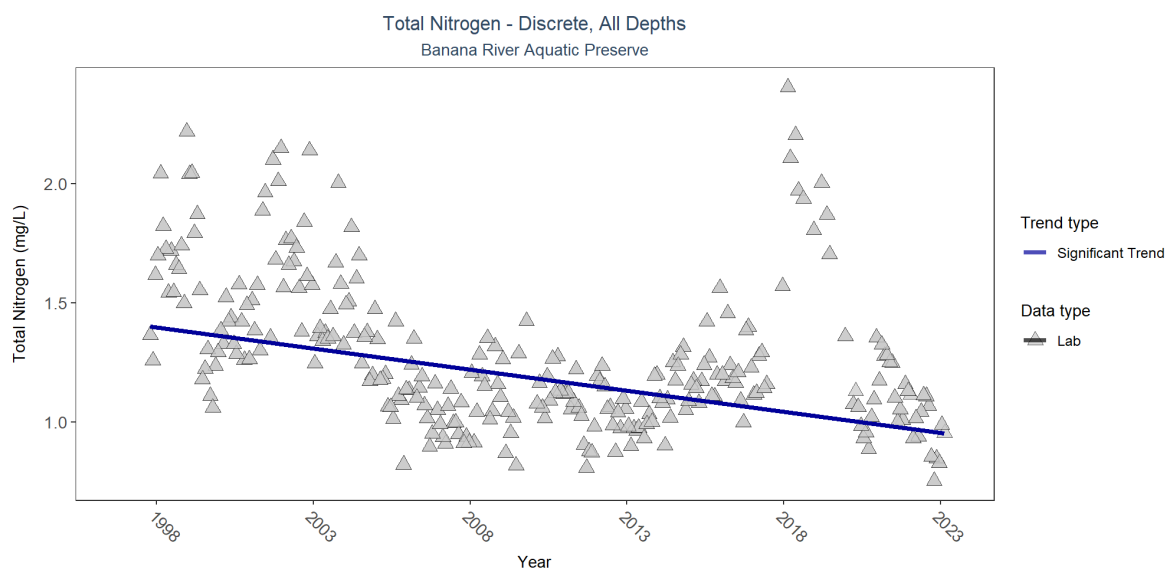


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	2150	27	1997 - 2023	1.24	-0.3448	1.41562	-0.01771	0.0000

Total Phosphorus - Discrete

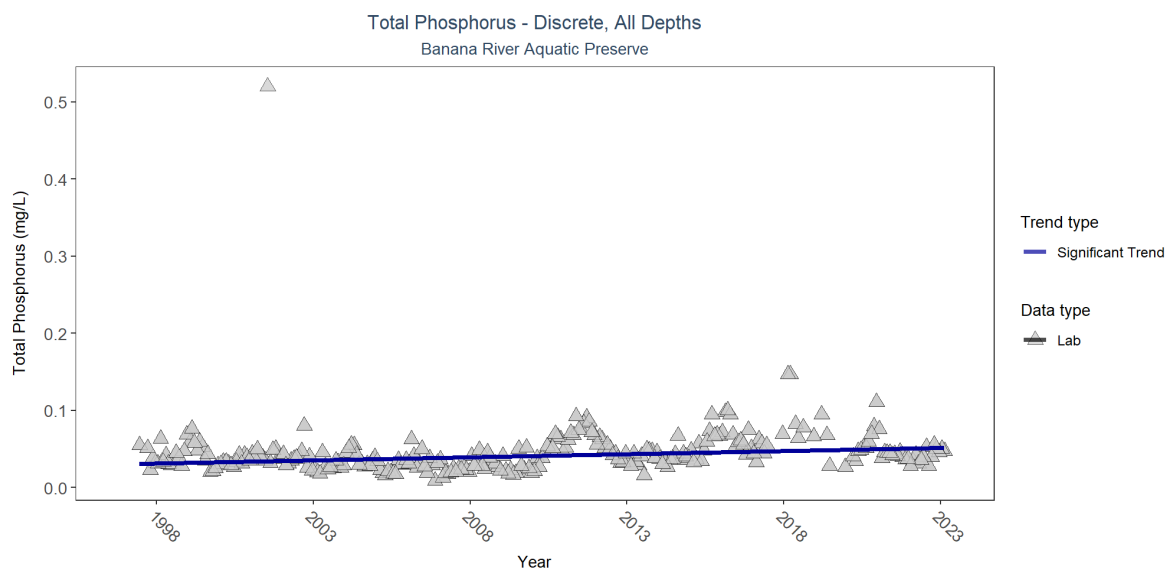


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	4553	27	1997 - 2023	0.0354	0.2394	0.03067	0.00079	0.0000

Water Quality

Dissolved Oxygen - Discrete

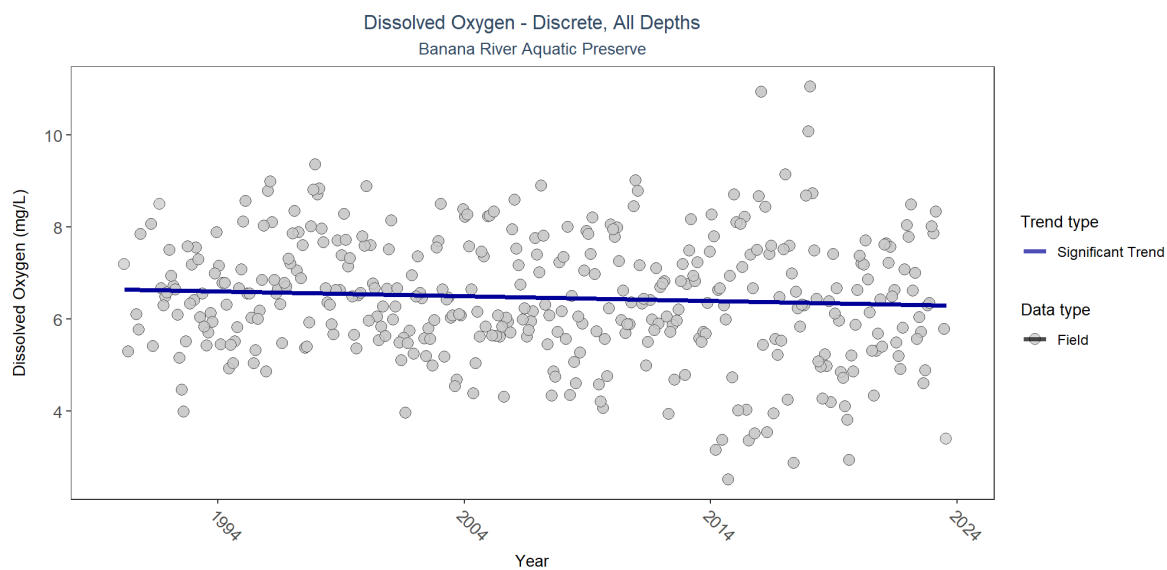


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	29112	34	1990 - 2023	6.42	-0.0719	6.64361	-0.01016	0.0412

Dissolved Oxygen - Continuous

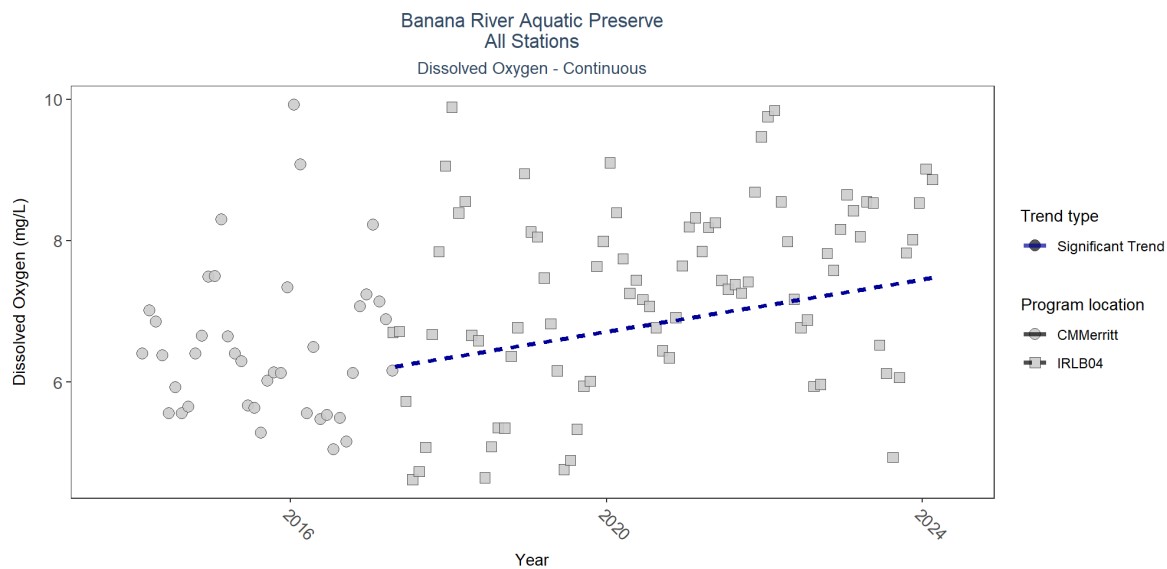


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

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	59376	8	2017 - 2024	7.35	0.36	6.16	0.18	0.0001

Dissolved Oxygen Saturation - Discrete

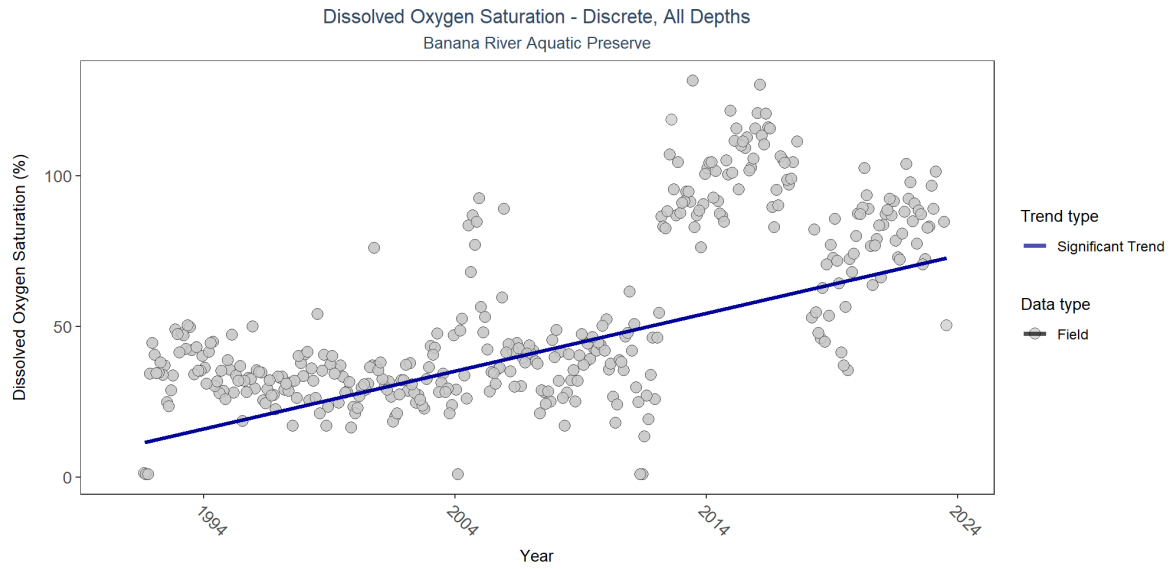


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	7294	33	1991 - 2023	56.475	0.4448	10.34417	1.91673	0.0000

Dissolved Oxygen Saturation - Continuous

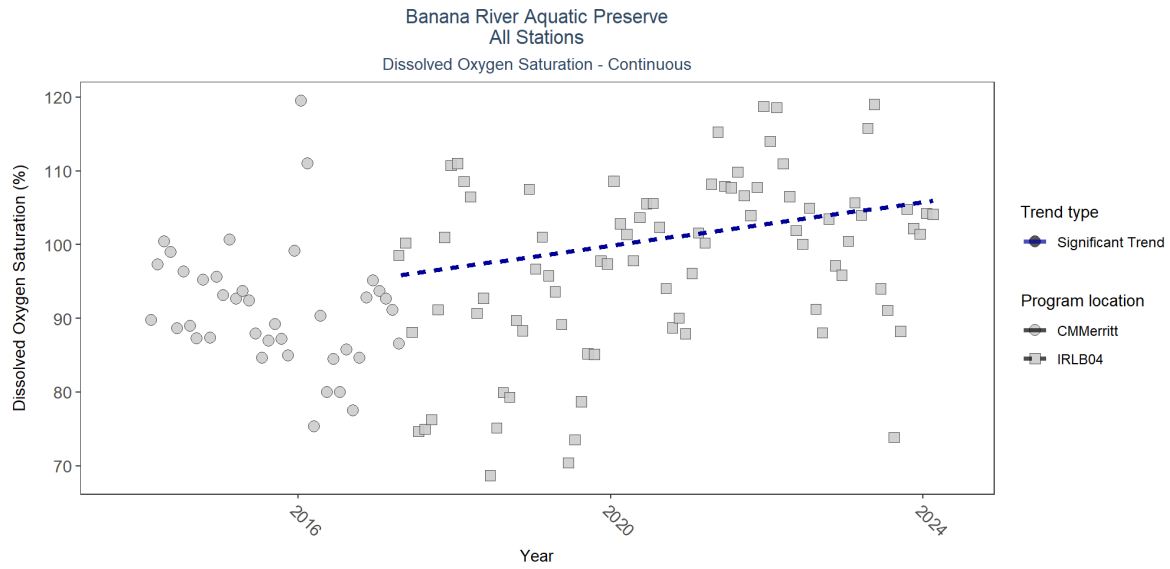


Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

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	Significantly increasing trend	68458	8	2017 - 2024	100.94	0.23	95.41	1.48	0.0155

Salinity - Discrete

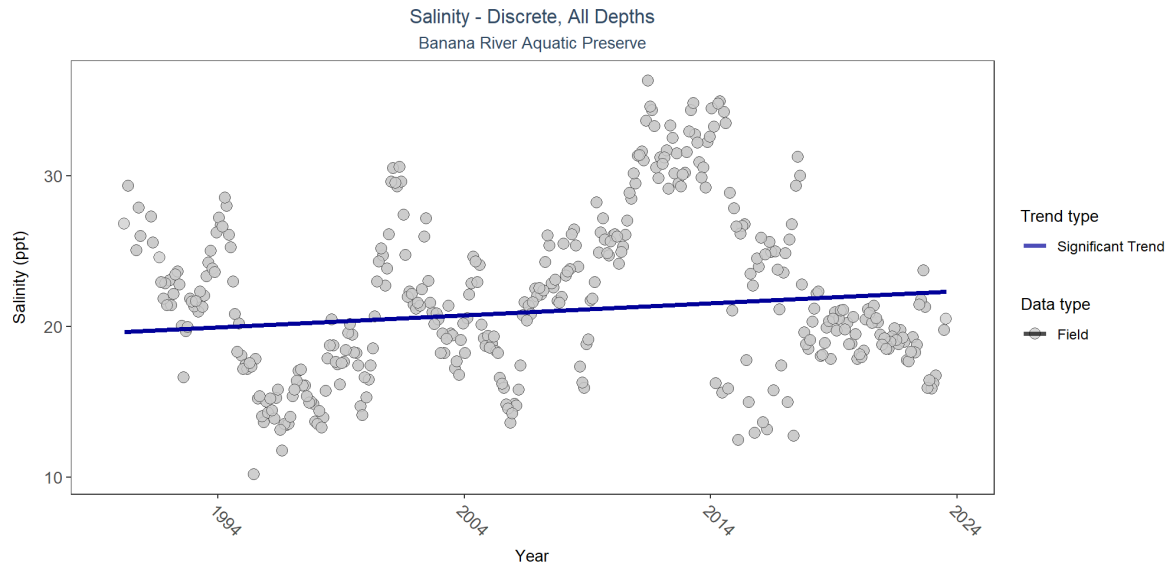


Table 7: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	Significantly increasing trend	30601	34	1990 - 2023	19.8	0.0905	19.61702	0.08018	0.0117

Salinity - Continuous

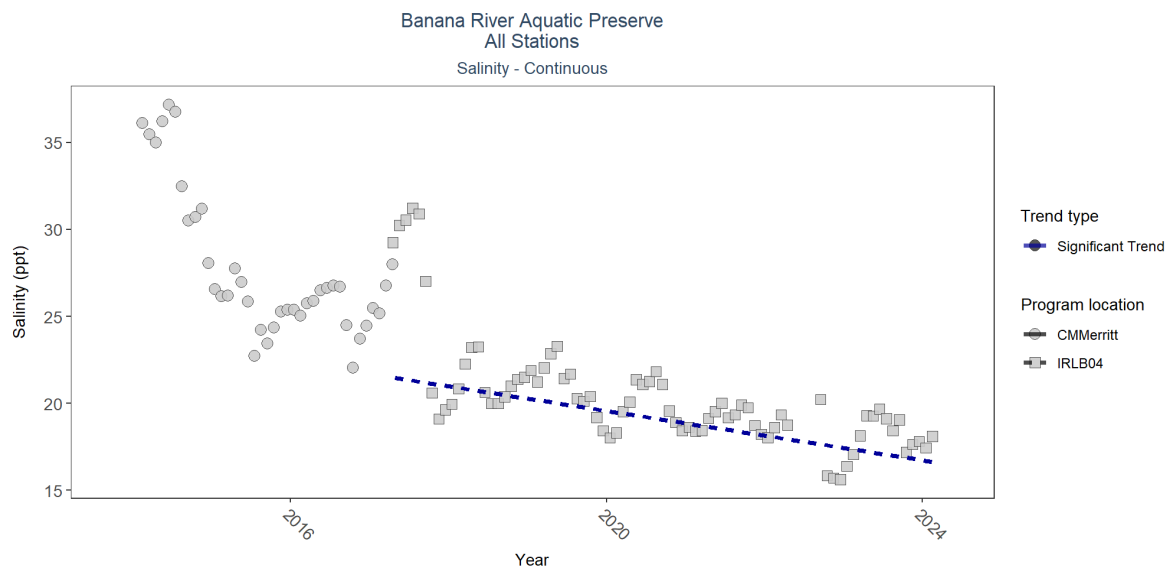


Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

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	26.4	-	-	-	-
IRLB04	Significantly decreasing trend	55516	8	2017 - 2024	19.7	-0.71	21.7	-0.71	0.0000

Water Temperature - Discrete

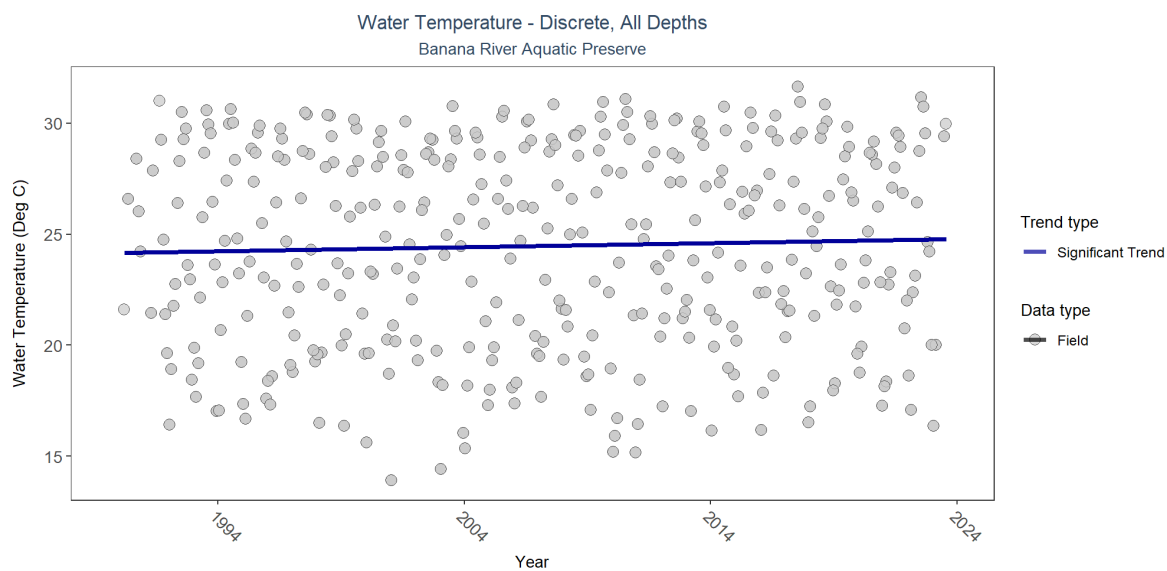


Table 9: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	30599	34	1990 - 2023	25.5	0.0902	24.16082	0.01831	0.0120

Water Temperature - Continuous

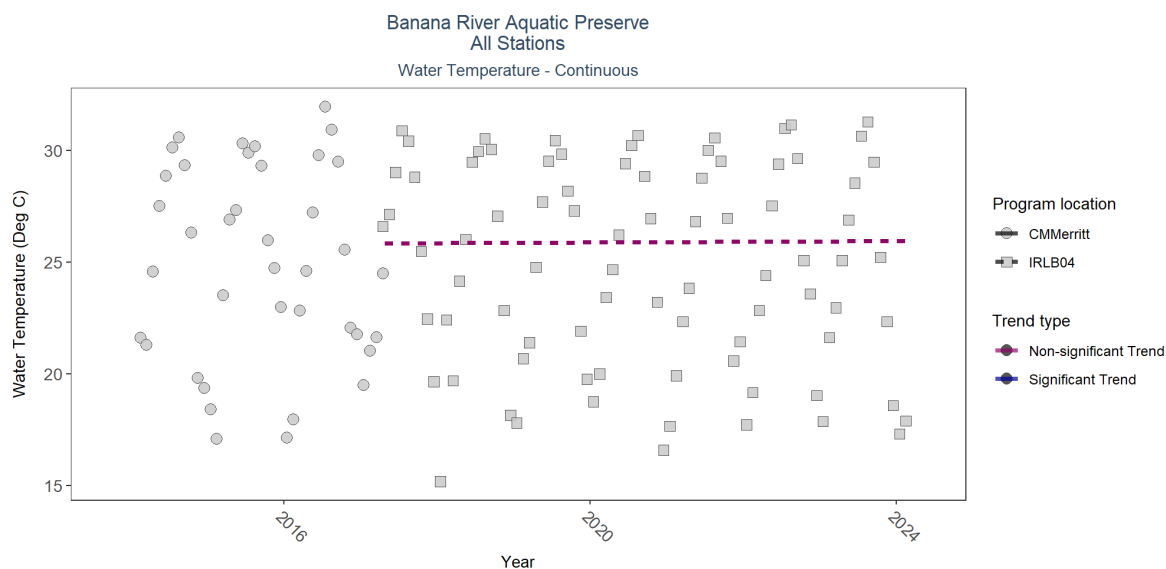


Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CMMerritt	Insufficient data to calculate trend	27484	4	2014 - 2017	25.43	-	-	-	-
IRLB04	No significant trend	59380	8	2017 - 2024	25.68	0.02	25.82	0.02	0.8949

pH - Discrete

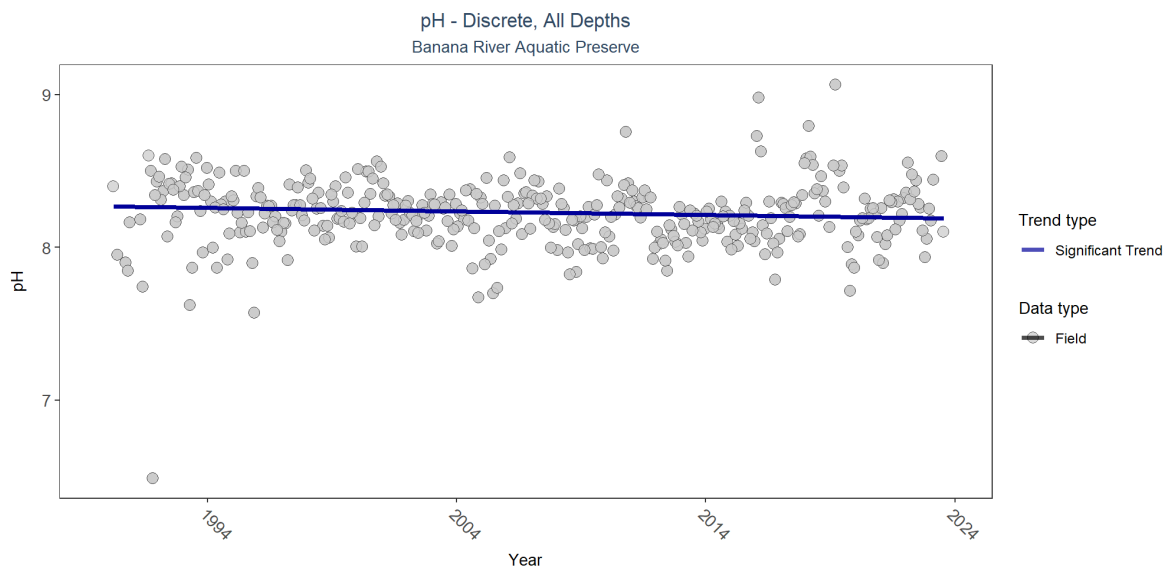


Table 11: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	22007	34	1990 - 2023	8.2	-0.0771	8.26725	-0.00225	0.0374

pH - Continuous

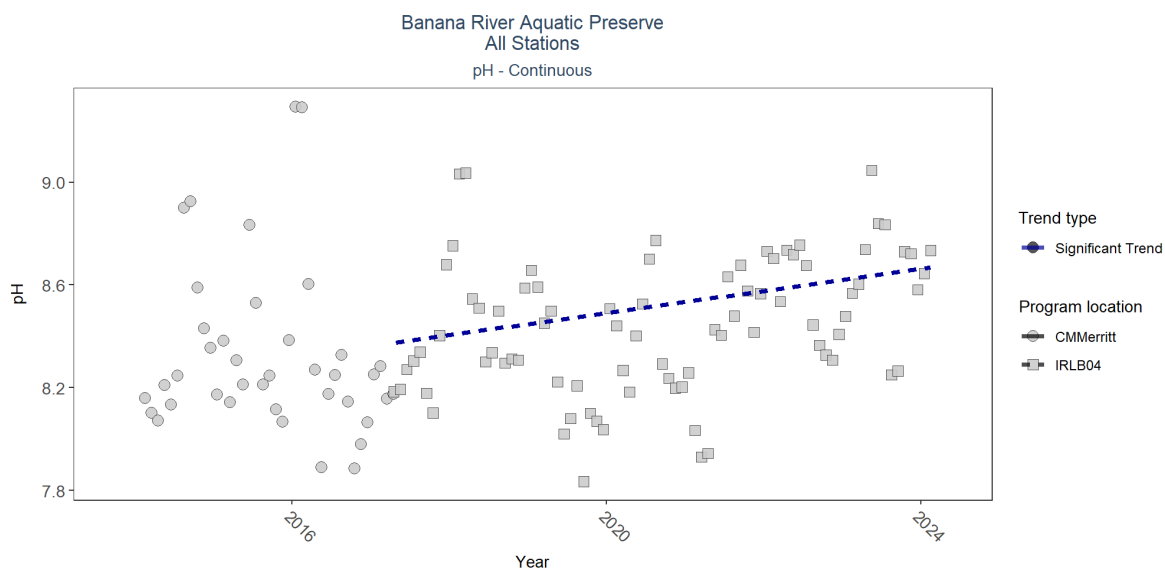


Table 12: Seasonal Kendall-Tau Results for All Stations - pH

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	59293	8	2017 - 2024	8.45	0.23	8.36	0.04	0.0121

Water Clarity

Turbidity - Discrete

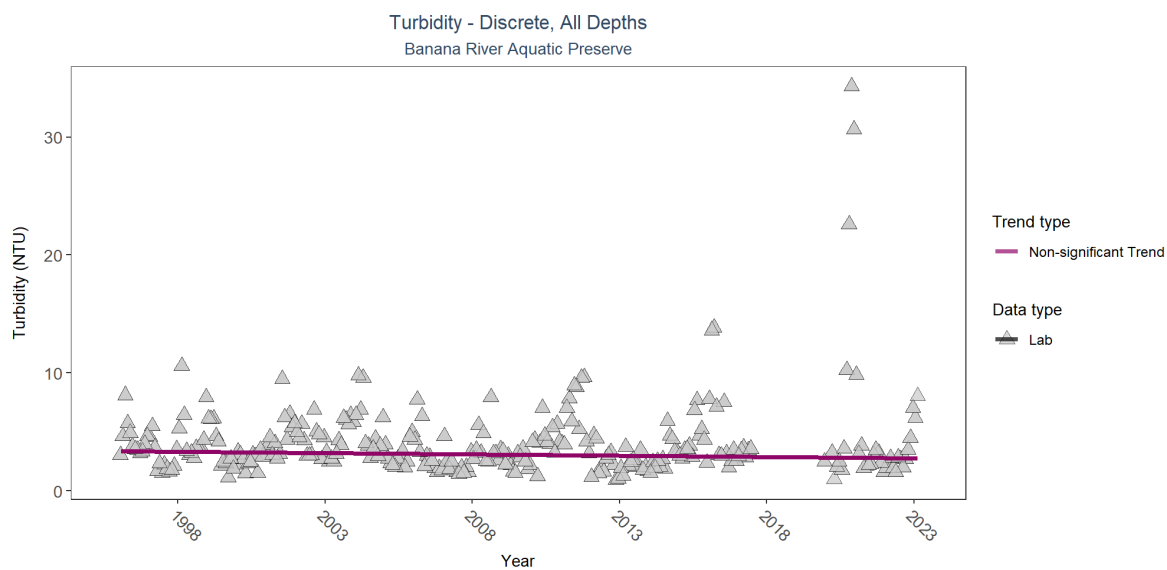


Table 13: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	13360	27	1996 - 2023	3.2	-0.0738	3.37237	-0.02177	0.0693

Turbidity - Continuous

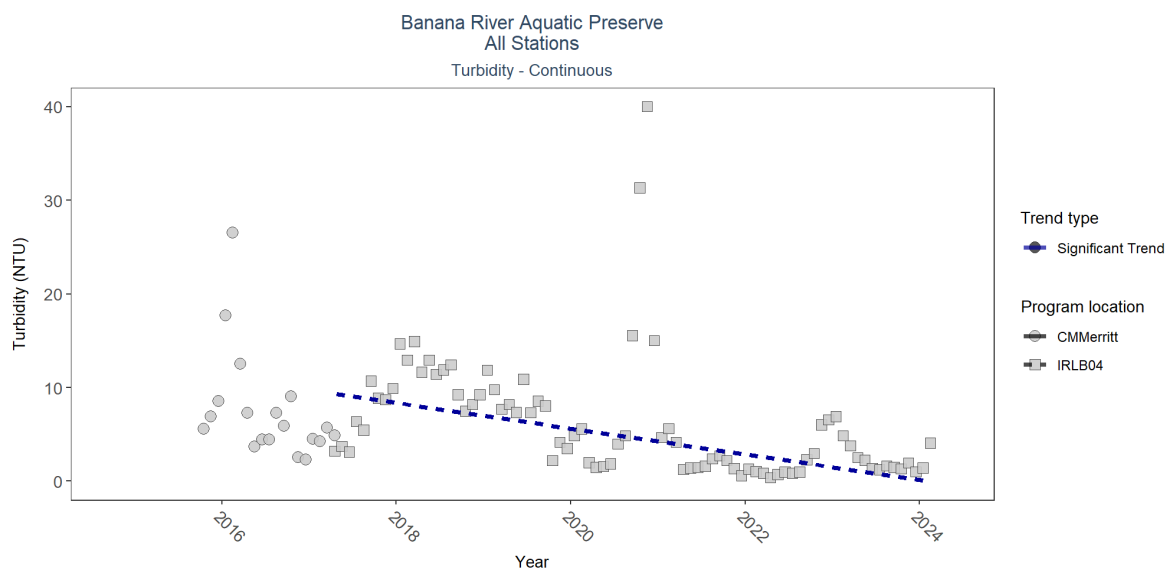


Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CMMerritt	Insufficient data to calculate trend	12912	3	2015 - 2017	5.29	-	-	-	-
IRLB04	Significantly decreasing trend	57363	8	2017 - 2024	3.69	-0.59	9.73	-1.37	0.0000

Total Suspended Solids - Discrete

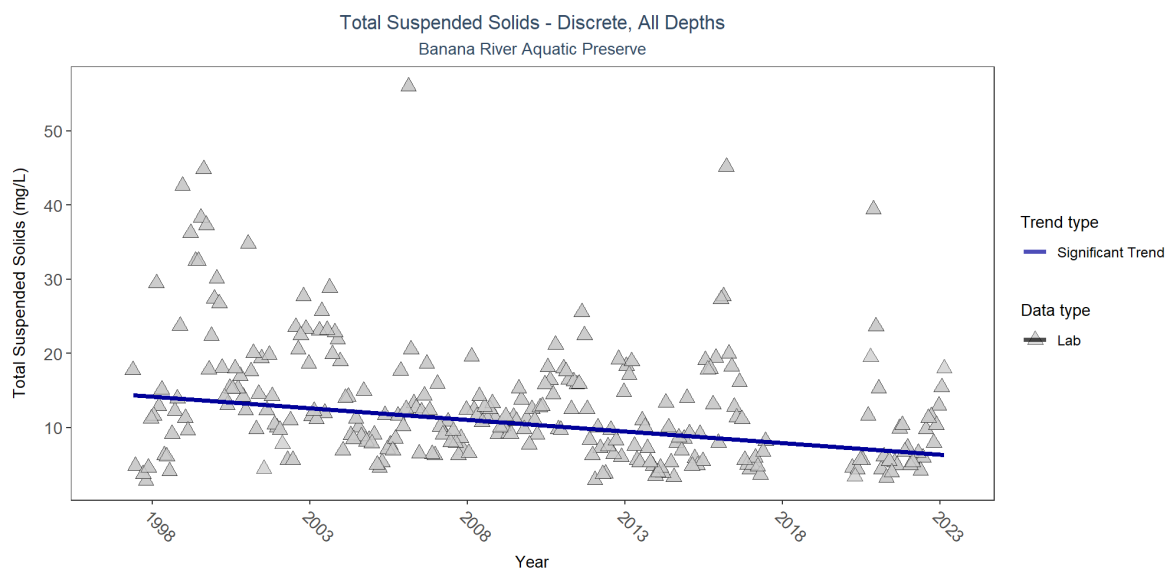


Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	2347	25	1997 - 2023	10	-0.2456	14.48356	-0.31148	0.0000

Chlorophyll a, Uncorrected for Pheophytin - Discrete

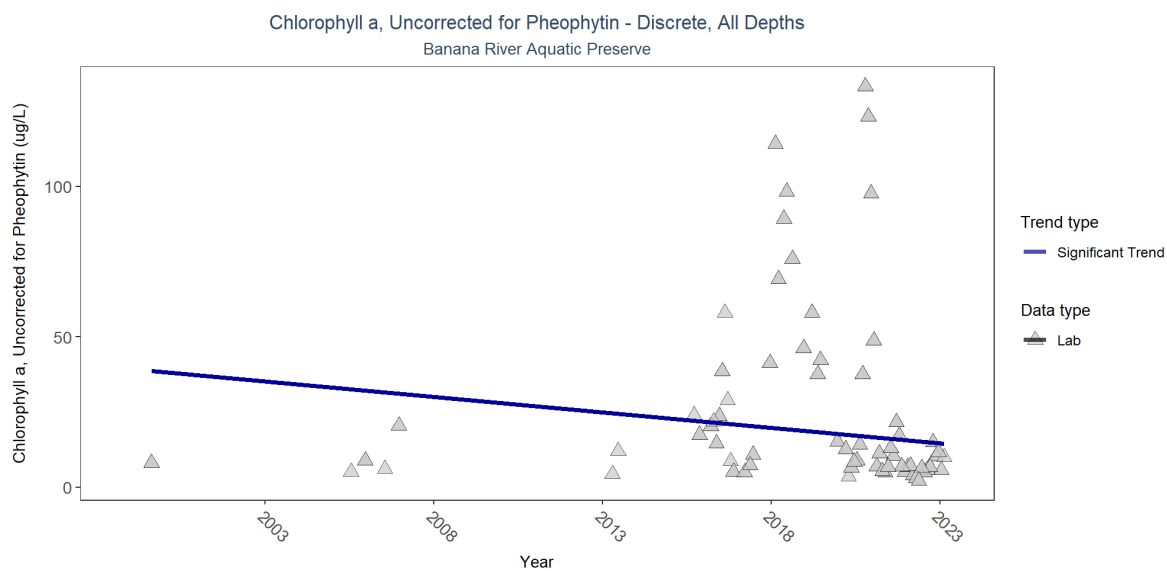


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	324	13	1999 - 2023	8.7	-0.2931	39.40114	-1.03193	0.0073

Chlorophyll a, Corrected for Pheophytin - Discrete

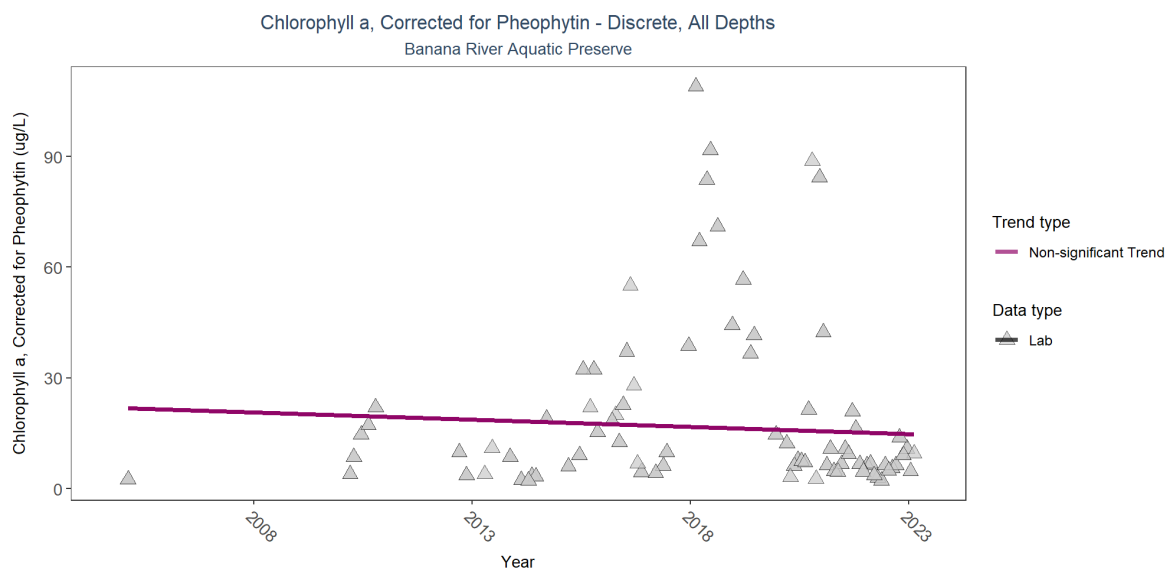


Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	418	14	2005 - 2023	7.1	-0.1813	21.84385	-0.38867	0.1174

Secchi Depth - Discrete

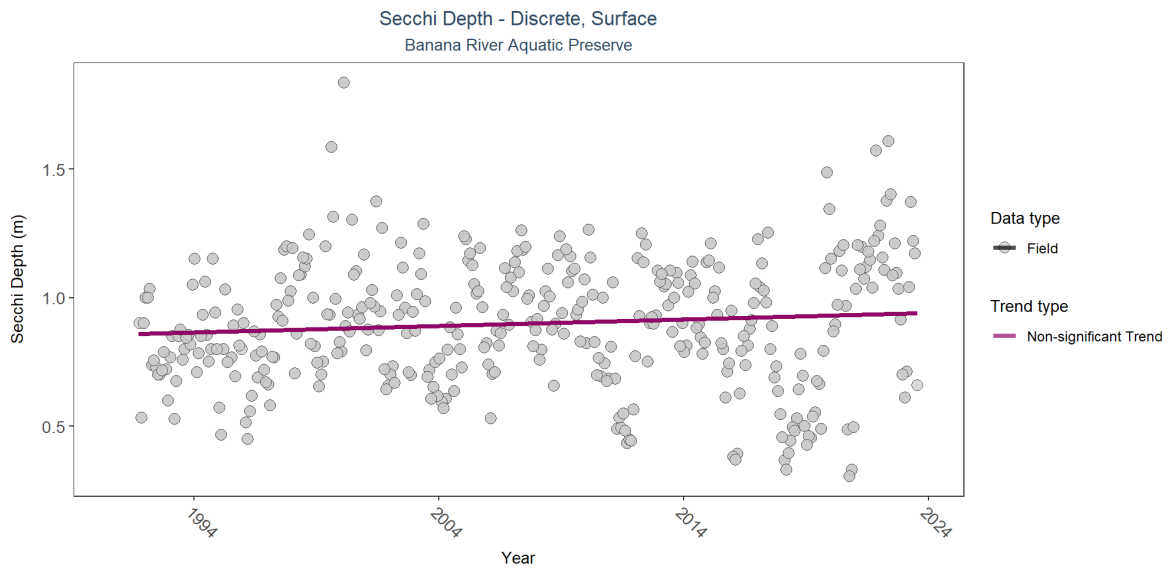


Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	7892	33	1991 - 2023	0.8	0.0647	0.85604	0.00254	0.0712

Colored Dissolved Organic Matter - Discrete

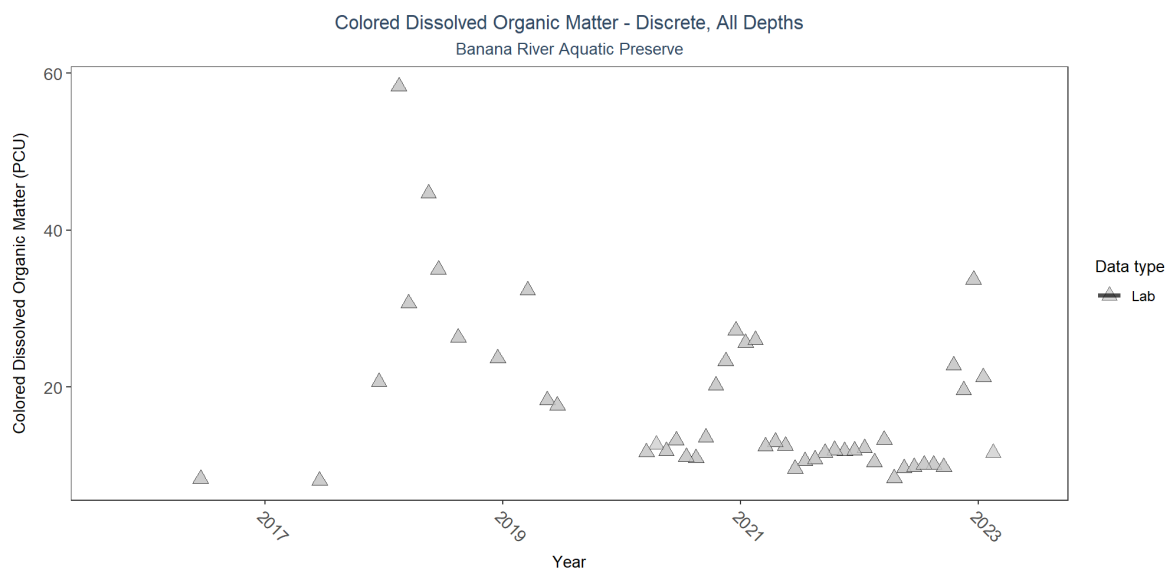


Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Insufficient data to calculate trend	274	8	2016 - 2023	11.8882	-	-	-	NA