# Appendix B: LakeWatch Trend Plots for Six Ponds at Lemon Creek Wildflower Preserve

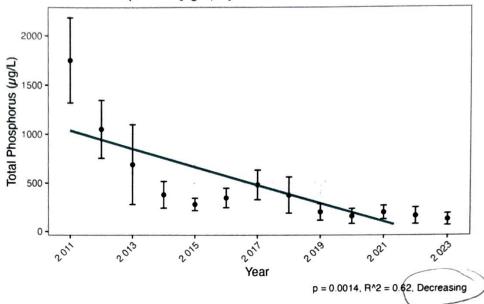
WF-1 thru WF-6

July 2011 – November 2023

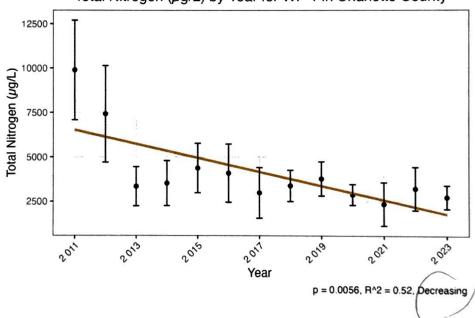
WF-1 (DUCKWEED POND)

Figure 2 and Figure 3. Trend plots of total phosphorus and total nitrogen versus year. The  $\rm R^2$  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 Phosphorus ( $\mu$ g/L) by Year for WF-1 in Charlotte County



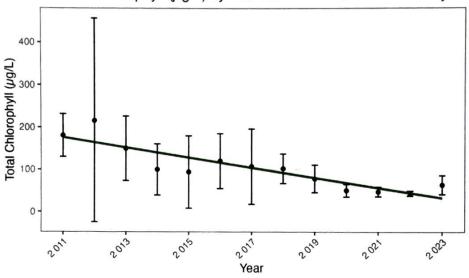
Total Nitrogen (µg/L) by Year for WF-1 in Charlotte County



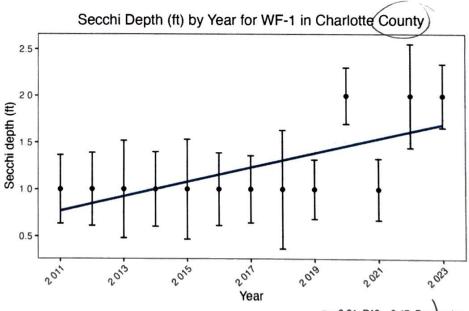
WF-1 (Duckwess Pond)

Figure 4 and Figure 5. Trend plots of total phosphorus and total nitrogen versus year. The  $\rm R^2$  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 WF-1 in Charlotte County



p = 4.9e-05,  $R^2 = 0.79$ , Decreasing



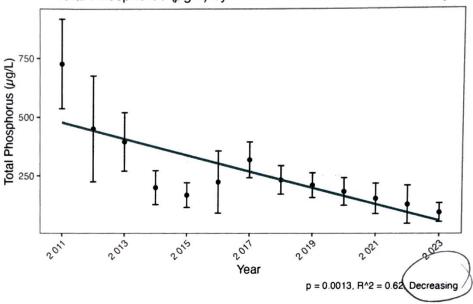
p = 0.01,  $R^2 = 0.47$ , Decreasing

Inclair)

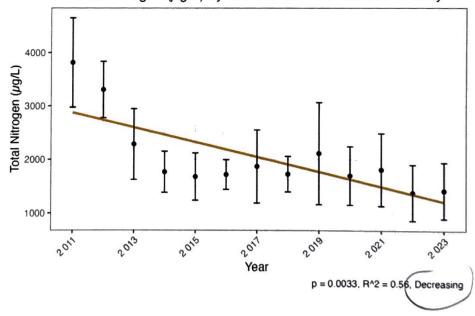
WF-2 (LONG POND)

Figure 2 and Figure 3. Trend plots of total phosphorus and total nitrogen versus year. The  $\rm R^2$  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 Phosphorus (µg/L) by Year for WF-2 in Charlotte County



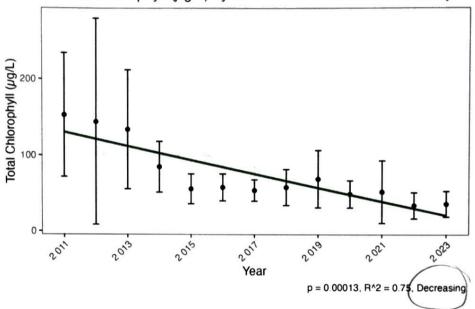
Total Nitrogen (µg/L) by Year for WF-2 in Charlotte County



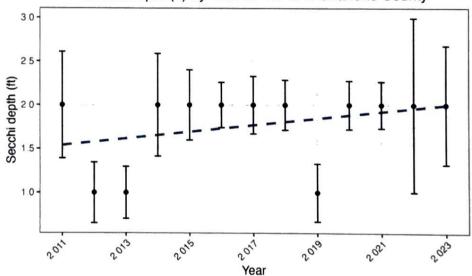
WF-2 (LONG POND)

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  $R^2$  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 WF-2 in Charlotte County



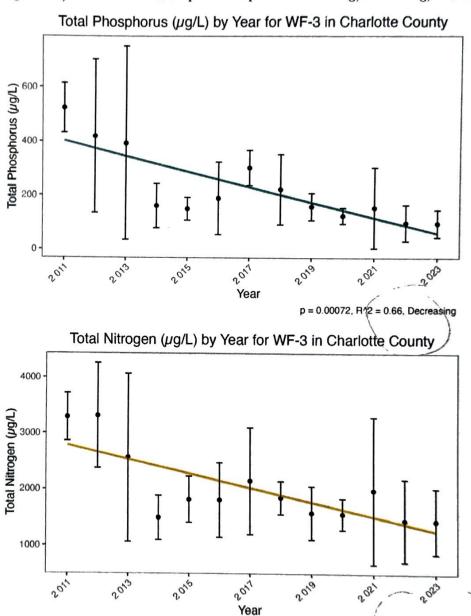
Secchi Depth (ft) by Year for WF-2 in Charlotte County



p = 0.25,  $R^2 = 0.12$ , No trend

DF-3 (MOORHEN POND)

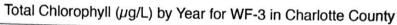
Figure 2 and Figure 3. Trend plots of total phosphorus and total nitrogen versus year. The  $R^2$  value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the  $R^2$  the stronger the relation) and the p value indicates if the relation is significant (p < 0.05 is significant). Trend Status are reported on plots as Increasing, Decreasing, or No Trend.

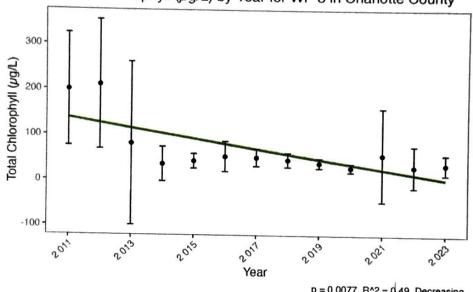


p = 0.0027,  $R^2 = 0.57$ , Decreasing

# WF-3 (MOORHEN POND)

Figure 4 and Figure 5. Trend plots of total phosphorus and total nitrogen versus year. The R<sup>2</sup> 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.





p = 0.0077, R^2 = 0,49, Decreasing

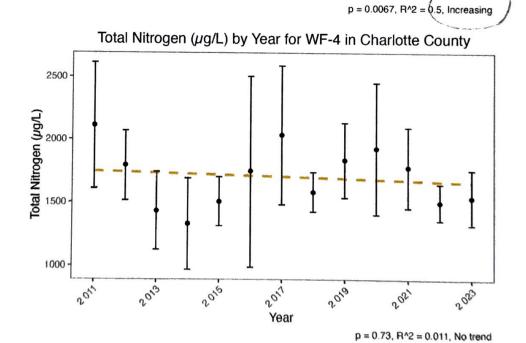
### Secchi Depth (ft) by Year for WF-3 in Charlotte County 3.0 2.5 -Secchi depth (ft) 1.0 2013 2011 2015 2017 2019 2023 2021 Year

p = 0.35,  $R^2 = 0.081$ , No trend

### WF-4 (HOSMAN POND)

Figure 2 and Figure 3. Trend plots of total phosphorus and total nitrogen versus year. The  ${\rm R}^2$  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.

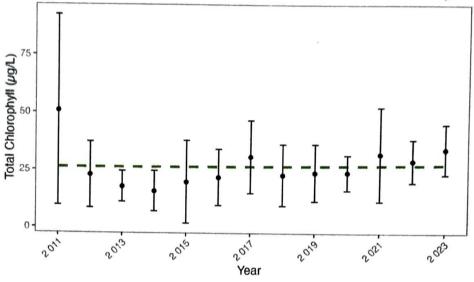
Year



# WF-4 (HOSMAN POND)

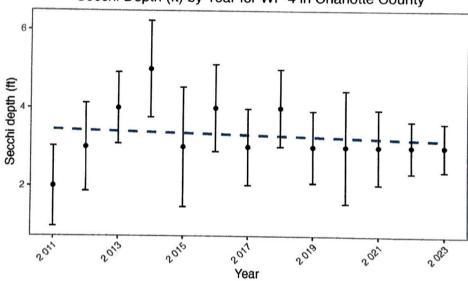
Figure 4 and Figure 5. Trend plots of total phosphorus and total nitrogen versus year. The  ${\bf R^2}$  value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R2 the stronger the relation) and the p value indicates if the relation is significant (p < 0.05 is significant).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

Total Chlorophyll ( $\mu$ g/L) by Year for WF-4 in Charlotte County



p = 0.9,  $R^2 = 0.0016$ , No trend

Secchi Depth (ft) by Year for WF-4 in Charlotte County

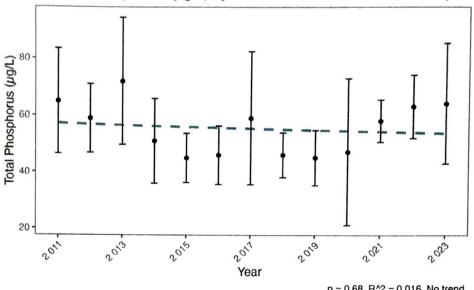


p = 0.71,  $R^2 = 0.013$ , No trend

WF-5 (VERNA'S POND)

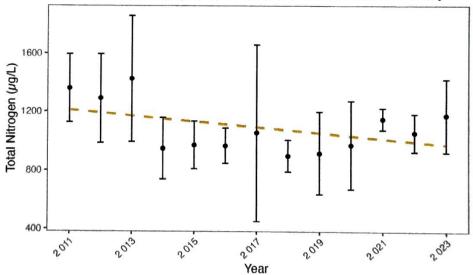
Figure 2 and Figure 3. Trend plots of total phosphorus and total nitrogen versus year. The R<sup>2</sup> value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R2 the stronger the relation) and the p value indicates if the relation is significant (p < 0.05is significant). Trend Status are reported on plots as Increasing, Decreasing, or No Trend.

Total Phosphorus ( $\mu$ g/L) by Year for WF-5 in Charlotte County



p = 0.68,  $R^2 = 0.016$ , No trend

Total Nitrogen (µg/L) by Year for WF-5 in Charlotte County

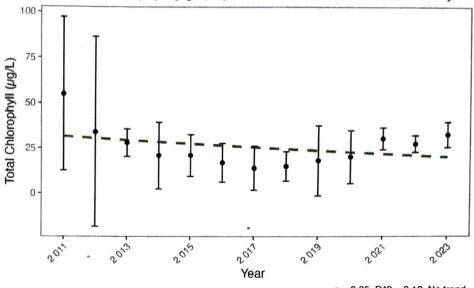


p = 0.14,  $R^2 = 0.18$ , No trend

WF-5 (VERNA'S POND)

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  $R^2$  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.





p = 0.25,  $R^2 = 0.12$ , No trend

# Secchi Depth (ft) by Year for WF-5 in Charlotte County

p = 1, R^2 = 7.8e-29, No trend

WF-6 (TURTLE POND)

Figure 2 and Figure 3. Trend plots of total phosphorus and total nitrogen versus year. The  ${\bf R}^2$  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 Phosphorus (µg/L) by Year for WF-6 in Charlotte County

Total Phosphorus (µg/L) by Year for WF-6 in Charlotte County

Total Phosphorus (µg/L) by Year for WF-6 in Charlotte County

Total Phosphorus (µg/L) by Year for WF-6 in Charlotte County

p = 0.42,  $R^2 = 0.06$ , No trend

2019

2017

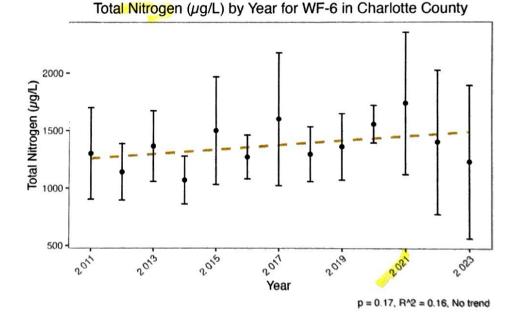
Year

2013

2017

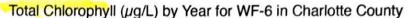
2015

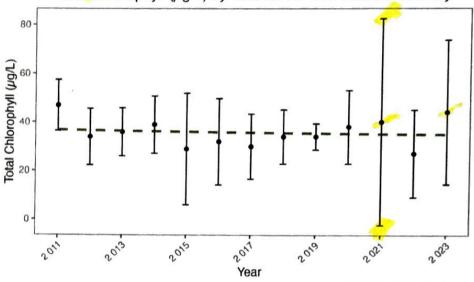
2023



WF-6 (TURTLE POND)

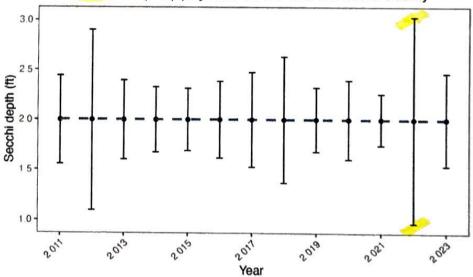
Figure 4 and Figure 5. Trend plots of total phosphorus and total nitrogen versus year. The  $R^2$  value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the  $R^2$  the stronger the relation) and the p value indicates if the relation is significant (p < 0.05 is significant). Trend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





p = 0.74, R^2 = 0.011, No trend

### Secchi Depth (ft) by Year for WF-6 in Charlotte County



p = 1, R^2 = 0, No trend