



**Figure S1.** Cumulative estuarine discharge flow rates ( $\text{m}^3 \text{s}^{-1}$ ) and daily rainfall (cm) measured at canals C-44, C-23, C-24, and Ten Mile Creek, with sampling time points for the *in situ* experiment denoted as black circles. Data were obtained from the South Florida Water Management District's DBHYDRO database.