

## ***Interactive comment on “Streamflow characteristics from modelled runoff time series – importance of calibration criteria selection” by Sandra Pool et al.***

**Anonymous Referee #1**

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It is a very good idea and a well know idea, that the models should be calibrated using criterions relevant to the purpose of the model and simulations. The criterions here are many but seems relevant to ecological studies. The relevance of the chosen SFC should be argued for in relevance to the purpose. Here are maybe to many SFC and the it becomes difficult to keep track of them. Are they correlated, are they in contradiction (to fulfill one means that another suffer) etc. It might be an idea to pick the most important for the kind of studies the model should be used in and discuss this closer.

But before it is relevant to discuss other criterions and SFC used for calibration and how well these can be recreated you need to demonstrate that teh model is able to reproduce

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observed flow to a certain degree. I can not see that this is the case here. As long as this is not the case and is demonstrated the remaining work becomes irrelevant. If the model is not able to get an Reff higher than 0.7 the interesting discussion is then if it is able to or relevant to use for simulation of other SFC.

It might be that you are able to acheive good simulations in this catchment. I that case show this also by showing hydrographs. If you are not able to achieve a Reff up to 0.7 you need to disuss why first and then move to other STC that you can argue for the model is able to recreate in spite of a poor Reff. If the Reff is OK, but as you initially says is not enough for some studies, you can compare calibration with other criterions againt Reff and each other. I beileve that it is the latter that you try to do, but as long as I as a reader am not able to see that your model and data actually are representative or good enough to reporduce the observed the discussion becomes not relevant or interesting.

So before revising this deeper several clification have to be made initially. But the topic is very intersting and relevant so I hope you are able to structure this in a way that make many readers interested and enlightened.

Please also note the supplement to this comment:  
<http://www.hydrol-earth-syst-sci-discuss.net/hess-2016-546/hess-2016-546-RC1-supplement.zip>

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