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Interactive comment on "On the benefit of high-resolution climate simulations in impact studies of hydrological extremes" by R. Dankers et al.

Anonymous Referee #1

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I can see the argument that lake storage and regulation are implicitly included since the model had been calibrated. On the other hand, I maintain that neglecting lake storage and regulation is a serious problem. Actually, one could argue that if the model can be fitted to the data even without including regulation effects, this indicates that the model actually does not simulate the processes, which are described in the model, correctly. This in turn of course has implications on whether a better precipitation input (by the higher resolution RCM) can be expected to result in better runoff simulations.

The authors claim that the simulations based on different RCM runs can be compared because the RCM used the same boundary conditions. This is of course only true if

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we assume that the internal stochastic component is small compared to the boundary conditions (note that GCMs are also run with the same boundary conditions).

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 2573, 2009.