

Interactive comment on “Modelling the water balance of Lake Victoria (East Africa) – Part 1: Observational analysis” by Inne Vanderkelen et al.

Anonymous Referee #2

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Modelling the water balance of Lake Victoria (East Africa), part 1: observational analysis by Inne Vanderkelen, Nicole P. M. van Lipzig, and Wim Thiery

This is an interesting and well written manuscript about Lake Victoria water balance (WB). In this study, the components of WB are estimated based on observed precipitation and derived from it inflow, evaporation from regional reanalysis and partly observed, partly assumed outflow. The estimated WB allows to calculate the lake level fluctuations that correspond well the satellite altimetry estimates. All WB components are calculated independently, and balance each other with a small residual. The methods developed may be used for prediction of the Lake Victoria water levels in the future climate, using climate model data as input. Perhaps the second part of the manuscript will be devoted to this task?

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The presentation is clear and quite systematic, the previous studies are discussed and cited accurately. The methods, results and related inaccuracies are presented well and the language is clear. The manuscript could be published with minor modifications.

My minor suggestions and some questions are written as comments (done with Adobe Acrobat Reader) to the attached copy of manuscript pdf. It should be possible to copy the remarks to a file in order to reply to them as required.

Please also note the supplement to this comment:

<https://www.hydrol-earth-syst-sci-discuss.net/hess-2018-11/hess-2018-11-RC2-supplement.pdf>

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