$$\int \overline{K} \frac{\partial}{\partial t} \left[\overline{\rho}^{(d)} \widehat{\overline{m}}^{(H_2O)} \right] dz - \overline{F}_{net}^{(H_2O)} \widetilde{\overline{K}}_s \quad = \quad \Delta \widehat{\mathcal{T}}_{\partial m^{(H_2O)}/\partial t}^{(K)}$$