ReadMe File for Return Interval Models
"Long-Range Dependence and Extreme Values ofPrecipitation, Phosphorus Load and Cyanobacteria"

Precipitation panels in Figure 3 are generated by **Poisson+Shuffle_precip_2022-03-14.R** from data in **DCRA_precip_1940-2021.Rdata** Precipitation statistics in Table S.1 are generated from this same dataset by R script **DFA_Yahara_Precip_2020-03-18.R**

Discharge panels in Figure 3 are generated by **Poisson+Shuffle_Discharge_2022-03-25.R** from data in **Discharge_PB+YW_1990-2021.Rdata** Discharge statistics in Figure 1 and Table S.1 are generated from this same dataset by R script **DFA_Discharge_2022-03-25.R**

Phosphorus load panels in Figure 3 are generated by **Poisson+Shuffle_PLoad_2022-03-14.R** from data in **AnnLoads_PB+YP_1995-2021.Rdata**
Phosphorus load statistics in Figure 1 and Table S.1 are generated from this same dataset by R script **DFA_Yahara_PLoad_2020-03-18.R**

Phycocyanin panels in Figure 3 are generated by **Poisson+Shuffle_BGA_2022-03-14.R** from data in **BGA+Chl_dark_centered_Z_2008-2021.Rdata** Phycocyanin statistics in Figure 1 and Table S.1 are generated from this same dataset by R script **DFA_Yahara_BGA_detrend-by-year_2020-03-27.R**

Organize_Precip+Gages_2019-01-01.R is a file of R functions called by some other scripts.

Figure 4 is generated by Count_Days_Pload_Extreme_to_BGA_extreme_2022-03-28.R using data file **PPT_Pload_BGAdark_2008-2021.Rdata**