

Interactive comment on “Hydrologic calibration of paired watersheds using a MOSUM approach” by H. Ssegane et al.

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This manuscript addresses the important issue of quantifying land-use change impacts. The reviewers appreciate the data set and found the approach interesting. However, they also expressed concerns, which are rather fundamental:

- 1) Does the short pre-treatment period really allow 'calibration' of the paired catchments for the subsequent impact quantification? (based on my experience I agree with the reviewer that the relationships of paired catchments might vary seasonally and that, thus, at least one year of pre-treatment observations seems to be fundamental)
- 2) How is the serial correlation of the water table data considered?

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3) What can be said about the potential influence of the side-by-side located watershed and their water tables?

While also the other reviewer comments are useful and important, these three question on the experimental design are most fundamental to be addressed in the authors' response.

Best regards, Jan Seibert

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