Hydrol. Earth Syst. Sci. Discuss., 12, C6964–C6965, 2016 www.hydrol-earth-syst-sci-discuss.net/12/C6964/2016/

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## **HESSD**

12, C6964-C6965, 2016

Interactive Comment

## Interactive comment on "Quantifying the nutrient flux within a lowland karstic catchment" by T. McCormack et al.

G.H. de Rooij (Editor)

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Both reviewers provided critical but thoughtful and constructive reviews of high quality that offer often consistent suggestions to improve the paper. In the reply the authors give clear indications of the nature of the improvements they have in mind to address the reviewers' concerns.

Specifically, both reviewers criticize the organization of the text and the lack of coherence between the figures and the analysis based upon them. These problems can be solved by a thorough revision, and the reviewers gave enough detail to aid the authors in doing so.

Both reviewers also criticize elements of the methodology – the infrequent sampling, for

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instance. The lack of a proper model validation (or even a simple comparison to data) was also noted. From the authors' response I gained the impression that they have a much more thorough understanding of the hydrology of the landscape and its bearing on the solute concentrations in the surface water than transpires from the current version of the paper. I would very much like to see this level of understanding reflected in the revised version, since it can shine a much clearer light on the relation between the local hydrology and the temporal fluctuations of solute concentrations. This may well benefit readers that are active in other areas and have consequences for geohydrological explorations and sampling scheme setups elsewhere, thereby boosting the relevance of the paper.

I concur with the reviewers that the overall coherence of the paper needs to be improved, and that the orientation of the paper may have to be adjusted, which the authors also propose. All in all, the stronger and more quantitative the interplay between hydrology and nutrient loads can be elucidated, the stronger the paper will be.

I recommend the authors to revise their paper with that in mind, making full use of the ideas that the reviewers put forward.

Gerrit de Rooij

Editor

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 12, 10221, 2015.

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