

Matlacha Pass Aquatic Preserve

SEACAR Discrete Water Quality Analysis

Last compiled on 26 June, 2024

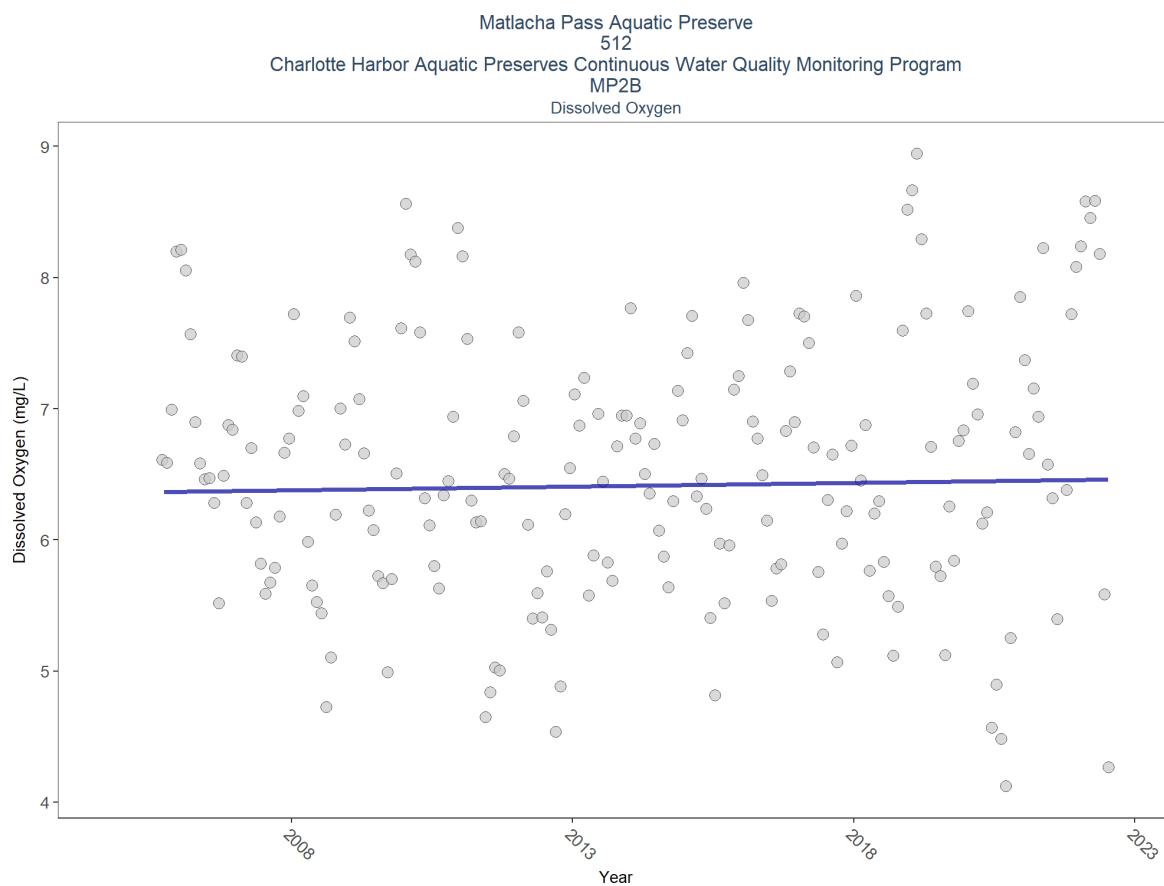
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Parameters

Dissolved Oxygen

MP2B

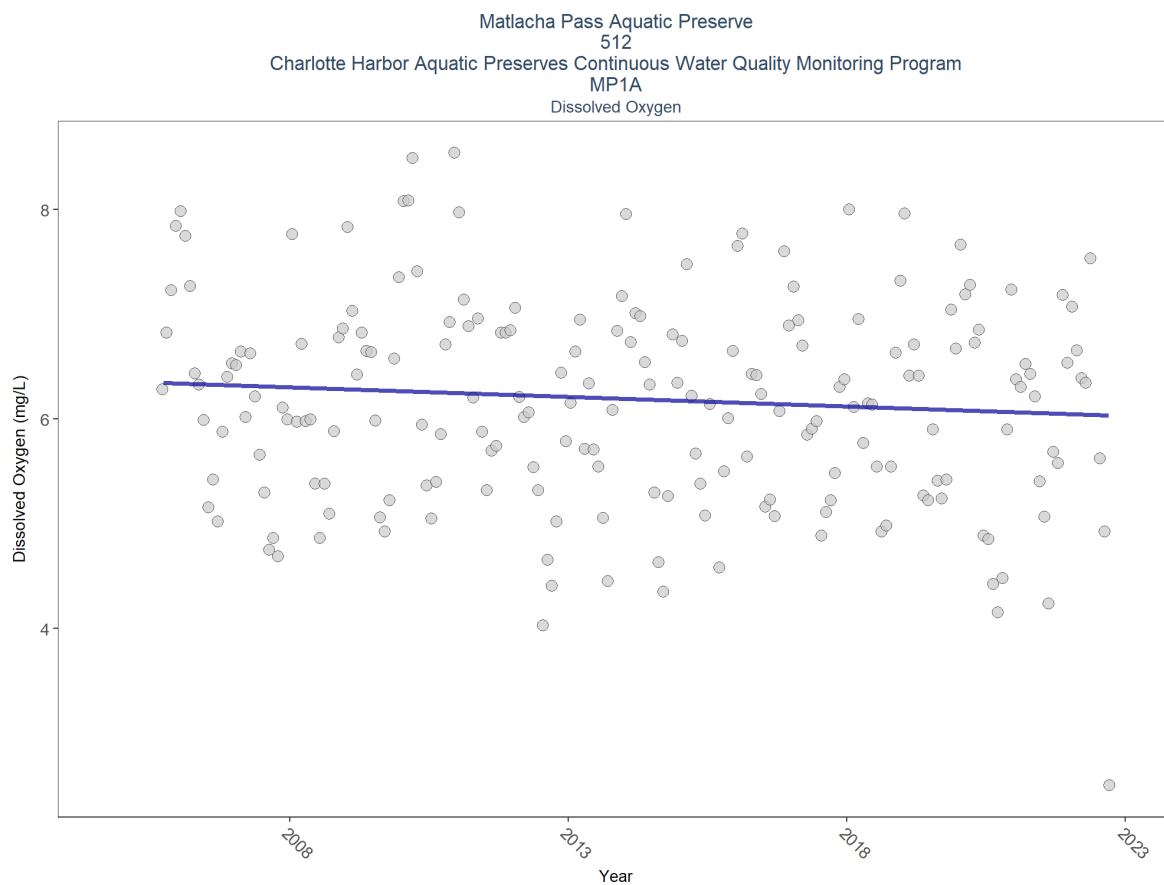


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	543952	18	6.6	TRUE	0.0308	0.5386	0.005581996	6.361188	10.4885	0.4871	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

MP1A

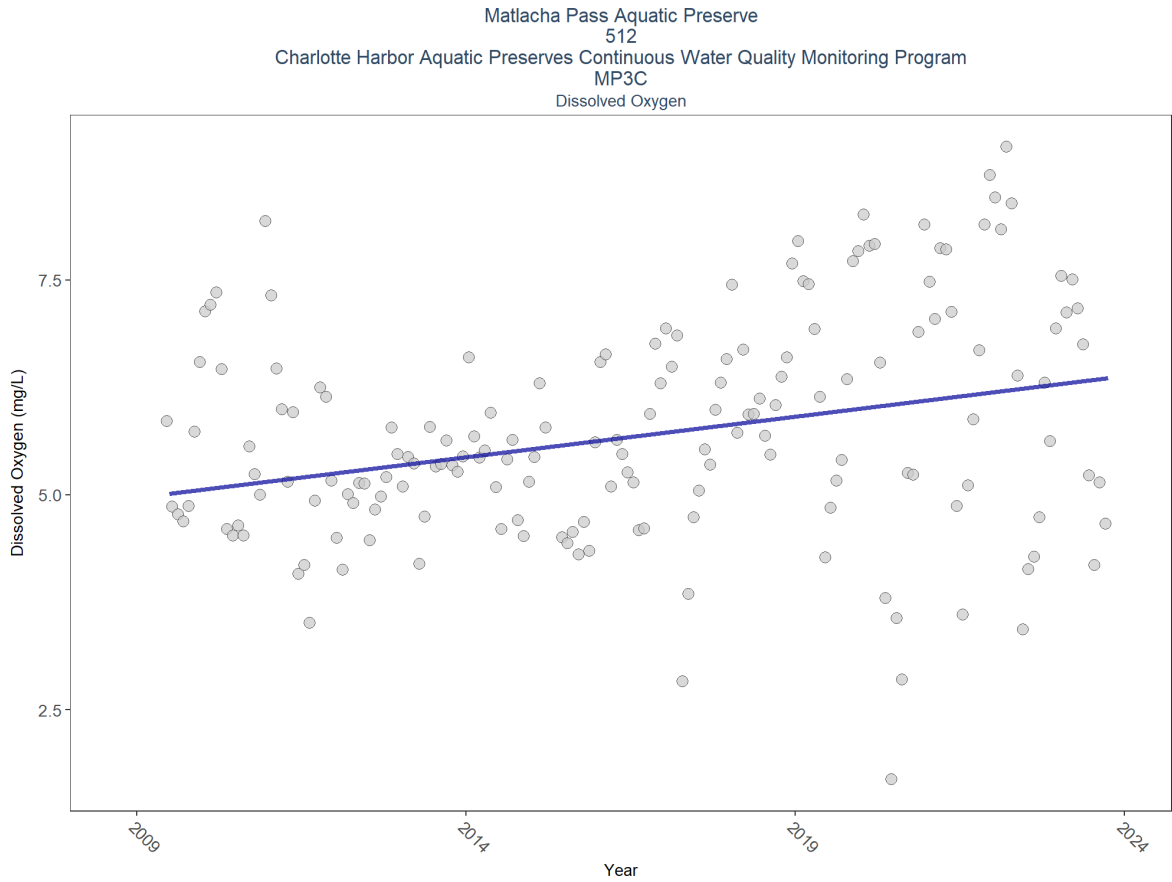


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	529522	18	6.3	TRUE	-0.1006	0.0556	-0.01817387	6.355787	4.8906	0.9363	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

MP3C



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	453711	15	5.8	TRUE	0.2769	0.0000	0.09456225	4.966039	22.2966	0.0222	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

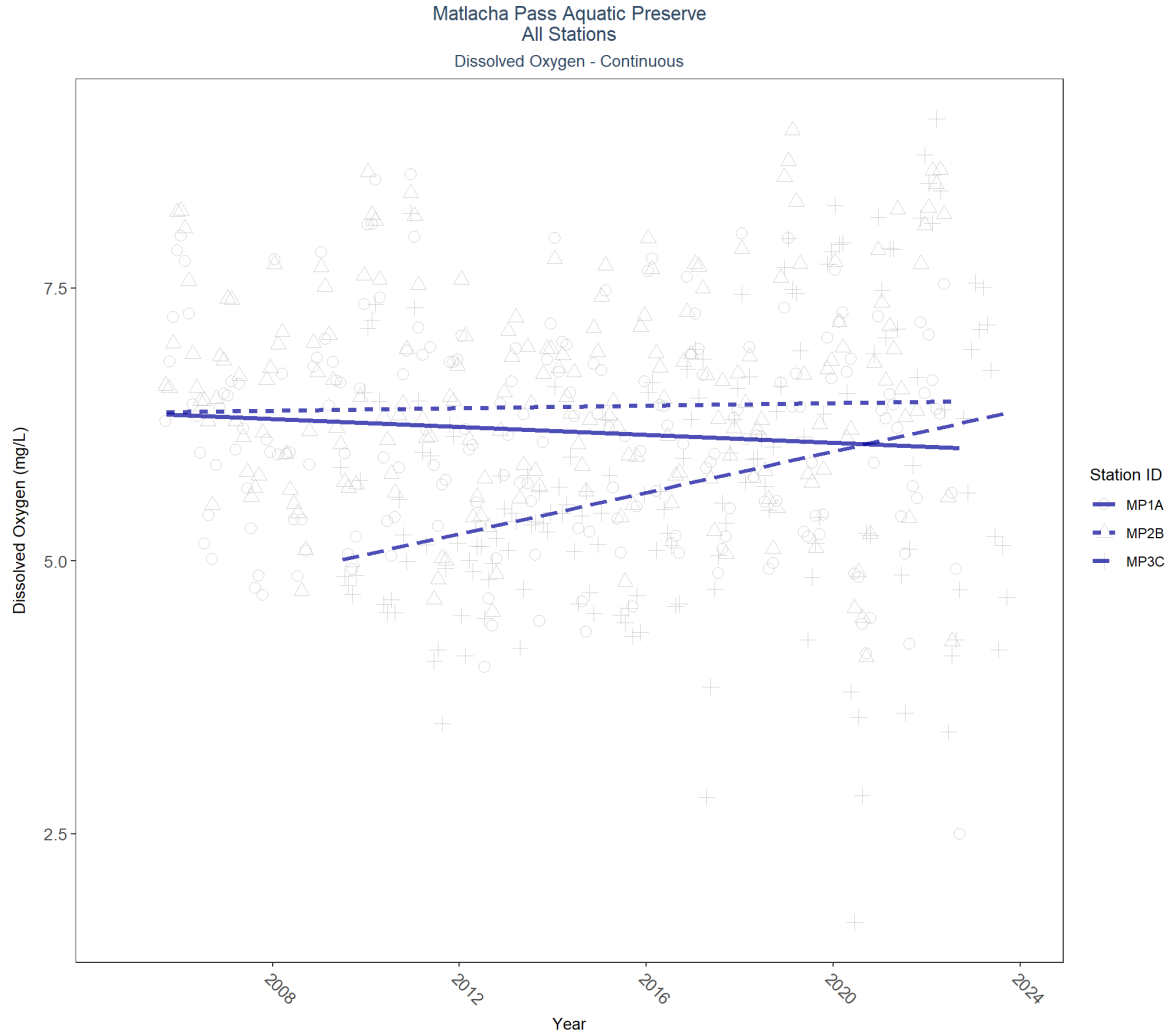
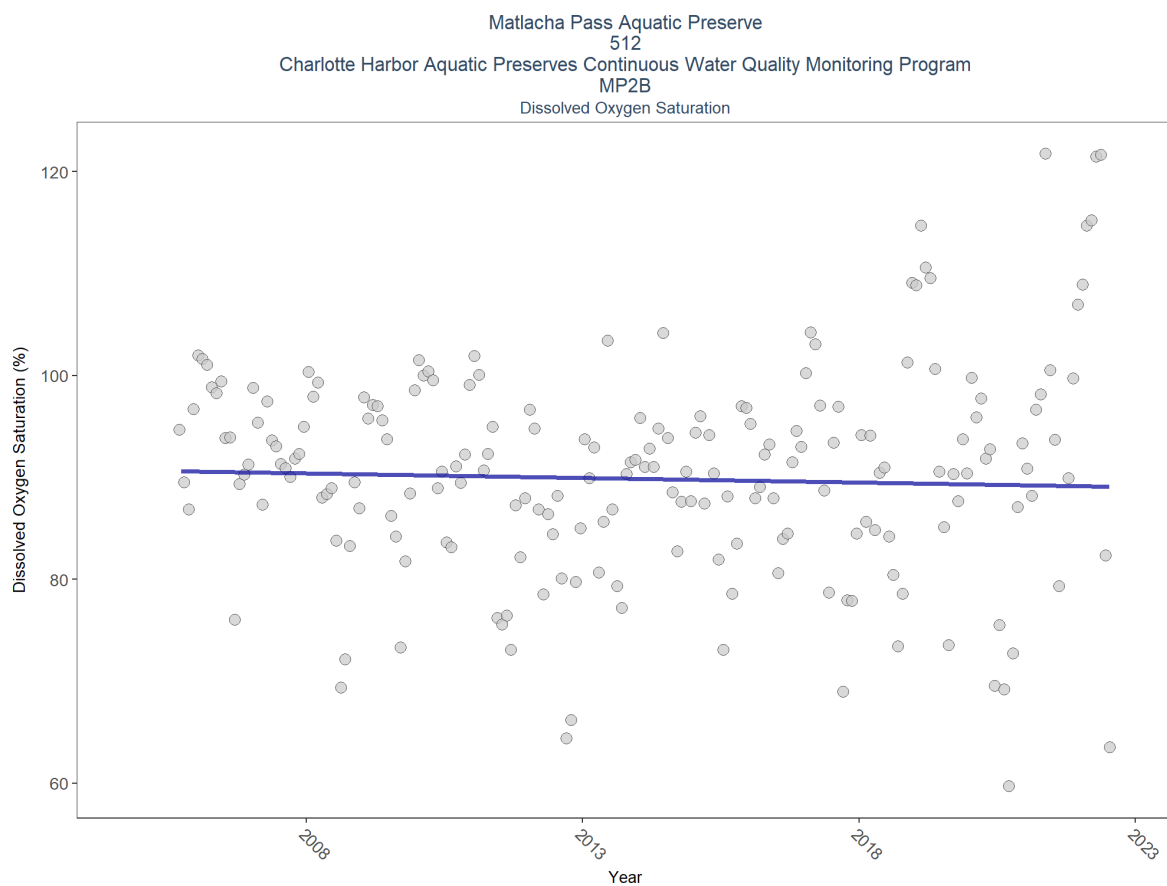


Table 1: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
MP2B	543952	18	2005 - 2022	6.6	0.03	6.36	0.01	0.5386
MP1A	529522	18	2005 - 2022	6.3	-0.10	6.36	-0.02	0.0556
MP3C	453711	15	2009 - 2023	5.8	0.28	4.97	0.09	0.0000

Dissolved Oxygen Saturation

MP2B

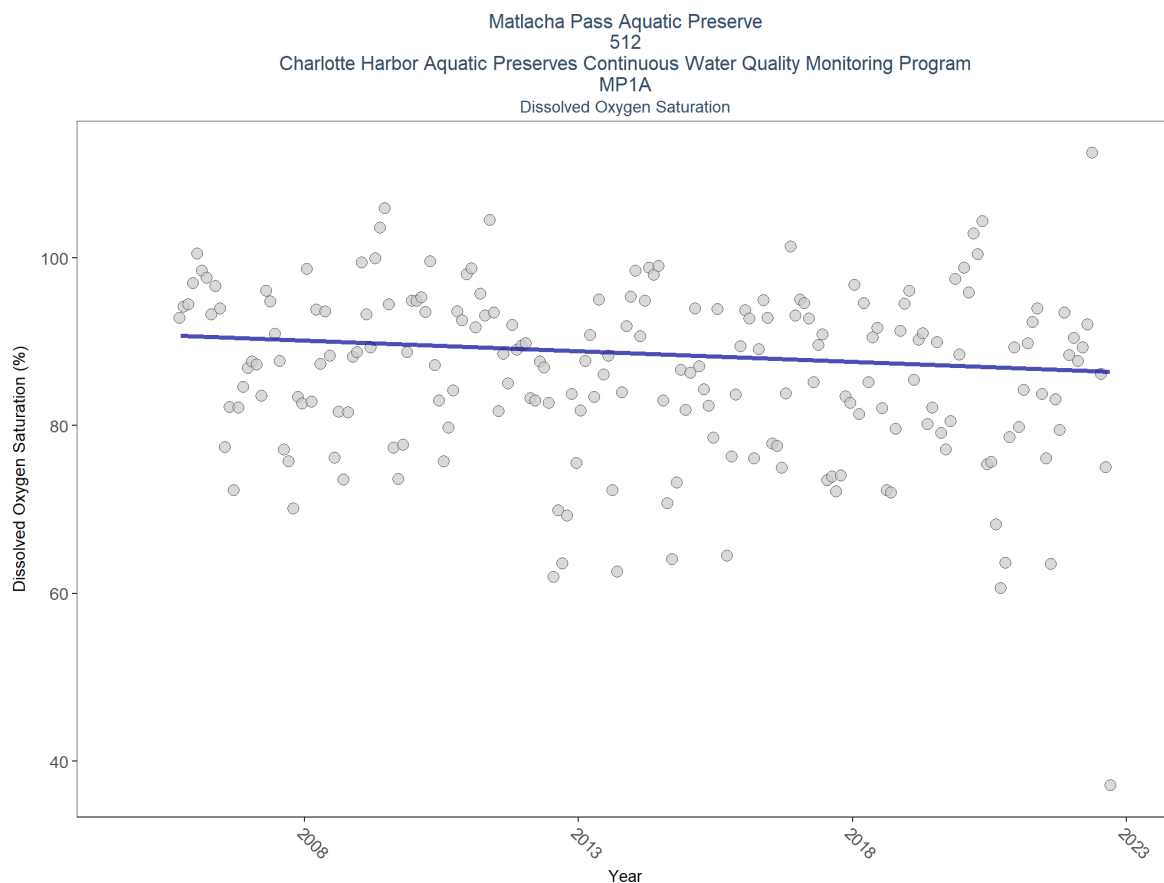


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	544252	18	91.1	TRUE	-0.0404	0.4621	-0.09154772	90.68854	11.2514	0.4225	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

MP1A

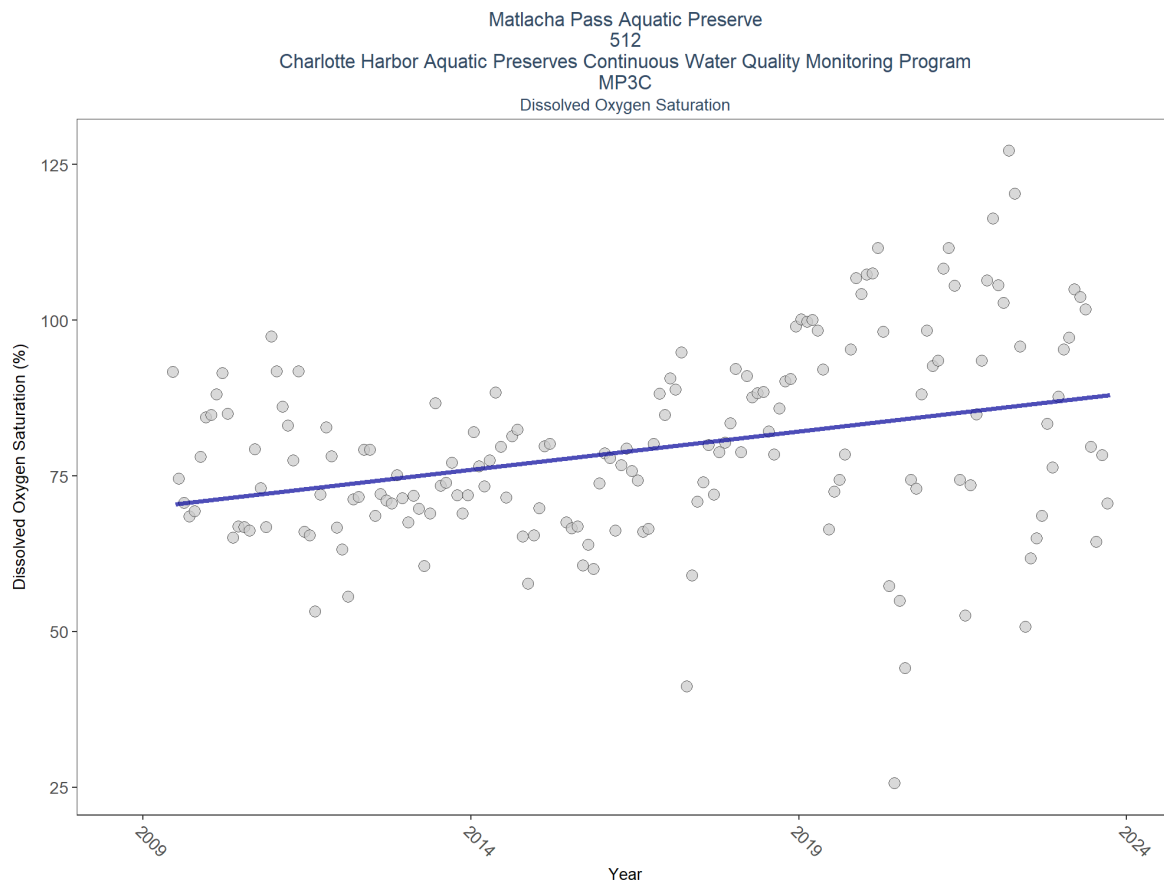


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	526884	18	87.9	TRUE	-0.1531	0.0035	-0.2561534	90.93464	6.005	0.873	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

MP3C



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	455052	15	80.7	TRUE	0.2713	0.0000	1.232586	69.8247	22.4067	0.0214	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

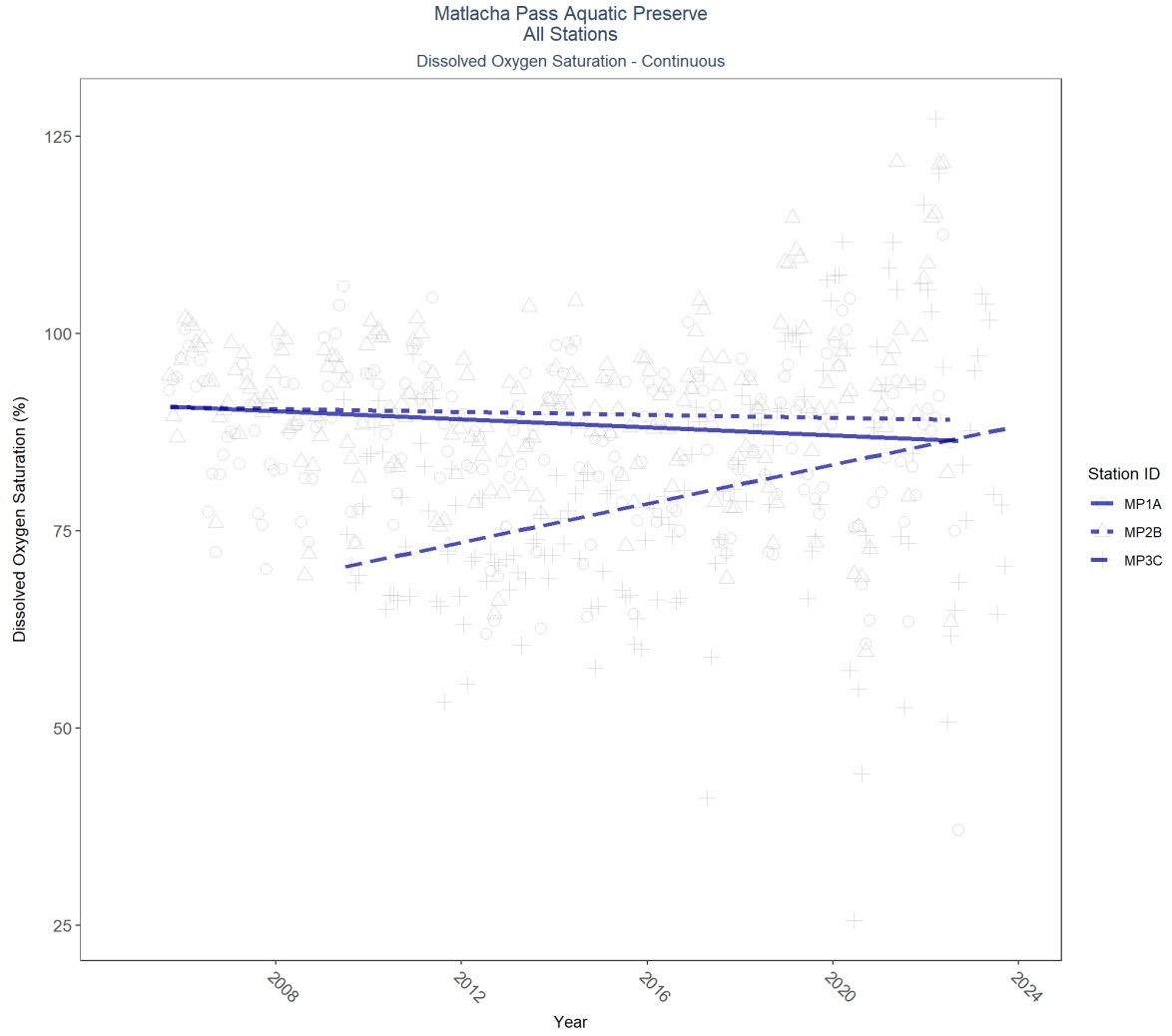
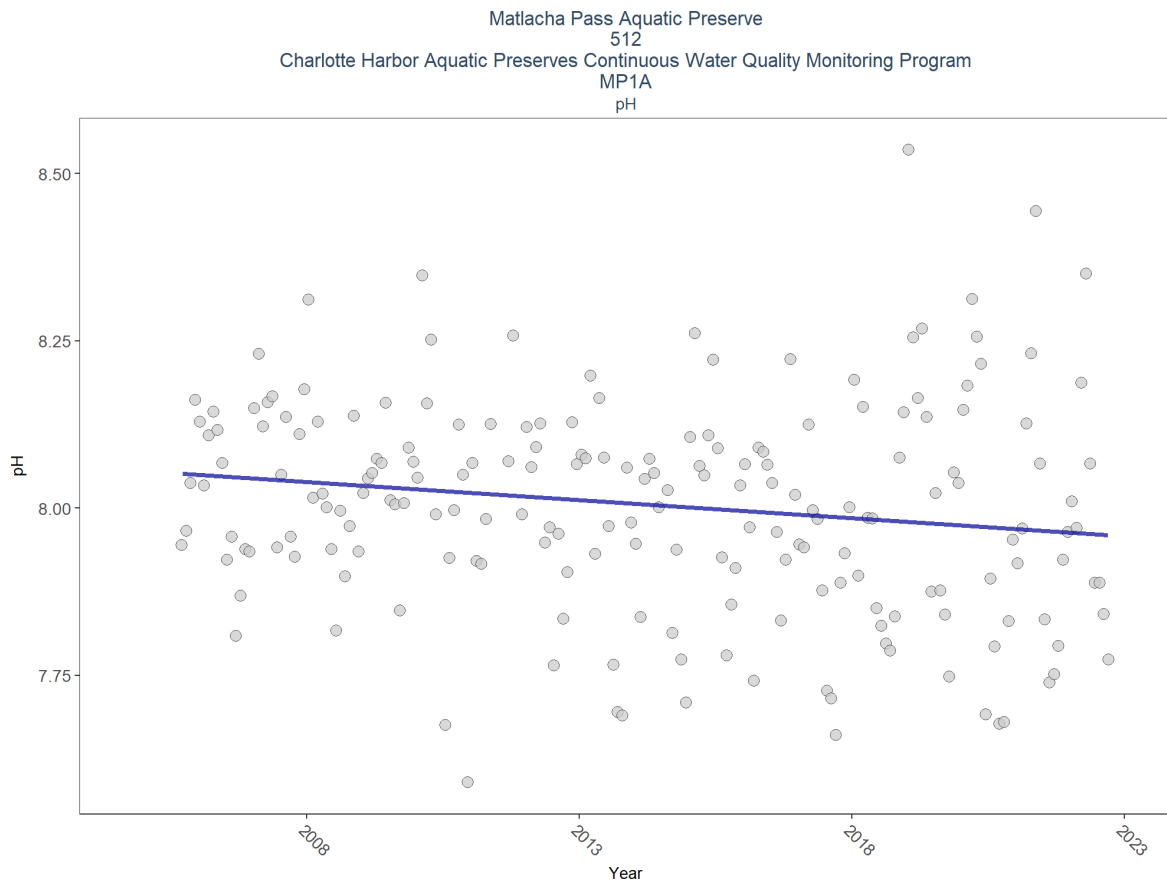


Table 2: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
MP2B	544252	18	2005 - 2022	91.1	-0.04	90.69	-0.09	0.4621
MP1A	526884	18	2005 - 2022	87.9	-0.15	90.93	-0.26	0.0035
MP3C	455052	15	2009 - 2023	80.7	0.27	69.82	1.23	0.0000

pH

MP1A

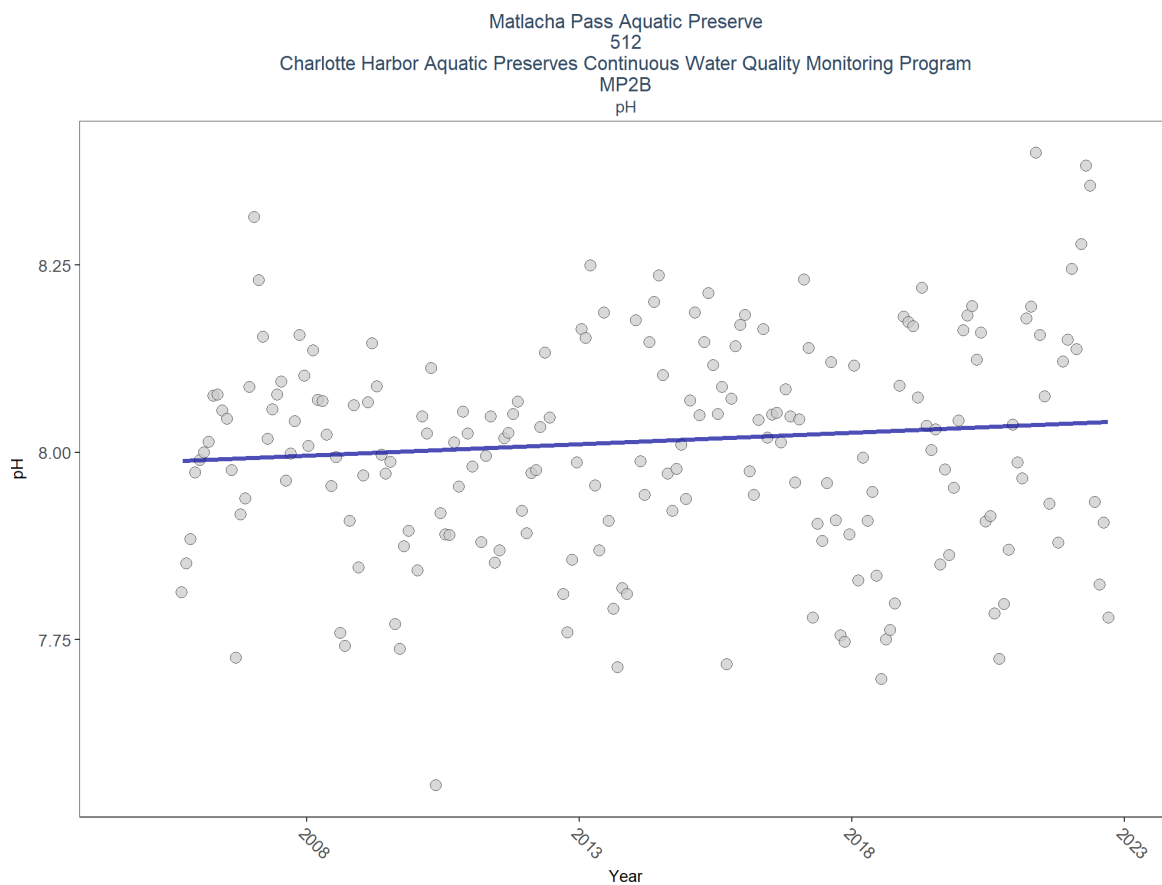


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	493048	18	8	TRUE	-0.1467	0.0055	-0.005418347	8.055265	20.8854	0.0346	-1

$p < 0.00005$ appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

MP2B

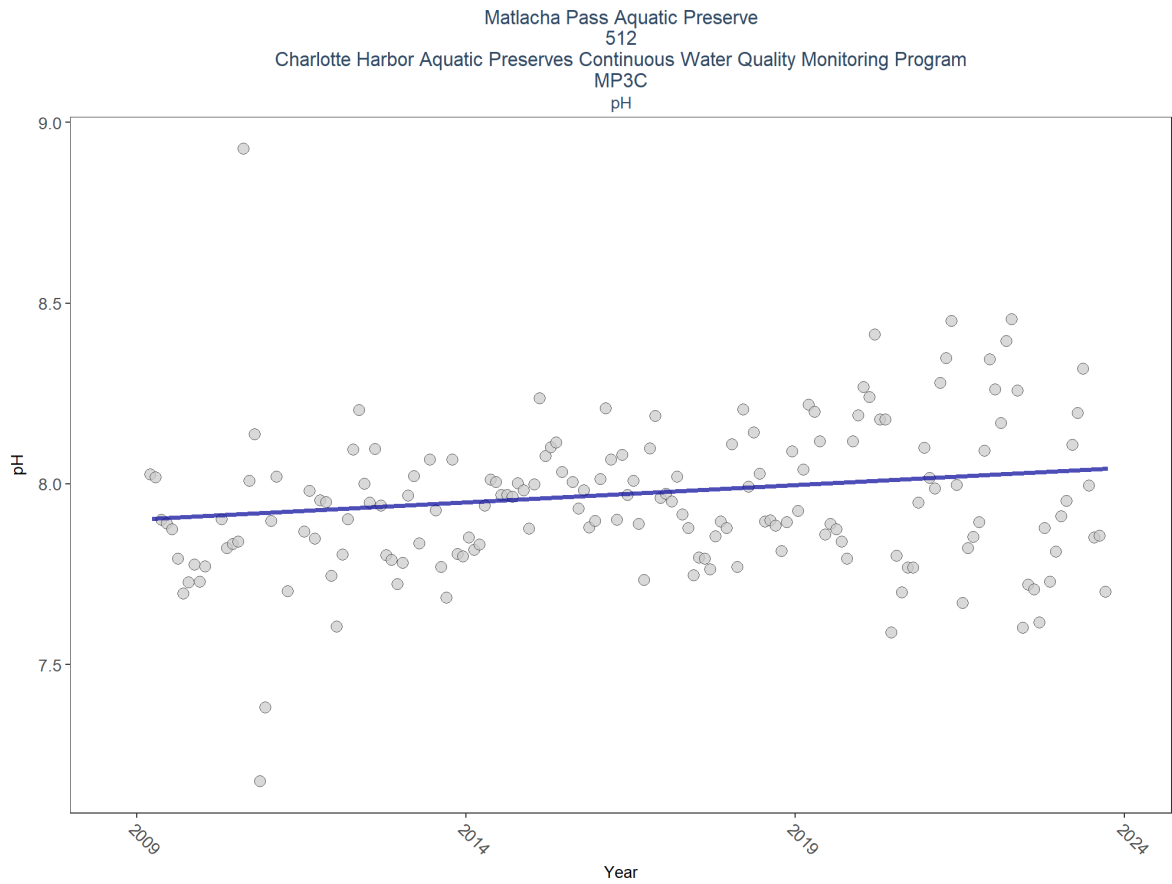


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	509989	18	8	TRUE	0.0641	0.2185	0.003039621	7.986764	9.6248	0.5644	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

MP3C



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	421129	15	7.9	TRUE	0.1613	0.0090	0.0095532	7.901639	46.9143	0	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

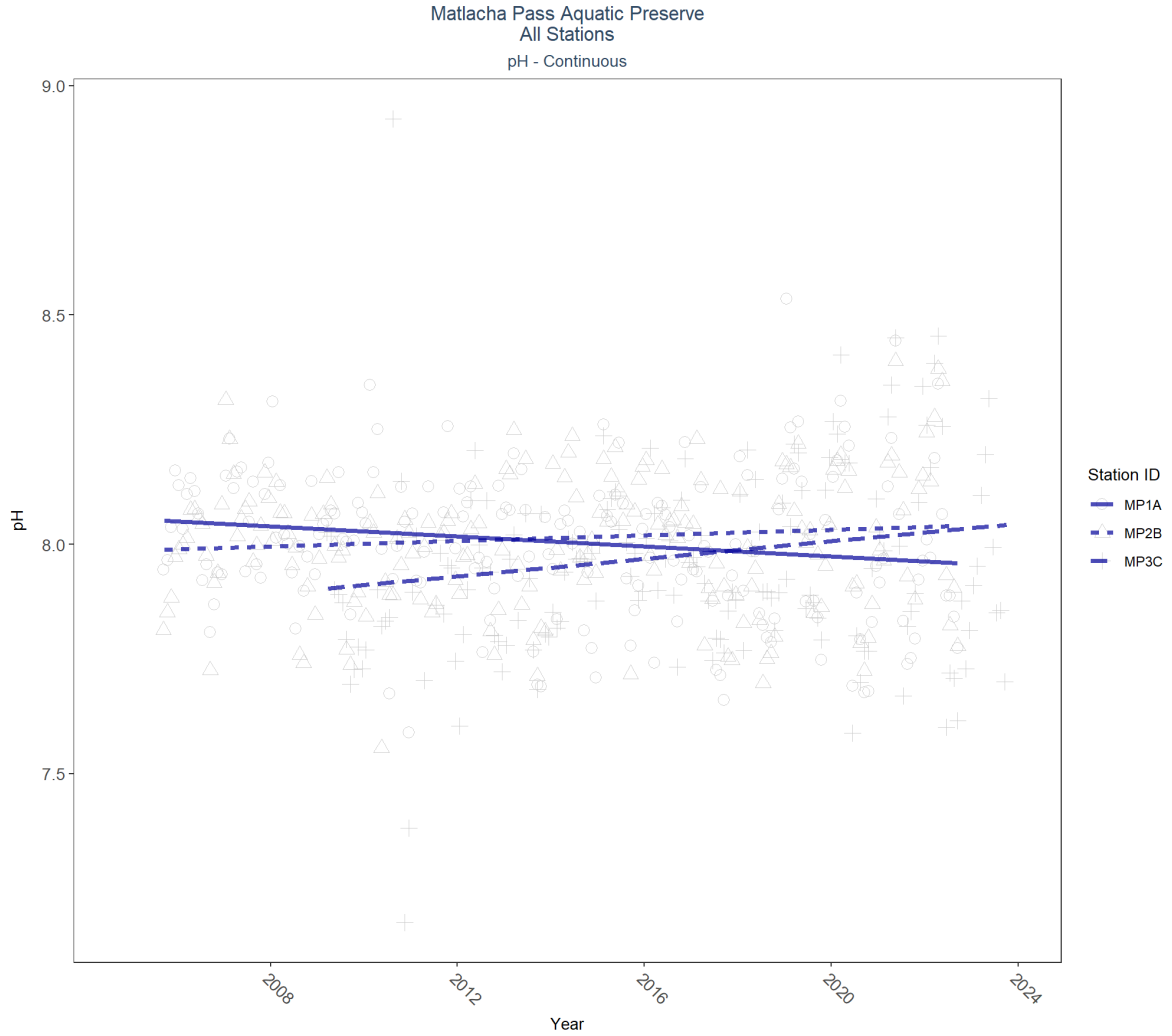
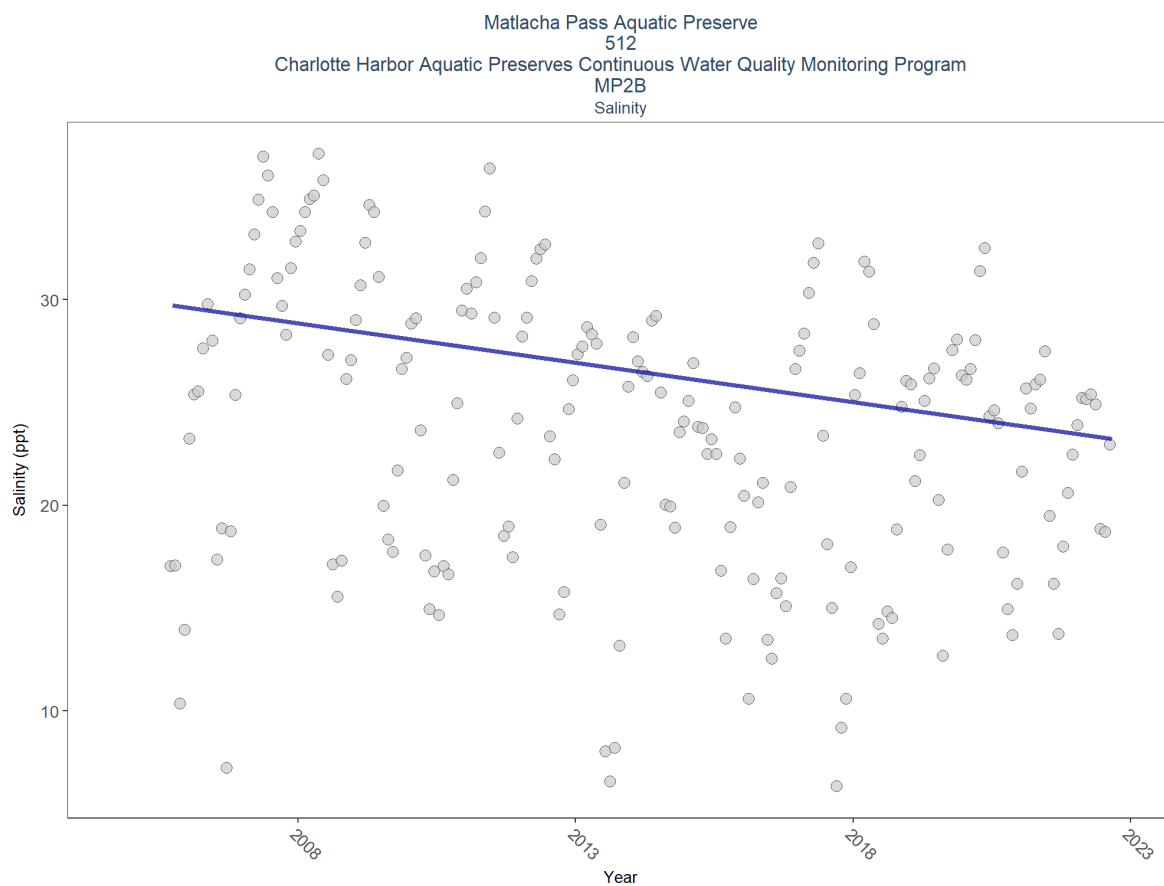


Table 3: Seasonal Kendall-Tau Results for All Stations - pH

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
MP1A	493048	18	2005 - 2022	8.0	-0.15	8.06	-0.01	0.0055
MP2B	509989	18	2005 - 2022	8.0	0.06	7.99	0.00	0.2185
MP3C	421129	15	2009 - 2023	7.9	0.16	7.90	0.01	0.0090

Salinity

MP2B

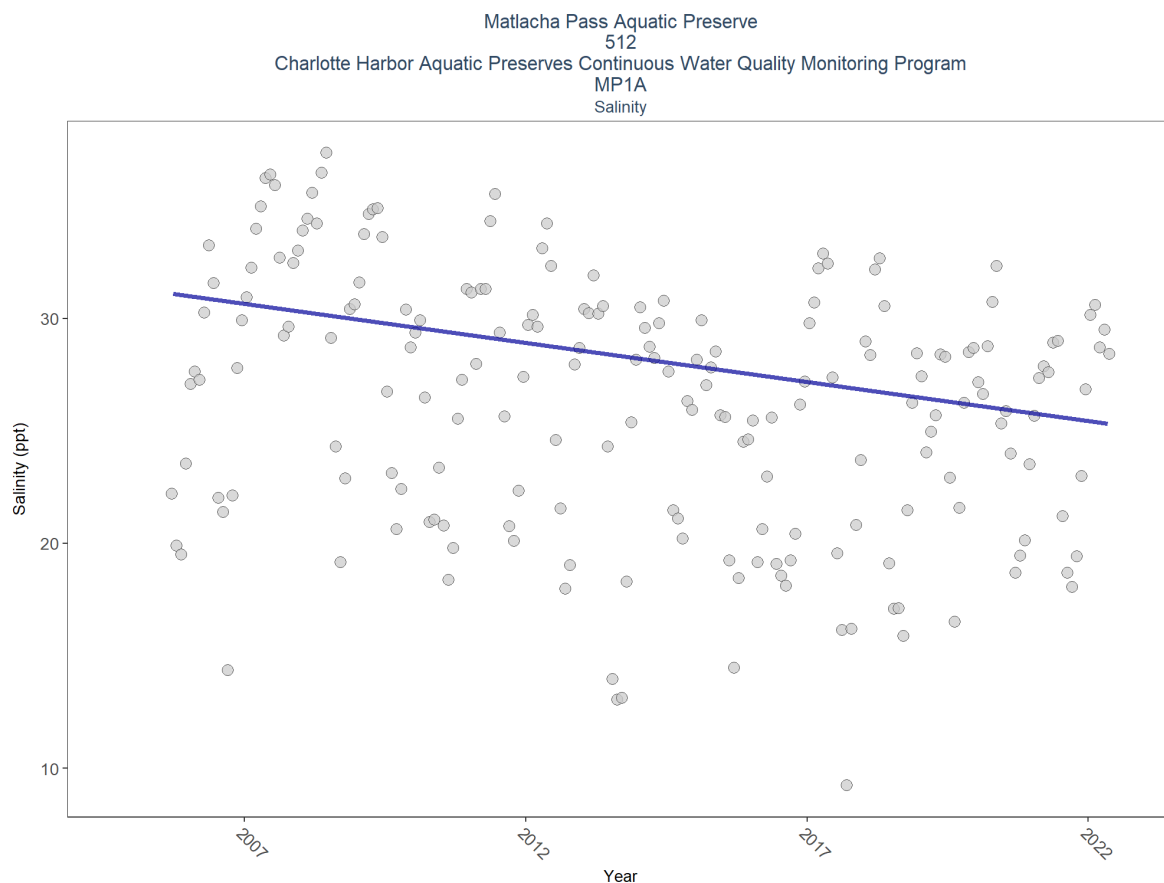


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	563919	18	24.7	TRUE	-0.3199	0.0000	-0.3833114	30.02281	5.7166	0.8916	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

MP1A

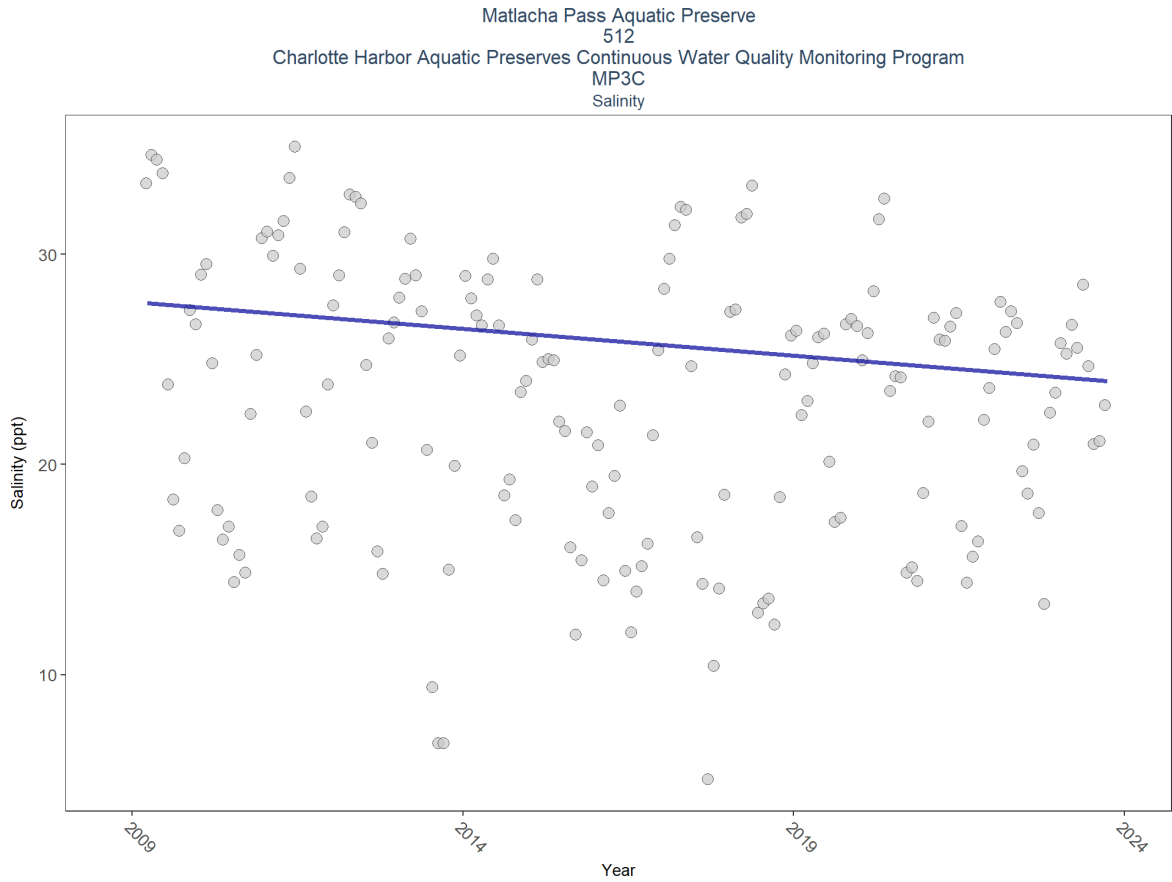


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	541260	18	27.3	TRUE	-0.3274	0.0000	-0.3477367	31.35551	1.86	0.9989	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

MP3C



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	479167	15	23.9	TRUE	-0.1979	0.0007	-0.2537284	27.7199	10.8977	0.4519	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

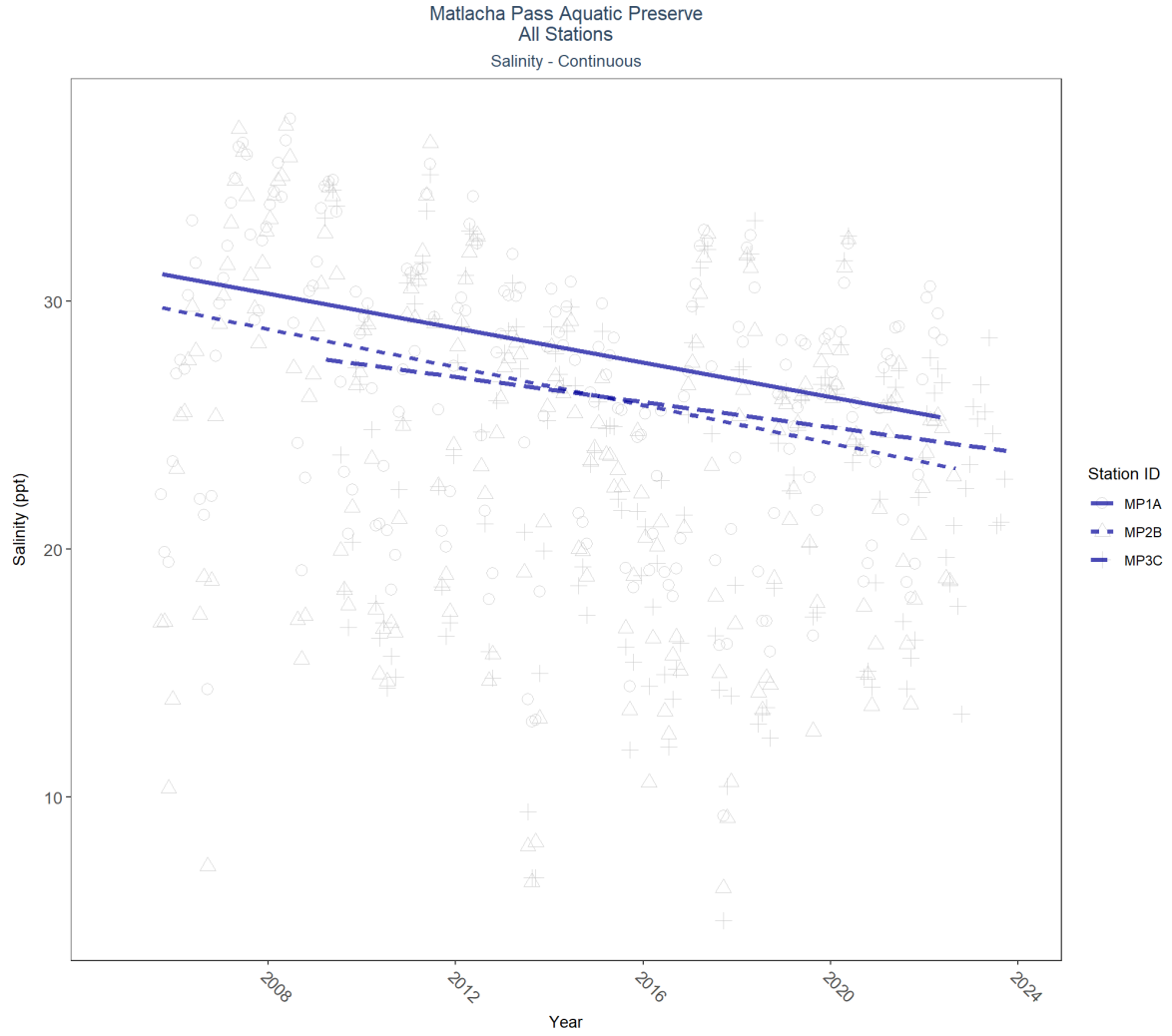
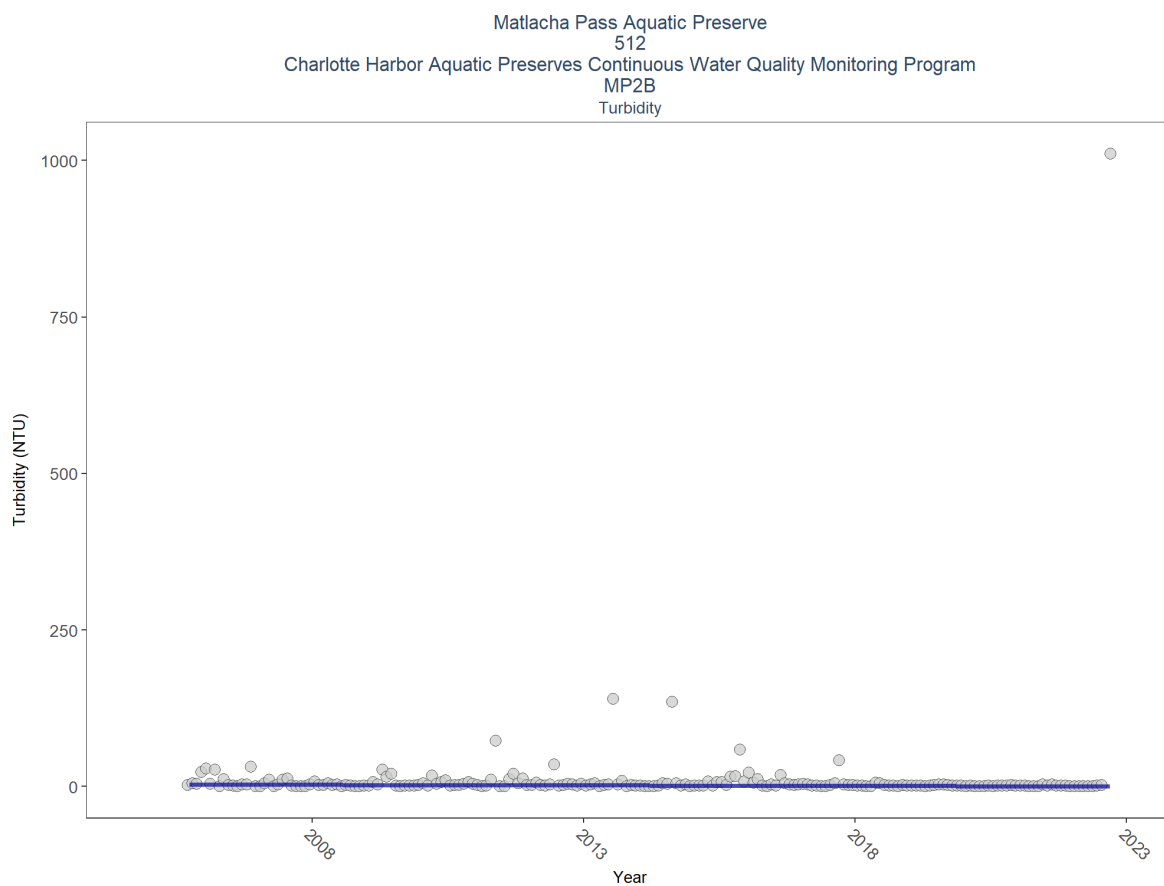


Table 4: Seasonal Kendall-Tau Results for All Stations - Salinity

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
MP2B	563919	18	2005 - 2022	24.7	-0.32	30.02	-0.38	0.0000
MP1A	541260	18	2005 - 2022	27.3	-0.33	31.36	-0.35	0.0000
MP3C	479167	15	2009 - 2023	23.9	-0.20	27.72	-0.25	0.0007

Turbidity

MP2B

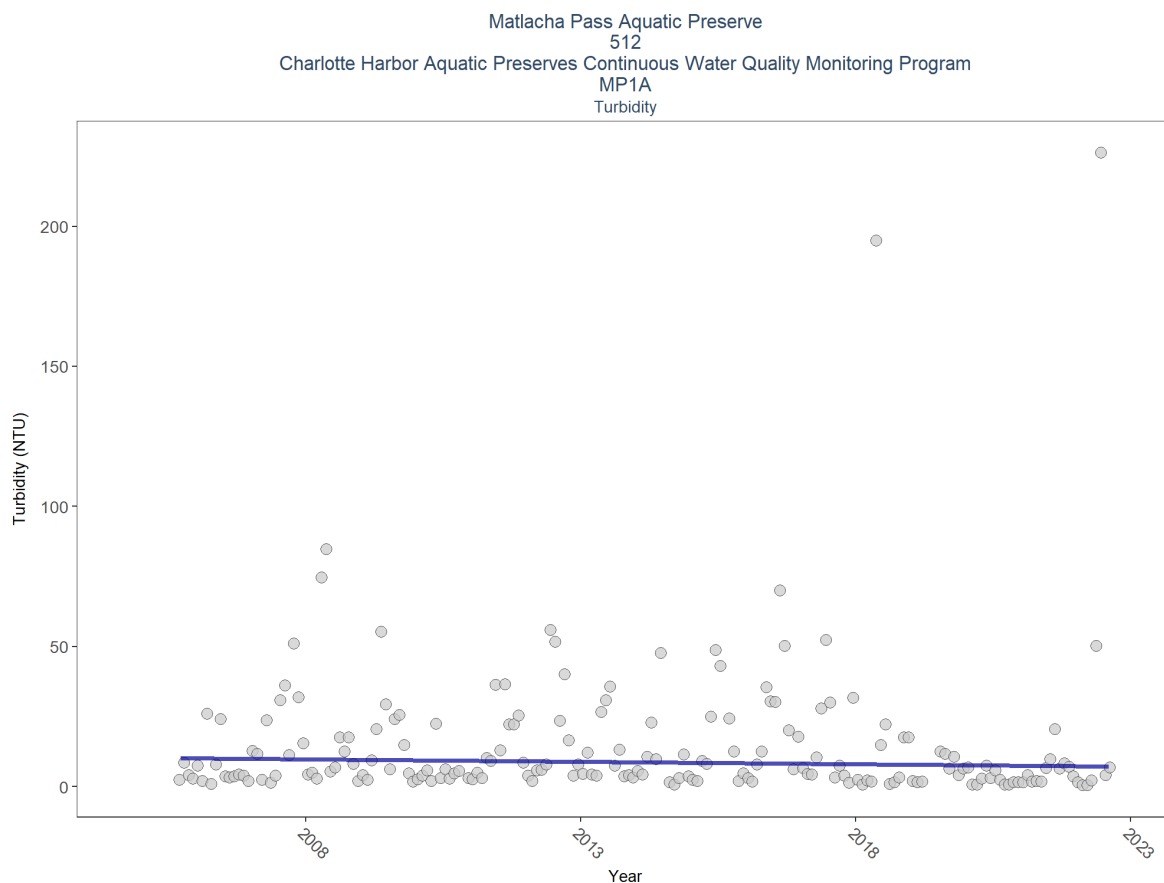


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	490414	18	1	TRUE	-0.2456	0.0000	-0.1332287	3.068462	29.3555	0.002	-2

$p < 0.00005$ appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

MP1A

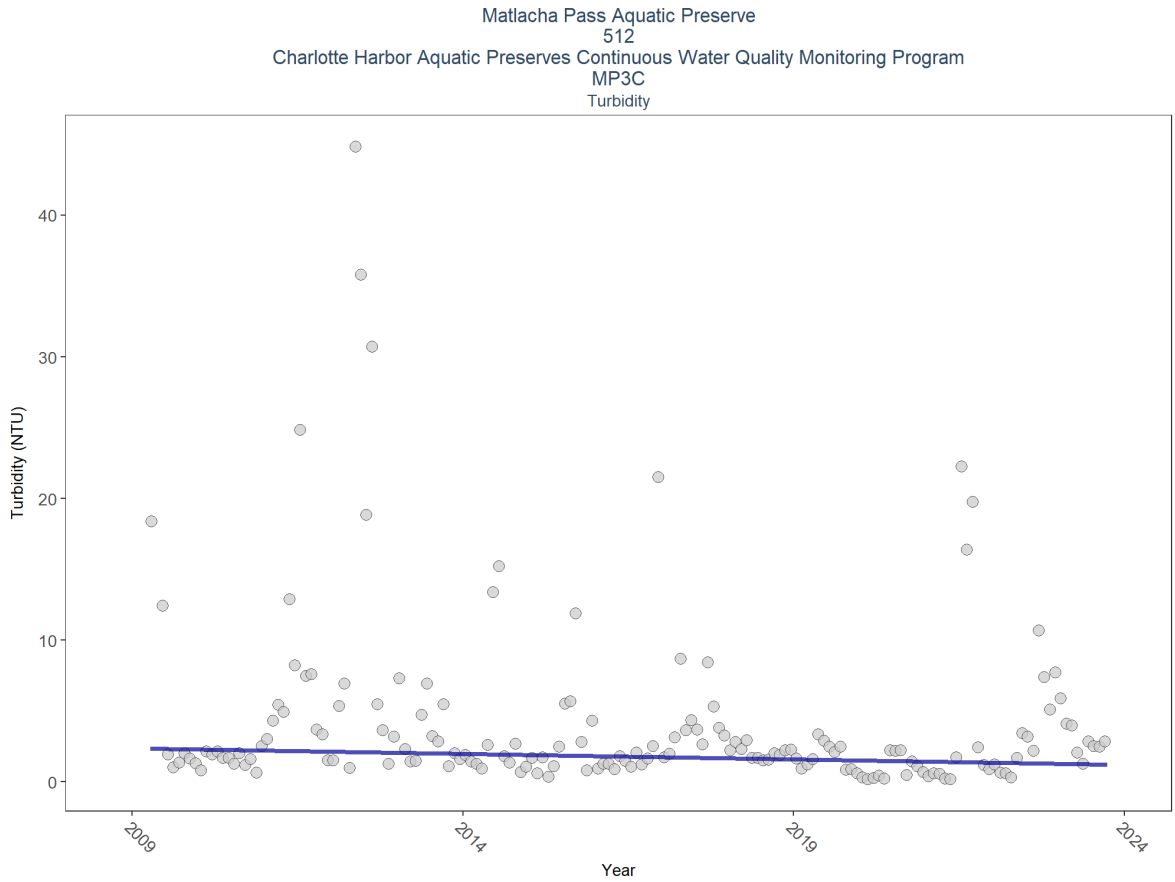


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	434165	18	2	TRUE	-0.1497	0.0038	-0.180606	10.26682	20.303	0.0414	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

MP3C



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	417177	15	1	TRUE	-0.1337	0.0207	-0.07674999	2.354147	15.5679	0.1579	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

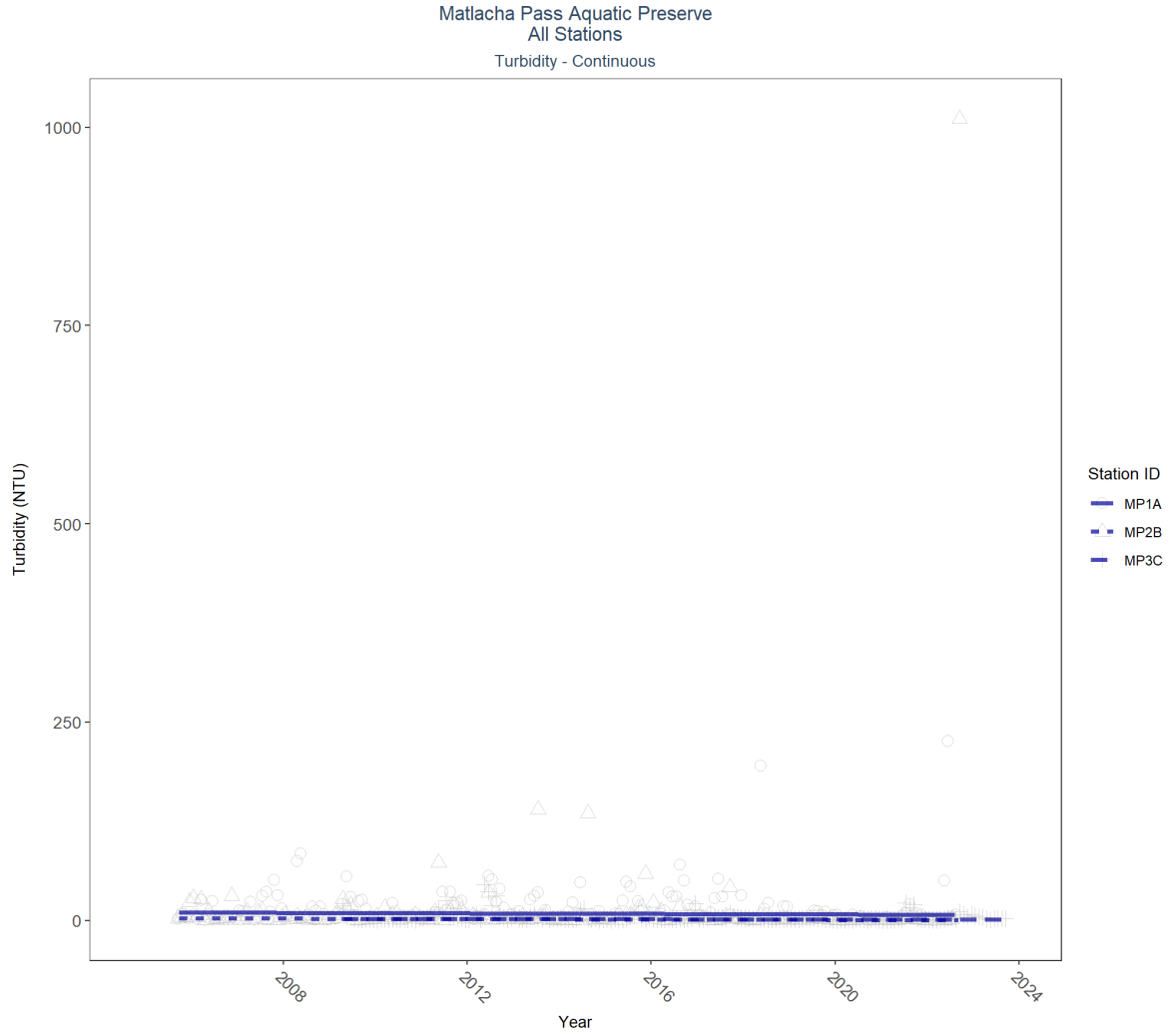
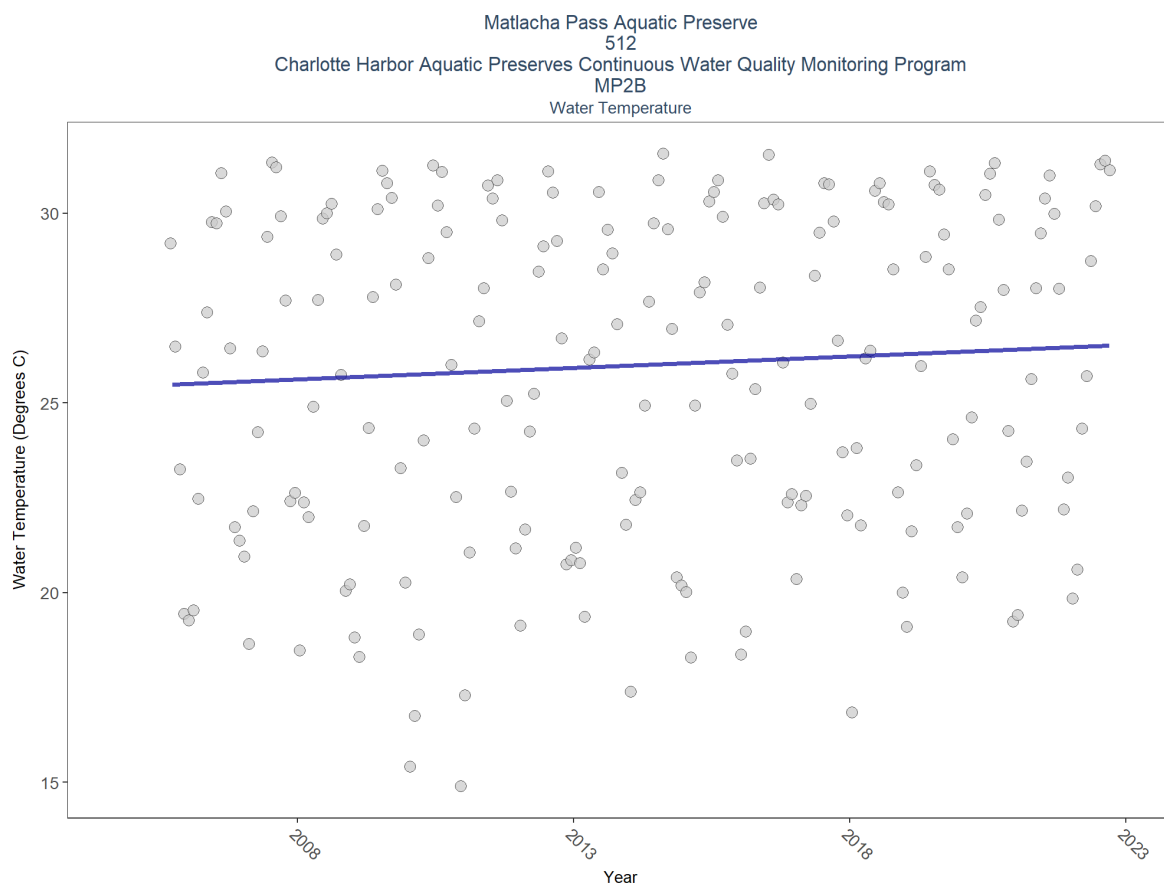


Table 5: Seasonal Kendall-Tau Results for All Stations - Turbidity

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
MP2B	490414	18	2005 - 2022	1	-0.25	3.07	-0.13	0.0000
MP1A	434165	18	2005 - 2022	2	-0.15	10.27	-0.18	0.0038
MP3C	417177	15	2009 - 2023	1	-0.13	2.35	-0.08	0.0207

Water Temperature

MP2B

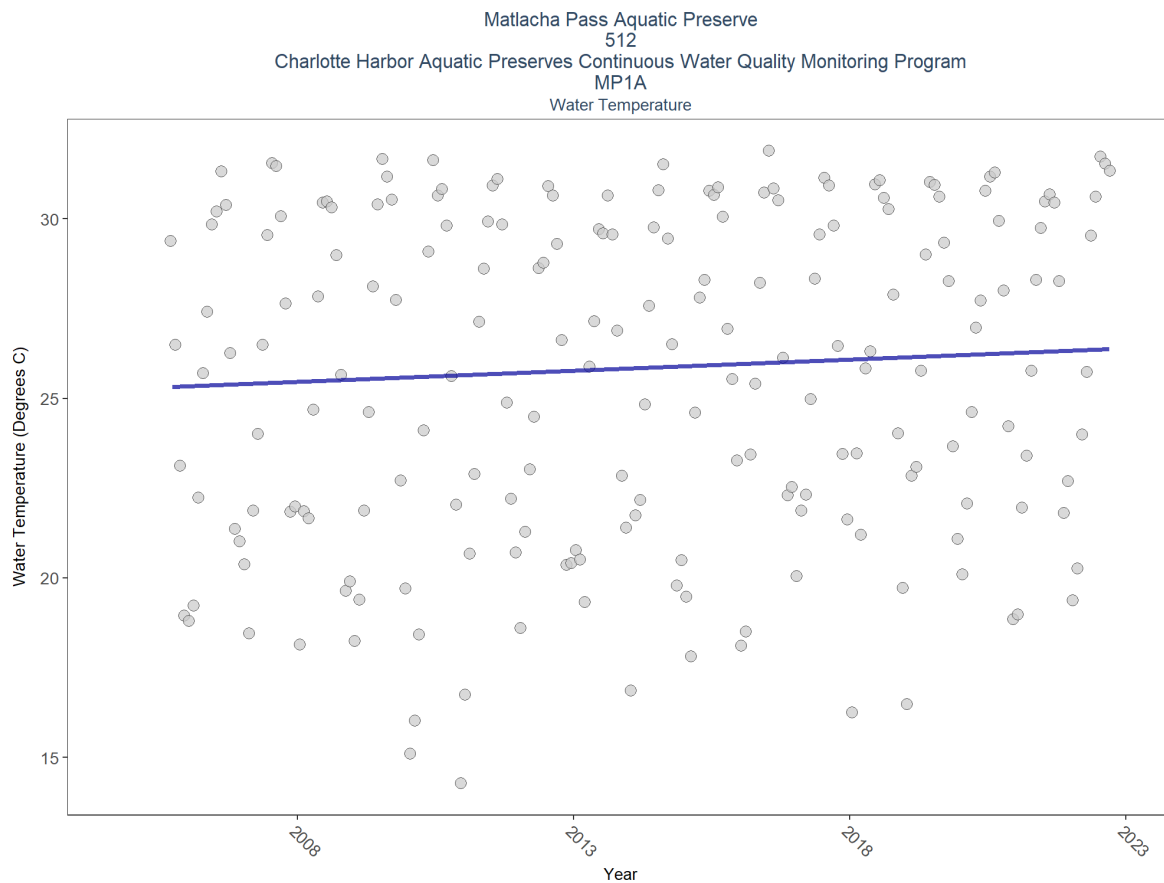


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	572608	18	26.2	TRUE	0.2078	0.0001	0.06037711	25.44375	2.971	0.9911	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

MP1A

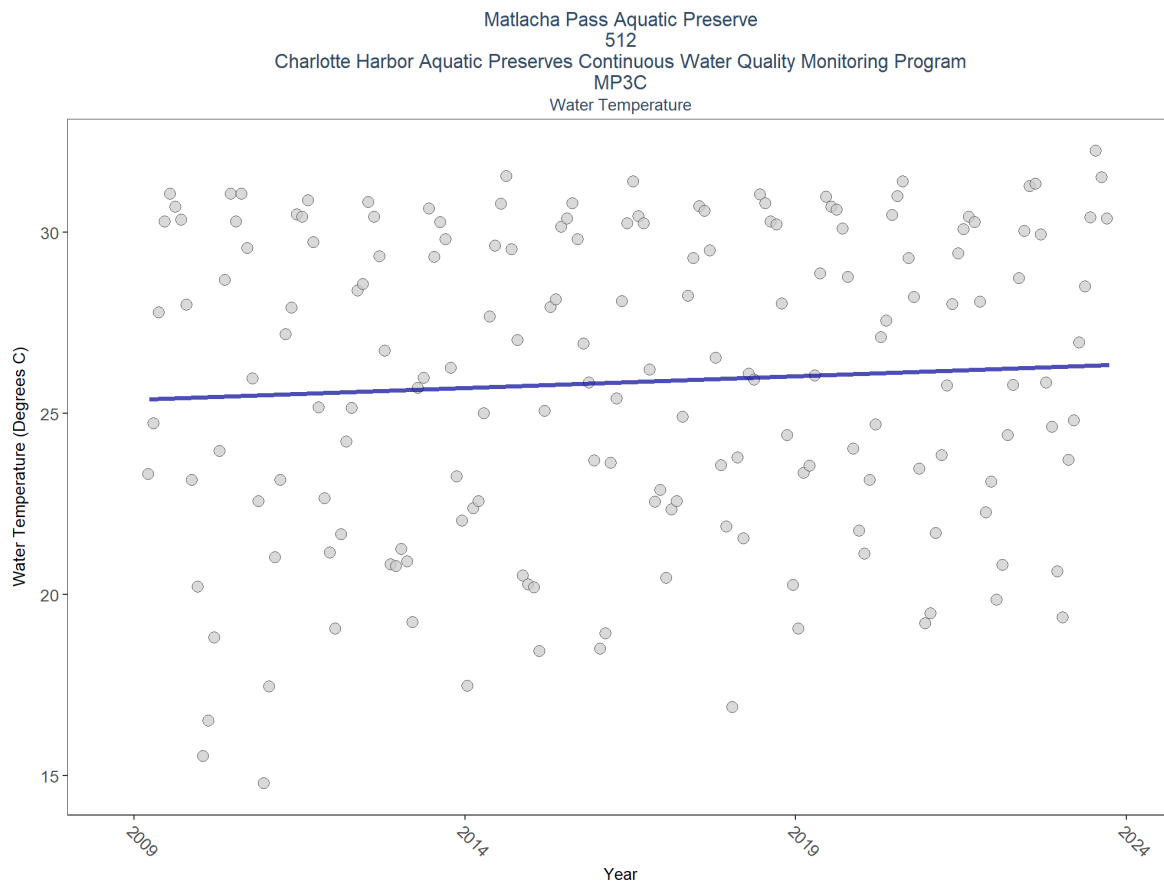


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	574443	18	26.4	TRUE	0.2397	0.0000	0.06195139	25.27953	6.9336	0.8044	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

MP3C



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	483113	15	26.7	TRUE	0.2166	0.0002	0.06498186	25.3816	4.9452	0.9338	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

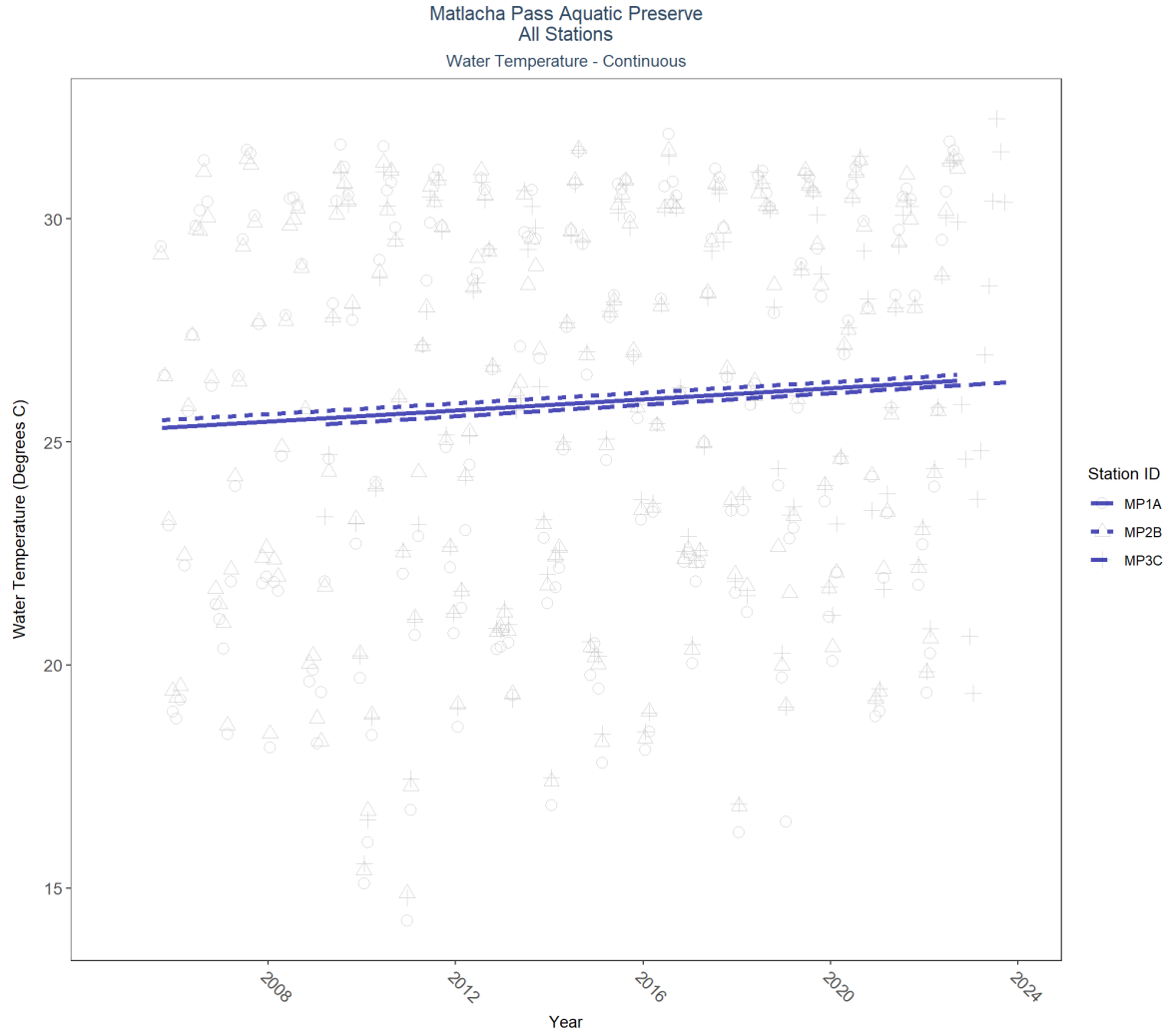


Table 6: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
MP2B	572608	18	2005 - 2022	26.2	0.21	25.44	0.06	0.0001
MP1A	574443	18	2005 - 2022	26.4	0.24	25.28	0.06	0.0000
MP3C	483113	15	2009 - 2023	26.7	0.22	25.38	0.06	0.0002