

Interactive comment on “The importance of freshwater systems to the net exchange of atmospheric carbon dioxide and methane with rapidly changing high Arctic landscapes” by Craig A. Emmerton et al.

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Received and published: 5 July 2016

Dear Authors

Thank you for submitting your work to Biogeosciences.

Please apologize the long processing time of your manuscript. Unfortunately, it was extremely difficult to find reviewers for your manuscript. I nominated in total 23 reviewers. Finally, two agreed to assess your manuscript. However, only one delivered a report while the other reviewer did neither respond to the automatically generated reminders nor to my personal e-mails asking for the referee report. Overall, these circumstances

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lead to a lengthy review process and I am forced now to base my decision on a single review and my own reading. I regret that your colleagues appear not to be willing to review your work. Formally, I submit this comment now as a review to close the open discussion process.

The reviewer calls for major revision of your manuscript. On the positive side, the reviewer notes that your study shows interesting results about the weak CO₂ and CH₄ emissions and uptake from freshwater systems in High Arctic region and that such results are crucial to better constrain the assessment of future carbon feedback from permafrost environments. Among other comments, the referee calls for a better investigating of the biogeochemical processes responsible of contrasted CO₂ and CH₄ concentrations and fluxes and for a strongly improved discussion. The referee also notes a lack of references in certain sections and calls for improved figures and provides several suggestions how to improve the figures and the text. Please also check the numbering sections and subsections in the revised manuscript (section 4.2 seems missing).

I would like to encourage you to submit a detailed point by point response to each of the reviewer's comment with your answers pasted below the individual comments. Your response should detail how you address the criticism in the revised manuscript. I also ask you to prepare a revised manuscript where all your changes are highlighted in track change and to upload this track-changed manuscript as a pdf file as part of your reply.

The open discussion will now be closed after the posting of this editorial comment and I will proceed with a decision as soon as I will have received your reply to the review.

With kind regards,

Fortunat Joos