

Interactive comment on “Storage water value as a signature of the climatological balance between resource and uses” by B. François et al.

Anonymous Referee #2

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This paper applied the dynamic programming method to a simplified water resources system and investigated the impacts of climate and demand change on the seasonal variation of the marginal storage water value. The writing is good but could be improved by simply pay more attention as listed by the 1st reviewer. My major concerns are on the methodology part. First, why dynamic programming method instead of stochastic dynamic programming method? Uncertainty is almost unavoidable when dealing with climate and human induced changes. Second, the rationale to simplify the case study into a almost hypothetical system does not seem clear to me. Why ignore other water users, i.e., irrigation and drinking water supply? Do the authors at least know the relevant importance of the irrigation and drinking water demand? Do they share any common features with the hydroelectric and recreational water demand? If the authors

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indeed want to gain some deep, new understanding through this hypothetical study, then the introduction has to be rewritten to articulate the critical knowledge gap and the conclusion/discussion part should justify how generalizable the understanding we learned from this case study. To me, "the impacts of climate and demand change on the seasonal variation of the marginal storage water value" does not seem innovative enough.

Above said, I have the following minor comments: 1. P8997, L22, "different served" → "different service"? 2. P9001, L16-17, please rephrase the sentence. 3. P9001, L7-10 seems contradictory with L23-25. Have you actually considered the other water demand, e.g., irrigation, or not? 4. P9002, L7-8, please rephrase. 5. P8996, L8, I don't fully understand the meaning of "climatological balance" here and also in the title. The authors later used "temporal fit" in a similar fashion. It'd be better to provide a formal definition first before using it throughout the text. 6. Fig.3, caption, "SVW"→"SWV".

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