

Interactive comment on “Modelling of shallow water table dynamics using conceptual and physically based integrated surface water-groundwater hydrologic models” by Mohammad Bizhanimanzar et al.

Anonymous Referee #1

Received and published: 6 November 2018

General comments

The manuscript studied a conceptual scheme of the interaction between unsaturated and saturated zones of the MOBIDIC hydrological model which is applicable to shallow water table conditions. This is an interesting topic. However, it will still need some clarification. The results and discussion section needs further improvement, compare your findings with the other author’s findings. And novelty of this work should be clearly explained. I suggested major revision of this current version.

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Specific comments

Page 3, Line 10: Please add a clear statement of what is the objective of this study at the end of the introduction part. Page 3, Line 20: The “evapotranspiration from groundwater (đİŘđİŚđİŘđİŚ)” is not clear for all the readers. Please add an explanation of this concept.

Page 4, Line 10: I feel this is not clear what are the differences between the MIKE-SHE and the MOBIDIC hydrological model. You may use a table to show the differences or what you have improved or changed.

Page 8, line 15: You may use a flowchart here to show the methods you used or the model setup processes. Page 14, line 20: I suggest the author add some paragraphs to compare this study and the previous similar studies.

Page 15, line 10: You mentioned that the efficiency of the new model is better than MIKE-SHE, but what about the uncertainty of the new model than MIKE-SHE? Because you added new parameters here.

Figure 9: What about the situation after 31 days. Also, do you have observation of the spatial distribution water tables?

Figure 10: Do you have observations of water depth to compare with the model simulations.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2018-359>, 2018.

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