Comment on hess-2021-259
Anonymous Referee #1

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

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

Specific comments:

1. The paper does not go in depth about the different water resources management practices and its relationship with baseflow contribution. Baseflow index calculation itself have uncertainty as it was never verified with any field data. So it would be nice to capture these uncertainty and discuss in the paper.

2. The paper also lacks in discussion about practical implication of the findings of the paper.

3. Figure quality is so poor that it is hard to read the values.

4. Line 135, "Figure 3c..." there is kinda replication of same info.

5. The paper needs bit more explanation about Lin's coefficient. Please provide the equation.

6. Some where in text it required to give details about different models, e.g. Model 1, Model 2 in Figure 5.

7. I was very surprised that 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 week, Need to rewrite.

10. The paper needs some strengthening in literature.