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Interactive comment on "Impacts of a large flood along a mountain river basin: unravelling the geomorphic response and large wood budget in the upper Emme River (Switzerland)" *by* Virginia Ruiz-Villanueva et al.

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Overall comments This study is a detailed analysis of wood and morphologic response to a large flood in a Swiss River. Complemented by a rapid mobilization to obtain the appropriate data, the study does a good job of addressing the fundamental need for data to understand the dynamics and risks associated with wood in rivers. As noted by the authors, there are very few studies with which to compare as the data is typically not available after a big flood to generate a reasonable budget. For these reasons I think this is a valuable addition to the literature on wood in rivers and worthy

of publication. I have a number of minor suggestions for grammar and points for clarification that should be easily addressed by the authors. I do have a few points that may warrant some consideration for framing the results and the discussion. The first is that I don't think it is worth discussing insignificant trends. There is a lot of data here and I appreciate that it is difficult to tease out highly significant relations between the variables you use, but the fact is even the best model only explains less than half of the variability. There should be more discussion about what might be missing and why only a few things are significant rather than reaching for things that have been shown to not be important. Alternatively you could argue that the explanatory variables themselves are uncertain. The confinement index, for example, relies on dem quality and the ability of the algorithm to accurately delineate the floodplain. If you think that there is a lot of error in that variable then maybe the error is partially obscuring the 'real' trend and it could be justified to look at trends that are close to significant. The second point is that I think the study provides an opportunity to test some conceptual models such as that of Seo and Nakamura (2009) where they separate channels into different classes to explain differences in wood dynamics. It would be useful to understand whether this model holds for an individual flood and whether the morphologic variables used could be used to divide the channels into two or three classes rather than the rather arbitrary division used in the study of the Emme and everything else. Alternatively, the decision to group the channels as you did could be supported by using the conceptual model to justify the choice.

Please also note the supplement to this comment:
https://www.earth-surf-dynam-discuss.net/esurf-2018-44/esurf-2018-44-RC1-supplement.pdf

Interactive comment on Earth Surf. Dynam. Discuss., https://doi.org/10.5194/esurf-2018-44, 2018.