Interactive comment on "Values in water management" *by* Erik Mostert

Anonymous Referee #1

This can be a useful addition to the growing field of socio-hydrology. I learned a lot about "values" and how to measure it from this paper. However, I remain unsatisfied with the paper as it is constituted now. There are three major concerns that I have:

1. Firstly, I do not know under what category it is submitted. It is clearly not a research article, and in my opinion it is neither a vision paper or review article. It comes across as a "tutorial" on values. It definitely serves an educational purpose, especially for non-social scientists (engineers, hydrologists), who come across values for the first time and have to deal with it in their socio-hydrologic analysis or modeling. At the very least, the presentation can be modified for it to come across as a review article.

2. Secondly, in the early part of the paper, while introducing the VBN theory, the author mentions suggests that it is "not a complete theory of values. What is missing is proper attention for the social origin and character of values and for social mechanisms

such as enforcement", and that "... in this paper a more comprehensive theory of values in water management will be developed". Unfortunately, such a theory was not developed or presented (at least I did not detect in this tutorial style presentation). The paper would benefit a lot more if all that literature review/tutorial would be organized to present a more comprehensive or generalized version of VBN theory.

3. The discussion on measurements is very useful to socio-hydrology practitioners, having all these methods presented in one place. However, it would have been nice to embellish the discussion with some real examples from published socio-hydrological studies, and how socio-hydrologists adapted and improvised to generate proxies that they could be used in socio-hydrology. This too will help overcome the tutorial style of presentation in the current version of the paper.

For example, I want to mention an article published in WRR, which used the Q methodology to measure values in relation to flooding in India. (Leong, C. 2018. The role of narratives in socio-hydrological models of flood behaviors. Water Resour. Res., 54, 3100–3121, doi: 10.1002/2017WR022036). When I first read that paper I did not understand the Q methodology, but this tutorial helped me to understand it better in hindsight. This is why using real life examples to illustrate a point or a method is likely to be much more insightful.

Overall, I like the paper and want it published eventually, but request that it undergo some restructuring to address the concerns I have raised above.