Dear editor and reviewers

Thank you for the additional comments and suggestions.

Reviewer #1

RC1. I thank the authors for replying and tackling most of the comments and corrections of the first review round. The manuscript has improved and matured,
AR1. Thank you.

I still have some minor comments and corrections, I report these here following.
Content corrections:

RC2. -P 8-L233-235: If I understand correctly the only way you used the 95% confidence interval (PCI) is shown in Fig.6 to evaluate the performance of the hydrological model. If it is so, the second sentence (This is helpful for identifying..) is disturbing, as you didn't use it for selecting the NSE threshold..? or you did? If it is so, please state it more clearly.
AR2. Yes, we used the PCI for selecting best parameter sets for understanding of hydrological parameter uncertainty. Figure 6. to evaluate the 95% CI performance of the hydrological model. Yes, it is helpful for identifying / selecting best NSE threshold.

RC3- Subsection 2.6.1: Either clarify and lead better the reader through the equations, or rather cite literature where this is already better resp. thoroughly exemplified (see e.g. Bosshard et al.2013) For example say what is q, use a clearer notation, etc..
AR3. Subsection 2.6.1, now we add the description of notations. Thank you for the recommendation to include Bosshard et al.2013 paper. However, this paper is more related to subsection 2.6.2. and it is included.

RC4- P12-L344. ..in particular in the Newport catchment..? I don't see it as particularly identifiable in the other catchments either.
AR4. we mean that the X1 parameter in Newport catchment does not show shape / converge point in to one direction as the performance of the model increases. This is particularly evident in the Newport catchment and we highlight this. The parameter is better defined in other catchments.

-Subsection 3.3:
RC5. • P13-L379-382: here a couple of things went wrong..I guess the sentence should be: Overall, the LN distribution returned the smallest flood quantile magnitude, while the estimated quantile values using LogL tend to be largest across each catchment, while having the narrowest uncertainty band..?
AR5. We have edited as suggested.

AR6. • In Fig. 10 sometimes the changes depending on the period (clim1,2,3) get "switched". E.g. respect to the RAW data in Newport, where the smallest changes would be far in the future, but then become the largest e.g. applying BSM. I know it's not a linear system, but could you comment on these switches and where do you think these come from?
AR6. Yes, the changes depend on the climate period. We added
Interestingly, the changes depend on the future climate period withmost catchments showing higher change in the 2020s than the 2050s. This is likely due to climate variability and nonlinearity climate response.

RC7. Technical corrections:
 - P2-L53: there is one parentheses too much before Giuntoli et al.
-P2-L58: there is a space missing after Jobst et al.(2018)
-P3-L1: ..their controbutions tend to vary depending on..
-Table 1: I think you should provide the units everywhere? - Eq. (16) on the side K should be low case
-P15-L461: remove the bracket in front of Addor, and add a space after ,2014)
AR7. Corrected

Bosshard, T., M. Carambia, K. Goergen, S. Kotlarski, P. Krahe, M. Zappa, and C. Schär (2013), Quantifying uncertainty sources in an ensemble of hydrological climate-impact projections, Water Resour. Res., 49, 1523–1536, doi:10.1029/2011WR011533

Reviewer #2

RC1. I think the authors addressed the concerns raised in the first round of review and the manuscript is now acceptable for publication.
AR1. Thank you.

Few small points that could be revised in the final version are listed below.
RC 2. L. 44: "estimates of future greenhouse..." should be "scenarios of future greenhouse ..."
AR2. Done

RC 3. L. 65 "depend on" should be "depending on"
AR3. Done

RC4. L. 82-87 bit confusing. Specifically: " which components of the modelling chain to include for specific catchments." does "components" mean "model component" or (as I guess) source of uncertainty? L. 85 "is forced to choose which aspects of uncertainty to prioritise" I am not sure I understand what the authors mean here. I think there is no need to prioritise uncertainties in a scenario-neutral / bottom up approach. At most I would say the modeller must choose "which sources of uncertainty to include"
AR4. Have clarified

RC5. L. 263-263 "which is similar to sensitivity analysis" ... "Unlike the former (sensitivity approach)," I find this use of the term "sensitivity analysis" a bit confusing (to me, sensitivity analysis encompasses one-at-the time, local and global approaches - and I would say ANOVA could be regarded as a sensitivity analysis, of the "global" kind!). Maybe saying "one-at-the-time sensitivity analysis" here would be more precise?
AR5. Yes, it is true if we use different combination of input variables at a given time. However, in our case, we used ANOVA on the output of our cascade uncertainty model. We have added the clarity requested.

RC 6. L. 404-406: "Therefore, for the spread for climate models was evaluated by varying simulations using each of the 12 GCMs while using a single bias correction technique, median hydrological model parameter set and a single flood frequency distribution" Something strange with this sentence, please revise.
AR4. Done