

Interactive comment on “Quantifying Vertical Hyporheic Exchange and hyporheic residence time in thalweg paths of meandering streams characterized by multiple riffle-pool sequences morphology” by Aminreza Meghdadi et al.

Martijn Westhoff (Editor)

m.c.westhoff@vu.nl

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Dear authors,

You have received two very critical reviews, and after studying your author responses I came to the conclusion to reject the paper.

The main reasons for this are:

- The novelty of the paper has not been made clear enough (just the fact that the study

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has been done in another country or region does not make it novel.

- Reviewer 1 indicated a shortcoming in the methods where upwelling water should have higher radon concentrations close to the streambed compared to deeper in the soil. In your rebuttal you implicitly imply that you don't have upwelling zones, but only exchange of surface and groundwater.

However, if surface water flows into the subsurface, it has to come out somewhere as well.

- Reviewer 1 correctly questions the assumptions of the poorly described numerical model. In your response you did not explain which assumptions have been made in the model. Instead you describe the differences between analytical and numerical solutions, but this was not the point Reviewer 1 made. Altogether, I consider the author responses not convincing enough to warrant a major revision. Nevertheless, I think you have a nice dataset with the potential to be published, albeit in a completely new submission and taking all comments into account.

With kind regards,

Martijn Westhoff

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2019-446>, 2019.

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