Interactive comment on “Reconstructing 20th century global hydrography: a contribution to the Global Terrestrial Network- Hydrology (GTN-H)” by D. Wisser et al.

T. Wagener (Editor)
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Dear Dominik,

As you have seen, we have received two reviews of your submitted manuscript by now. Both are similar with respect to their opinions. Both referees agree that the manuscript provides a valuable contribution and is appropriate for HESS. However, they also list a range of issues that require addressing before the manuscript is acceptable.

Both referees focus their comments on the sensitivity of the model, and therefore on how dependent your conclusions with respect to your choice of parameter values, equations and assumptions. The main approach to address these concerns is a sensitivity analysis, of course one that is appropriate to the large scale of your modeling domain, but with sufficient analytical power to help you understand at least two things: [1] the robustness of your conclusions in the presence of uncertainty in assumptions, models and parameters; and [2] what aspects of the model (including input data) is most uncertain and how could the uncertainties be reduced, i.e. the allocation of the overall uncertainty in your predictions – preferably even in a quantifiable way at least for some example locations.

Please address the individual and more specific comments of the referees in detail in your response.

Best wishes,
thorsten

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 2679, 2009.