

***Interactive comment on “Implications of water management representations for watershed hydrologic modeling in the Yakima River Basin” by Jiali Qiu et al.***

**Anonymous Referee #2**

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General comment This manuscript used SWAT and RiverWare models to study the impacts of management activities such as reservoir operation and irrigation on stream-flow. Human impacts on hydrology are important and interesting, and study of them is also very challenging due to the randomness and uncertainty of human activities. Thus, the study could be a good contribution to this field and the methods are reasonable. However, there are some issues that need to be addressed.

Specific comments 1. L20-21: may not be necessary 2. The last paragraph of Introduction needs to be rephrased. L83-85: you may want to delete this as it is better to see it after you described your results. L81: ‘this study aimed to ...’ and ‘Objective

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(1)’ are nearly the same, you may want to delete one. L87-90: it is unexpected to see SWAT and RiverWare as the authors did not mention how and what method they used before. 3. L209: What are  $\text{Ens}$  and  $r$ ? What are  $R$  in Figures? 4. 3.1 and 3.2 are results about sensitivity and performance. They should describe the results with numbers. Similarly, 3.3 and 3.4 lack numbers to support their statement. I would suggest use a few important numbers when necessary. 5. The quality of Figures 6 and 7 can be improved. 6. There is a grammar issue for Caption of Figure 5.

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