

Interactive comment on “A comparison of three simple approaches to identify critical areas for runoff and dissolved reactive phosphorus losses” by C. Hahn et al.

C. Hahn et al.

claudia.hahn@env.ethz.ch

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Thank you for your feedback and the comments to our manuscript.

1. Page 2, line 43: Also bank erosion has recently been shown to be an important P-source in lowland streams (cf. Kronvang, B., Audet, J., Baattrup-Pedersen, A., Jensen, H.S. and Larsen, S.E. 2012. Phosphorus loss via bank erosion in a Danish lowland river basin. *Journal of Environmental Quality* 41, 304-313).

The study of Kronvang et al. 2012 is important for catchment managers trying to reduce total P losses to surface waters. While the focus of our manuscript lies on the prediction

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of dissolved reactive phosphorus losses, we will include the findings of Kronvang et al. 2012 in the discussion section 4.2.2 “sources and types of P”.

2. In Table 2 you are using different numbers of decimals for the two catchments - why? and can you argue that the uncertainty of the estimate is lower in one of the catchments?

There was no specific reason why we used different numbers of decimals in Table 2. We will make it uniform and state integers.

3. The same problem with number of decimals goes for Table 3 and 4 where you have shown the percentages with one decimal - are you sure that this can be given with this precision?

We have chosen to display the data with one decimal because it shows that 1) there are not zero but very few high to very high RRP risk class pixel within the DoRP storage class “deep drainage” (Table 3), and because like this the sum amounts to a 100. Using integers would not necessarily sum to 100 (e.g. Table 3, Stägbach catchment, medium RRP risk class) and thus might have caused confusion. Since in Table 3 and 4 we compare the outcome of two different models, it is possible to present the result with this precision.

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