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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Monitoring and modeling infiltration-recharge dynamics of managed aquifer recharge with desalinated seawater" *by* Yonatan Ganot et al.

Anonymous Referee #1

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This manuscript describes a field experiment conducted and numerical exercises used to evaluate infiltration-recharge dynamics of managed aquifer recharge with desalinated seawater. While their efforts on the field experiments are admirable and the topic is of great interest to the reader of Hydrology and earth System Sciences. I am not good for managed aquifer recharge with desalinated seawater. However, I have a few comments which hopefully might be helpful for further improvement of the paper.

I noticed that the authors' usage of calibration and validation. "The model calibration shows good fit for 90% of the infiltration period (4–31 January 2015) with a relative root mean square error of 4.8% (Fig. 6a)." There are only five points in Fig. 6a, and five points in Fig. 6c?

I am confused with "Only the saturated hydraulic conductivity of the top SCL was modified during calibration of the numerical model.? " Why "θr θs α (m-1) n " were not modified during calibration of the numerical model?

P11ïijŇ"In the laboratory, infiltration column experiments with DSW and sand taken from the pond surface (top 0.4 m) showed a reduction by a factor of 1.5 compared to the initial infiltration rate due to compaction-clogging (data not shown)." I think this sentence is not closely related to the above passage.

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