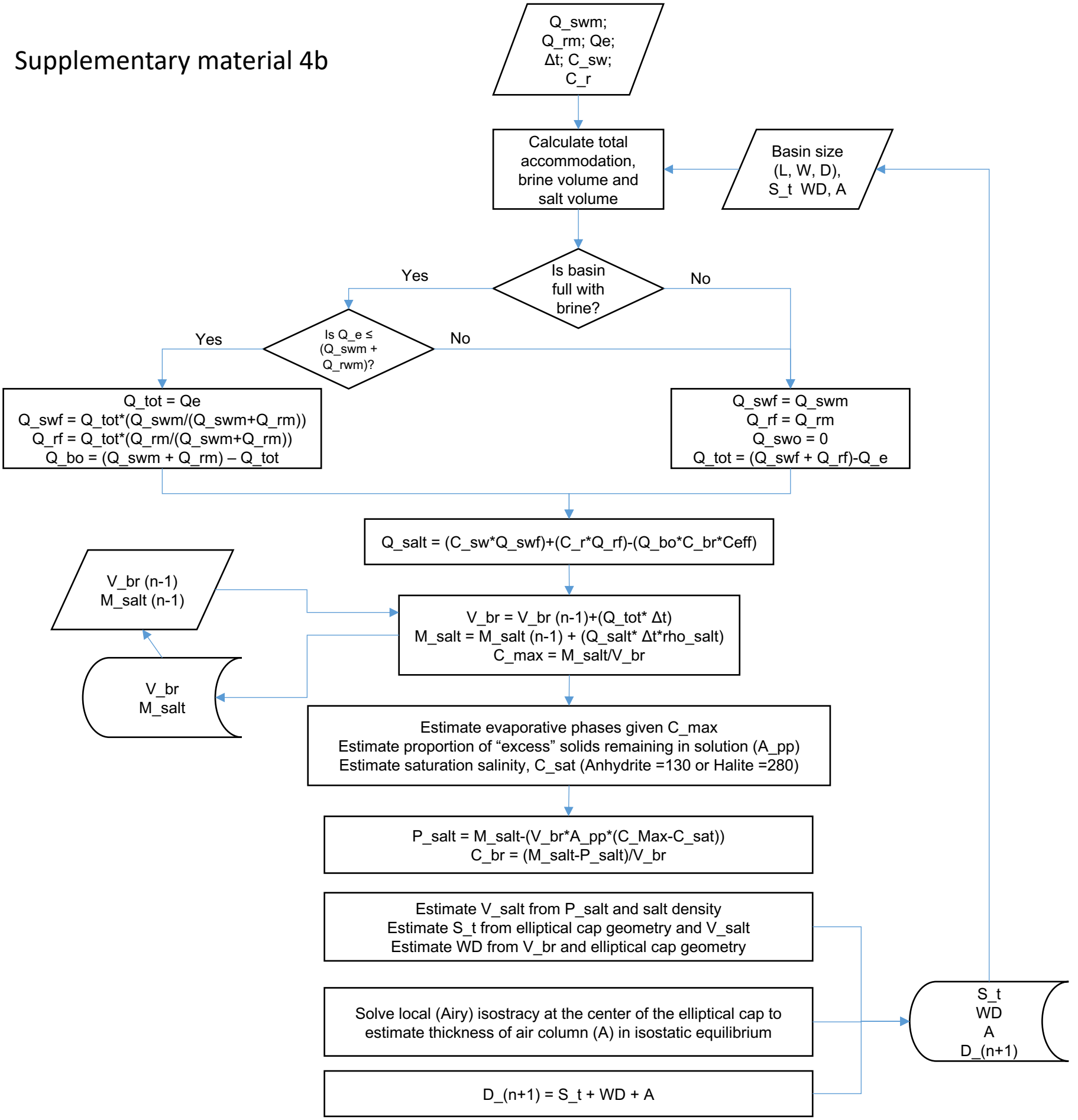
Supplementary material 4b



Definitions of fluxes at each time step. (n-1) indicates values of previous timestep

<u>Fluxes</u>
Q_swm = Maximum seawater inflow to the basin
Q_bo = Seawater outflow from the basin
Q_swf = Final seawater inflow to the basin
Q_rm = Maximum river water inflow to the basin
Q_rf = Final river water inflow to the basin
Q_tot = Total inflow of water in the basin
Q_e = Total evaporation = Rate of evaporation*Surface area
Q_salt = Inflow of salt in the basin
Ceff = Brine outflow efficiency (0 to 1, depends on salinity)
Δt = time step for each calculation

<u>Concentration</u>
C_sw = Seawater salinity
C_r = River water salinity
C_br = Brine concentration
C_max
C_sat

<u>Basin morphology</u>
L = Length of basin
W = Width of basin
D = depth of basin
WD = Water depth of basin
S_t = Salt thickness
A = Thickness of air column

<u>Mass or volume</u>
V_br = Volume of water or brine
M_salt = total mass of salt in the basin
A_pp = proportion of solids precipitating
P_salt = precipitated salt mass
V_salt = Volume of salt
Rho_salt = density of salt