

Hydrol. Earth Syst. Sci. Discuss., referee comment RC1  
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## Comment on hess-2021-259

Anonymous Referee #1

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Referee comment on "How is Baseflow Index (BFI) impacted by water resource management practices?" by John P. Bloomfield et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-259-RC1>, 2021

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The paper with title " How is Baseflow Index (BFI) impacted by water resource management practices" is well written and within scope of HESS. This manucript highlights the controlling factors for baseflow contribution. It specifcicly look what i sthe impact of water resouces managmnet practice have on baseflow onctibution.

Specif commnets:

1. The paper does not go in depth about the different water resouces managmnet practices and it relationhsip with baseflow contribution. Baseflow index calcaution itself have uncertainty as it was never verified with any filed data. So it would be nice to capture these uncertainty and discuss in the paper.
2. Paper also lack in discussion about practical implication of the finding of the paper.
3. Figure quality is so poor hard to read the values.
4. Line 135, " Figure 3c.... " there is kind of repration of same info.
5. Paper need bit more explantion aboit Lin's coeffiecit. please provide the equation.
6. Some where in text it reared to give details aboit differnet model, e.g Model 1, Model 2 in Figure 5

7. I was very surprised Area of the catchment is not that important for the BFI? any comments

8. Line 409, " in addition ....." why ?

9 Conclusion of this study is bit weak, Need to rewrite.

10. Paper need some strengthening in Literature.