

Interactive comment on “A Comprehensive Quasi-3D Model for Regional-Scale Unsaturated-Saturated Water Flow” by Wei Mao et al.

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1. L362, Typo "Vaulin" should be "Vauclin".
2. L498-L502: "Figure 10 further shows... water table depth ... The increase trend is obviously found from Fig. 10(a) to Fig. 10(c) in the farm land, during which the groundwater was consumed by crop transpiration and soil evaporation"

Firstly, I suggest rephrasing to "... The increasing trend is obviously found in Fig. 10(a) to Fig. 10(c) in the farm land...", if what I discussed below is of misunderstanding.

The trend is not very obvious via the three maps. You may add the "maps of spatial

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GTD change" to make it more intuitive.

You explain that the "increasing" trend of farmland GTD resulting from crop consumption. Figure 9 shows the GTD increasing trend between 30d to 180d for all landuse types in observational data; water tables of farmland, village and bared land become deeper and deeper between 30d and 150d (the period from Fig 10(a) to Fig 10(c)) at the very similar magnitude, while the simulated results show different magnitude of decreasing water table. The water table of three landuse types increased after the autumn irrigation sharply, the model did not capture this trend accordingly. So I think the representative of landuse in the model is not competent to represent the characteristics of landuse, or issues from ET of different landuse, or the model configuration in MODFLOW did not capture the horizontal groundwater flow.

So I think the words in L504-505 "These results indicate that our model can reasonably simulate the saturated water table depth in space and time" is too strong.

I suggest the authors rephrasing these explanations.

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