Appendix C: LakeWatch Trend Plots for Lemon Creek

Three Locations
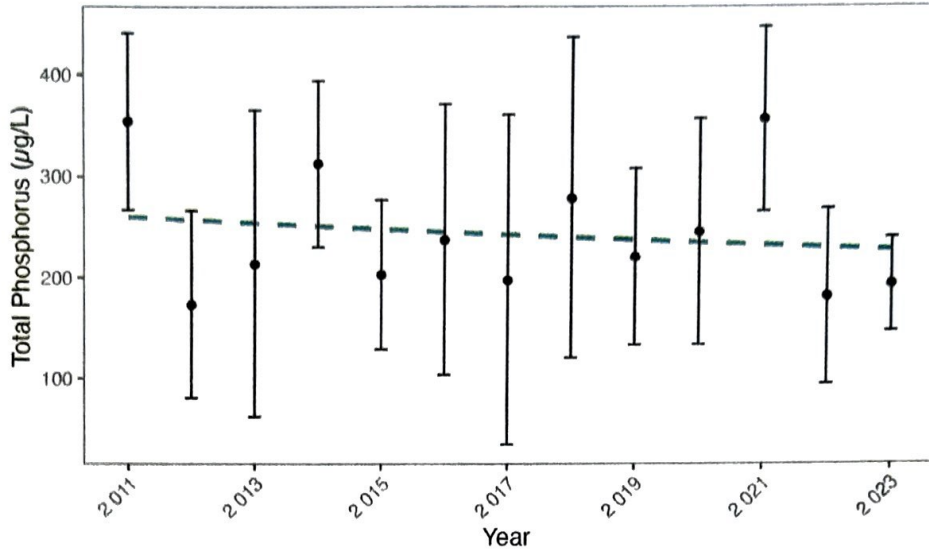
LC-1 thru LC-3
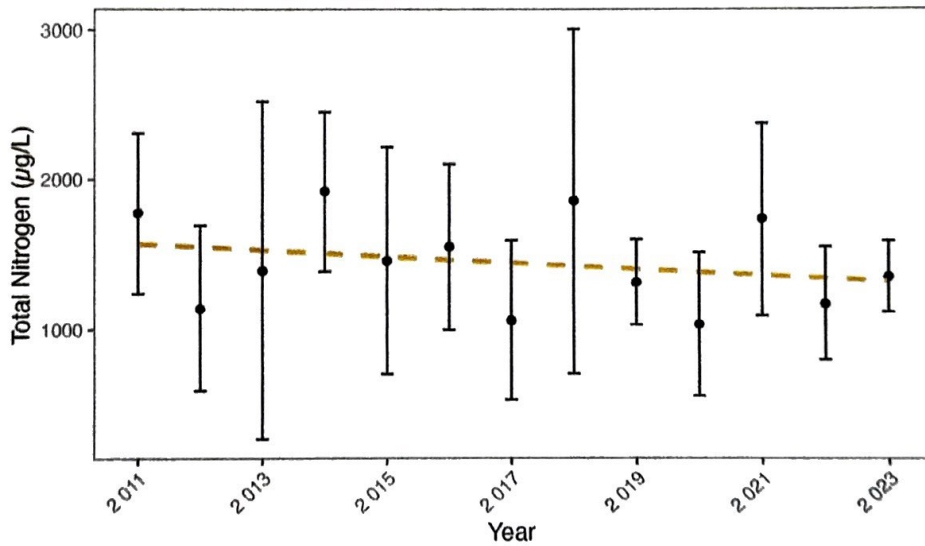
July 2011 – November 2023

##Figure 1 and Figure 2. Trend plots of annual average total phosphorus and annual average total nitrogen versus year. The R2 value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R2 the stronger the relation) and the p value indicates if the relation is significant (p < 0.05 is significant). Trend Status are reported on plots.

Total Phosphorus (µg/L) by Year for LC-1 in Charlotte County
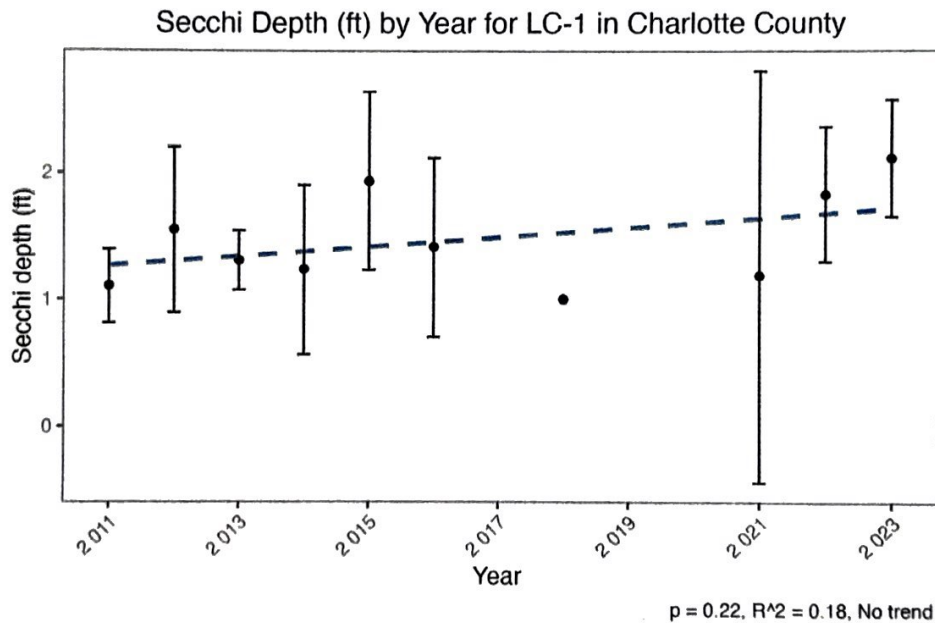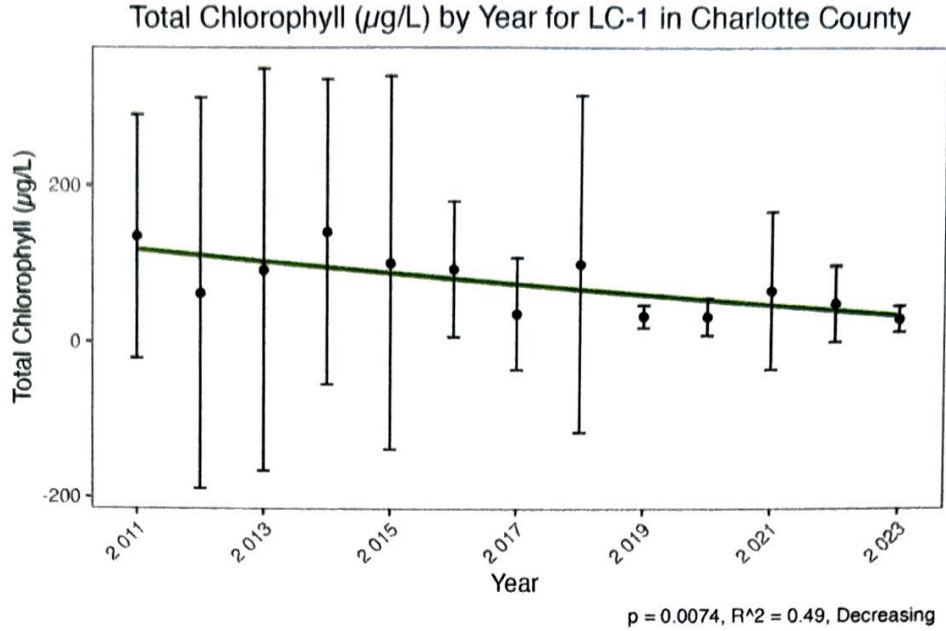

p = 0.59, R^2 = 0.028, No trend

Total Nitrogen (µg/L) by Year for LC-1 in Charlotte County
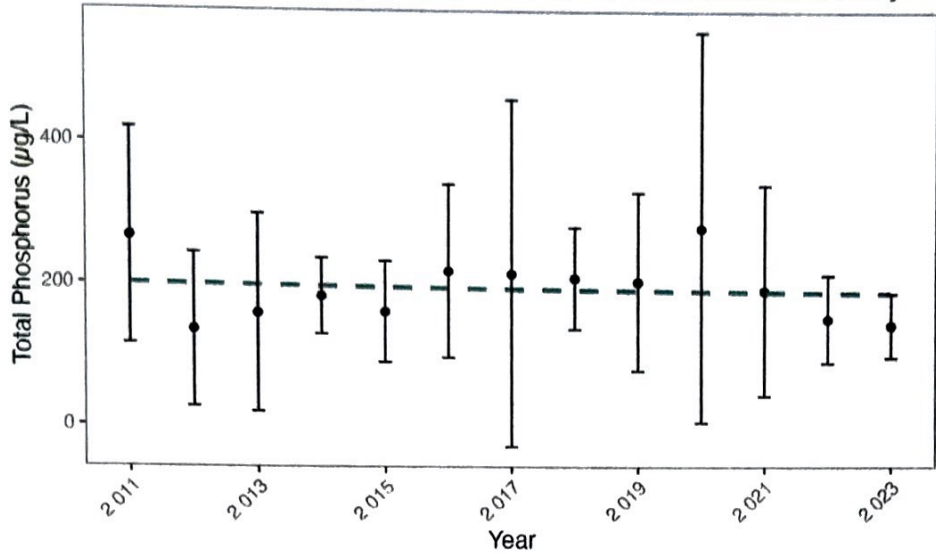

p = 0.39, R^2 = 0.068, No trend

Figure 4 and Figure 5. Trend plots of total phosphorus and total nitrogen versus year. The R^2 value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R2 the stronger the relation) and the p value indicates if the relation is significant ($p < 0.05$ is significant). Trend Status are reported on plots as Increasing, Decreasing, or No Trend.

Total Chlorophyll (µg/L) by Year for LC-1 in Charlotte County

p = 0.0074, R^2 = 0.49, Decreasing

Secchi Depth (ft) by Year for LC-1 in Charlotte County
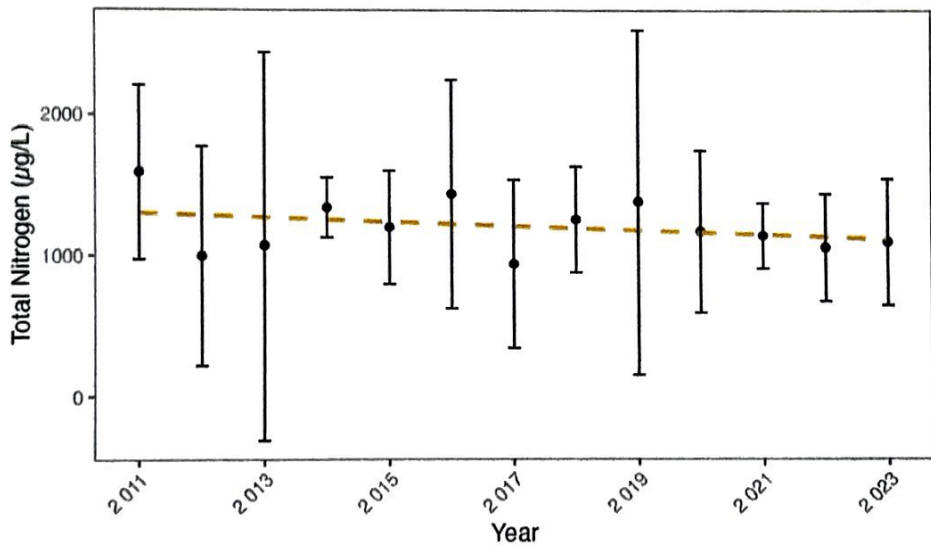

p = 0.22, R^2 = 0.18, No trend

4

##Figure 1 and Figure 2. Trend plots of annual average total phosphorus and annual average total nitrogen versus year. The R2 value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R2 the stronger the relation) and the p value indicates if the relation is significant ($p < 0.05$ is significant). Trend Status are reported on plots.

Total Phosphorus (µg/L) by Year for LC-2 in Charlotte County
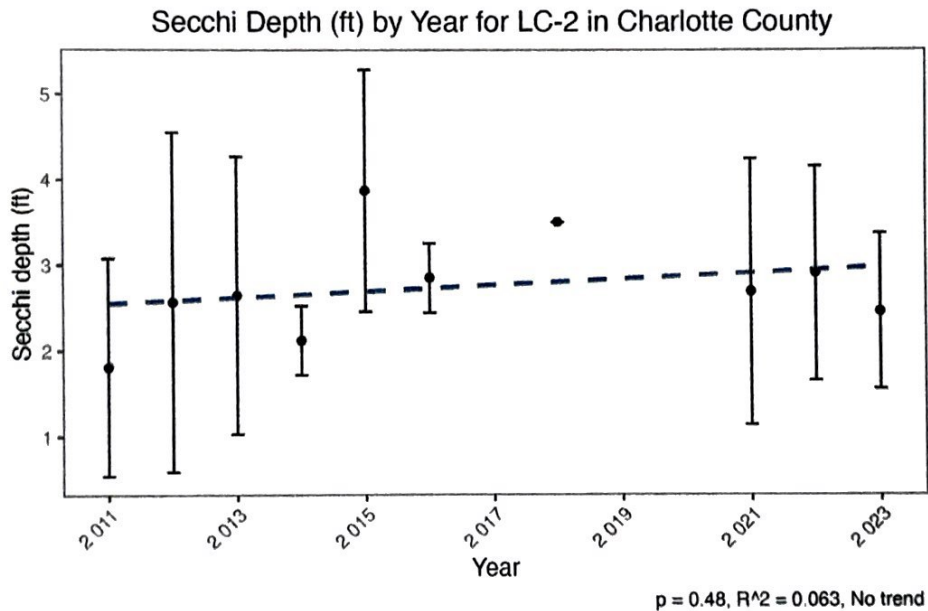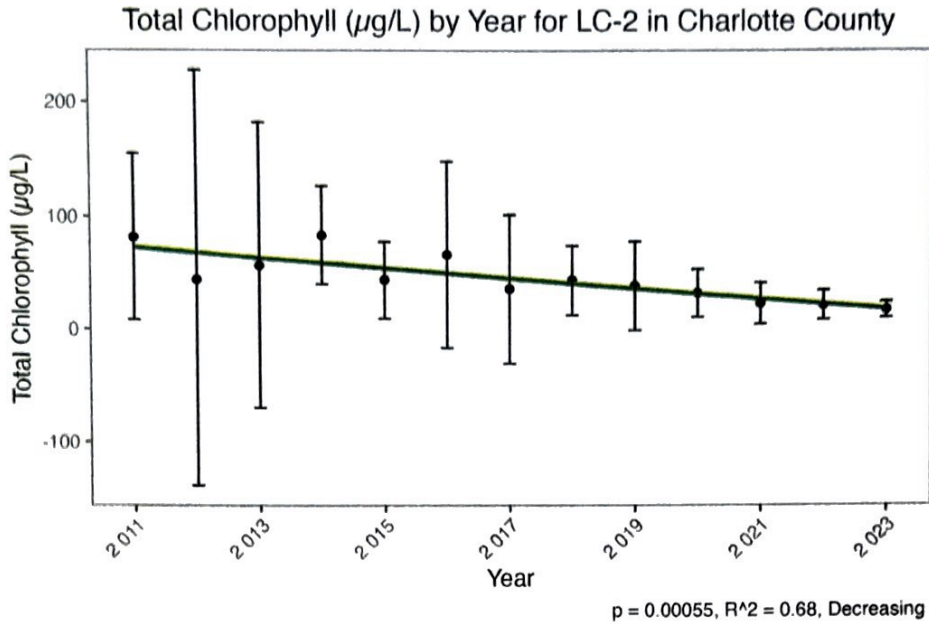

p = 0.8, R^2 = 0.0061, No trend

Total Nitrogen (µg/L) by Year for LC-2 in Charlotte County
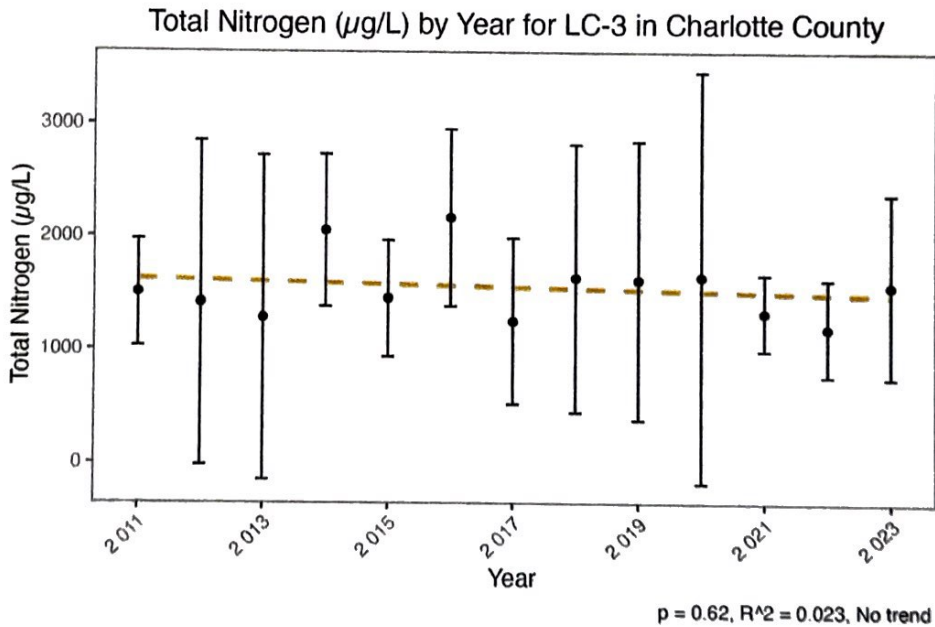

p = 0.28, R^2 = 0.1, No trend

3

**Figure 4 and Figure 5. Trend plots of total phosphorus and total nitrogen versus year. The R²
value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R2 the stronger
the relation) and the p value indicates if the relation is significant (p < 0.05 is significant).
Trend Status are reported on plots as Increasing, Decreasing, or No Trend.**

Total Chlorophyll (µg/L) by Year for LC-2 in Charlotte County

p = 0.00055, R^2 = 0.68, Decreasing

Secchi Depth (ft) by Year for LC-2 in Charlotte County

p = 0.48, R^2 = 0.063, No trend

4

##Figure 1 and Figure 2. Trend plots of annual average total phosphorus and annual average total nitrogen versus year. The R2 value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R2 the stronger the relation) and the p value indicates if the relation is significant ($p < 0.05$ is significant). Trend Status are reported on plots.

Total Phosphorus (µg/L) by Year for LC-3 in Charlotte County

$p = 0.92$, R^2 = 0.001, No trend

Total Nitrogen (µg/L) by Year for LC-3 in Charlotte County

$p = 0.62$, R^2 = 0.023, No trend
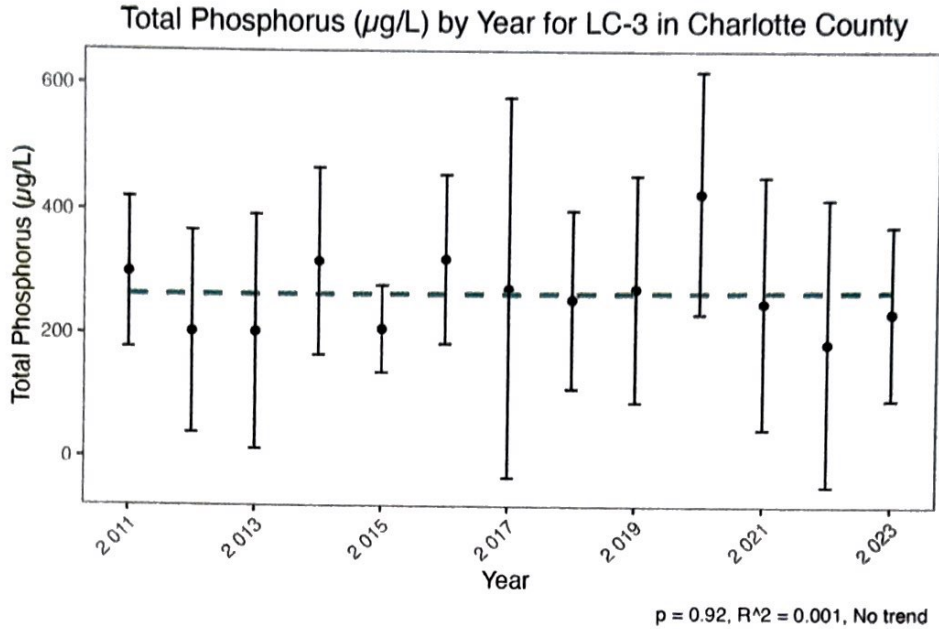
3

Figure 4 and Figure 5. Trend plots of total phosphorus and total nitrogen versus year. The R^2 value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R2 the stronger the relation) and the p value indicates if the relation is significant ($p < 0.05$ is significant). Trend Status are reported on plots as Increasing, Decreasing, or No Trend.

Total Chlorophyll (µg/L) by Year for LC-3 in Charlotte County

p = 0.23, R^2 = 0.13, No trend

Secchi Depth (ft) by Year for LC-3 in Charlotte County

p = 0.89, R^2 = 0.0027, No trend