

## **Response**

These revisions are the result of myself requesting to have my paper returned for some corrections to be made. These corrections are mentioned in the "general notes" section below, and affect in a small way most figures of the drainage basin and discharge histories, as well as some of the text. There has been no major change. As there is no point-by-point response to be made, I have not attached a version of the manuscript with differences here, though I do note responses to the helpful comments made by the copyeditors.

– ADW, 6 October 2016

## **General notes on paper:**

When I requested to have more time on this paper, it is because the "river mouth regions" were not optimized. They are created by hand, and are now the best I can make them. This has resulted in slightly improved river routing. During this time, I have also gone through the paper twice, cleaned up the English, tried to tighten or add detail to sections where needed, and added new references where I found them useful. All of these changes have been "minor" in that they have not altered the substance of the work -- but I hope that they have made it a bit easier to read and digest and connect to the broader literature.

## **Responses to comments from proofreaders**

CE1: "Flexurally" is a form of "flexural" that is commonly used in scientific articles, so I think that the sentence is understandable and should stay as it was.

CE2: Changed to, "Any series of operations within GRASS GIS may be scripted, and the Python..."

CE3: This should be "GitHub" on all occurrences; thank you for catching this. I have fixed it.

CE4: "seems unlikely" changed to "is glaciologically implausible"

CE5: deleted "it"

CE6: "To threshold" is a common verb form, e.g., in image analysis, at least in USA... but I see the point to make this more readable. We can replace this and the last sentence of the paragraph by, "...resolution. Any negative evapotranspiration rates generated by the interpolation were set to 0."

CE7: Here, "threshold" is the best term, and at least in my US English is an acceptable verb.

CE8: The matching ) goes after 11-16. Thank you for catching this!

TS1 & TS5: Uploaded to UMN DRUM; URL provided in paper and DOI will be forthcoming (will have to add it during copyediting)

TS2: Double-checked.

TS3 & TS4: This is an in prep. paper for which I have access to the data. This is therefore not in the reference list. If this can be indicated as "in prep", that will work. If not, the reference can be changed to the following conference abstract:

Keigwin, L. D., and N. W. Driscoll (2014), Deglacial floods in the Beaufort Sea, in AGU Fall Meeting Abstracts, B7.

--> Update: they submitted the article, so I have cited it as "submitted". I have still added the abstract, for completeness.

TS6-: Notes only as needed. Otherwise fixed as requested.

TS9: No pages; data set referenced here

TS11: Can't add much more here, but added the section in the inline reference ("section 8.2.1")

TS12: It's software -- nothing more to add here.

TS28: No more information to provide on this book (though I do now provide middle initials!)

34: Is a book; all pages.