Subsidence

Currently the agent based model assumes that the subsidence rate, , is influenced by water extraction pressure at the level of the aquifer. This is implemented by assuming that the rate of subsidence, , changes over time with:

where and are the total number of wells inside aquifer , at time , and time 1 respectively, and are formally calculated using:

Where , is the number of wells in census-block at time , and identifies the aquifer in which the census-block belongs to. as a initial condition for the agent based model, we simulate the model with the initial rate of subsidence for the year.