SOIL
Discussions

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Interactive comment on "Phosphorus transport in lateral subsurface flow at forested hillslopes" *by* Jakob Sohrt et al.

Anonymous Referee #2

Received and published: 20 August 2018

This manuscript aims to improve the understanding of processes responsible for P transport in lateral flow in forest soils. As the authors correctly points out there are very few data of the kind, and for this reason this manuscript is of interest to readers of Soil. It is also well written. Having said that, it is a pity that only total-P was determined in the sampled waters, and not e.g. PO4-P, DOC and other chemical parameters, which might have added more insight of what P that is mobilized when. Naturally this limits the extent of the increased understanding that is possible with this experimental setup. Apart from that, my most important remarks are the following:

- From the data provided, it is not possible to understand what kind of soil this represents. Please supply more basic soil data, most importantly the soil classification, organic C and soil pH. - Lines 100-110 (approx.). To construct the sampling device,

C1

a trench was dug in the soil. Such a disturbance could potentially cause nitrification and other undesirable side effects initially. Please explain if and how such effects were considered, and whether e.g. the first sample was collected after a certain time period to avoid possible disturbance effects - Just as reviewer I, I was also wondering what water the authors actually collected (i.e. overland or subsurface flow), and the reply from the authors does not really provide any clues. Please consider this once more, this may be significant for the overall interpretation of the results.

Other minor remarks

- Line 70 – "transport capacity transport". Sounds strange - Style: Mix of past and present tense at places, try to be consistent - Fig. 1. This graph with multiple entries is a bit hard to understand at first, it would be easier if it was broken up in two separate figures, with a smaller number of dependent variables - Fig. 3 caption. "data data". One "data" too many? - Line 217, "that do not coincident", should be "that do not coincide"

Interactive comment on SOIL Discuss., https://doi.org/10.5194/soil-2018-13, 2018.