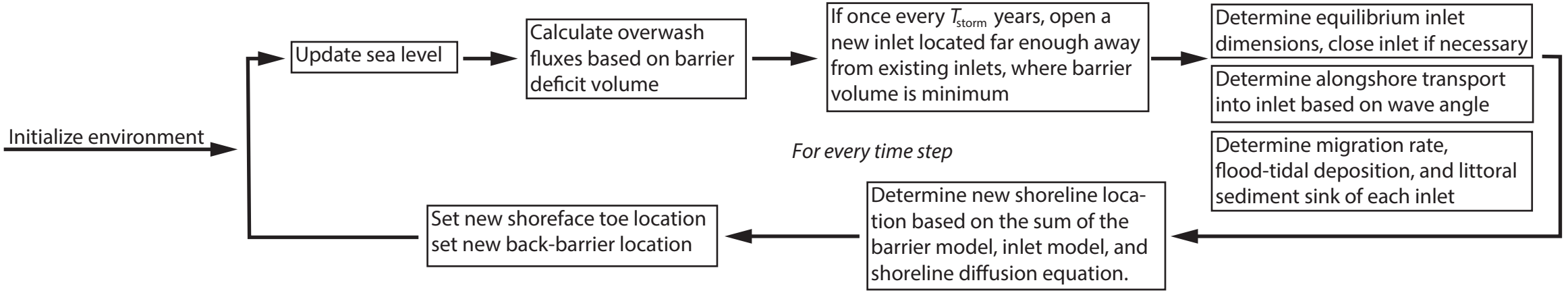
Initialize environment
Update sea level
Calculate overwash fluxes based on barrier deficit volume
If once every T_{storm} years, open a new inlet located far enough away from existing inlets, where barrier volume is minimum
Determine equilibrium inlet dimensions, close inlet if necessary
Determine alongshore transport into inlet based on wave angle
Determine migration rate, flood-tidal deposition, and littoral sediment sink of each inlet
For every time step
Determine new shoreline location based on the sum of the barrier model, inlet model, and shoreline diffusion equation.
Set new shoreface toe location set new back-barrier location