

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

Anonymous Referee #1

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A good and interesting manuscript about the evaluation of streamflow simulations based on different reservoir operations and irrigation management. The manuscript is well written, and the scientific topic is valid. The watershed-scale SWAT irrigation studies are limited in the scientific community. To me, it is necessary to include more publications like this manuscript in the peer-reviewed journals.

I just have several minor comments and suggestions:

1. Line 74: please include a space between “ca.” and “30%”
2. Line 96: please indicate the unit for the location information

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3. Line 97: please use the SI unit for temperature
4. Line 98: please include a space between “675” and “mm”
5. Line 101: please revise the citation
6. Line 177: please remove the additional period
7. Line 178: missing space between citations

Several suggestions:

1. As for the reservoir operations in this study, is there any observed reservoir release data available in the watershed? The observed data may be used as the SWAT model input.
2. To me, there is no meaning to compare SWAT simulated ET (no calibration against actual ET) with MODIS ET according to the algorithm of Mu et al. (2011). Both of them cannot be treated as observed actual ET, which means they both have substantial uncertainties. For your information, MODIS ET is the maximum crop ET requirement. In some cases, the producers do not have enough water to meet that.
3. It will be more interesting if the authors can distinguish the irrigated and dryland agricultural land uses in the watershed. Hope this suggestion may help in your future studies.

Thank you for sharing your work with me.

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