

Kraków, 08.07.2026

Dear Editor of the Biogeosciences,

Thank you for the opportunity to revise the paper for publication, and for all your comments on the previous version of the manuscript. All the suggestions have been carefully considered and the manuscript has been revised accordingly. Please see our responses and descriptions of the subsequent modifications (marked in red) below:

1) Mean(absolute(D)) is not the same as Absolute(mean(D)), please adapt your notation.

Authors: We have corrected the notation (symbol) for the mean of the absolute values of the differences in the physico-chemical properties of water from $|\overline{Dc}|$ to $\overline{|Dc|}$. Thank you very much for pointing this out.

2) Please include a table reporting LMM results in detail (statistics, P, df) besides ranked results for post-hoc tests.

Authors: Thank you for this suggestion. We added a table that includes details on the LMM results, such as F statistic, degrees of freedom and p-value.

3) TOC: You observe an increase in ponds compared to upstream. Makes little sense to me to argue with upstream sources. Please clean up this logical inconsistency.

Authors: We have corrected this inconsistency by removing the statement regarding the upstream sources of TOC. To maintain the logical flow of the text, we have slightly rephrased the subsequent sentence („According to Pollock et al. (2003) and Green and Westbrook (2009), the reduced stream flow velocity (...)”) without changing its meaning.

4) DNRA: You observe an increase in NH₄, but argue with "retention of NH₄". Appears as a logical inconsistency to me.

Authors: We agree with this comment; there is indeed an inaccuracy here. We have corrected it by replacing the word „retention” with „production”.

Overall, we greatly appreciate your insight and the effort you put into the review of this submission. We look forward to hearing from you regarding our revised manuscript.

On behalf of all authors of the submitted manuscript, sincerely

Joanna Wąs