

## ***Interactive comment on “Reproducing an extreme flood with uncertain post-event information” by Diana Fuentes-Andino et al.***

**Diana Fuentes-Andino et al.**

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We thank Referee # 3 for her/his feedback and constructive comments, which will help us improve the description of our scientific work. More specifically, we agree with the reviewer’s criticism, as some points were not sufficiently well described. Thus, we will address all comments by revising our paper, as follows:

- Highlight the novelty of this scientific work in view of the state of the art.
- Incorporate in the manuscript a critical discussion of the quality and the quantity of the data and their implications.
- Make the manuscript more self-contained by adding more information on the models and tools used. For example, a better description of the LISFLOOD and appendices to

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TOPMODEL and Muskingum-Cunge-Todini routing will be incorporated. We will also explaining the assumptions and decisions done throughout the work.

- Add more literature about Mitch impact as well as the quality of the data in the region, thanks for the recommended literature.
- The content of the manuscript will be improved by discussing more on the different sources of uncertainties and their implication in the results. For example, we bring up the sources of uncertainties introduced by the roughness coefficient and its interaction with discharge.
- Include reference to other methods for uncertainty analysis, and explain the reason why we use the Generalized Likelihood Uncertainty Estimation (GLUE) method in our work. We will consider the reviewer suggested literature in this field, thanks.
- Improve the figures, as suggested.
- Amend typos and other address all minor, editorial comments.

Please note that all major changes we consider to make in the manuscript are summarized in the Major\_revisions (uploaded as a comment in the discussions).

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