

# Coupon Bight Aquatic Preserve

## SEACAR Water Quality Analysis

Last compiled on 18 March, 2025

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# Indicators

## Nutrients

### Total Nitrogen - Discrete

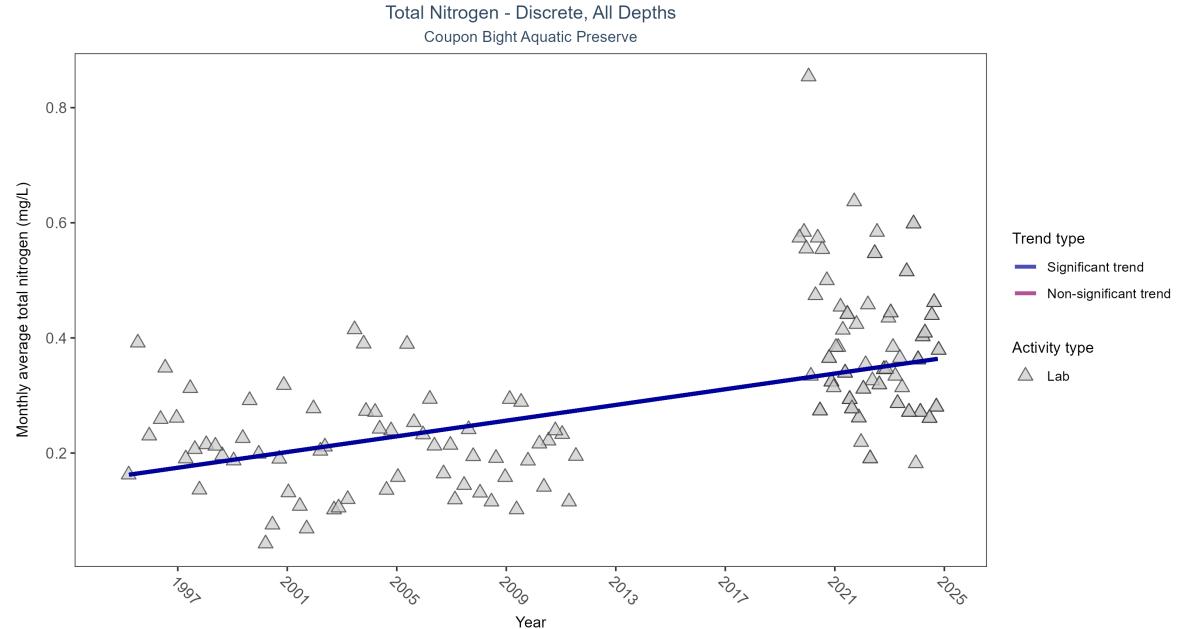
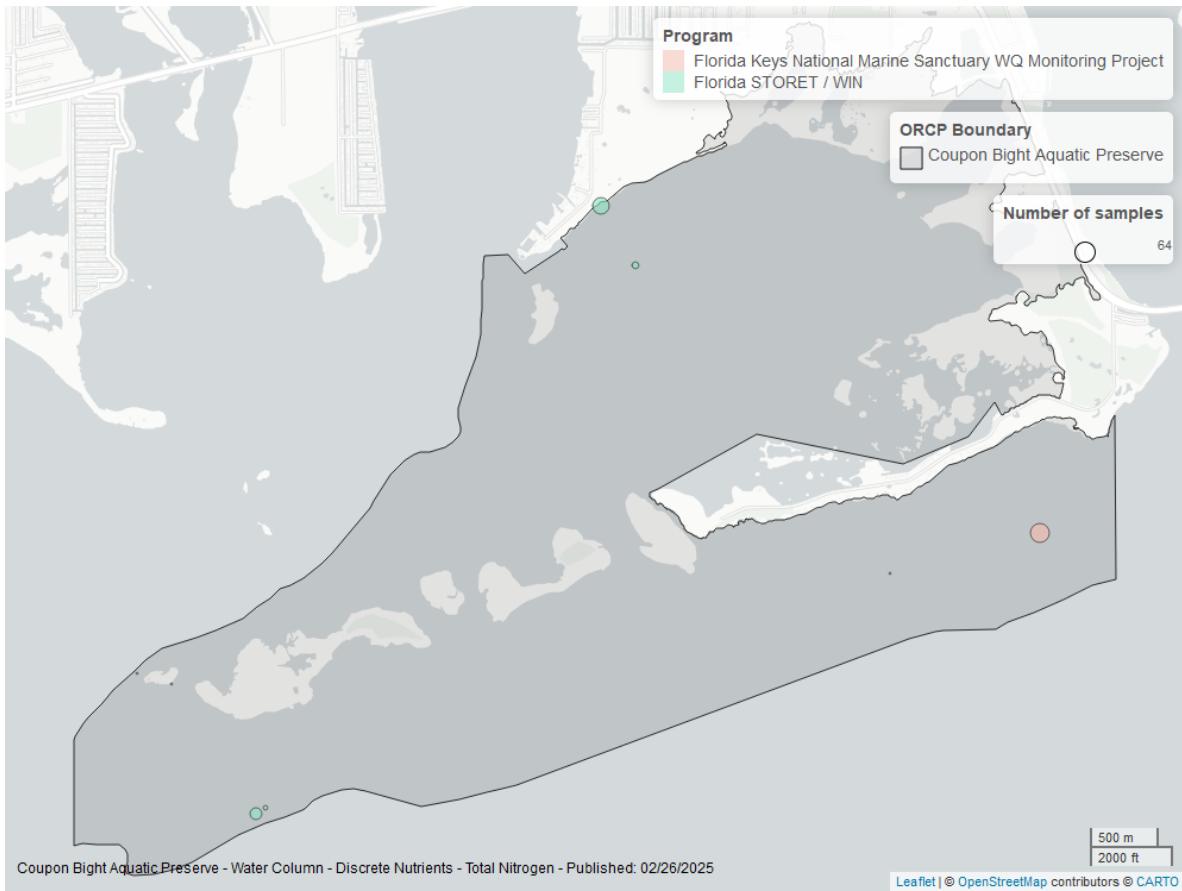


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

| 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 | 163          | 23              | 1995 - 2024      | 0.28867             | 0.35054 | 0.16084       | 0.00682   | 0.00000235745181355534305905203 |



## Total Phosphorus - Discrete

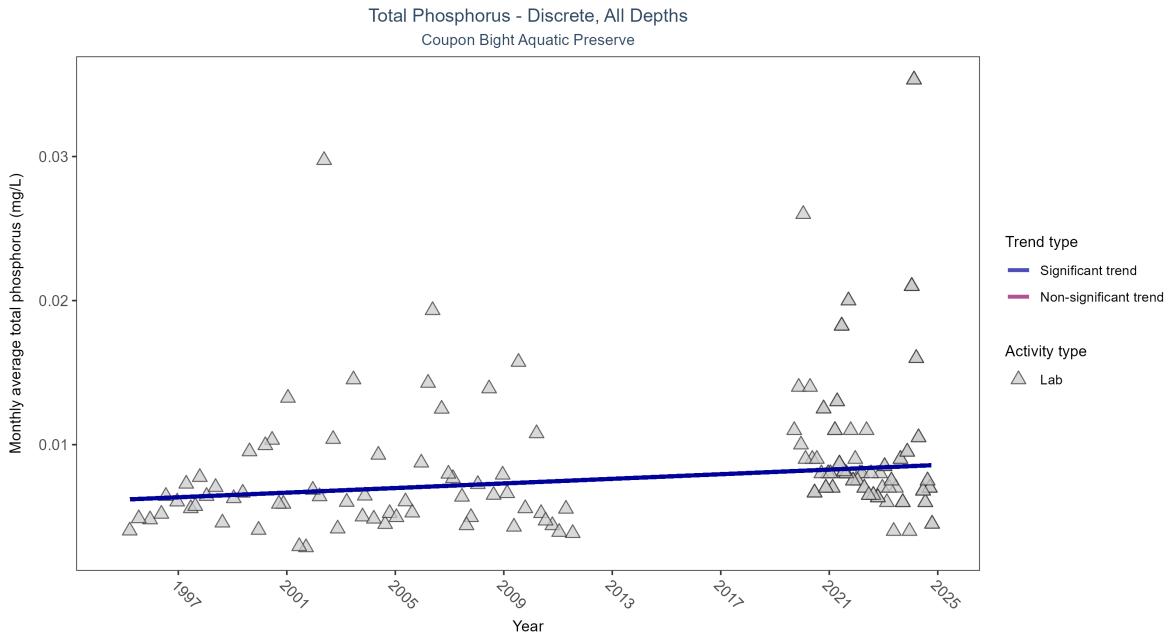
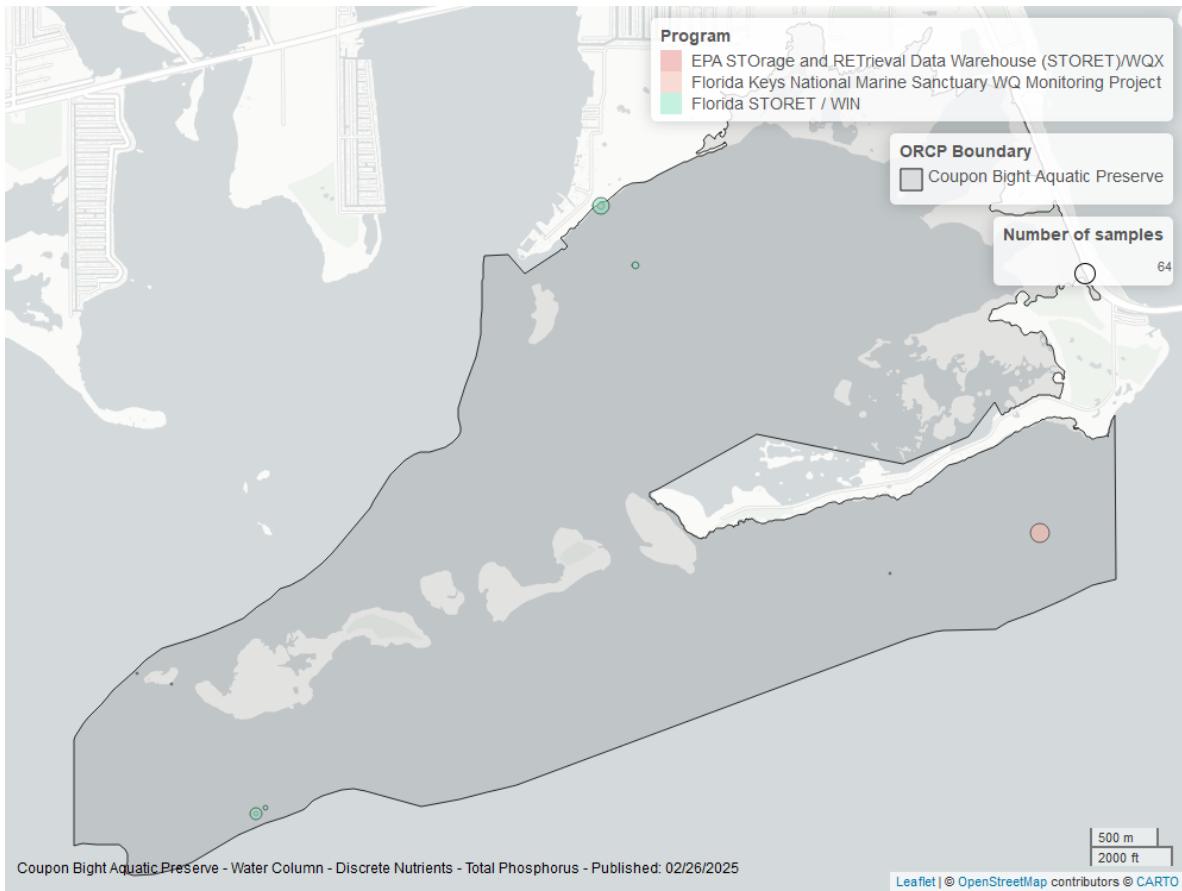


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

| 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 | 180          | 23              | 1995 - 2024      | 0.00702             | 0.20053 | 0.00619       | 0.00008   | 0.00813490494753074146194737892301418469287455081939697265625000000 |



## Water Quality

### Dissolved Oxygen - Discrete

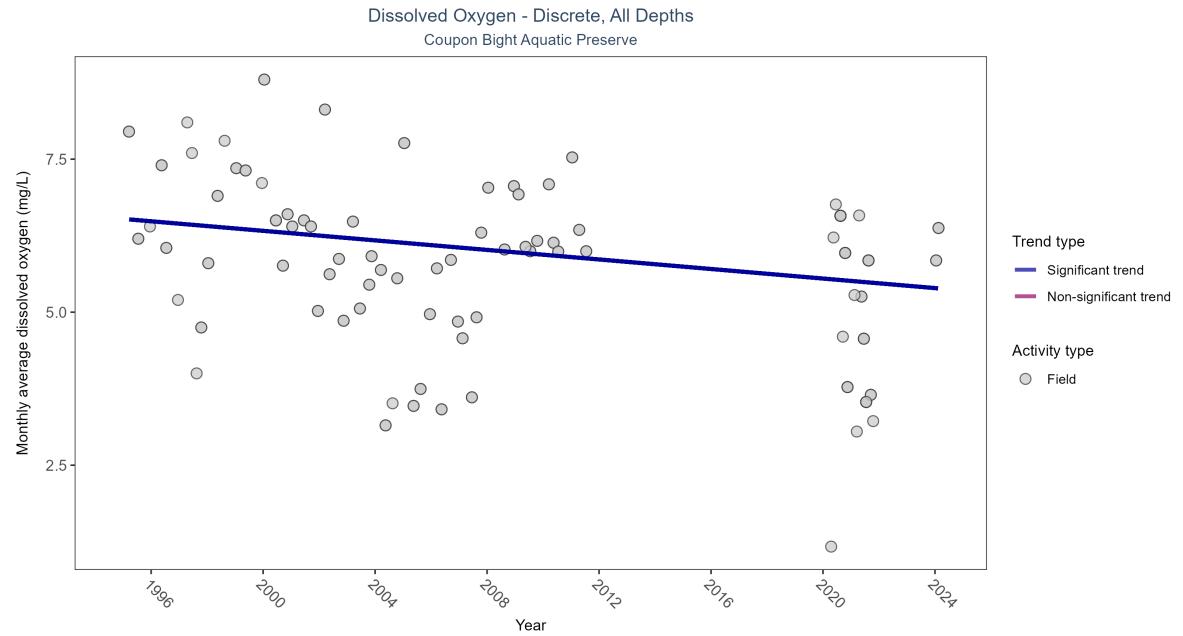
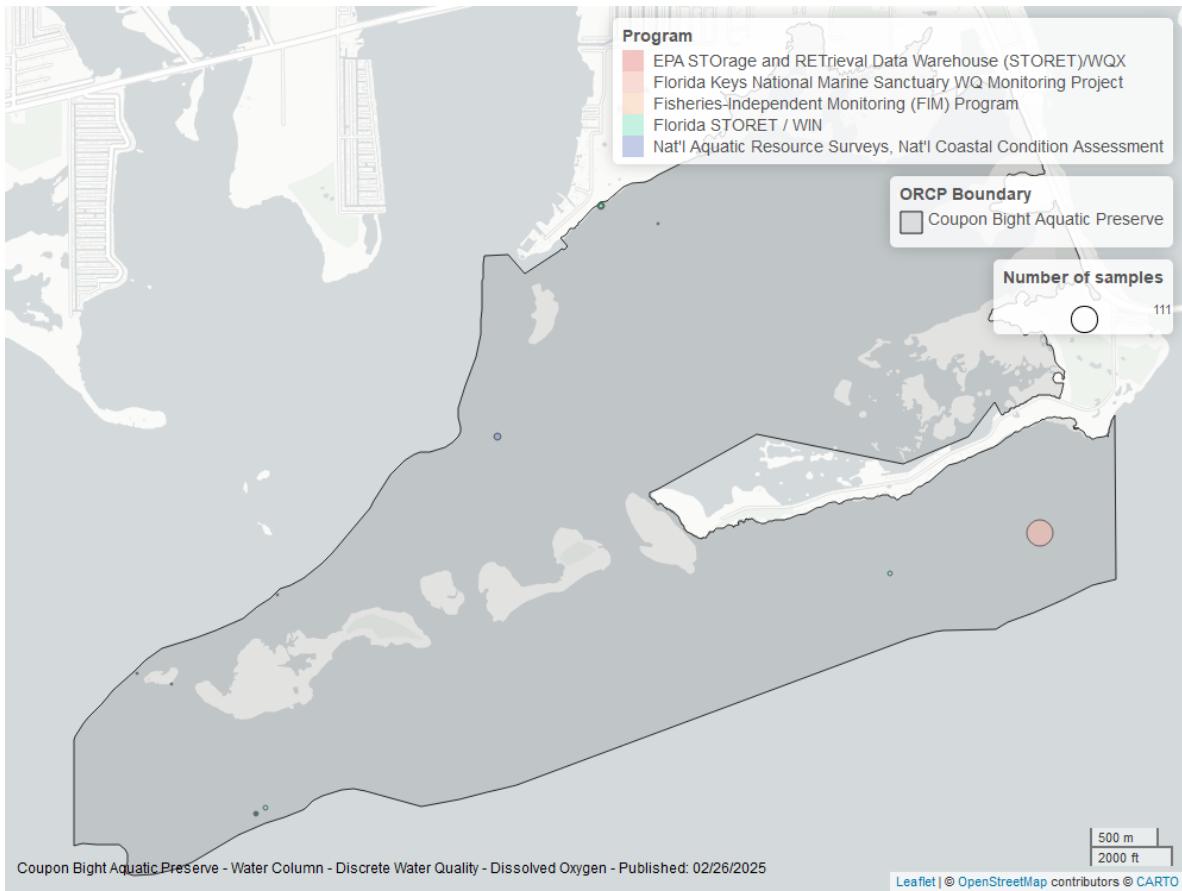


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

| 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 | 159          | 20              | 1995 - 2024      | 5.99052             | -0.25039 | 6.52392       | -0.03898  | 0.02197516286490196 |



## Dissolved Oxygen - Continuous

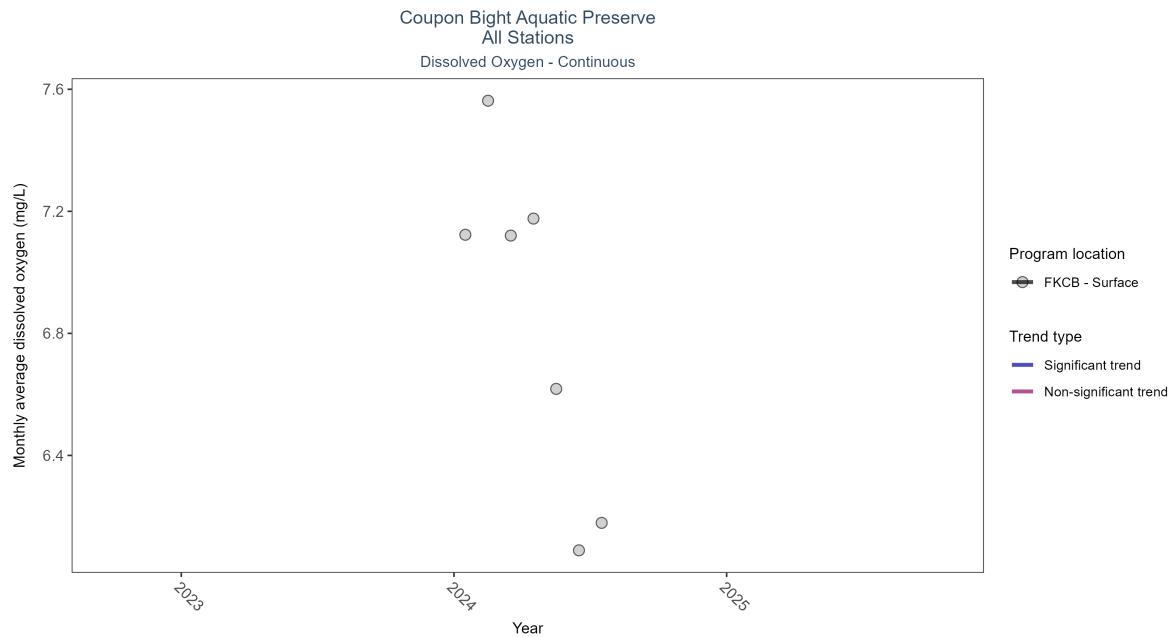
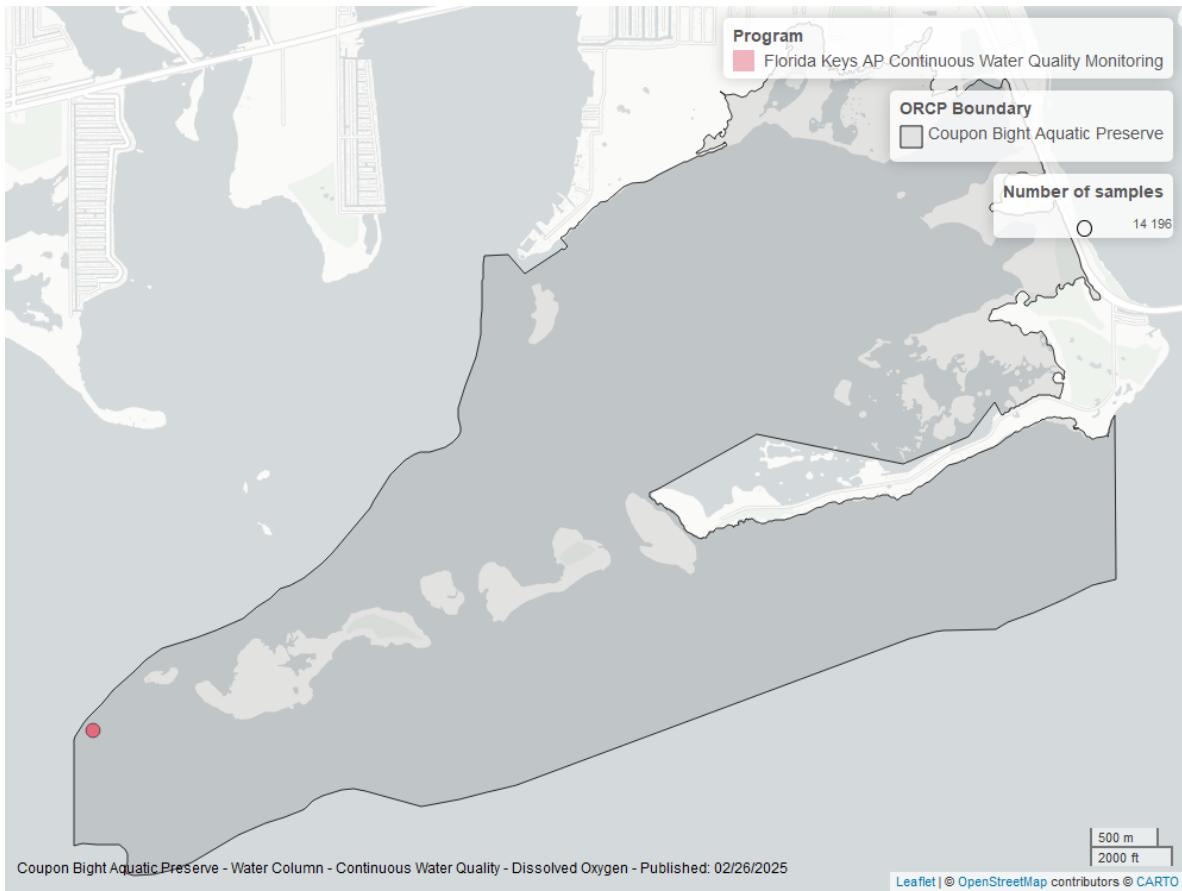


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

| Program Location | Statistical Trend                    | Sample Count | Years with Data | Period of Record | Median Result Value | Tau | Sen Intercept | Sen Slope | P  |
|------------------|--------------------------------------|--------------|-----------------|------------------|---------------------|-----|---------------|-----------|----|
| FKCB             | Insufficient data to calculate trend | 16262        | 1               | 2024 - 2024      | 6.8                 | -   | -             | -         | NA |



## Dissolved Oxygen Saturation - Discrete

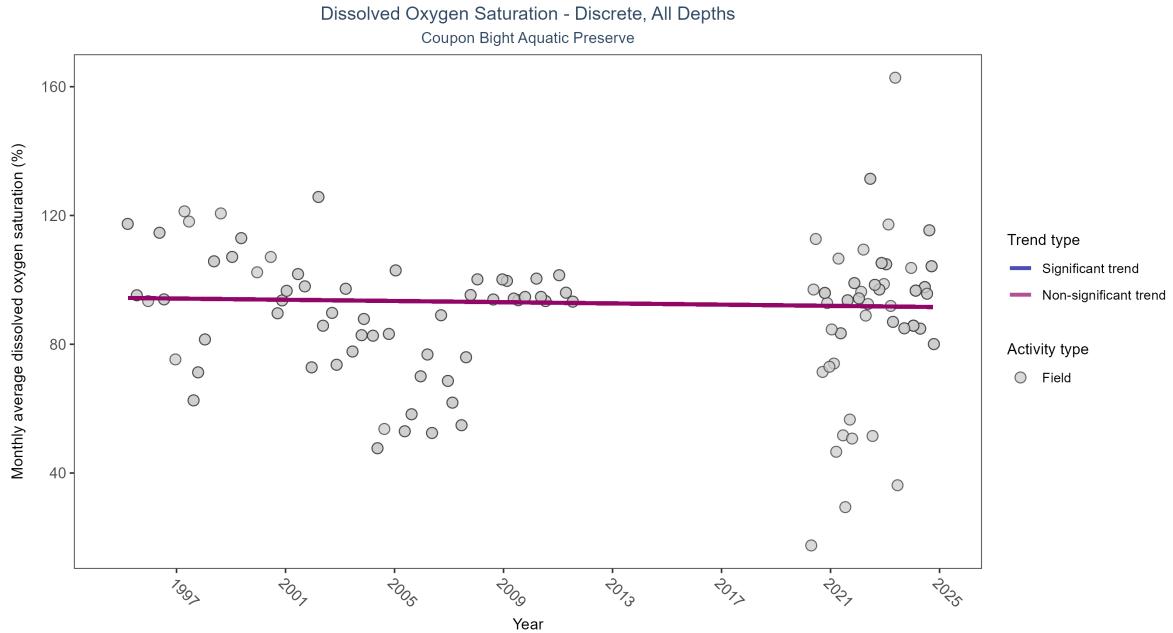
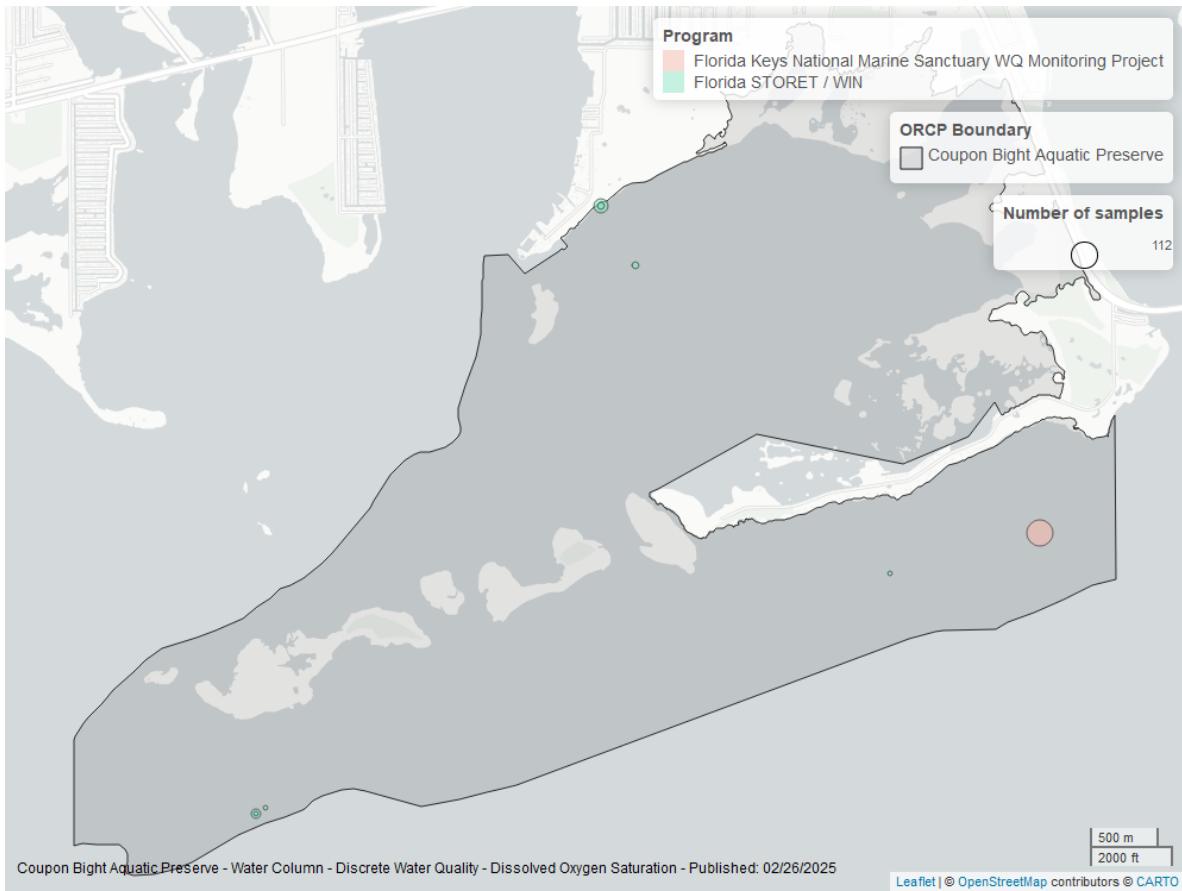


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation



## Dissolved Oxygen Saturation - Continuous

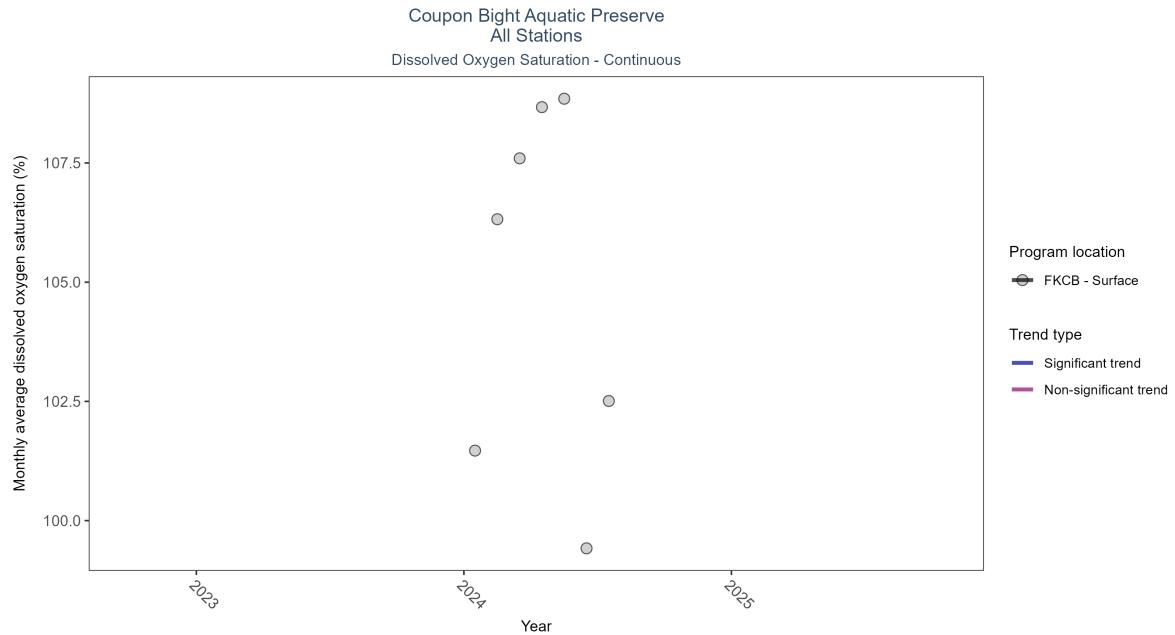
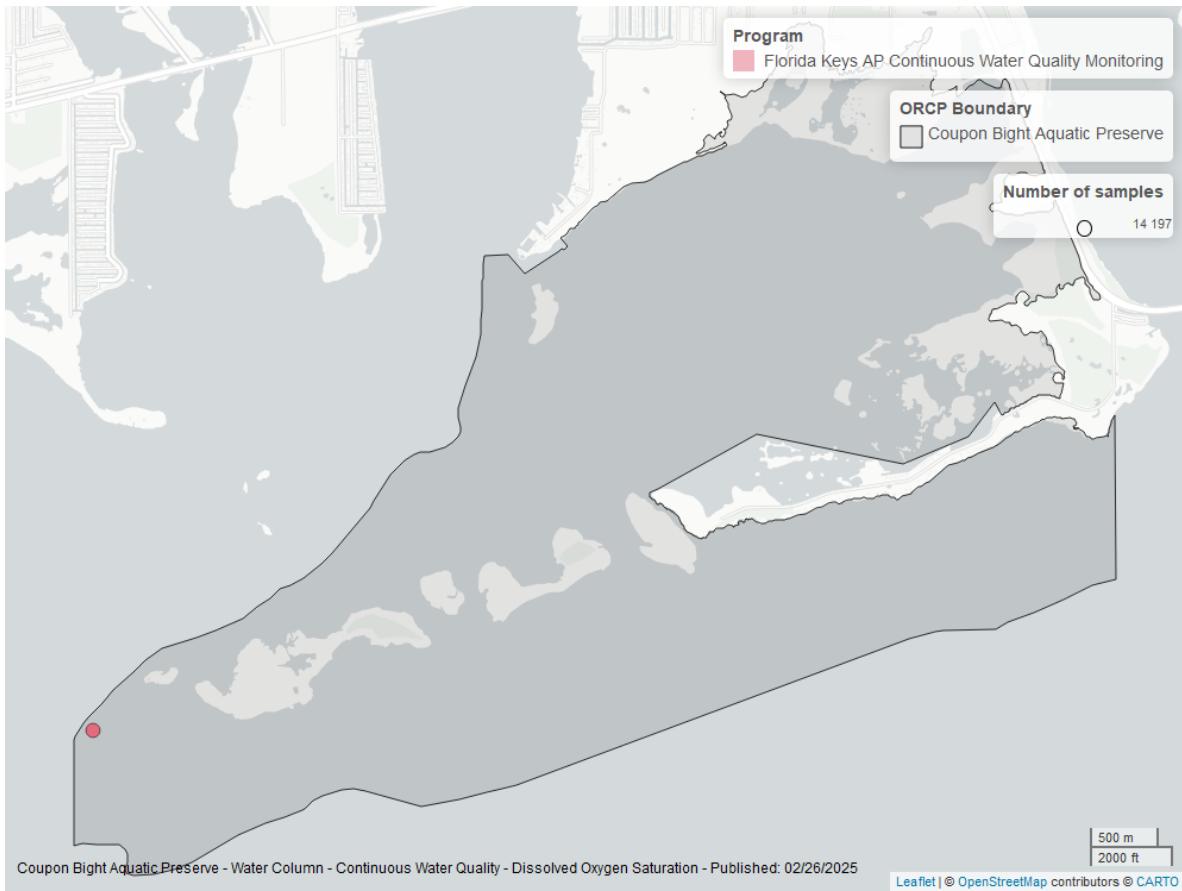


Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

| Program Location | Statistical Trend                    | Sample Count | Years with Data | Period of Record | Median Result Value | Tau | Sen Intercept | Sen Slope | P  |
|------------------|--------------------------------------|--------------|-----------------|------------------|---------------------|-----|---------------|-----------|----|
| FKCB             | Insufficient data to calculate trend | 16263        | 1               | 2024 - 2024      | 103.3               | -   | -             | -         | NA |



## Salinity - Discrete

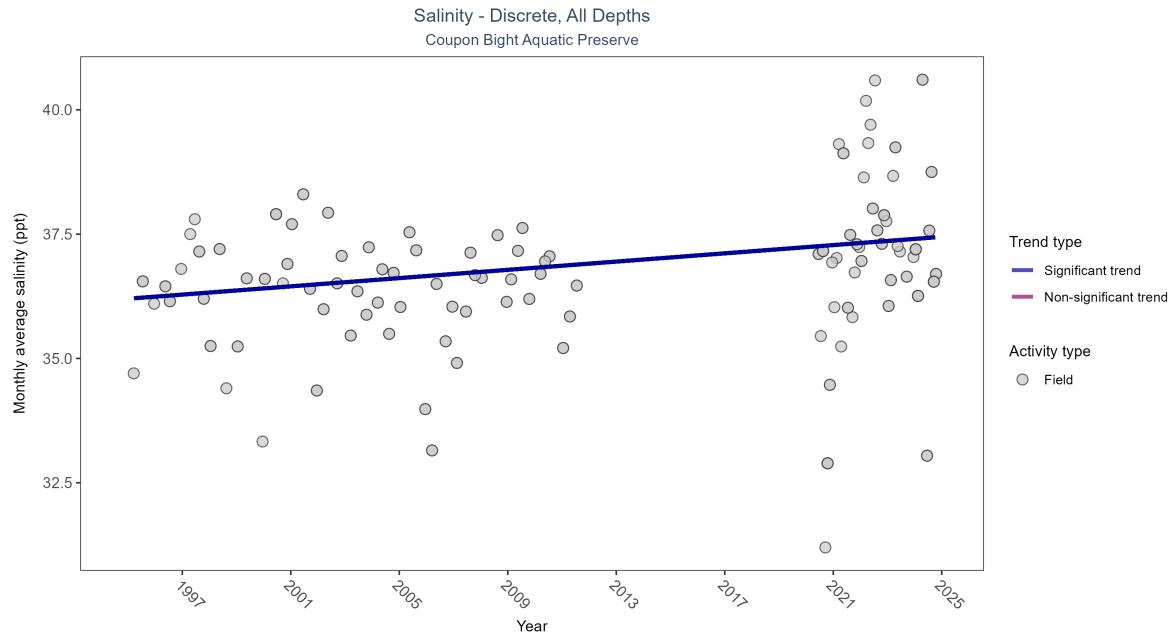
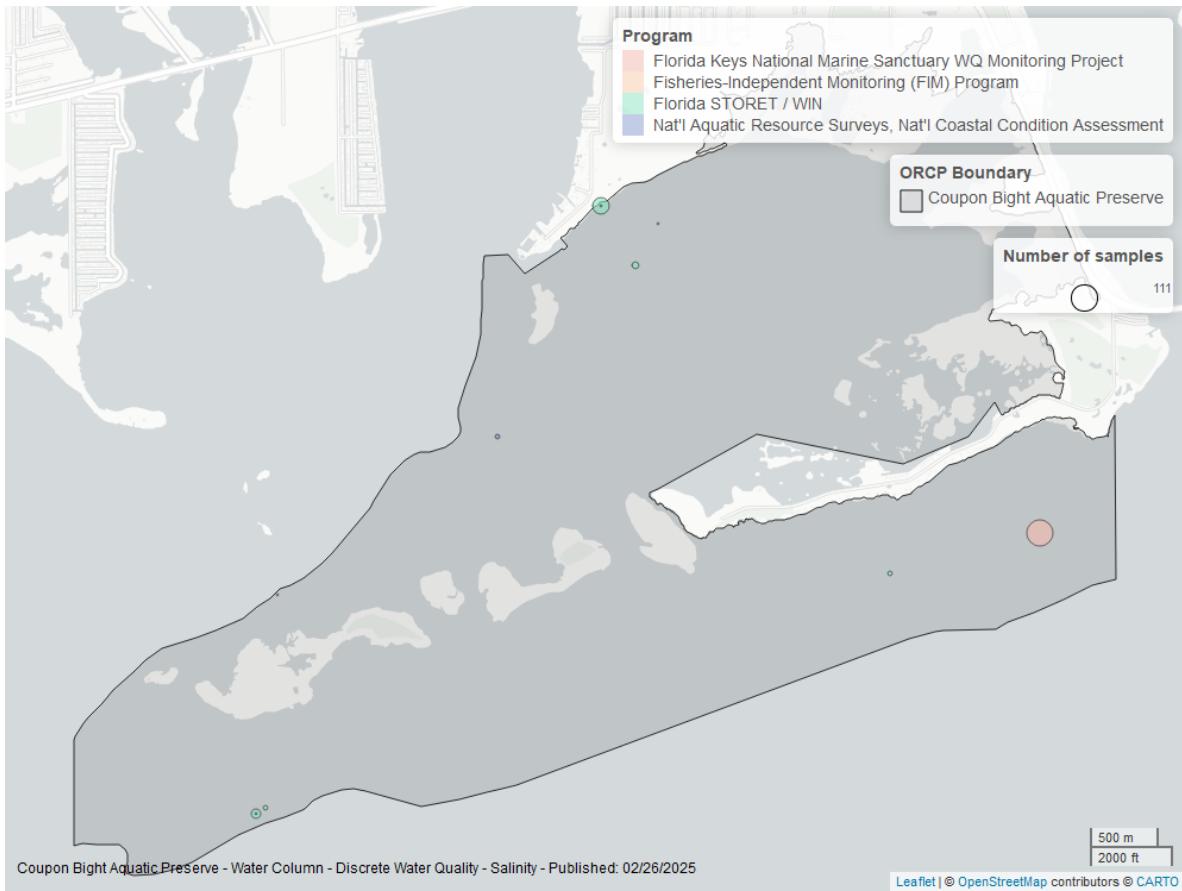


Table 7: Seasonal Kendall-Tau Results for - Salinity

| Activity Type | Statistical Trend              | Sample Count | Years with Data | Period of Record | Median Result Value | Tau     | Sen Intercept | Sen Slope | P   |
|---------------|--------------------------------|--------------|-----------------|------------------|---------------------|---------|---------------|-----------|---|
| All           | Significantly increasing trend | 202          | 22              | 1995 - 2024      | 36.7                | 0.32941 | 36.20108      | 0.04147   | 0.00001713017663676597810437987612353083477501059 |



## Salinity - Continuous

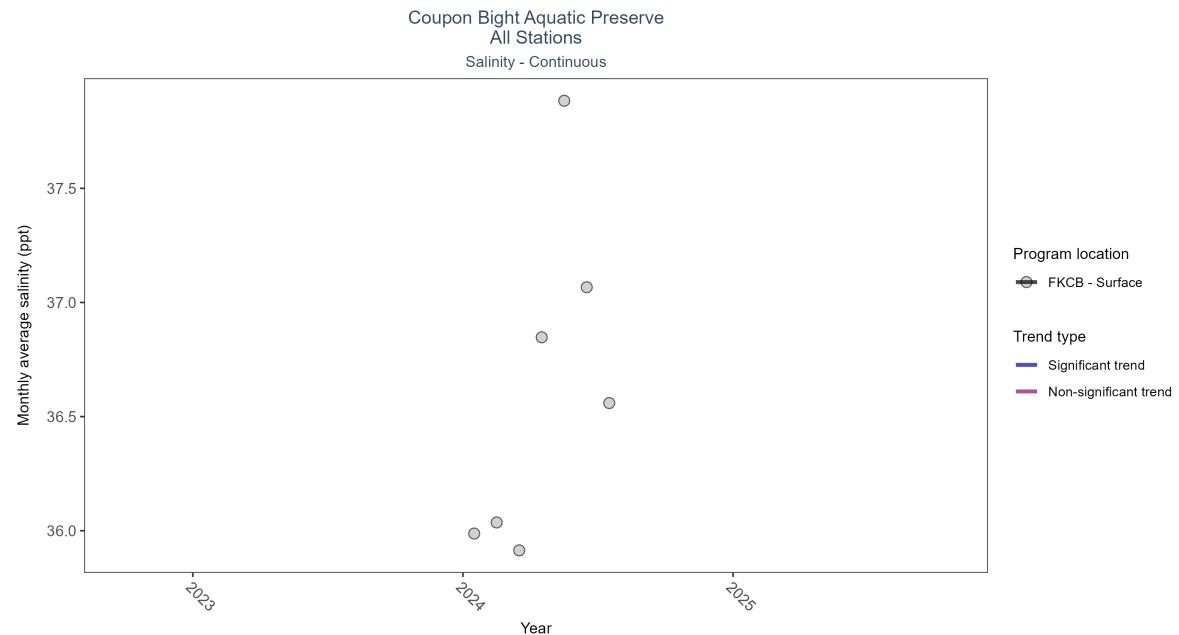
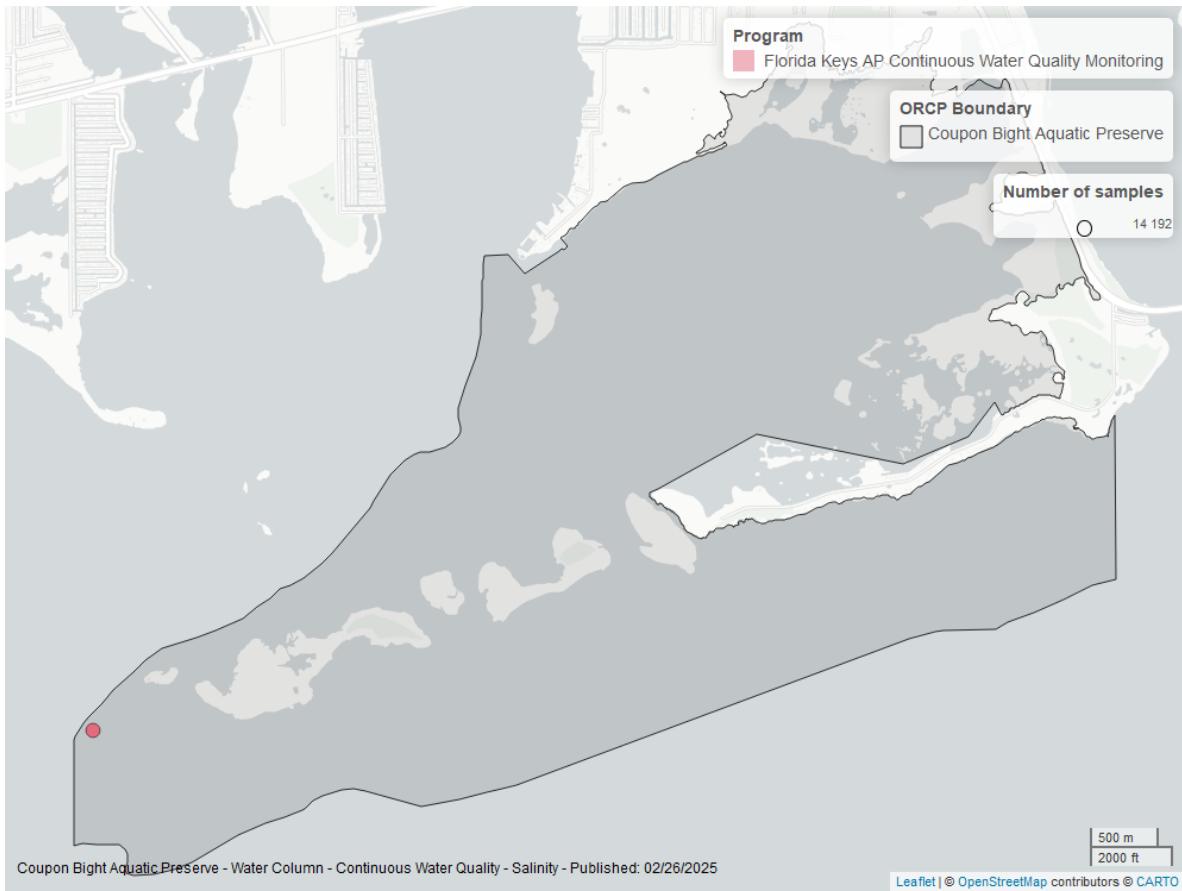


Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

| Program Location | Statistical Trend                    | Sample Count | Years with Data | Period of Record | Median Result Value | Tau | Sen Intercept | Sen Slope | P  |
|------------------|--------------------------------------|--------------|-----------------|------------------|---------------------|-----|---------------|-----------|----|
| FKCB             | Insufficient data to calculate trend | 16258        | 1               | 2024 - 2024      | 36.5                | -   | -             | -         | NA |



## Water Temperature - Discrete

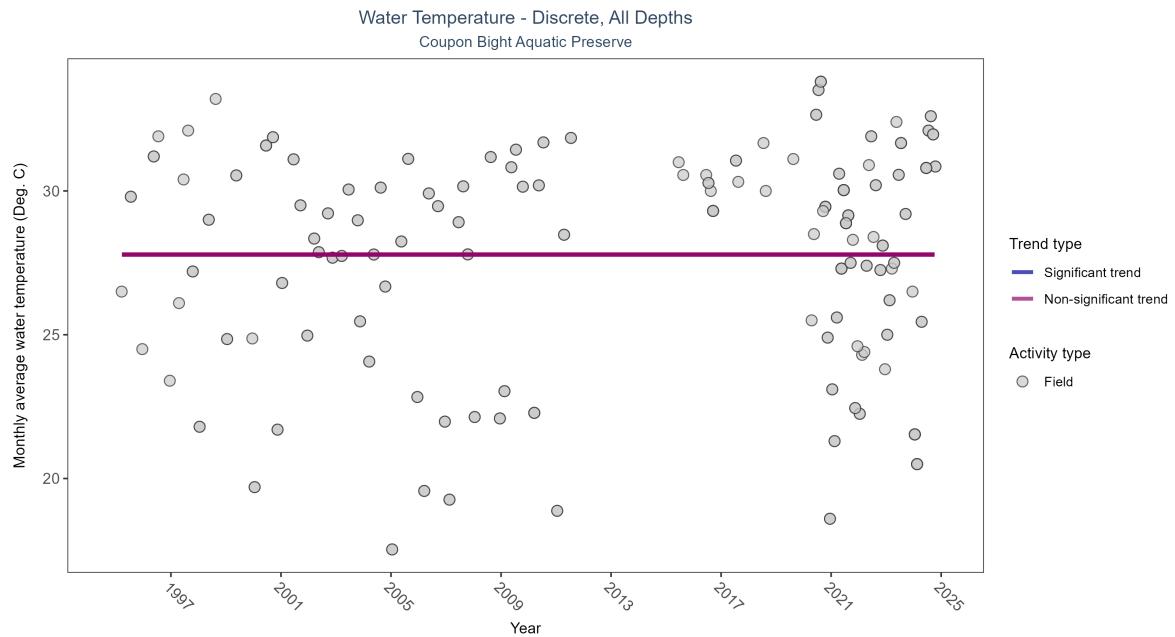
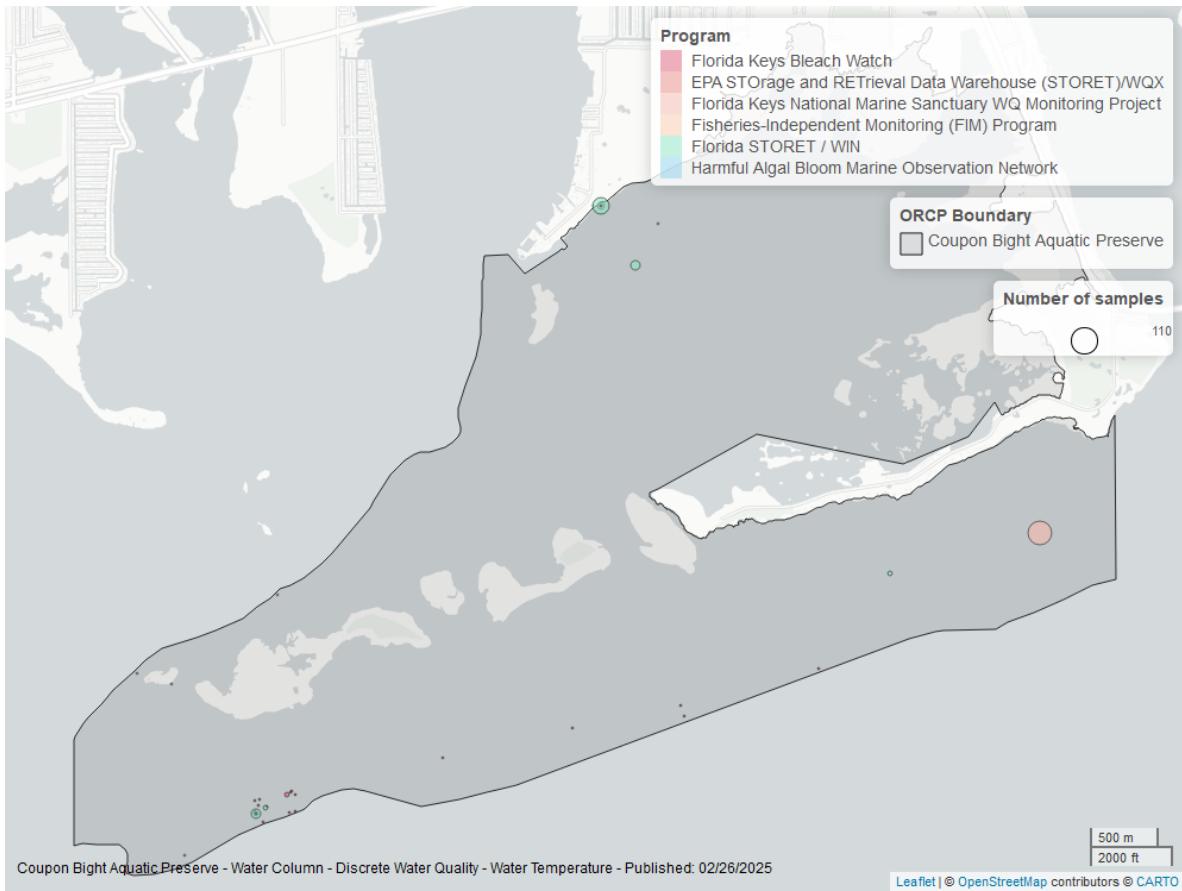


Table 9: Seasonal Kendall-Tau Results for - Water Temperature

| 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 | 242          | 27              | 1995 - 2024      | 28.5                | 0.00959 | 27.7916       | 0         | 1.000000000000000 |



## Water Temperature - Continuous

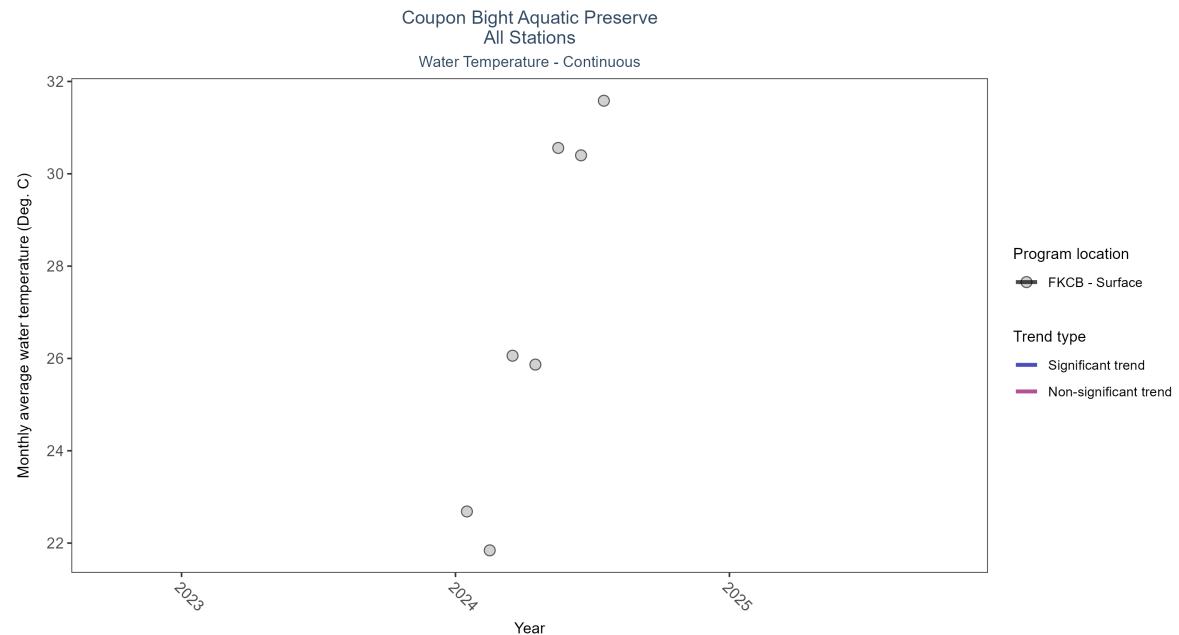
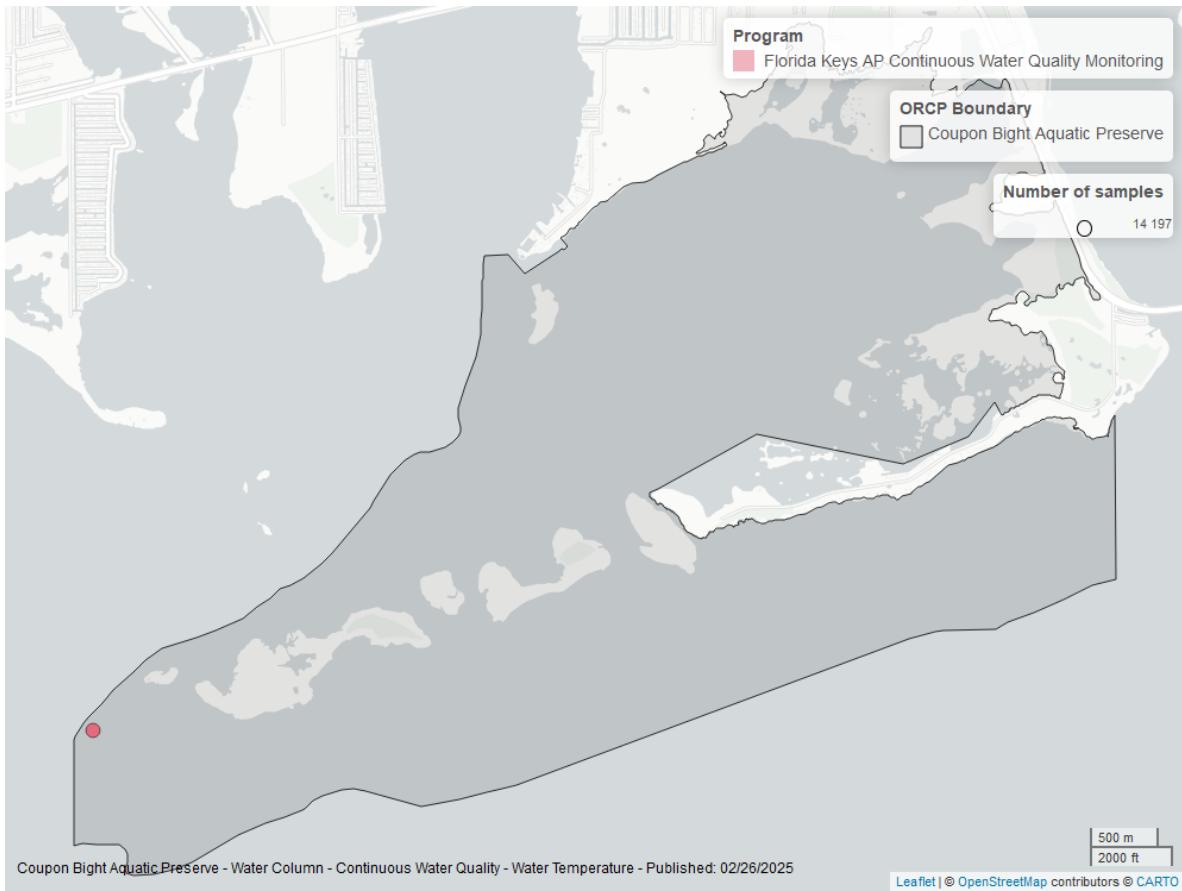


Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

| Program Location | Statistical Trend                    | Sample Count | Years with Data | Period of Record | Median Result Value | Tau | Sen Intercept | Sen Slope | P  |
|------------------|--------------------------------------|--------------|-----------------|------------------|---------------------|-----|---------------|-----------|----|
| FKCB             | Insufficient data to calculate trend | 16263        | 1               | 2024 - 2024      | 26.8                | -   | -             | -         | NA |



## pH - Discrete

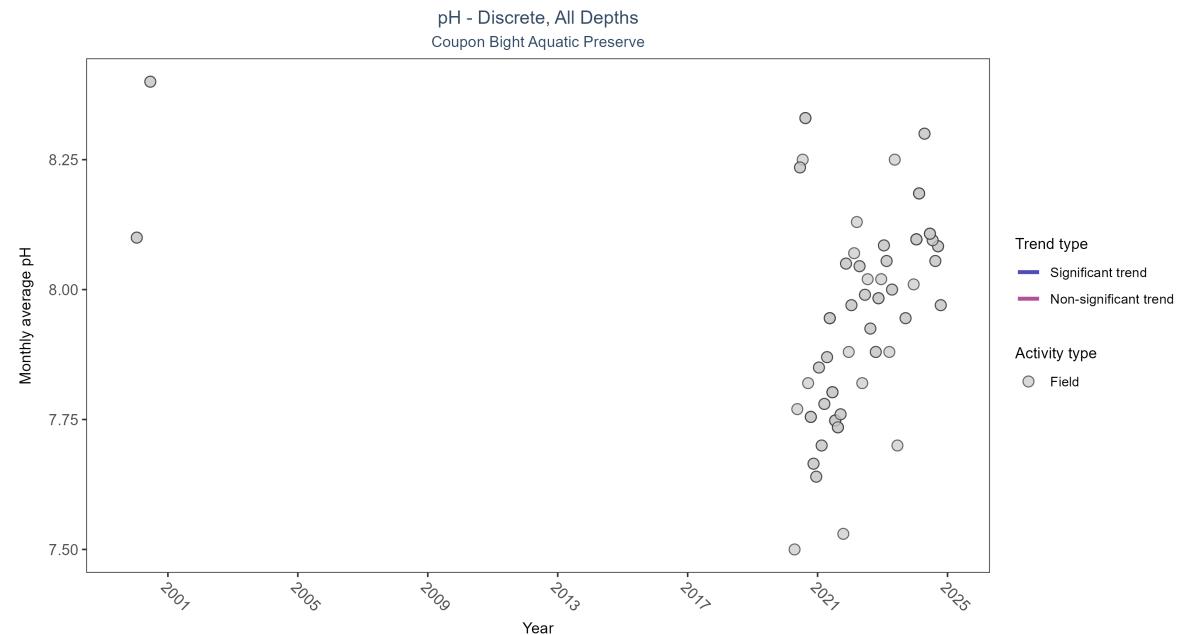
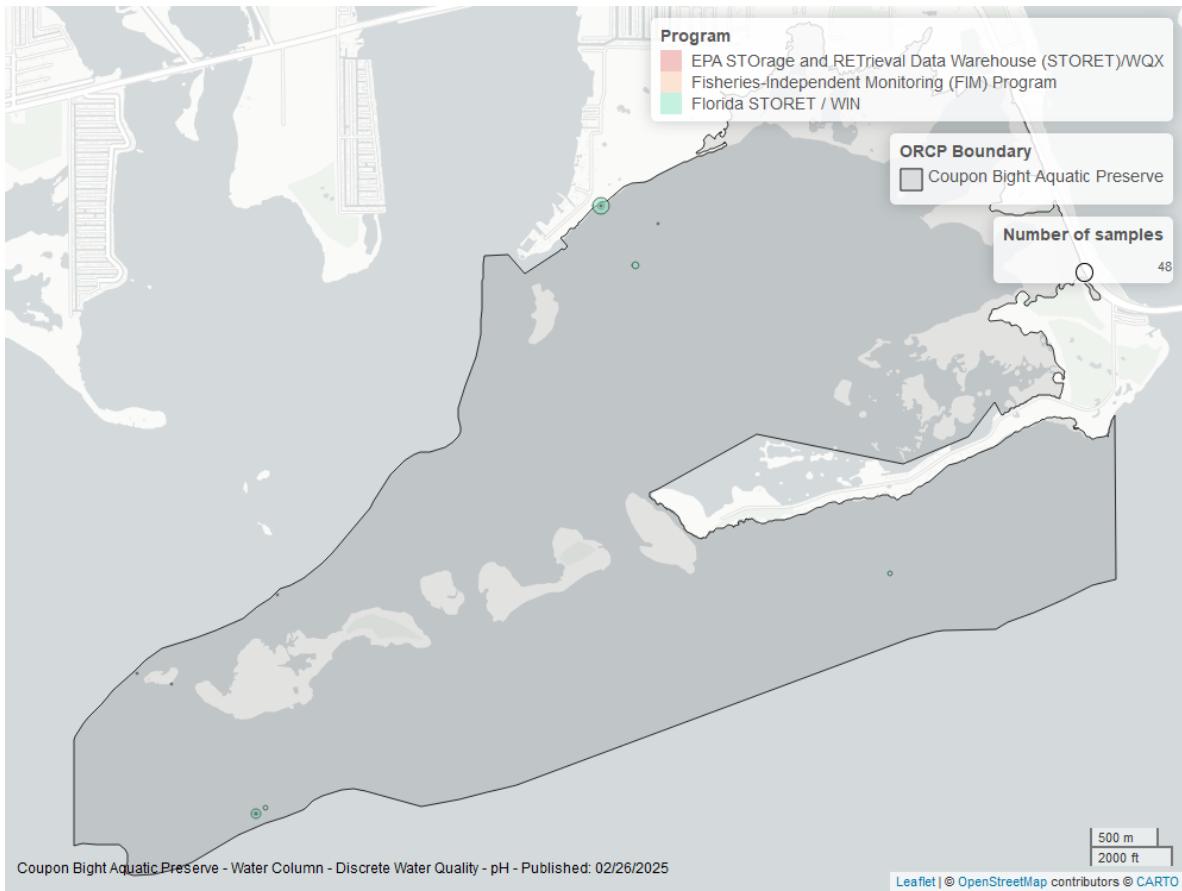


Table 11: Seasonal Kendall-Tau Results for - pH

| Activity Type | Statistical Trend                    | Sample Count | Years with Data | Period of Record | Median Result Value | Tau | Sen Intercept | Sen Slope | P  |
|---------------|--------------------------------------|--------------|-----------------|------------------|---------------------|-----|---------------|-----------|----|
| Field         | Insufficient data to calculate trend | 107          | 6               | 2000 - 2024      | 8                   | -   | -             | -         | NA |



## pH - Continuous

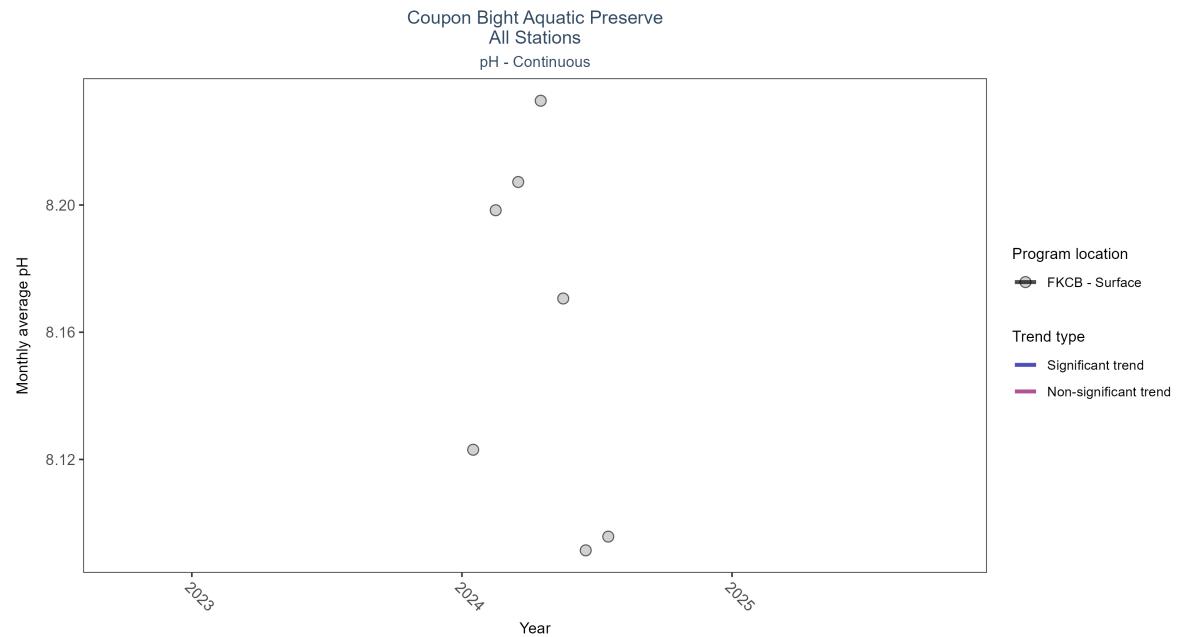
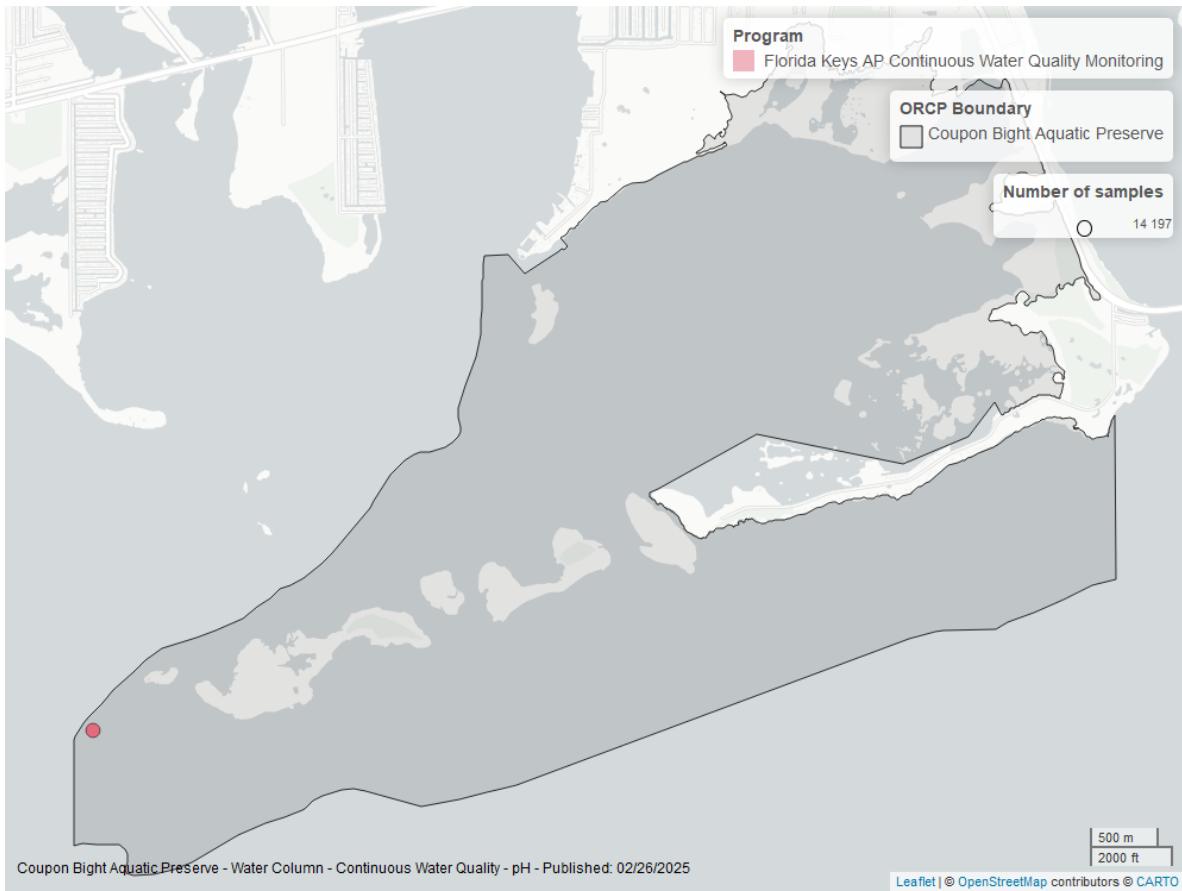


Table 12: Seasonal Kendall-Tau Results for All Stations - pH

| Program Location | Statistical Trend                    | Sample Count | Years with Data | Period of Record | Median Result Value | Tau | Sen Intercept | Sen Slope | P  |
|------------------|--------------------------------------|--------------|-----------------|------------------|---------------------|-----|---------------|-----------|----|
| FKCB             | Insufficient data to calculate trend | 16263        | 1               | 2024 - 2024      | 8.2                 | -   | -             | -         | NA |



## Water Clarity

### Turbidity - Discrete

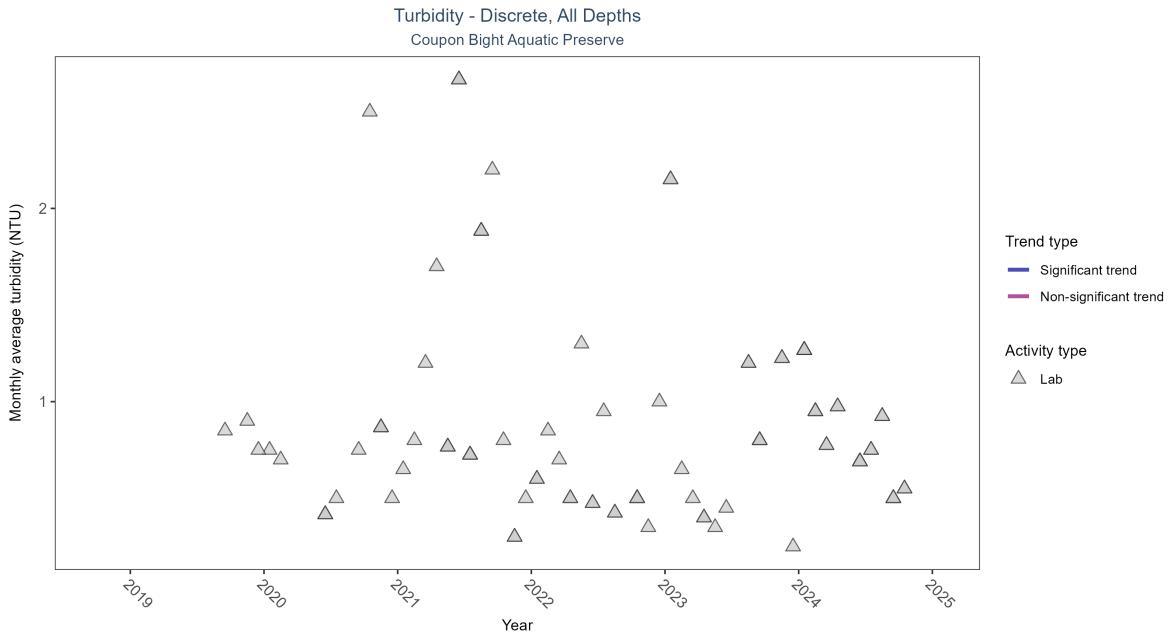
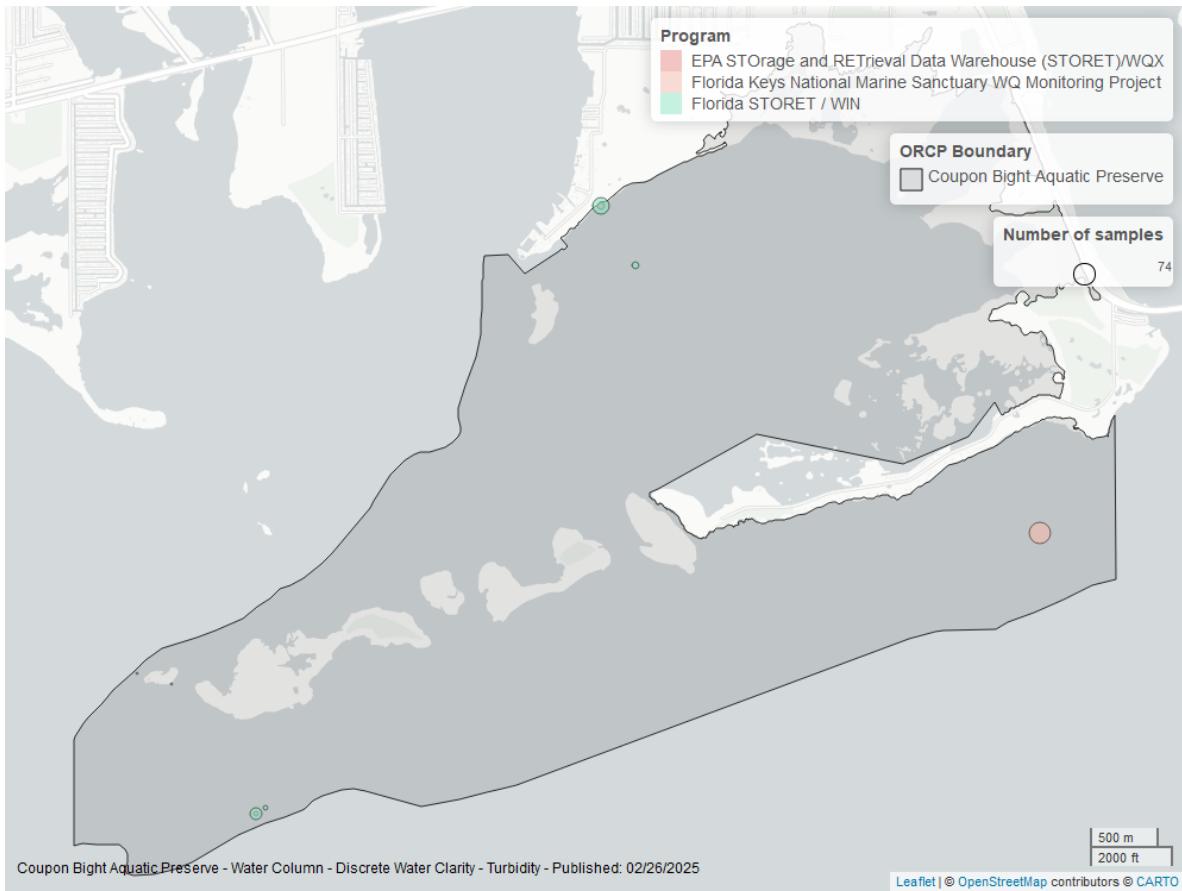


Table 13: Seasonal Kendall-Tau Results for - Turbidity

| Activity Type | Statistical Trend                    | Sample Count | Years with Data | Period of Record | Median Result Value | Tau | Sen Intercept | Sen Slope | P  |
|---------------|--------------------------------------|--------------|-----------------|------------------|---------------------|-----|---------------|-----------|----|
| Lab           | Insufficient data to calculate trend | 97           | 6               | 2019 - 2024      | 0.7                 | -   | -             | -         | NA |



## Turbidity - Continuous

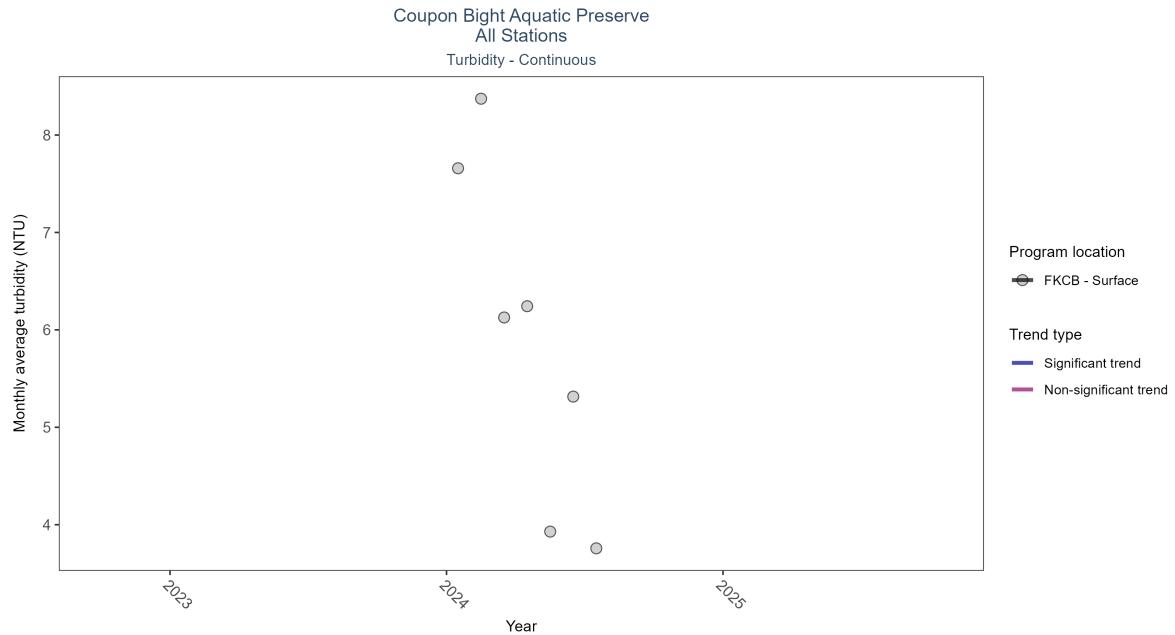
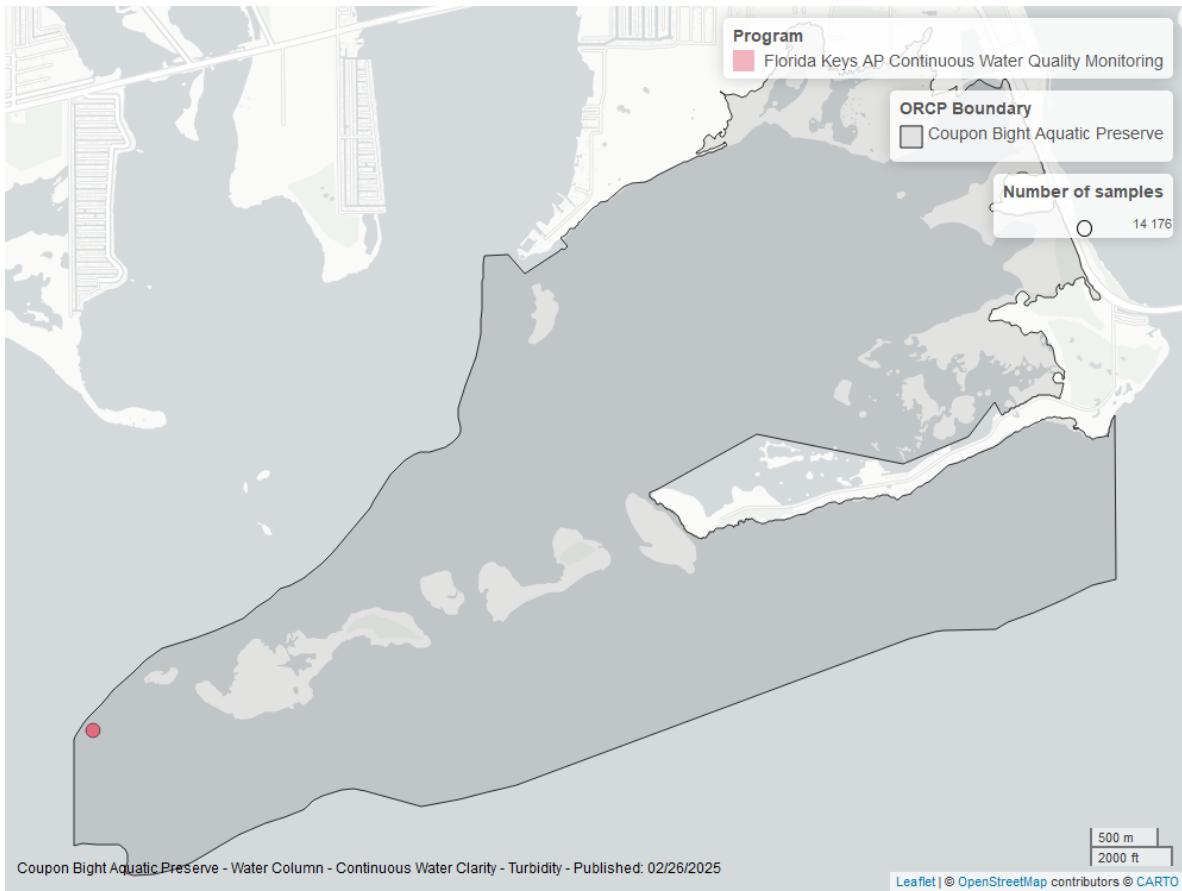


Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

| Program Location | Statistical Trend                    | Sample Count | Years with Data | Period of Record | Median Result Value | Tau | Sen Intercept | Sen Slope | P  |
|------------------|--------------------------------------|--------------|-----------------|------------------|---------------------|-----|---------------|-----------|----|
| FKCB             | Insufficient data to calculate trend | 16240        | 1               | 2024 - 2024      | 4                   | -   | -             | -         | NA |



## Chlorophyll a, Uncorrected for Pheophytin - Discrete

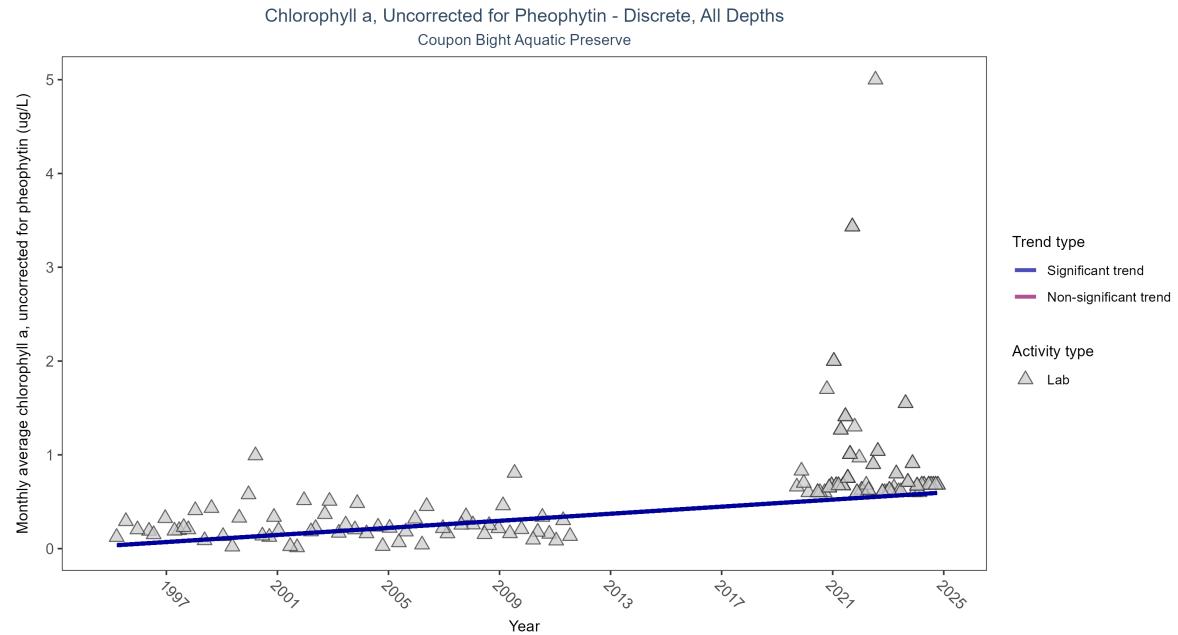
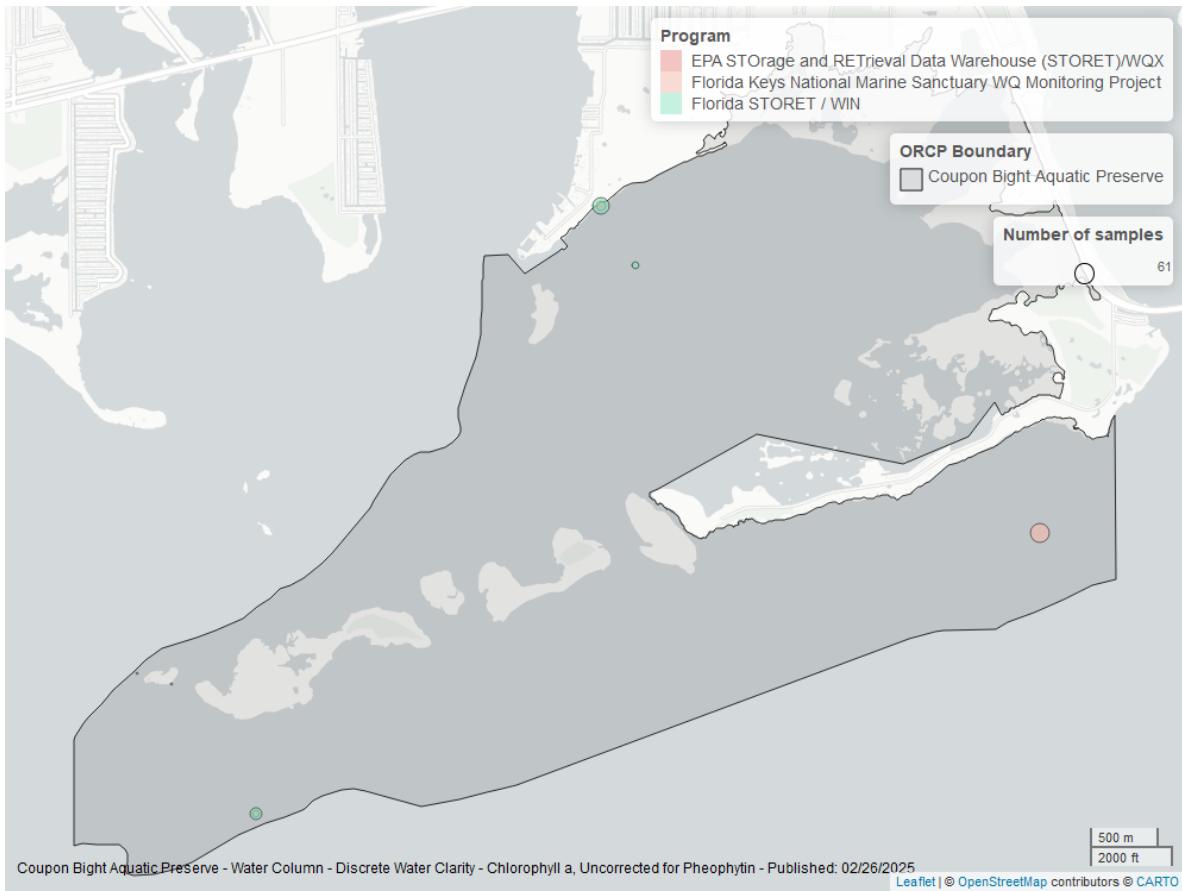


Table 15: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

| 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 | 184          | 23              | 1995 - 2024      | 0.6                 | 0.43499 | 0.0325        | 0.01886   | 0.0000001790899719795592837 |



## Chlorophyll a, Corrected for Pheophytin - Discrete

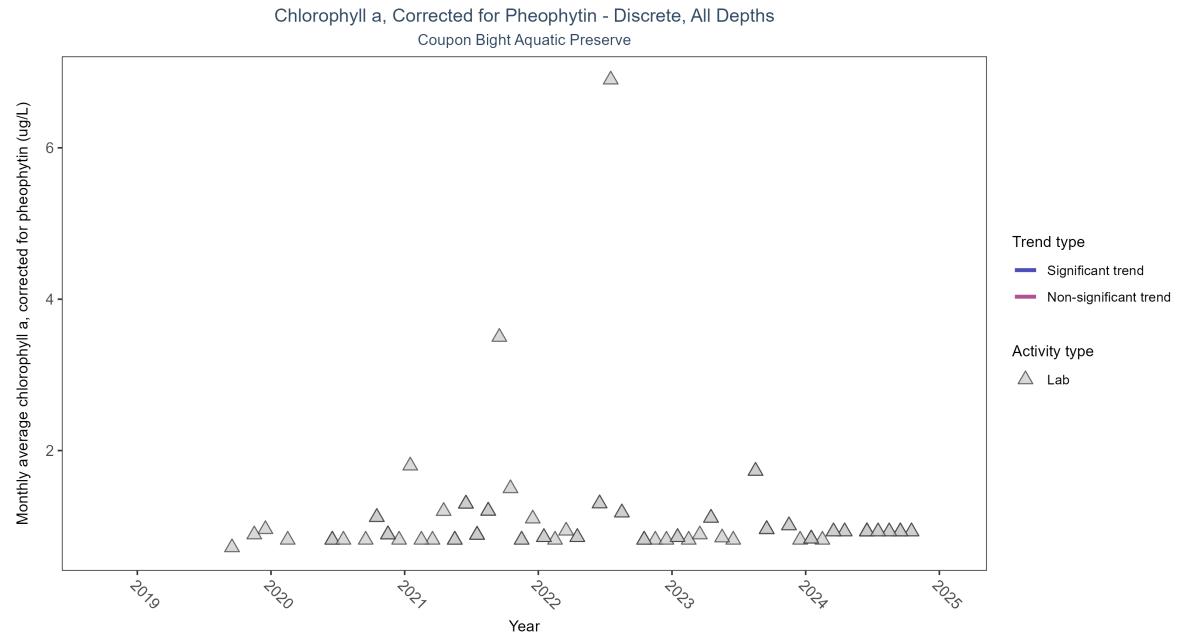
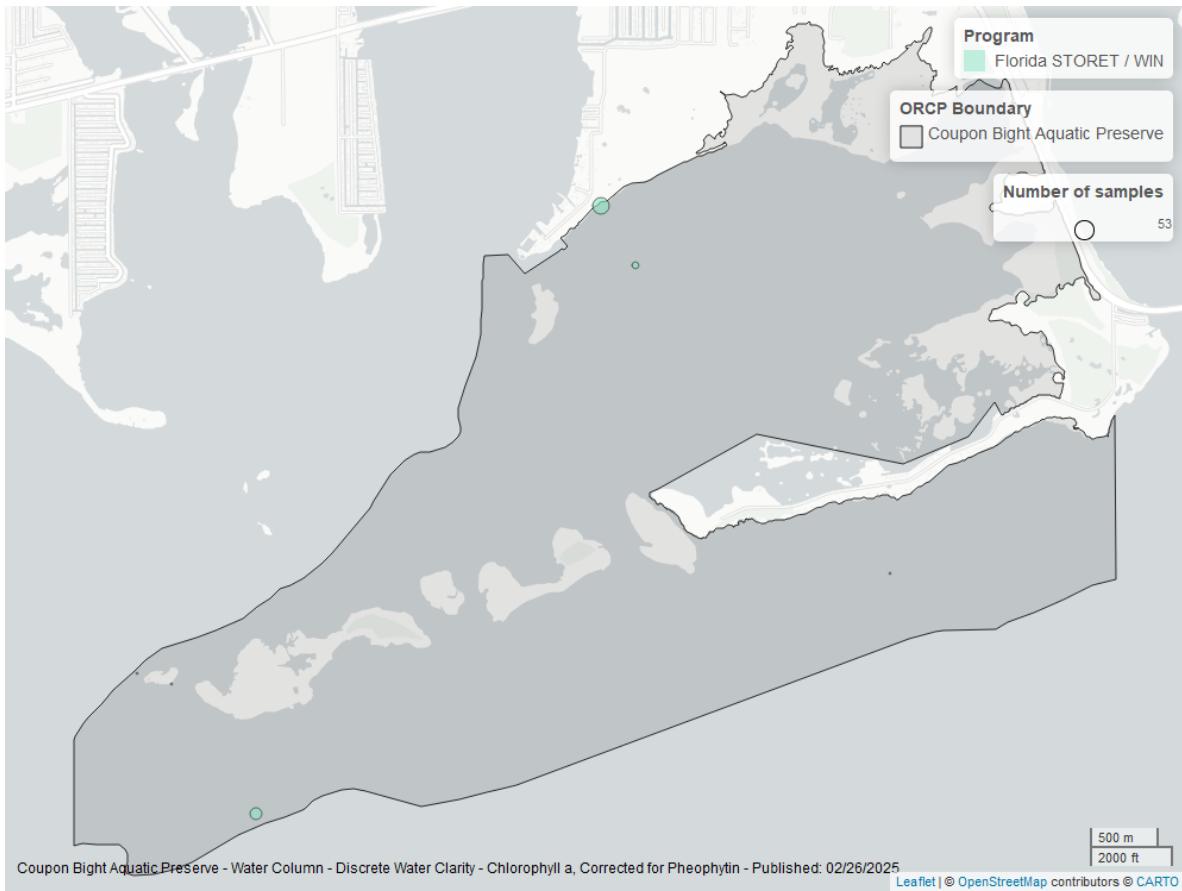


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

| 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 | 92           | 6               | 2019 - 2024      | 0.89                | -   | -             | -         | NA |



## Secchi Depth - Discrete

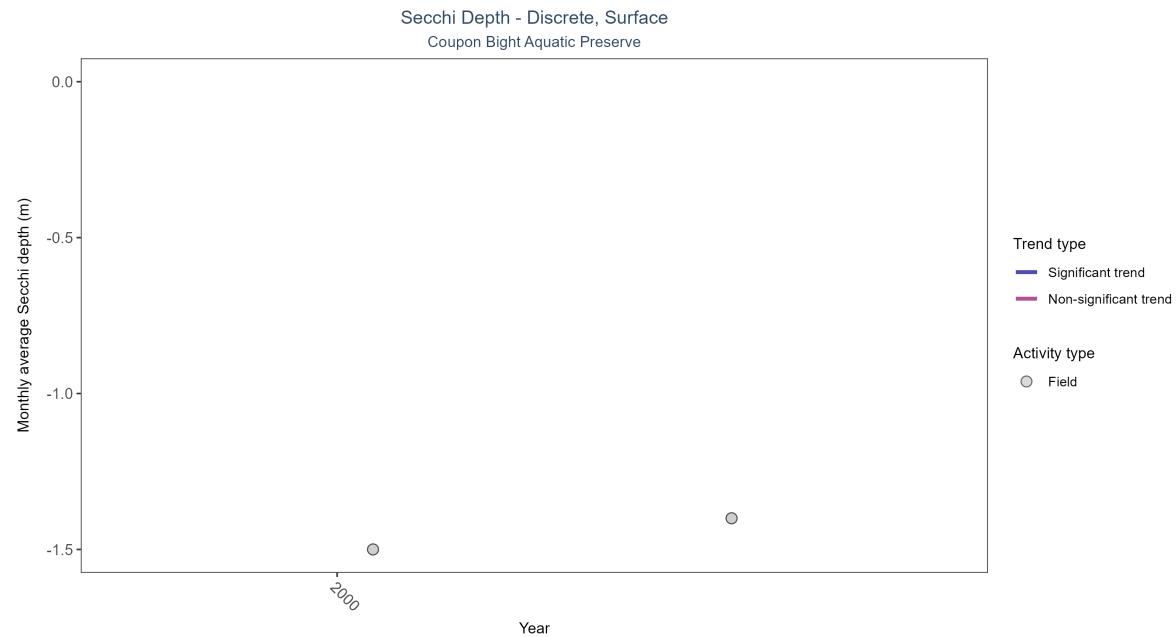


Table 17: Seasonal Kendall-Tau Results for - Secchi Depth

