

# Jensen Beach to Jupiter Inlet Aquatic Preserve

## SEACAR Water Quality Analysis

Last compiled on 09 January, 2025

### Contents

<b>Indicators</b>	<b>2</b>
Nutrients . . . . .	2
Total Nitrogen - Discrete . . . . .	2
Total Phosphorus - Discrete . . . . .	3
Water Quality . . . . .	4
Dissolved Oxygen - Discrete . . . . .	4
Dissolved Oxygen Saturation - Discrete . . . . .	5
Salinity - Discrete . . . . .	6
Salinity - Continuous . . . . .	7
Water Temperature - Discrete . . . . .	8
Water Temperature - Continuous . . . . .	9
pH - Discrete . . . . .	10
Water Clarity . . . . .	11
Turbidity - Discrete . . . . .	11
Total Suspended Solids - Discrete . . . . .	12
Chlorophyll a, Uncorrected for Pheophytin - Discrete . . . . .	13
Chlorophyll a, Corrected for Pheophytin - Discrete . . . . .	14
Secchi Depth - Discrete . . . . .	15
Colored Dissolved Organic Matter - Discrete . . . . .	16

# Indicators

## Nutrients

### Total Nitrogen - Discrete

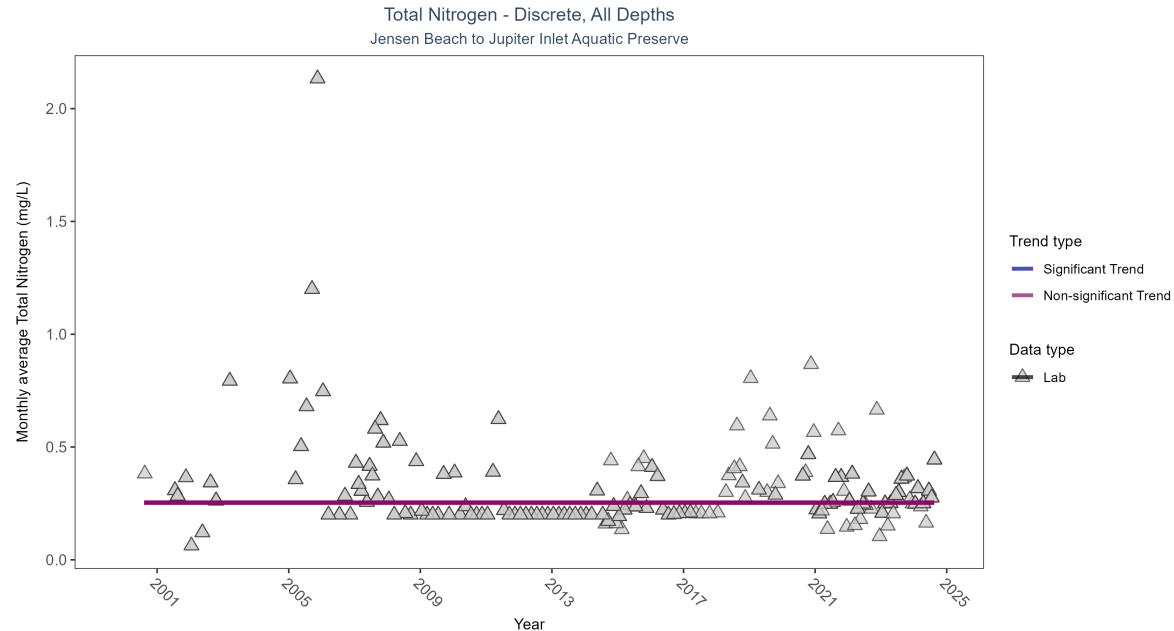


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	629	24	2000 - 2024	0.251	-0.0016	0.25345	0	0.9778

## Total Phosphorus - Discrete

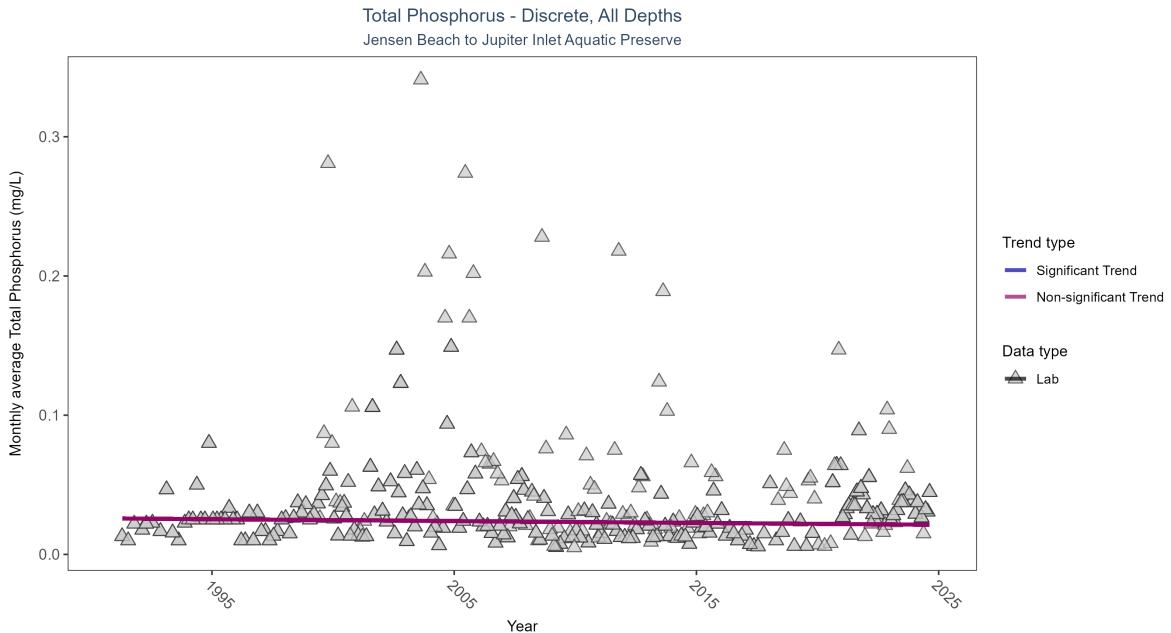


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	1135	34	1991 - 2024	0.026	-0.0674	0.02581	-0.00013	0.1584

## Water Quality

### Dissolved Oxygen - Discrete

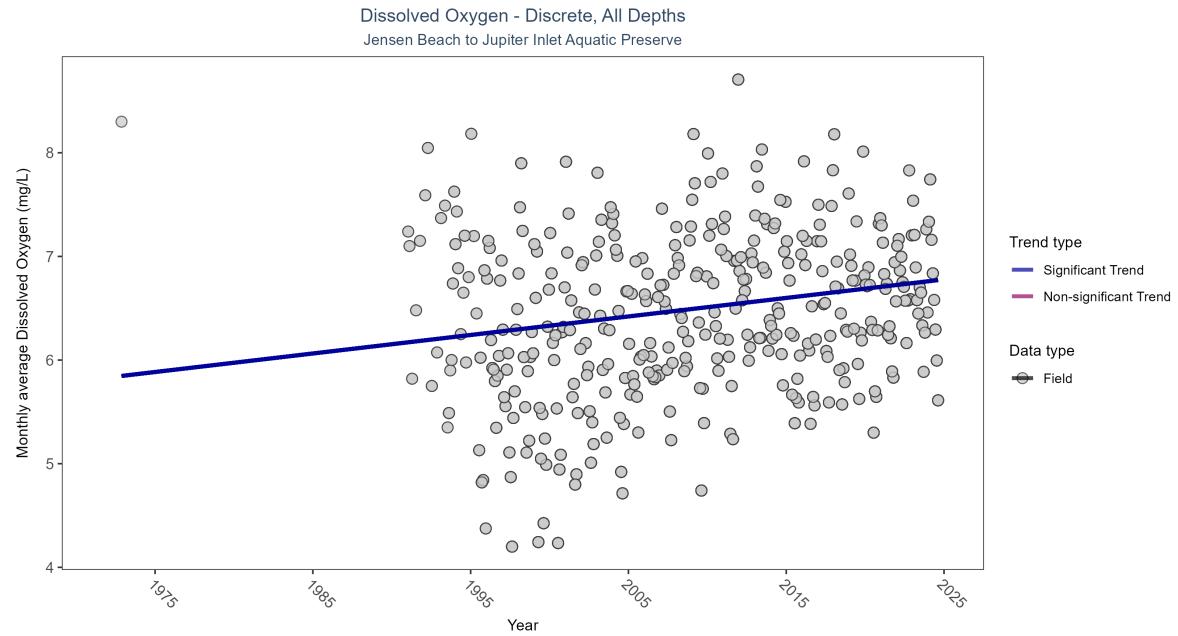


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	10687	35	1972 - 2024	6.4	0.2016	5.83105	0.01787	0.0000

## Dissolved Oxygen Saturation - Discrete

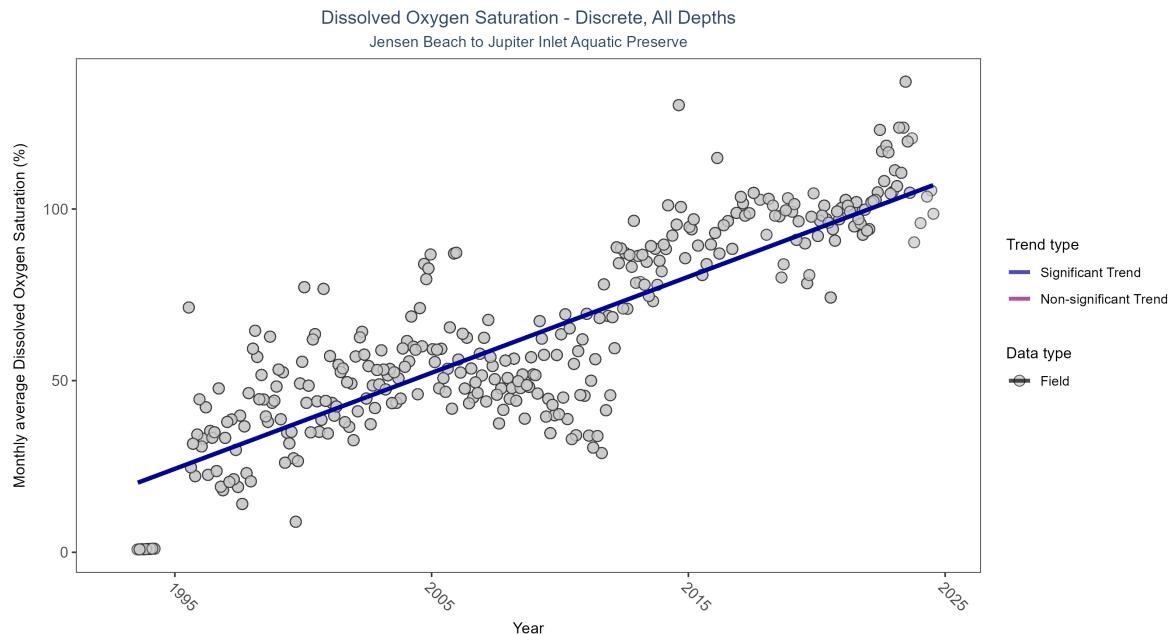


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	4222	32	1993 - 2024	79.082	0.6763	18.71729	2.79786	0.0000

## Salinity - Discrete

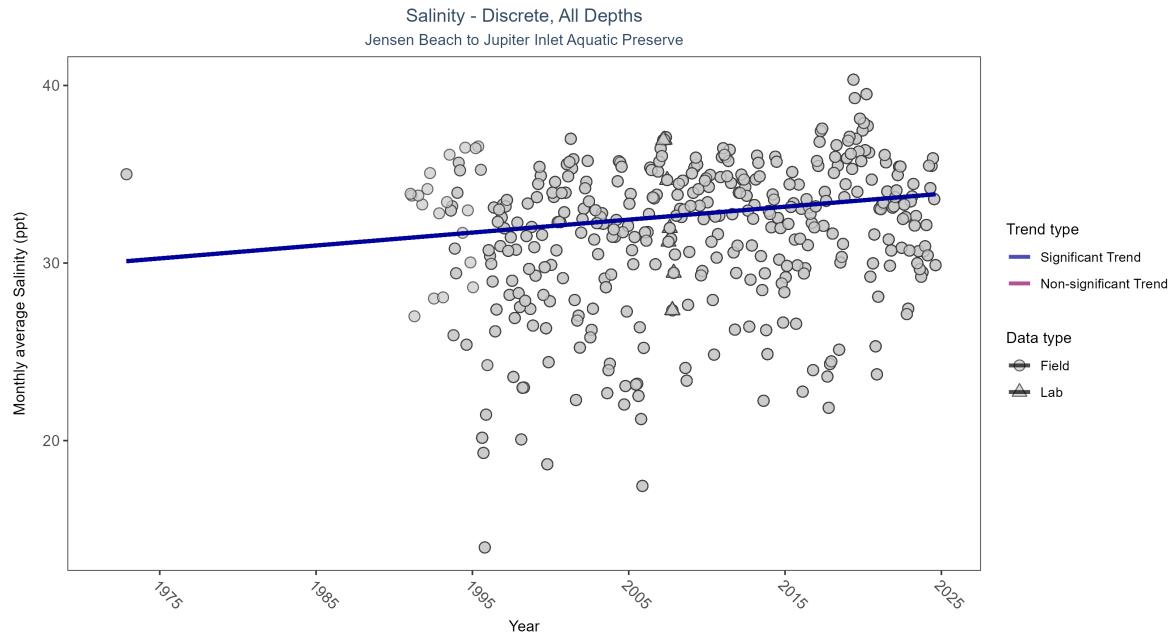


Table 5: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	Significantly increasing trend	10708	35	1972 - 2024	32.8	0.1504	30.04103	0.07281	0.0000

## Salinity - Continuous

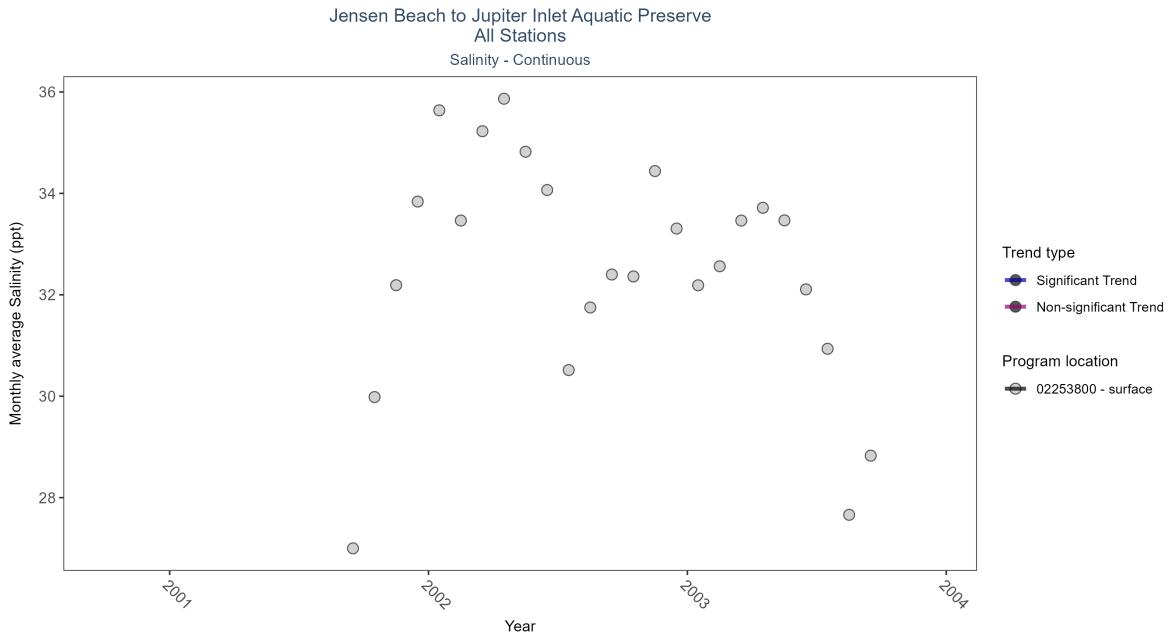


Table 6: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02253800	Insufficient data to calculate trend	1213	3	2001 - 2003	33	-	-	-	-

## Water Temperature - Discrete

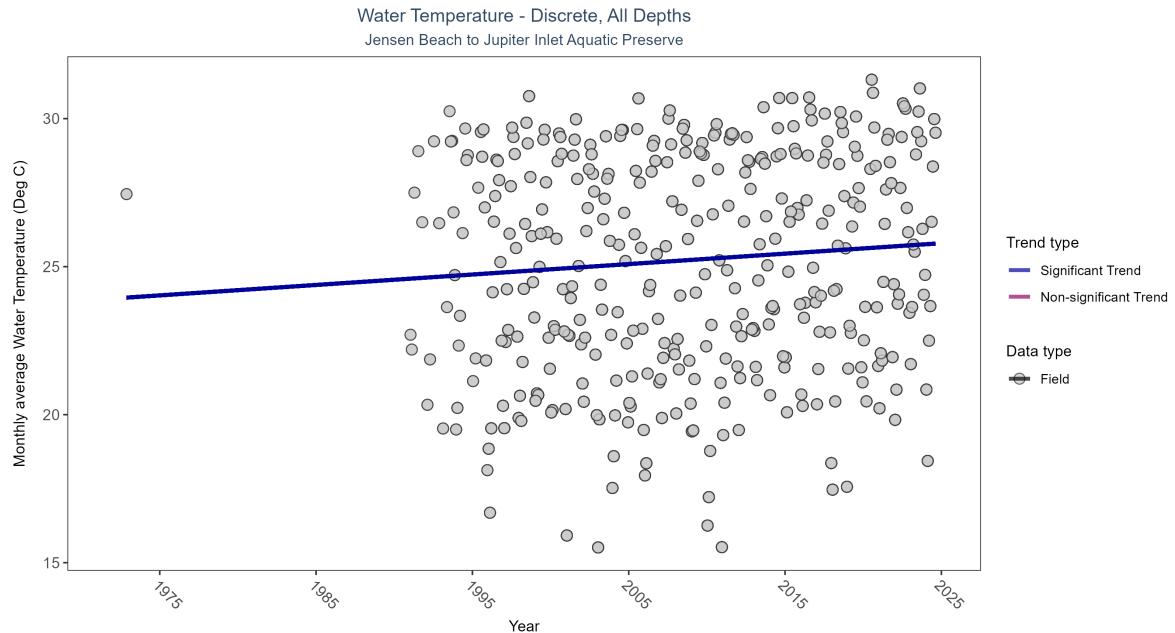


Table 7: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	10620	35	1972 - 2024	25.5	0.2027	23.92331	0.03525	0.0000

## Water Temperature - Continuous

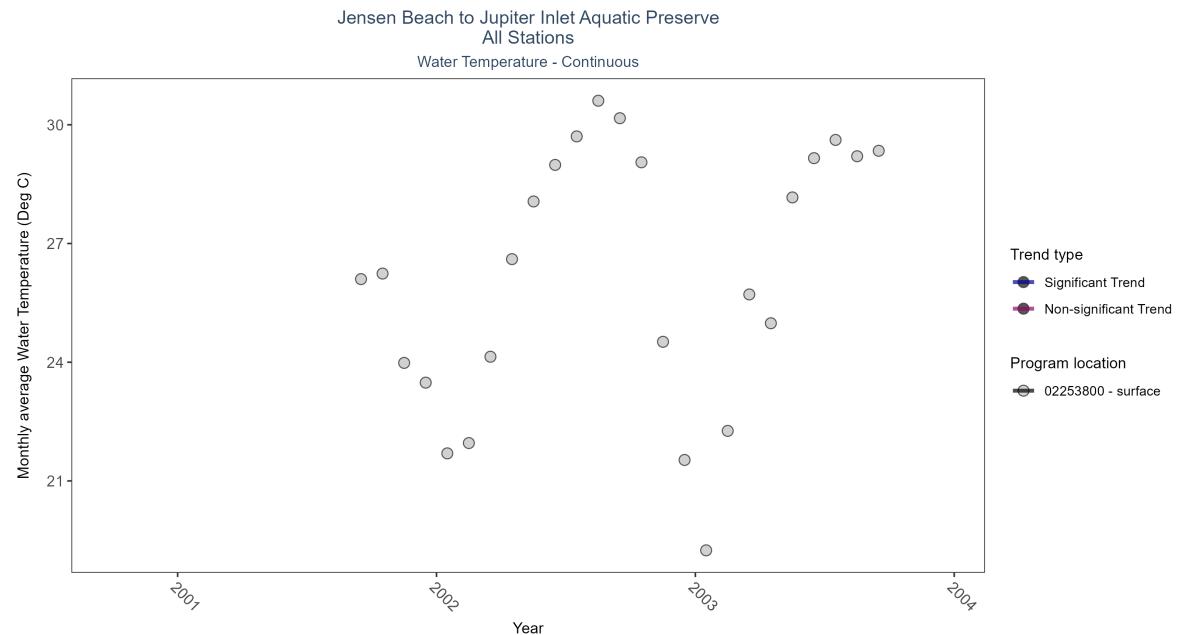


Table 8: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02253800	Insufficient data to calculate trend	1186	3	2001 - 2003	27.1	-	-	-	-

## pH - Discrete

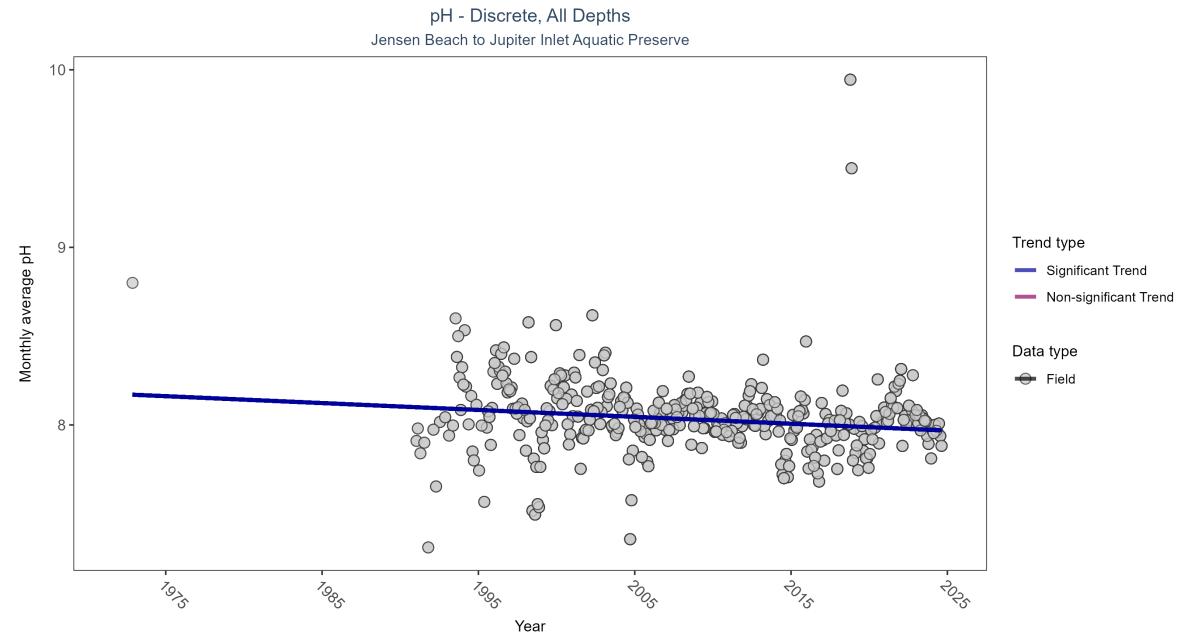


Table 9: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	9671	35	1972 - 2024	8.01	-0.1683	8.1735	-0.00388	0.0000

## Water Clarity

### Turbidity - Discrete

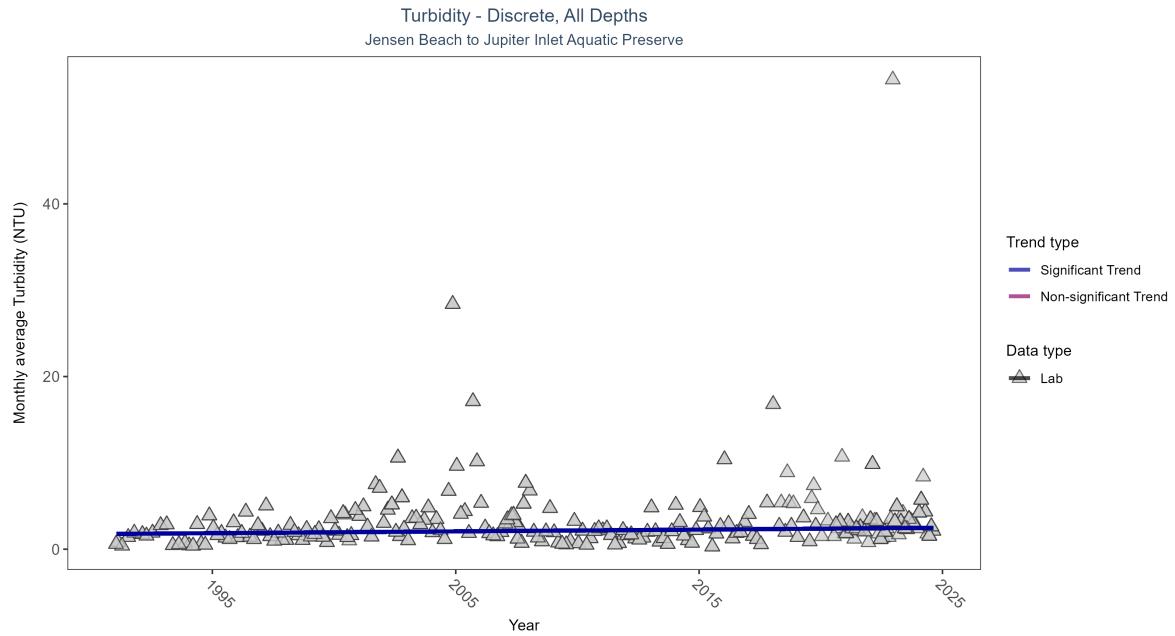


Table 10: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	872	34	1991 - 2024	2.2	0.0971	1.77238	0.02083	0.0472

## Total Suspended Solids - Discrete

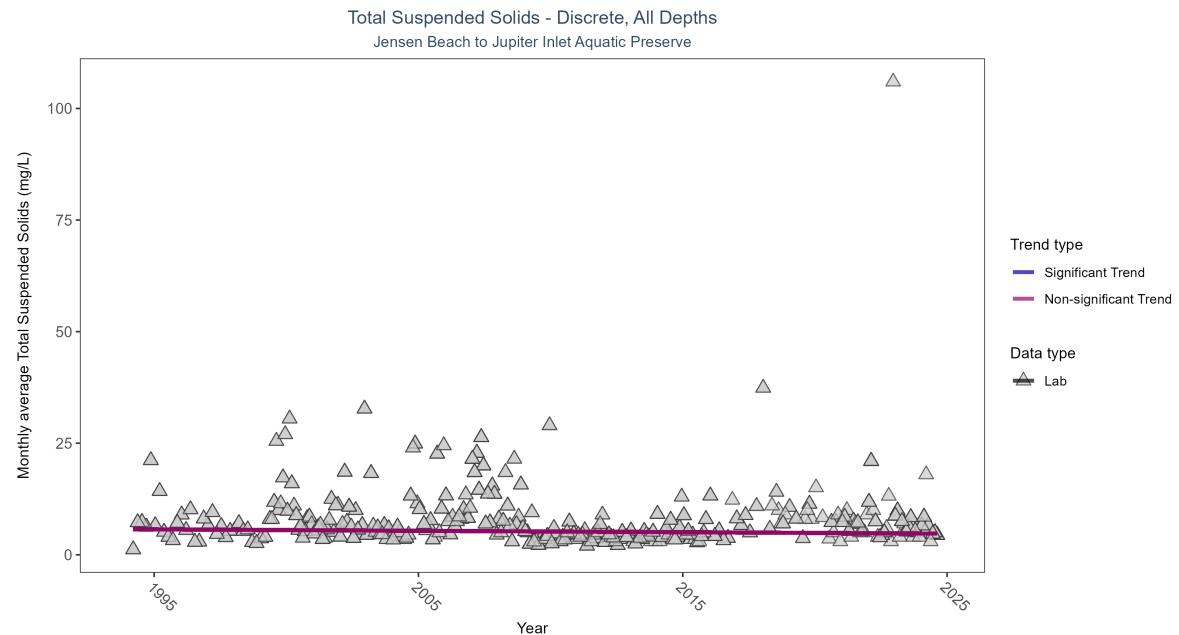


Table 11: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	1194	31	1994 - 2024	6	-0.07	5.72661	-0.03166	0.1212

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

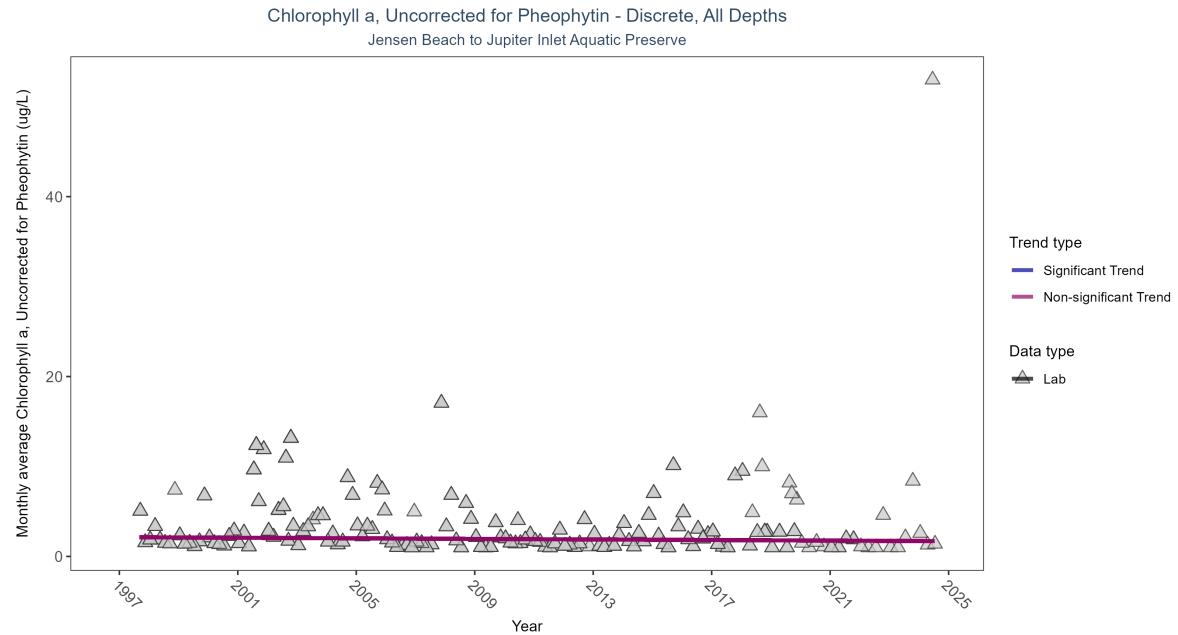


Table 12: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	477	28	1997 - 2024	2	-0.1134	2.14	-0.01586	0.0795

## Chlorophyll a, Corrected for Pheophytin - Discrete

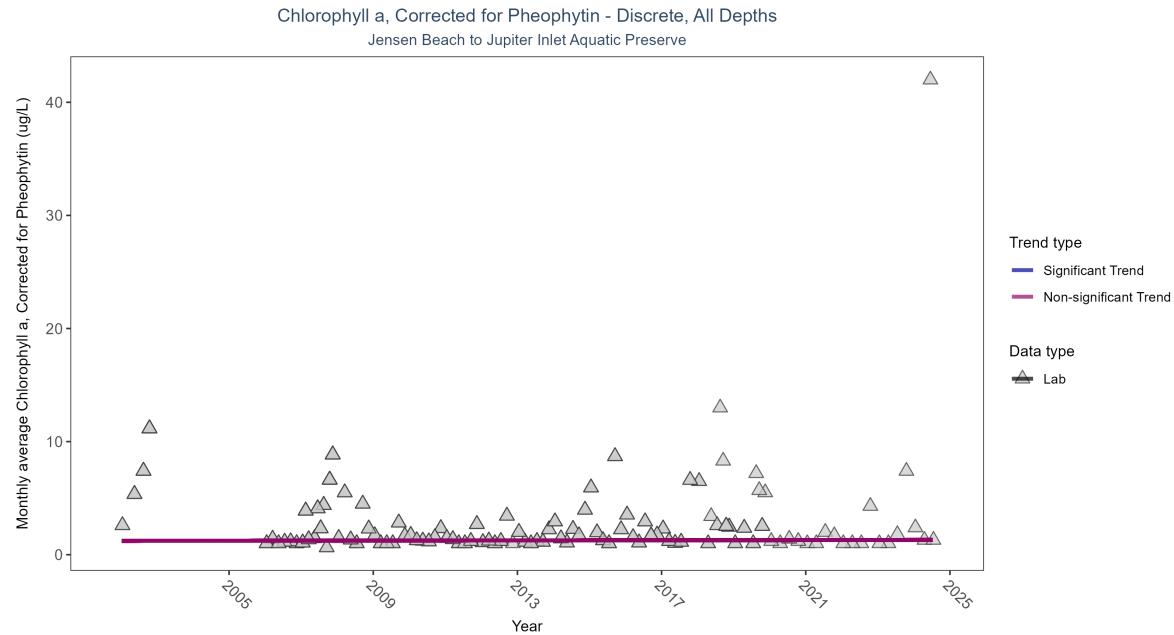


Table 13: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	344	20	2002 - 2024	1.4	0.0752	1.2232	0.0036	0.3353

## Secchi Depth - Discrete

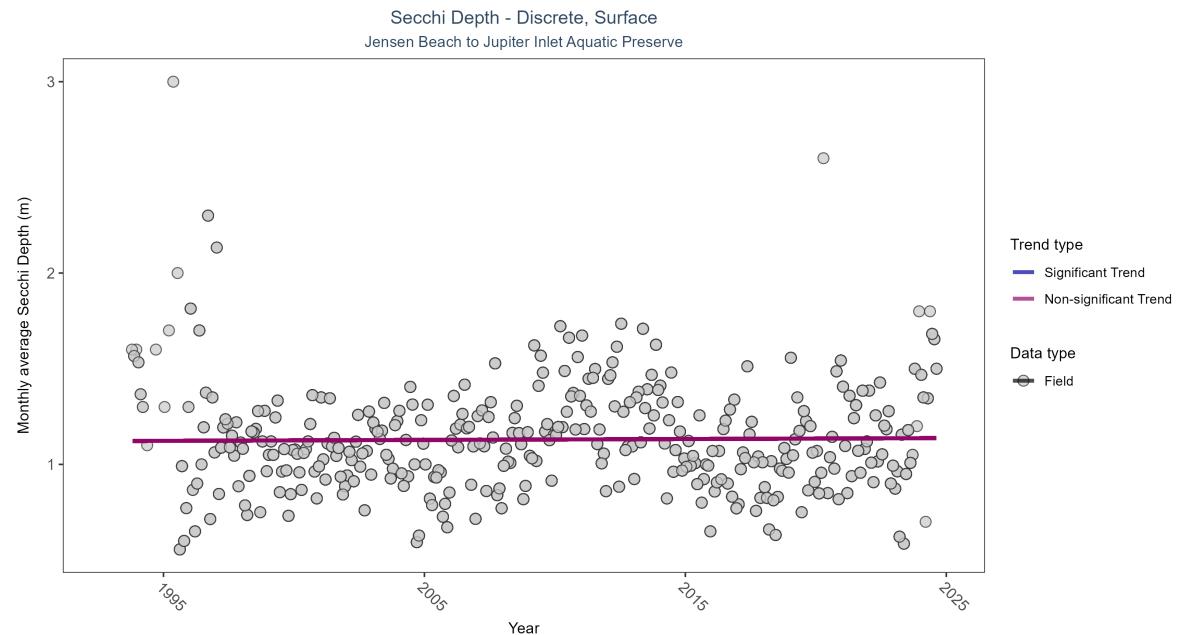


Table 14: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	6164	32	1993 - 2024	1	0.0103	1.12206	0.00048	0.8248

## Colored Dissolved Organic Matter - Discrete

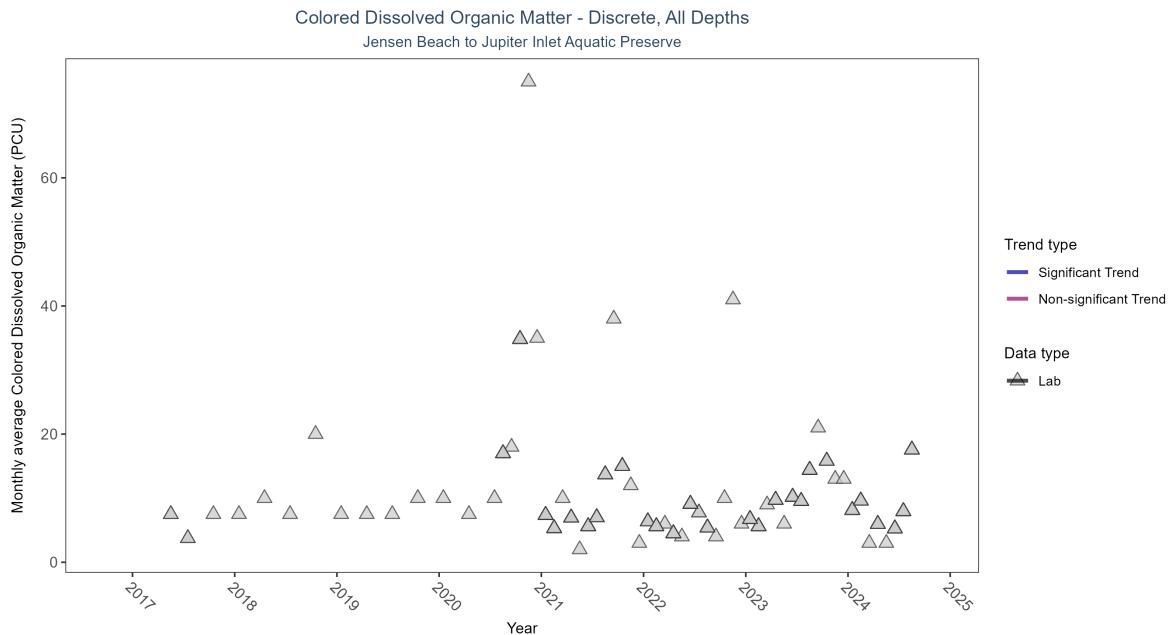


Table 15: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Insufficient data to calculate trend	317	8	2017 - 2024	7.5	-	-	-	NA