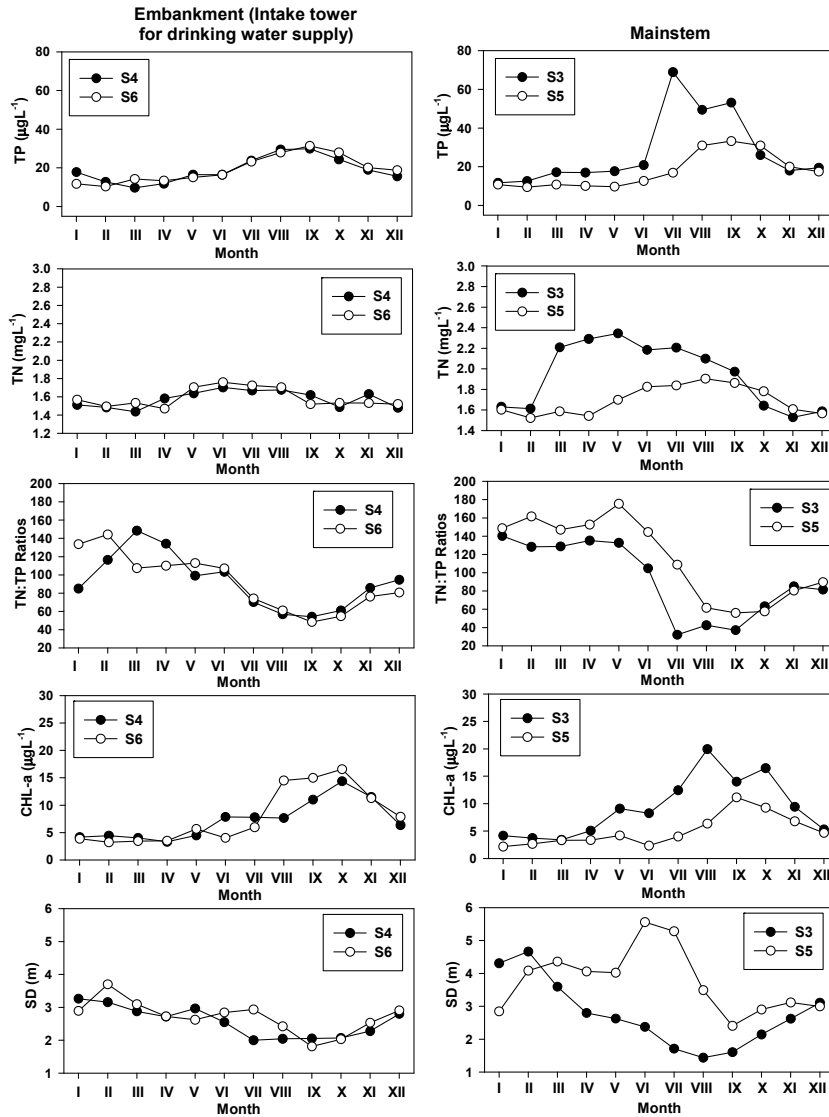
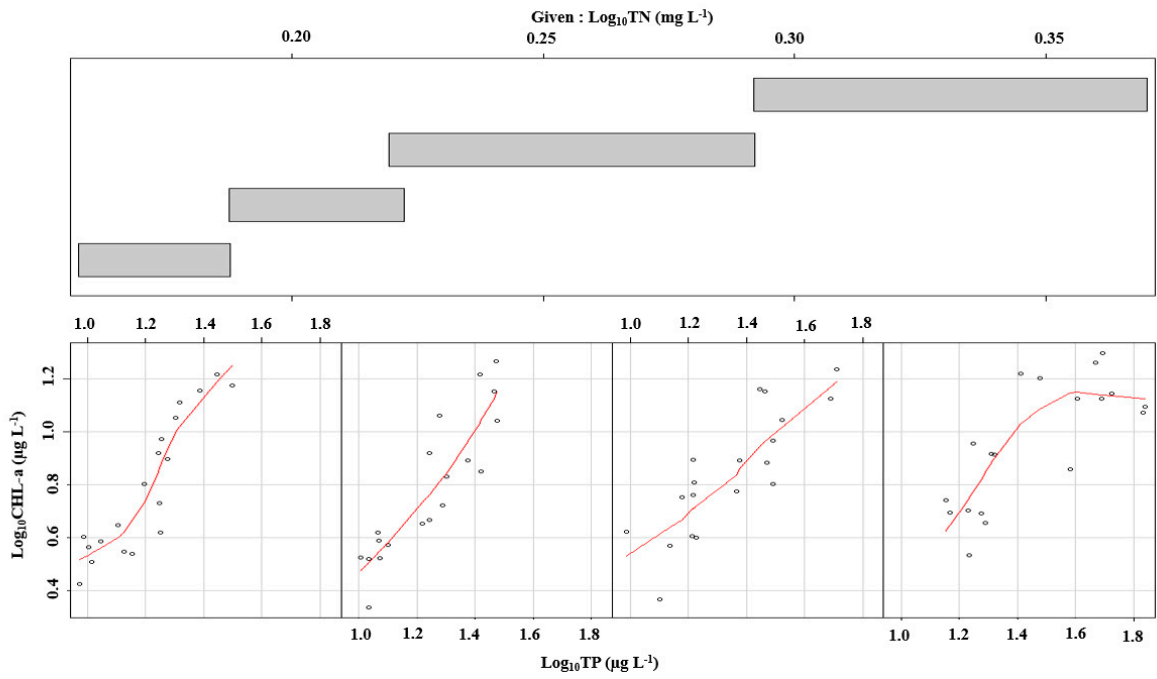


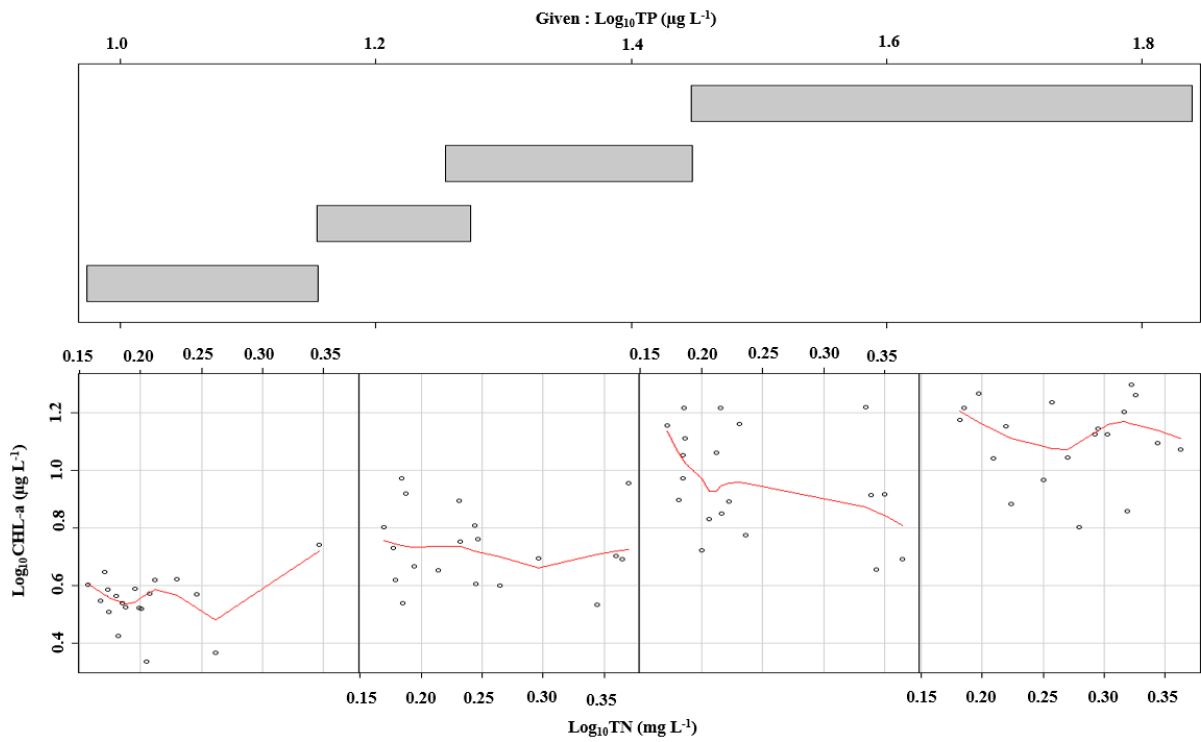
**Figure S1.** Annual variation of chemical water quality parameters in Daecheong Reservoir from 2000–2018. TP: total phosphorus; TN: total nitrogen; EC: electrical conductivity; BOD: biological oxygen demand; COD: chemical oxygen demand; TSS: total suspended solids; CHL-a: chlorophyll-a; and TPR: total precipitation; red lines in the box indicate the mean value.



**Figure S2.** Monthly variation (2000–2018) of physicochemical parameters in embankment (S4 and S6) and mainstem (S3 and S5) of Daecheong Reservoir (TP: total phosphorus, TN: total nitrogen, CHL: chlorophyll, SD: Secchi depth, and I-XII: January–December).



**Figure S3.** The relationship between CHL-a and TP is plotted conditional on the range of TN.



**Figure S4.** The relationship between CHL-a and TN is plotted conditional on the range of TP.