

Interactive comment on “Nitrogen and dissolved organic carbon (DOC) losses from an artificially drained grassland on organic soils” by B. Tiemeyer and P. Kahle

Anonymous Referee #2

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The manuscript submitted for publication in Biogeosciences describes an interesting study about the release of DOC and N from drained grassland situating on a peatland. The paper is clearly written and appropriately organized. It contains many interesting and important observations connected to water table and DOC and N cycling. Since the study is so well presented and contains interesting features I'll be happy to see it published. However, there are some questions and comments that I want the authors to address before publishing the manuscript.

The study site is depicted in Figure 1 and showing that there is also “not artificially drained” area. How does it connect to the study site, is it part of the same watershed? If it is, it could have provided excellent reference samples for the drained area to see if

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the observations made in the dipwells of the drained area apply also in the untouched area. This could have given more insight on the effects of land use actions.

In the laboratory methods it is mentioned that “. . .pH measurements are missing. . .”. Does this mean that they were not measured for some reason? Regarding the analysis on DON, how accurately does this kind of analysis work in the conditions presented here? In addition, I would have placed the observations about the lack of correlation between DOC and DON as well as the importance of DON on N losses to the abstract.

Interactive comment on Biogeosciences Discuss., 11, 3023, 2014.