Dear Dr. Bettina Schaefli,

First of all, we would like to thank you for your decision regarding the revision of our manuscript. We would like to thank Dr. Markus Muerth for his helpful comments.

We have addressed all the comments and incorporated them into the revised manuscript. The point to point reply is listed below and the corresponding changes are shown in track and change mode in the revised manuscript ("*Revised manuscript.pdf*").

If you have any questions, please don't hesitate to contact us.

Best regards,
Jing Yang
08.05.2015

Reply to Comments from Dr. Markus Muerth

Now the methodology of your approach is much more understandable, as there was some confusion on my side regarding the climate data used for modelling. In the first version, I assumed that the correction parameters found for one station would be applied on the whole RCM grid to run SWAT with gridded input data. This is of course now clarified, especially due to Fig. 2!

Our reply: *We appreciate your comments which made our manuscript readable now. In addition, we added the acknowledgement in the manuscript (Lines 566 ~ 568).*

Lines 566 ~ 568:

The authors would like to thank reviewer Dr. Markus Muerth and an anonymous reviewer for their valuable comments and suggestions.

This misunderstanding in the original manuscript also led to my comment that the catchment runoff of about 310 mm per year, which equals the Banyaluk station precipitation corrected with LS of 267 mm. Of course, corrected catchment precipitation is 664 mm as you stated now. But it was a bit confusing before…

Our reply: *Thank you for your instructive comments.*

Still, as I am no expert in SWAT modelling: Would it change your SWAT results, if you generally cut off drizzle values of e.g. 0.1 mm or less, because these are obviously RCM artifacts? Would this increase your actual ET?

Our reply: *As the cutoff changes wet days, it will change watershed precipitation and therefore SWAT results. As suggested, we did two test simulations (see Table X1 below) with LS (simulation 1) and LS with cutoff value 0.1mm (simulation 2) with LS correction on temperature. Compared to simulation 1, simulation 2 got less wet days, less watershed precipitation and less water yield, but almost same actual ET.*

Table X1 Two test simulations

	Simulation 1	Simulation 2
Precipitation correction method	LS	LS with cutoff value 0.1
Mean annual precipitation at Bayanbulak station (mm)	267	260
Wet days at Bayanbulak station(days)	266	197
Watershed precipitation(mm)	657	551
Watershed water yield(mm)	311	243
Actual ET(mm)	274	277
PET(mm)	339	346

In the new conclusion text you state: "Note that LOCI and DM methods should be used with caution when analysing drought or extreme stream flows." Please add here why!

Our reply: *We added reasons in the revised manuscript (Lines 544 ~ 548).*

Lines 544 ~ 548：

Note the LOCI and DM methods should be used with caution when analyzing drought or extreme streamflows because the LOCI method may underestimate the extreme precipitation and DM method performs ineffectively when either simulated precipitation or observed precipitation does not follow the proposed distribution.

Furthermore, you state "We applied PT instead of QM after drizzle correction because QM can correct the drizzle days and performs well in the literature (e.g., Teutschbein and Seibert, 2012). This makes the comparison between PT and QM meaningful." What do you want to say with that, something like: They are similar, but QM has a drizzle correction? Maybe think of reformulating this, I don't get it really.

Our reply: *Thank you. We meant as what you said "They are similar, but QM has a drizzle correction". As this only appears in our reply to your previous comments, we don't need to change the manuscript.*

Finally, of course I redraw my comment on the title. In your case you actually

downscale RCM data to two stations, while I was thinking you are correcting the RCM grid over the catchment.

Our reply: *We appreciate your comments which made our manuscript readable now.*